Multiple Actors and Arenas:
European Community regulation in a polycentric system
- A case study on car emission policy -

by

Hannig A. Arp

Thesis submitted for assessment with
a view to obtaining the Degree of Doctor of the
European University Institute

Florence, November 1995
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Contents

Introduction

The theoretical issue in brief 3

The case study 4

Plan of the study 5

Chapter I  The theoretical framework: Between domestic and intergovernmental politics 8

1. European Community regulation as a policy field 8

2. Setting the scene: Contending approaches in European Community studies 15

3. Research questions and points of reference 19

   a) Agenda-setting and policy entrepreneurs 20

   b) Policy formulation, policy networks and agency capture 24

   c) Policy decisions: Negotiations in the Council and the role of the European Parliament 29

4. The concept of "polycentrism" in brief 33

Chapter II  Car emission legislation in Europe: The economic and political setting 36

A. Regulating a multinational industry: The economic background 36

1. Car manufacturing as a multinational industry 37

2. The example of the United Kingdom 43

B. The European regulatory context of car emission control 45

1. Between free-trade and environmental objectives: The development of European Community car emission policy 46

2. The setting of motor vehicle standards by the United Nations Economic Commission for Europe (UN-ECE) 49
Chapter III Becoming a policy entrepreneur: Germany and the European Community politics of car emission control

1. German environmental policy: A propensity for action 54
   a) The German environmental policy style I: The institutional and policy side 55
   b) The German environmental policy style II: The politics side 60

2. The emergence of a policy field: Car emission regulation until the early 1980s 66

3. Pressures for stringent car emission standards: The politics of Waldsterben 72
   a) Waldsterben I: An environmental hazard 73
   b) Waldsterben II: A national concern 77

4. The German move to the "clean car" 81
   a) 1983: A "window of opportunity" 83
   b) The German motor industry and car emission control 89
   c) "Greening" the market: German tax incentives as a substitute for European Community regulation 98

Summary 108

Chapter IV Resistance against higher standards: The cases of Britain and Italy 112

A. Industry and the move towards new emission standards: A comparative overview of the implications for German, British, French and Italian car manufacturers 113

B. Resistance to new EC regulation: Britain and the European Community politics of car emission control 122

1. Lacking pressures for stringent standards: The environmental policy context 122
   a) The British environmental policy style I: The institutional and policy side 123
   b) The British environmental policy style II: The politics side 126
   c) Scientific uncertainties and car emissions 129
   d) No domestic political pressure in the field of air pollution 136
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Government policy and the motor industry: The predominance of industrial interests in British car emission policy</td>
<td>144</td>
</tr>
<tr>
<td>a) The general context of government-industry relations in the motor sector</td>
<td>144</td>
</tr>
<tr>
<td>b) The UK motor industry’s interests in the European Community politics of car emission control</td>
<td>148</td>
</tr>
<tr>
<td>c) The political setting for technical regulation on motor vehicles</td>
<td>154</td>
</tr>
<tr>
<td>d) British car emission policy in the 1980s: The dominance and demise of the lean-burn engine</td>
<td>157</td>
</tr>
<tr>
<td>Summary</td>
<td>163</td>
</tr>
<tr>
<td>C. A brief look at the Italian case</td>
<td>165</td>
</tr>
<tr>
<td>1. Italian environmental policy and the problem of car emissions</td>
<td>165</td>
</tr>
<tr>
<td>2. Fiat and the &quot;clean car&quot;: Resistance and adaptation</td>
<td>168</td>
</tr>
<tr>
<td>3. Italian policy on car emission control</td>
<td>171</td>
</tr>
<tr>
<td>Chapter V Policy formulation: Interest organizations, member states and the Commission in the European Community policy network of car emission control</td>
<td>176</td>
</tr>
<tr>
<td>A. The interest group scene</td>
<td>177</td>
</tr>
<tr>
<td>1. The car industry</td>
<td>177</td>
</tr>
<tr>
<td>2. The manufacturers of catalytic converters</td>
<td>183</td>
</tr>
<tr>
<td>3. The European Environmental Bureau (EEB), and other environmental groups</td>
<td>185</td>
</tr>
<tr>
<td>Conclusions: Euro-groups and polycentrism</td>
<td>191</td>
</tr>
<tr>
<td>B. Advising the Commission: The importance of the member states in policy formulation</td>
<td>194</td>
</tr>
<tr>
<td>1. The Motor Vehicle Emissions Group (MVEG): The competent Commission advisory committee</td>
<td>195</td>
</tr>
<tr>
<td>2. The problem of restricted national expert communities: The &quot;non-Europe&quot; option as a yardstick</td>
<td>202</td>
</tr>
<tr>
<td>Conclusions: The benefits of multiple sources of expertise</td>
<td>206</td>
</tr>
</tbody>
</table>
C. The Commission: A political bureaucracy 213
   1. The institutional framework 213
   2. The Commission at work 215

Chapter VI  Policy decisions (Part 1): The breakthrough for the catalytic converter in the 1980s 220
   A. The legislative process: An introduction 220
      1. The cooperation procedure 221
      2. The co-decision procedure 225
   B. The Luxemburg Compromise of 1985 227
      1. The negotiations 228
      2. The outcome 234
      1. The negotiations and the first vote in the European Parliament 236
      2. A Parliament/Commission coup 239

Summary 242

Chapter VII  Policy decisions (Part 2): The 1991 Consolidated Directive and beyond 244
   A. The Consolidated Directive of 1991 245
      1. The mandate and preparatory work in the Motor Vehicle Emissions Group 245
      2. The drafting of the directive proposal by the Commission services 250
      3. The negotiations in the Council and the role of the European Parliament 253
         a) Setting the scene 253
         b) The Commission's position 260
         c) Waiting for the European Parliament 261
         d) The European Parliament's first reading 263
e) Towards a common position in the Council

f) The common position

g) The European Parliament's second reading

h) The enactment of the Consolidated Directive

4. Summary and conclusions

a) The process of Council negotiations

b) The outcome of Council negotiations

B. A new approach: Developments since 1991

C. The European Parliament: Weak or strong?

1. The Parliament's role in European Community car emission policy

2. Internal divisions, lack of attendance and the quorum requirement: Some thoughts about the structural weakness of the European Parliament

Chapter VIII European Community regulation revisited: A polycentric system

(Summary and discussion)


2. Multiple actors and arenas: The member states and the European Community

a) The member states as agenda-setters

b) The member states as independent actors

c) Member states as policy entrepreneurs at European Community level

d) The European Community institutions

3. Polycentrism as an analytical concept

4. Polycentrism: Some further advantages, and some thoughts about institutional design

Conclusions

References

Annex: List of interview partners
Introduction

For many years, developments in the United States (and, less, in Japan) have set the pace of car emission control worldwide (see e.g. Berg 1982; Crandall et al. 1986: 85-91). Political pressure for limiting auto emissions emerged first in California where Los Angeles became infamous for its poor air quality. State legislation on motor vehicle emissions was enacted in California in 1963. At the federal level, standards were first set in 1968, and by the Clean Air Act amendments of 1970. California was allowed to keep its own, more ambitious requirements which since have marked the leading edge of vehicle emission control. To comply with these regulations, oxidation catalysts were introduced during the second half of the 1970s, as were more sophisticated three-way catalytic converters to meet the 1980 California and 1981 federal nitrogen oxide (NOx) standards. Until today, the closed-loop three-way catalyst is the main technical device for reducing exhaust emissions from petrol cars.

In Europe, policy at the time was decidedly less ambitious. Initial measures had been taken in individual countries during the 1960s.1 Through the 1970s and early 1980s, agreements reached among Western and Eastern European countries under the umbrella of the United Nations Economic Commission for Europe (UN-ECE) dominated statutory developments.2 A 1958 UN-ECE convention provides for the adoption of common standards ("regulations") for the type-approval of motor vehicle equipment and parts on a purely voluntary basis. In 1970, ECE Regulation No. 15 first set standards on hydrocarbon (HC) and carbon monoxide (CO) emissions from passenger cars and light-duty vehicles. These were tightened, and extended to emissions of nitrogen oxides, in four steps until 1981 ("ECE 15/04"). 1970 also saw the adoption of the first European Community (EC) car emission directive.3 The later amendments to this directive followed the amendments to ECE Regulation No. 15. Apart from the formal lay-out and the fact that the EC directives stipulated dates for the entry-into-force of new standards, the Community technical specifications were identical to those of UN-ECE. The 1983 directive,4 for example, corresponded to ECE 15/04 of 1981. As ECE standards represented compromises among a large group of rather different countries on the basis of unanimity,

1 On e.g. Germany, see Berg (1985).

2 see Chapter II.


they were little more than lowest-common-denominator solutions.

Against this background, at the beginning of the 1980s, a serious gap had opened between the stringency of standards in the United States and Japan on the one hand, and in the European Community on the other. While catalytic converters penetrated the passenger car fleet across the Atlantic, the 1983 EC directive laid down standards applicable from 1984 (for new models), respectively 1986 (for new cars), which could be met without such devices; what is more, they had not even to be made mandatory by the member states. Thus, although West European motor manufacturers fitted their exports to the United States with catalytic converters, these were not installed to vehicles in the Common Market. Even on a commercial level, the risk of lagging-behind became apparent when the Commission tried to obtain a delay in the application of stringent Japanese exhaust standards for EC car imports (European Commission 1981: 43). The 1981 Commission communication on the auto industry accordingly stressed the importance of high standards for international competitiveness (ibid.: 45-47). Nonetheless, the 1984 Commission proposals for new car emission norms provided for standards equivalent to US 1983 regulations only in 1995.

Ten years later, the picture had significantly changed. Although the European Community continues to be behind the USA in many aspects of car emission control - US regulation still being more comprehensive and more forceful -, it had reduced the American lead. Under Community law, the attainment of limit values requiring the use of three-way catalysts could be demanded by member states for the type-approval of large cars since 1988, and for all new cars in this category one year later. For small cars, the same applied since 1990, and equivalent standards became mandatory for all new passenger cars on 31 December 1992. These standards had anticipated the Commission's original schedule for arriving at US-equivalent rules by several years. In the process, the Community had overcome the resistance of the motor industry as one of its most important industrial sectors. Both in Brussels and in London, Paris and Rome, car manufacturers had strongly lobbied against the

5 On the concept of "optional harmonisation", see Chapter II.


introduction of catalytic converters. An additional problem initially had been the availability in the Community only of leaded petrol which "poisons" the catalytic converter (and is an environmental hazard in itself). On the other hand, apart from in Germany where air pollution became a major political issue at the beginning of the 1980s, concern about air quality in the general public had not been politicized. No broad environmental campaign had formed around air pollution which might have been able to overcome industry pressure.

In this light, an early breakthrough of the catalyst in Europe was against the odds and could hardly have been predicted in 1983. In that year, the signs were for further incremental improvements but not for a significant step forward. The puzzling difference between the outlook in 1983 and the situation in 1994 is the empirical starting point for the present thesis.

The theoretical issue in brief

The policy change which occurred in European Community car emission control since the early 1980s - and regulation in this area in general - must be assessed within the context of the Community's institutional system. More precisely, the member states exercise a prominent influence in the EC policy process, albeit their leverage was reduced by the Single European Act and the Treaty on European Union ("Maastricht Treaty"). Prima facie, hence, Community legislation could be expected to be an endless series of compromises, presumably at the lowest common denominator, between the member states' governments on the basis of stubbornly defended national interests. Stagnation would be the hallmark of European Community regulation.

To be sure, the present thesis does not put into question the central importance of the member states as actors in the Community process, nor of compromising in the Council. In fact, it emphasizes them. As will be shown, EC car emission policy has, indeed, been shaped by intergovernmental negotiations in the Council, with the interests of key member states widely differing. Actually, there are probably few other instances in EC regulation in which the lines were as clear-cut and negotiations as onerous as on car emission standards in the mid-1980s. These talks - unusually for technical harmonisation directives - from time to time even gained the headlines of the general press. Many observers have certainly been unable to see anything positive in this case of Community policy, especially as compared to the US example (e.g. Petersen 1993).
The point is that an assessment of European Community policy should take the “non-Europe” option as its yardstick, and not focus exclusively on decision-making in the Council. It is true that technical solutions applied in third countries are an important reference point for EC regulation. US and Californian car emission standards continue to be more stringent than European requirements. However, what policies would prevail in Western Europe in the absence of the Community is certainly of equal relevance. If common policies lead to an upgrading of (safety, environmental, social etc.) standards on average in the member states in terms of the protection they offer or their cost-effectiveness as compared to persisting national regulation, this should be valued. Within this context, it is also not (only) the most advanced member state which is the appropriate benchmark but all member states taken together. At the same time, Community regulation can be more than technical compromises.

Moreover, Community regulation and its outcome is not shaped exclusively in the Council. The policy process must be understood in a broader sense as encompassing more than the act of legislation. Indeed, the progress in EC car emission policy could not have been achieved through Council negotiations alone, but can be explained only in terms of the role of a group of member states outside the Council framework in the form of agenda-setting, policy formulation and independent action. Contrary to the prevalent picture of a cumbersome and obstructed intergovernmental EC process, I will argue that the "polycentric" nature of the Community regulatory system determined by the existence of multiple actors and arenas at both national and Community levels really provides a special dynamic to EC policy-making, and has the potential to improve regulatory solutions. The broader theoretical framework and the research questions will be outlined in Chapter I below.

The case study

In empirical terms, this thesis covers the policy process around European Community legislation to control noxious emissions from petrol-driven passenger cars from 1983 to 1994, as well as a number of related aspects. While the selection of the case, as in most such analyses, owes much to personal preference and data accessibility, the empirical evidence also relates both to one of the key industries in the Community, and to an area of particular concern to that industry. The case is thus

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10 This excludes emissions of carbon dioxide (CO2) important in the context of climate change, as well as emissions from Diesel cars - albeit these are partly covered by the directives studied - and from other categories of road vehicles (e.g. trucks, buses); see for information on corresponding legislation Haigh (section 6.8).
certainly not a marginal area of EC regulation.

While the guiding idea of this thesis - about the polycentric nature of the EC regulatory system - has emerged directly from the analysis of the case study, the presented empirical material alone is not sufficient to fully corroborate my arguments. Consequently, while some points will be well illustrated, others will draw more on theoretical reasoning or information from other sources. Like this, it is hoped, a fuller picture will result. Taking the natural limitations of a case study approach in terms of achieving general conclusions, moreover, only further empirical work in other fields could show the validity of the conclusions reached.

Most of the empirical material presented in this thesis comes from my own research and the various literature quoted in the text. My own data were collected in a number of interviews, through personal observation, and using published and unpublished sources. The empirical evidence for the analysis on developments at the European Community level during the years 1984 to 1989 (see Chapter VI) heavily draws on a detailed doctoral thesis by Katharina Holzinger (1994).

Plan of the study

This dissertation both recounts the story of EC car emission policy between 1983 and 1994, and analyzes the economic, political and institutional setting within which policy is made. Accordingly, different chapters focus more on one or the other of these aspects. Chapter I starts out by looking at the legal context of Community regulation and introducing two basic concepts (policy entrepreneur and agency capture) which will be used later on. The importance of scientific and technical expertise for social regulation is mentioned. Two approaches (the "liberal intergovernmentalist theory" and the "domestic politics approach") are presented which form the theoretical backdrop against which the concept of polycentrism is developed. On this basis, a number of research questions and hypotheses are laid out which will be taken up in the course of the study. At the end, the concept of polycentrism is outlined.

A brief Chapter II serves to give an idea of the economic underpinnings of EC product standards for motor vehicles. The concurrence of the multinational character of the auto industry on the one hand and the ongoing relevance of the nation state as an economic and political framework on the other is

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11 see the list of interview partners in the Annex.
stressed. Besides, an overview is given of the system of EC car emission regulation and related work in the United Nations Economic Commission for Europe (UN-ECE).

Chapters III and IV look at the interests of those member states with their own national motor industry when it came to strengthening car emission standards in the mid-1980s. The domestic context in the individual countries is crucial for understanding the line taken by government delegations in Community negotiations. The analysis focuses both on the concrete industrial and political interests involved in these countries, and the more general institutional and political framework relevant for car emission control. While the technical and industrial implications of the introduction of catalytic converters go some way in explaining the differing positions of the car-manufacturing member states in related EC negotiations, other domestic factors were important as well.

This will come out particularly in the case study on Germany in Chapter III. The Federal Republic, indeed, was the driving force behind the move to the catalytic converter in the EC, and the politics behind this will be traced. In Chapter IV, first, an overview is provided of the different starting positions of the car industries in Britain, France, Germany and Italy with respect to emission control. The main part of the chapter is devoted to two more case studies on Britain and (a short one) on Italy.

Chapter V turns to the political and institutional setting in Brussels for the preparation of policy proposals. To start with, the scene of European interest groups is dealt with. They are an important factor contributing to the emergence of a separate EC political arena. At the same time, it will be argued, certain features of "Euro-lobbying" reflect the polycentric nature of the European Community. Three "Euro-groups" are presented: the car industry, the producers of autocatalysts and the environmental lobby.

In a second part, the central node in the EC policy network of car emission control will be studied: the Motor Vehicle Emissions Group (MVEG). The MVEG advises the Commission in the preparation of proposals, and involves the national authorities and different interest groups at this stage. This section includes a first discussion on the benefits of polycentrism. It also again corroborates the case for the concept of polycentrism as an appropriate explanation of EC policy-making. Finally, Chapter V briefly describes some organizational features of the European Commission as a pivotal player in the EC regulatory process.
Chapters VI and VII centre on Community decision-making and tell the story of how the three-way catalytic converter achieved its breakthrough in EC legislation. (In fact, part of that story will have been reported already in Chapters III and IV which will have described the effectiveness of the German tax incentives for "clean cars" and the changing interest constellations in the UK and Italy.) For a better understanding of the EC legislative process, Chapter VI first explains the cooperation and the new co-decision procedures, involving the Commission, the Council and the European Parliament in the making of Community directives. Then, the "hot" phase of EC car emission policy is related which led to the so-called Luxemburg Compromise in 1985 and the Small Car Directive in 1989. This account will be short as a detailed study is contained in Holzinger (1994). Both the process and the outcome of the negotiations will be highlighted to show how different interests between member states clashed and were reconciled, and how the Commission and the Parliament jointly pushed through the catalytic converter in 1989, albeit then against little resistance.

An in-depth analysis of a Community legislative process, by contrast, will be provided for the 1991 Consolidated Directive in Chapter VII. This directive extended US’83 emission standards to all categories of cars and addressed a number of other technical issues. The main guiding question is how technical regulation is decided under qualified-majority rule in the Council, and how opposed positions of member states were accommodated in the final act. This analysis especially sheds light on the day-to-day practice of Council negotiations today.

In a second part of Chapter VII, more recent developments are looked at, albeit more cursorily. Since 1991, the Commission has followed a new approach in preparing its directive proposal. Events underline the significance of the EC arena as a distinct locus of policy-making. Relatedly, although on a less optimistic note, a final glance is thrown at the European Parliament. Tentatively, it will be argued that the House's effectiveness in the political process may be undercut by a number of structural impediments.

Finally, Chapter VIII pulls together the material presented in the light of the theoretical argument of this thesis. In addition, further reference will be made to the literature. In particular, the various dimensions of polycentrism will be recapitulated to clarify the meaning of this concept. It will then be contrasted with the two alternative approaches outlined in the first chapter to highlight its merits. Chapter VIII ends by arguing that polycentrism benefits European Community policy.
Chapter I

The theoretical framework: Between domestic and intergovernmental politics

1. European Community regulation as a policy field

A case study on car emission policy is a case study on European Community regulation. By way of definition, regulation is understood as the "sustained and focused control exercised by a public agency over activities that are valued by a community" (Selznick 1985: 363f; quoted in Majone 1989: 159). Regulation sets and administers general rules which guide the behaviour of private actors - mostly business - where market mechanisms would fail to provide certain public goods. With the completion of the internal market, the European Community has become the most important regulatory authority not only for its member states but in Europe as a whole. Understanding the mechanisms and dynamics of EC regulation is thus important for a general appraisal of this distinct field of governance. On the other hand, as regulation has emerged as a central aspect of Community policy-making (Majone 1989; 1994a), a better grasp of this area can contribute to general Community studies.

The analytical framework for a study of Community regulation is set by two circumstances. First, the equivalence of a large part of Community regulation to formal law-making has to be appreciated. In fact, historically, Community regulation has flown from the Treaty objective of creating a common (now "internal") market. For this purpose, that is in order to abolish barriers to trade, the EEC Treaty provided for measures of legal harmonisation. Legal harmonisation takes the form of directives which are binding on the member states in terms of the objectives to be achieved.\(^1\) Article 100a EEC, inserted by the Single Act, provides for

"measures for the approximation of the provisions laid down by law, regulation or administrative action in Member States which have as their object the establishment and functioning of the internal market."

Depending on the case, legal harmonisation may mean the harmonisation of existing national regulations, entirely new law where no corresponding regulations existed in a member state before, or, increasingly, the amendment of existing Community directives.

\(^1\) Article 189 EEC; all references to the Treaty in this thesis refer to the Treaty as amended by the Treaty on European Union ("Maastricht Treaty").
Over time, other policy objectives complemented the original free-trade objective. Already the EEC Treaty mentioned the improvement of the living and working conditions of workers as a goal.\(^{13}\) The environment is arguably the most notable addition to the catalogue of areas covered by EC regulation. After the first precursor directive on the classification, packaging and labelling of dangerous substances in 1967,\(^{14}\) an official endorsement of a Community role by the heads of state and government in 1972\(^ {15}\) and a series of environmental action programmes,\(^ {16}\) environmental policy was given a separate legal basis by the Single Act.\(^ {17}\) With over 200 pieces of legislation,\(^ {18}\) it is today one of the most extensive areas of EC law. Another body of regulation is aimed at protecting consumers,\(^ {19}\) while health protection "shall form a constituent part of the Community's other policies."\(^ {20}\) In sum, today, Community regulation covers a wide range of problems no longer restricted to the internal market alone, yet legal harmonisation remains the instrument used.

With the method of legal harmonisation comes the formal procedure under which European Community regulation is enacted. Unlike in national systems where many details of regulation are decided by the government or even non-governmental bodies on the basis of a parliamentary law, and the executive authorities sometimes enjoy wide discretion powers at the implementation stage (see e.g. Peacock et al. 1984: 41-77), most of Community regulation is enacted under one of the Community’s legislative procedures involving the Commission, the Council, the European Parliament and the Economic and Social Committee. Depending on the exact legislative procedure which applies, this implies, in particular, varying degrees of influence by the European Parliament, the Commission and individual member states in the Council over the outcome of the policy process. Especially, the member states have a considerable weight in the process - individually for legislation coming under

\(^{13}\) Articles 117-118 EEC; EC competences under Article 118 EEC were later strengthened by the Single Act and the Maastricht Treaty.


\(^{15}\) see the official conference declaration in the Bulletin of the European Communities, No. 10/1972, pp. 14-23.

\(^{16}\) The most recent programme is the fifth environmental action programme "Towards Sustainability" (European Commission 1993a).

\(^{17}\) new Articles 130r - 130t EEC; these Articles were amended by the Treaty on European Union.

\(^{18}\) see on EC environmental legislation the loose-leaf manual by Haigh.

\(^{19}\) Article 129a EEC, introduced by the Treaty on European Union.

\(^{20}\) Article 129 (1) EEC, introduced by the Treaty on European Union.
unanimity voting as they can veto the act, or else as the Council collectively. These formal legislative procedures and the role which they assign to the individual Community institutions are the institutional backcloth for a study on Community regulation.

On the other hand, the questions asked by students of national policy-making remain relevant for an analysis of EC regulation. The shift of competences from the member states to the Community level involves new actors and processes but does not as such alter the inherent problems of regulation. Three central themes in studies of policy-making are policy change, the relationship between the regulated sector and the regulators, and the role of expertise in the preparation of policy.

To begin with, a major concern of policy studies is policy innovation. Incremental adaptation of policy can be accounted for in terms of ongoing decision-making in established "policy networks" (see below). Major departures from the status quo, however, like that identified in car emission control above, require a different explanation. How change in Community regulation is brought about is central to this study. In the literature, the concept of "policy entrepreneur" has been used to account for policy change.

Clearly, different authors have used the term "policy entrepreneur" in different ways. The following two definitions may serve to illustrate the different aspects which have been captured. First, James Q. Wilson (1974: 143-146, 151f; 1980: 370-372) focuses on the function of policy entrepreneurs in organizing interests and overcoming the resistance by opponents of new regulation. In line with Theodore J. Lowi's (1964) observation that "policies determine politics", the background of Wilson's conceptualization is the (perceived) distribution of the costs and benefits of policy. Schematically, four cases can be distinguished depending on whether the costs and benefits are distributed widely or narrowly. Each of those cases creates a distinctive pattern of interest representation and politics.

"Entrepreneurial politics" is shaped by a situation where the costs of a policy have to be borne by a well-organized small group while the benefits accrue to a large group and are small per capita. This is the case with much of the regulation aimed at protecting consumers, workers or the environment, where the costs of the measures are imposed on business. Already Mancur Olson (1965) analyzed the organizational dilemma of the latent groups in society in relation to public goods. Unless there are special incentives, large groups are difficult to organize when, from the individual group members's point of view, the costs of organization are high and the individual benefits low, and he or she would benefit from a collective good achieved by others in any case (ibid.: 166f). In this situation, so
Wilson's (1980) definition,
"it requires the efforts of a skilled entrepreneur who can mobilize latent public sentiment (...), put the opponents of the plan publicly on the defensive (...), and associate the legislation with widely shared values (...). The entrepreneur serves as the vicarious representative of groups not directly part of the legislative process." (ibid.: 370)

In sum, Wilson's conceptualization emphasizes the politics aspect of an entrepreneurial role. The entrepreneur organizes and articulates a political interest.

By contrast, John W. Kingdon (1984) stresses the impact of policy entrepreneurs in the more immaterial realm of the formation of issues, ideas and agendas in the policy process. Shortly, he distinguishes three distinct "streams" in the policy process. The "problems stream" consists of the issues and conditions defined as requiring a policy solution. Issues can be defined as different kinds of problems which, in turn, assigns political responsibilities for their treatment, and pre-determines them for one solution rather than another. A policy entrepreneur has usually identified a problem which he tries to push on the policy agenda. The "policy stream", secondly, is made up of policy proposals floating around, and being combined, mutated, discarded or selected in a continuously evolving process of discussion within the relevant academic and political circles. Indeed, a policy entrepreneur may search for a policy to solve a problem, or, alternatively, advocate a policy proposal first, before identifying a problem to which it can be attached. He "softens up" his political environment by persistent persuasion work and uses every opportunity to press his problem or policy proposal. Finally, the "political stream" of elections, popular moods, special events or interest group activities shapes the political agenda and the conditions for dealing with problems and enacting solutions. Political events have their own schedule and dynamics independent of the two other streams.

The key occasion to bring problem, policy and political streams together are "policy windows." These open up either because a problem is newly perceived or upgraded on the political agenda, or because a political event changes the circumstances. Policy windows are rare and of short duration, and they are propitious to this or that policy proposal. When a policy window opens, the policy entrepreneur tries to couple "solutions to problems, problems to political forces, and political forces to proposals." (ibid.: 214) This joining of the previously independent problems, policy and political streams in a policy window by a policy entrepreneur leads to new government action being taken.

Wilson and Kingdon certainly focus on different functions of policy entrepreneurs. Nevertheless, in essence, they both refer to a political actor promoting a policy cause and engineering significant policy change. This thesis stresses the multiplicity of potential policy entrepreneurs as a source of EC policy
development. In addition, it looks into how entrepreneurial politics works in the specific Community institutional context. In a way, Neill Nugent's (1994: 332) following analysis may serve as a point of departure. He writes that

"much EU policy-making and decision-making displays a deep gradualism and incrementalism. It is just not possible for the Commission, the Council Presidency, a national government, or anyone else, to initiate a clear and comprehensive policy proposal, incorporating bold new plans and significant departures from the status quo, and expect it to be accepted without being modified significantly (...)."

This seems bad news for all policy entrepreneurs. They have to be persistent to achieve their goals.

While the concept of policy entrepreneur explains new policy departures, the notion of "agency capture" refers to the (potential or actual) leverage of the regulated sector on the government or agency which is supposed to control it. Rather than episodes of policy change, it is daily governance which is focused on.

There is no need here to fully review the scholarly discussion on agency capture. The idea was first formulated by Marver H. Bernstein (1955: 74-95) in his analysis of the life cycle of regulatory commissions. Activism, public support and a spirit of reform characterise the phases of gestation and youth of regulatory bodies. Conflicts determine the relations with the sector which they are created to supervise. As the commission ages, however, "[i]ts functions are less those of a policeman and more like that of a manager of an industry." (ibid.: 87) With low attention and support from the public and legislators, the establishment of routines and organizational inertia and a growth of passivity on the part of its staff and management, the commission ends up as a captive of the regulated sector. It becomes more interested in the promotion of industry than in its control. Bernstein thus emphasized both internal and external changes to explain what he saw as a typical organizational process.

Later, Stigler (1971) saw the potential for the leverage of a regulated sector over a popularly elected government rooted in the indirect nature of representation in the political process, and in the possibility of industry to provide politicians with money and other resources. Normally, citizens' preferences are filtered in the political process, and there are only few issues on which they are sufficiently strong to be translated unfettered into policy decisions. This increases the chances of well-organized groups with a keen interest to exercise influence. Political parties in need to maintain their apparatus, for their part, always welcome financial contributions. This engenders a situation in which "regulation is acquired by the industry and is designed and operated primarily for its benefit." (Stigler 1971: 3) Importantly, a condition for agency capture is the one-to-one relationship between the regulatory authority and the regulated sector. Only where the regulators are confronted with only one interest group can they
consider the claims of that group at the exclusion of the interests of other stakeholders, be it other organized private interests or the public at large.

At the same time as business influence over government can be observed to varying degrees, both empirical evidence and theoretical reasoning have refuted the simple notion of an interest group outrightly controlling (a part of) government (see Wilson 1980). Significantly, policy change not consistent with the interests of the regulated sectors has occurred. Policy entrepreneurs who organise a latent public interest and break up an existing capture constellation; changing policy preferences affecting the overall political context of regulation; more differentiated incentive systems of politicians and bureaucrats than those suggested by capture theory - all that reduces the potential for agency capture. Independent preferences and action potentials of governments make regulatory authorities respond not only to pressures from their environment but to their own logics of behaviour (e.g. Nordlinger 1981; Moe 1987; March and Olsen 1989). For the present study, therefore, the notion of agency capture is an (extreme) reference point for assessing the relationship between regulators and regulatees, a tool rather than an empirical hypothesis. The relevant relationship here is between the European Community as a regulatory authority and the European industry.

The third theme about regulation in general is the importance of expertise, that is the substantial knowledge required on the part of policy-makers on both the problems to be addressed and their potential solutions. Indeed, much of what is called "social regulation" consists of technical standards designed to protect consumers, workers or the environment from damaging side-effects of production and consumption (see e.g. Francis 1993: 6, 125-178). While the justification of the measures ultimately rests on value judgements, the standards themselves are based on a scientific assessment of the risk, nature and possible magnitude of the side effect concerned. Then, solutions to reduce these risks or impacts have to be devised. The crucial point, of course, is that, in this context, expertise and information is hardly ever neutral. As regulation implies costs and benefits for different sectors of society or the public at large, and regulatory decisions involve both knowledge and discretion on the part of the regulators (Greenwood 1984), the provision of data and expertise is easily tainted by the interests of policy stakeholders. How you define the problem and draw up a research or testing programme, what results you report and what experts you invite are all but non-political questions. At the same time, professional values and status, peer review and the personal judgement about what is "the right solution" balance the interest bias. Both forces are active at the same time (ibid.: 251).
Importantly, to the extent that regulation concerns performance or other specifications on products or constraints on the production process, the respective industry enjoys a certain lead in expertise over the regulators, or, even, is the only source of knowledge. This knowledge divide, of course, is not clear-cut. First, independent experts, universities or research laboratories may be important in any given field and have their own capacities. The specialist community is not split up between the regulators and the regulatees but diversified and more or less open to outside participants. At the same time, industry experts are always involved, and company contracts make at least for part of the research funds of (formally) independent institutes.

Secondly, different kinds of expertise have to be distinguished, and industry is not the main provider in all of them. Drawing on in-depth case studies on the setting of safety standards by public regulatory agencies and industry-based private standardization bodies in the USA, for instance, Ross E. Cheit (1990: 196-202) distinguishes between three forms of relevant institutional knowledge. Thus, "technical know-how" is the "knowledge about how a product or process works" (ibid.: 196); "information about real-world experience" is "about the type and frequency of accidents" (ibid.: 198); and "applied research and development" involves the testing of products and processes. While the public authorities were found to have an advantage in the latter two categories through their monitoring systems and funding, their expertise in the area of technical know-how was deficient. As it comes to the actual drafting of technical specifications, however, it is the technical know-how which is crucial, especially when technical feasibility and costs have to be considered. Although the regulators may be able to balance the situation through the funding of applied research and development to some extent, the natural informational lead of the industry remains a significant condition. In any case, the provision of knowledge to the authorities is a major factor in the regulatory process, and provides the industry with potential leverage.

In conclusion, while EC regulation is special in that it is, for all important matters, subject to the formal Community legislative process, policy change, the relationship between the regulated sector and the regulators and the importance of expertise are three overarching issues for the analysis of regulatory politics.
2. Setting the scene: Contending approaches in European Community studies

An analysis of the European Community regulatory system as "polycentric" conforms neither with the notion of the EC being an intergovernmental regime, nor with a federation model. Polycentric means more than intergovernmentalism, less than a federation. Especially, however, by going beyond an institutional analysis to look at the processes at work at an informal level and before formal decision-taking, it sheds a different light on the role of the member states and the Community institutions in the policy process. Before laying out the research questions and hypotheses the answers to which will substantiate the characterization of the EC system as polycentric, this section briefly reviews the two contending scholarly approaches involved.

Before turning to these, however, another theory has to be discarded as of little relevance to the subject of this study. In a theoretical appraisal of the European Community, a reference to the neo-functionalist integration theory (Haas 1958; Lindberg 1963) is still hard to avoid. Yet, the capacity of neo-functionalism to account for the Community policy process is small. Briefly, the neo-functionalists argued that interactions between the new European institutions and social elites in the member states, the reorientation of elite expectations to the new centre of power, functional spill-overs between different policy areas and the leadership provided by the Commission would inexorably push forward the expansion of EC competences. As the functional interdependence between different policy areas often makes progress in one area contingent on progress in others, and as political elites want to reap further benefits from closer union, decidedly practical interests rather than European enthusiasm would be the strongest force behind Community-building. In a nutshell, neo-functionalism is a theory about the evolution of European integration with a behaviouralist slant, and a certain neglect for institutional aspects.

This is not the place to enter into a general discussion about the validity of the neo-functionalist model. Although neo-functionalism has survived in a revised form (George 1985), it has lost its position as the leading theory on European integration in any case (Puchala 1972; Haas 1976). From a policy-studies perspective, however, two points can be added to the critique of neo-functionalism.

First, while predicting certain factors which push forward the building of the EC, the neo-functionalists had little to say about the final shape which this new polity would take. In addition, they underestimated the continuing importance of the member states even where competences were transferred to Brussels. Indeed, at the day-to-day policy level, it is not formal decision competences
per se which are important, but how these materialise in the making of policy. Even if the EC is now the locus of power in many realms, this does not imply that it works like a national government. In fact, the crucial question is exactly this: What is the new balance between the member states and the Community institutions as competences are shifted to the EC level? The concept of polycentrism is an answer to this question. The issue is not either the member states or the EC, but how they interact and complement each other. In a deterministic fashion, the neo-functionalists somehow assumed that the European Community in the end would look like a nation-state.

The macro-orientation of the neo-functionalists, secondly, obscured their view also on their most powerful claim, that of spill-over (see Puchala 1972: 274). The possibility of functional spill-over effects between policy sectors has remained a standing hypothesis for explaining the extension of Community powers. It is not challenged here. What comes out of a closer look at Community policy development, however, is the growth of common policies within individual policy sectors. Perhaps more than through cross-sectoral spill-overs, task expansion takes place at the technical level in the creeping progress from one directive to the next which brings more and more subjects under EC law, and links the member states closer together. Related evidence can be found in regulatory policy-making. Thus, if one source of pollution or risk is tackled, it is not logical to leave out another; a common monitoring requires harmonised measurement methods; and, by implementing one directive, regulators come upon further problems. Again, the day-to-day political practice is not adequately grasped by neo-functionalist thinking.

More than neo-functionalism, therefore, two other, opposed approaches to Community politics are relevant to explaining EC regulation. First, there are those who view the EC through the eyes of its member states as an advanced form of international organisation. This perspective goes back to Stanley Hoffmann (1966). He, at the time, contradicted the deterministic optimism of neo-functionalists in an inexorable process of European unification. In essence, Hoffmann argued that the European nation-states would not accept an encroachment on the core of their sovereignty, especially, of course, in the realm of "high politics." Hence, they would not make the decisive step beyond the pooling of resources and powers in restricted domains of common economic concern. Entrenched in their domestic structures, policies and preoccupations as well as in their legacies and aspirations as actors on the world stage, the member states persist, and are resilient against a full-scale transfer of powers to the new Community.
The stagnation of the Community in the 1970s and early 1980s initially vindicated Hoffmann's views. Notwithstanding the enlargement of the Community in 1972 and progress in institution-building (the new common regional and environment policies, cooperation in foreign policy, the setting-up of the European Monetary System), the EC languished, and, at the beginning of the 1980s, the academic community agreed that national interests dominated over shared ones (e.g. Everling 1980; W. Wallace 1982; Taylor 1983). Council output resembled more often "an amalgam of different national concerns" (H. Wallace 1983a: 63) than means to attain common objectives. Later, the new dynamism associated with the decision to complete the internal market and the reforms introduced by the Single Act in 1987 impressed even the old-time sceptics (see Keohane and Hoffmann 1991).

More important than any historical contingency, of course, is the analytical content of interpretations of the Community system. Here, the national governments and the domestic factors which push and constrain them (see H. Wallace 1981; Bulmer 1983) remain central in an intergovernmentalist approach to EC politics. A powerful restatement of an intergovernmental view of Community affairs even after the recent institutional reforms has been put forward by Andrew Moravcsik (1993). In what he calls a "liberal intergovernmentalist approach", he claims that

"the EC is best seen as an international regime for policy co-ordination, the substantive and institutional development of which may be explained through the sequential analysis of national preference formation and intergovernmental strategic interaction." (Moravcsik 1993: 480)

At the same time,

"[T]he EC differs from nearly all other international regimes in at least two salient ways: by pooling national sovereignty through qualified majority voting rules and by delegating sovereign powers to semi-autonomous central institutions." (ibid.: 509)

"Where member governments have shared goals, but are unable or unwilling to foresee all future contingencies involved in the realization of common goals, they may have an incentive to establish common decision-making procedures or to empower neutral agents to propose, mediate, implement, interpret and enforce agreements." (ibid.: 509)

This

"signals the willingness of national governments to accept an increased political risk of being outvoted or overruled on any individual issue in exchange for more efficient collective decision-making on the average." (ibid.: 510)

An intergovernmentalist model of the EC can be questioned in a number of ways. The easiest criticism is that it does not encompass the entire reality of Community affairs. Indeed, Moravcsik essentially refers to the Community's formal legislative procedures, where the member states are strongly involved in the Council. In other key areas of policy, and especially in the implementation of Community programmes, different constellations and patterns arise. In the structural funds, for
example, the Commission builds direct links with sub-national authorities, and a system of "multilevel governance" between different territorial tiers emerges without being provided for in the Treaties (Marks 1993). Similarly, in Community R&D programmes, the Commission's position vis-à-vis the member states and industry varies between different stages in the programming and implementation process (Peterson 1991). On the other hand, in this regard, Moravcsik's (1993) article only confirms that general theories about the Community are difficult to defend.

For a study on regulation, though, where the formal legislative process with the strong involvement of the member states applies, Moravcsik's analysis must certainly be taken into account. However, also here, the scope of his model is limited. It does explain the behaviour of the member states in Council negotiations. But, what other interests should national governments in the Council pursue than their own, especially if domestic concern on an issue is strong? What a liberal intergovernmentalist approach does not sufficiently consider, however, are the stages in the policy process before the Council negotiations as well as feedbacks arising from the outcome of Council negotiations on the interests of the national governments. In a nutshell, the Community policy process is more complex and dynamic than depicted by a liberal intergovernmentalist model. This will come out in the case study below.

While Moravcsik (1993) refined and adapted the intergovernmentalist approach to Community studies in the light of the institutional changes brought about by the Single Act, other recent contributions treat the EC as a political system comparable to, albeit distinct from national political systems. This emerging school - which, for the sake of convenience, I will call the "domestic politics approach" - is in obvious contrast to the intergovernmentalist model.21 In empirical terms, it is set against the new optimism about the future of the European Community at the start of the 1990s, and the changes which have taken place in its institutional and political framework.

The departure should not be exaggerated. While Guy Peters (1994: 10f) suggests that we should "think of [the European Community] as a political system not all that dissimilar to others", authors in this new school generally do not equate the Community with a domestic political system. Alberta M. Sbragia (1992: 257) writes of the Community as "neither a state nor an international organization" and emphasizes the heuristic aspect:

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21 The use of the term "domestic politics approach" in this thesis differs from Bulmer's (1983: 354) earlier definition which focused on the influence of domestic interests in the member states over a government's position in the Council.
"(...) the study of the Community could both be incorporated into and contribute to the study of comparative politics rather than be isolated from the general conceptual and theoretical concerns of political scientists interested in comparing political systems. Although the Community is unique, analysis is more likely to suffer from studying it in isolation from other systems than from using the comparative method in less than ideal circumstances." (ibid.: 267f)

Thus, looking at EC affairs with the tools developed in studies on national institutions and politics, while at the same time highlighting the peculiar nature of the Community will enlarge our understanding of the Community as a political system. Thinking of Community policy-making and institutions (or their future) in terms of bureaucratic politics (Peters 1992), German-style federalism (Sbragia 1992), policy networks (Héritier 1993; Mazey and Richardson 1993a) and agenda-setting (Peters 1994) complements the focus on Council negotiations. It goes beyond earlier qualifications of intergovernmentalism under the notion of "shared government" (Wessels 1990; 1991), and links up with writings on interest groups at the EC level (e.g. Averyt 1975; Sargent 1985; Schmitter and Streeck 1991; Greenwood and Ronit 1992). Some of the themes of the "domestic politics approach" will be taken up in the next two sections.

3. Research questions and points of reference

One key advantage of a "domestic politics approach" is that it opens our perspective on the entire policy cycle (see Windhoff-Héritier 1987: 64-114), and on the diversity of actors, processes and patterns which may contribute to policy-making. Conversely, it is a shortcoming of the intergovernmentalist paradigm that it pays little consideration to anything outside decision-making in the Council (and, possibly, the involvement of the member states at the preparatory stage of legislation), and that it limits the range of actors to the formal Community institutions and national governments. At the same time, the "domestic politics" analogy should not be stretched.

In the following, a number of questions arising from recent contributions to Community studies will be highlighted for three different phases in the policy cycle - agenda-setting, policy formulation and policy decision.22 The answers to these queries drawn from the case study will, it is hoped, justify my claim that an analysis of the Community regulatory system as polycentric is more appropriate than a description in terms of domestic politics or liberal intergovernmentalism. While under the headings of agenda-setting and policy formulation the "domestic politics approach" is assessed, under the

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22 This thesis does not consider the implementation phase of policy. EC regulation is implemented by the member states.
decision-making section it is the intergovernmentalist paradigm.

a) Agenda-setting and policy entrepreneurs

Above, the role of policy entrepreneurs in bringing about policy change has been mentioned. Of course, a condition for an entrepreneur's success is to get "his" issue and proposal on the government's agenda at the right time and in the right form (see Kingdon 1984: 206-215). The setting of the political agenda and the pushing of specific proposals are crucial in the policy process. If we want to understand EC regulation, we have to start by looking at EC agenda-setting.

Following the Treaty provisions, the agenda-setting function in the Community is clearly attributed. The central agenda-setter is the Commission. Already the original Article 100 of the EEC Treaty provided that the Council can enact legislation only on a proposal from the Commission. This gives the latter not only full leeway in deciding about the timing of initiatives, but also about their substantive content. The Council, and, since the Maastricht Treaty, the European Parliament, can only request the Commission to make a proposal. The Commission recently started to list the proposals which it intended to make in a yearly legislative programme submitted to the Council and the Parliament (e.g. European Commission 1994a; 1995).

In addition, the new possibilities for Parliament to act as an agenda-setter are noteworthy. In its rules of procedure, Parliament laid the basis for a responsible exercise of its new competences by defining conditions under which it will use them. On the other hand, Parliament gave itself the right to indicate the legal basis and make recommendations regarding the content of the proposal requested. The Commission, for its part, has excluded any automatic response to a parliamentary call for a proposal but said that it would "be a very important political signal which the Commission will undoubtedly take into account." (quoted from Westlake 1994: 96f). Furthermore, the annual debate and

21 see also Article 100a (1) EEC inserted by the Single Act. Following the Treaty on European Union, Article 100a (1) EEC no longer contains the clause "on a proposal from the Commission" as, under the co-decision procedure (see Chapter VI), the final directive may be negotiated directly by the Council and the Parliament. The Commission still makes the original proposal, though.

24 see respectively Article 152 EEC and Article 138b EEC, inserted by the Treaty on European Union. In the extreme, the other institutions and the member states can take the Commission to the Court if it fails to submit a proposal provided for under the Treaty; see Article 175 EEC.

vote in the House on the Commission’s legislative programme will give Parliament an opportunity to make its views known even if not binding on the other institutions.20

Whatever the legal provisions, however, the political practice is more indeterminate. As two observers note,

"[T]he Commission’s proposals may be the brainchild of a Commissioner. They may flow from the treaties, or from legislation already adopted under them. They may be consequent upon a judgment of the Court. They may respond to a demand of the Parliament, or of the Council, or of a member state, or of an interest group. They may have their origins in the Commission staff, following a study or a piece of research or participation in a programme run by an outside body." (Nicoll and Salmon 1990: 53)

In brief, even though the Commission has the formal monopoly on initiating legislation, the original impetus may come from a variety of sources, both inside and outside the organization. Due to its monopoly on making formal legislative proposals, though, the Commission remains the key filter for any initiative.

Nevertheless, empirical evidence also indicates that the Commission has actually exercised a policy-entrepreneurial role in various fields. It is true that when the development of Community institutions and competences is concerned, the member states as the "masters of the Treaty" assert themselves (see e.g. Moravcsik 1991). However, beneath the level of the "grand bargains" which have moved forward European union in the course of its history, other forces are at work which emphasize the role of the Commission, including in institution-building. Gertrud Schink (1992) has shown, for example, that the development of a Community educational policy must be explained in terms of the conjunction between the inherent dynamics arising from the interactions between the EC institutions (esp. the Commission and the Court) and the member states on the one hand, and the policy-entrepreneurial role of the Commission on the other. Through its powers of problem-definition and proposal, the Commission responded to opportunities arising in the political process and initiated decisions to fill a policy void. In the final result, this led to the extension of EC competences by the inclusion of two new articles on education, vocational training and youth into the EC Treaty by the Maastricht Treaty.27 In another area, Gary Marks (1993) shows how the Commission forges direct links with sub-national governmental actors in the implementation of Community structural policy, circumventing the member states' central governments, and creepingly changing the EC system. Again, in doing so, the Commission exploits the degree of ambiguity inherent in the Treaties, and the policy opportunities

20 see also ibid., Rule 49.
27 Articles 126 and 127 EEC.
that these provide for autonomous Community action.

In the second half of the 1980s, the stronger impact of the Commission became visible in day-to-day policy-making across many sectors. Unfortunately, there are few analytical studies which look closely at the policy process in individual areas and highlight the parts played by the different actors, as compared to general descriptions of the Community institutions and policies. Generally speaking, though, "[T]he Commission has been at the heart of the far-reaching changes associated with the 1992 program." (Ludlow 1991: 85) After contributing in a practical way to the successful outcome of the negotiations on the Single Act and the "1992 Programme", especially by the presentation of its 1985 White Paper, the Commission was the engine behind putting this plan into action. In this, it benefitted from its strong position in the Community system laid down already in the original Treaties, a new political commitment by the member states for the single market and several flanking policies, the institutional changes of the Single Act as well as the leadership of its President Jacques Delors (Ludlow 1991). It was the Commission, of course, which translated the 300 or so directives listed in the White Paper into concrete proposals, and, thus, started the massive deregulation/reregulation exercise needed for completing the internal market. This as such involved a substantial agenda-setting and entrepreneurial role. In drafting its proposals, the Commission has been bound by its obligation to base them on a high level of protection. The Commission's more assertive attitude also extended to policy areas outside the internal market such as maritime policy (Cafruny 1991).

In a more systemic perspective under a "domestic politics approach", finally, Peters (1994) characterizes the European Community as "the prospective agenda-setter's paradise" (ibid.: 21). According to his account, the main features of agenda-setting in Brussels - its openness and indeterminacy - are a consequence of the multiplicity of (national and European) arenas and points of access, and of the absence of effective policy coordination at Community level, in turn ensuing from the weak position of political parties in EC governance. The twelve national policy systems of which the EC is made up create a diversity of legitimated policy conceptions and proposals. In this situation, the policy entrepreneur has manifold chances to pursue his cause, drawing on legitimacy and support from different sources. Peters implicitly conceptualizes the policy entrepreneur as a private policy advocate acting at the EC level, where Brussels becomes much alike Washington, D.C.. The member states are essentially conceived of as sources of legitimated policy ideas but not as potential policy entrepreneurs in their own right.

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28 Article 100a (3) EEC.
The difference between the formal Treaty provisions and Peters' description is, of course, conspicuous. In fact, first of all, his account avoids the question of how a policy cause is transformed into actual policy in the Community institutional system. As he himself realizes, the openness of the Community system to new issues and ideas might vanish when the transition from the stage of an informal to a formal policy proposal is considered. Somewhat hiddenly, he mentions that "there is no guarantee that those issues (which have been floated; H.A.) will then actually be moved on to an active institutional agenda. (...) The absence of institutionalization and the loosely articulated policy-making system (...) may make moving the issue any further difficult." (ibid.: 11)

The important difference here is between the systemic agenda of issues which are "in the air", and the institutional agenda of problems up for consideration by the EC institutions.29

The Commission, of course, is the main filter between the two agendas. In principle, the Commission is certainly willing to take up issues from the Community's systemic agenda. In devising new policy it also benefits from the multiplicity of different legitimated options. Generally speaking, finally, the Commission has an institutional self-interest in further regulation as this may increase its competences (Majone 1989: 166f). On the other hand, two factors constrain the policy advocate's chances. First, existing policy commitments by the Commission, an overload of demands on its restricted resources, as well as internal Commission resistance can reduce the Commission's ability to transform a policy idea into a proposal. This means that only a policy entrepreneur with strong leverage over the Commission's own agenda and preferences will succeed. In addition, the Commission by necessity orient itself primarily to the other institutions involved in legislation, i.e. the Council and (increasingly) the European Parliament. This implies both that issues raised in one of these fora will be given primary attention by the Commission, and that any policy idea will be considered in terms of its acceptability in Parliament and with the member states. Hence, even if we consider the Community level only, Peters overlooks the centrality of the Commission - not even to speak of the Council.

Peters' (1994) account is a reference point for a more sober analysis of Community agenda-setting in this thesis. In fact, this study suggests that neither a legalistic focus on the Treaty nor Peters' description provide the full picture on agenda-setting in the European Community, as both neglect the member states. While Peters is right in stressing the openness and indeterminacy of the Community agenda, he fails to see that much of it arises from the member states. This study stresses the continuing importance of the member states as political arenas and actors in EC policy-making, and as potential

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29 On this differentiation, see Cobb and Elder (1983: 14).
policy entrepreneurs. In particular, two questions will be addressed. First, why does a member state become a policy entrepreneur in the European Community even though, strictly institutionally speaking, this is the role of the Commission? It will be suggested that the member states will also remain important as policy entrepreneurs in the future. Secondly, how does a member state turned policy entrepreneur operate under the institutional constraints posed by the Community? The Community’s formal legislative process is the background of the analysis. This question is both about the capacities needed for a successful policy entrepreneurship, and about the ways in which a member state may advance its cause.

b) Policy formulation, policy networks and agency capture

When an issue is on the Commission’s agenda, either because a policy entrepreneur has put it there, or provisions in the Treaty or in previous legislation provide for a measure, the Commission has to draft a proposal. In regulatory policy-making, this usually requires substantial expertise about the nature of the problem to be addressed and its technical or other remedies.

The question of expertise has been indentified above as central to regulation in general. In short, that such expertise can often only be found with the regulated sector is an inherent condition especially of social regulation. To be sure, one has to distinguish between different kinds of knowledge and not preclude the capacity of administrators to procure information from different sources. Even in technical matters, the authorities can generate their own information on the performance of products or production processes through monitoring, testing and inspection programmes. Yet, when it comes to the know-how needed to write technical product or process specifications into the statute books, there are hardly any alternatives to consultation with the engineers responsible in the industry concerned.

The dependence of regulators on external advice, in turn, affects the political context in which regulation takes place. Especially, it opens the way for industry influence over government decisions. While research into the interface between technical expertise and political leverage is difficult, the claim that there is such a link is by no means new. For the Occupational Safety and Health Administration and the Environmental Protection Agency in the USA it was concluded, for instance, that industry has most influence over engineering questions, as compared to agenda-setting and political questions (where labour unions respectively environmental groups were more influential) and risk assessment (Greenwood 1984: 182f). Similarly, a dependence of administrators on external advice
was observed in the case of chemicals control in Germany and Britain (see Schneider 1985; Grant et al. 1988: 284-289). The assessment of chemicals can only be done on the basis of data from the producers which makes cooperation between the authorities, the industry and scientists a condition for government policy (Hartkopf and Bohne 1983: 304). An industry lead in expertise is all the more influential when it is not balanced by knowledge based in other organizations.

EC regulation replicates these national experiences. In addition, however, as it is in the form of harmonisation of national law and has to be implemented by national authorities, the Commission also requires information about the existing situation in the member states. Only then can it make a proposal which is acceptable in the Council, and can be effectively implemented. To procure this kind of information, the Commission has to rely primarily on the cooperation with national (and possibly sub-national) authorities in the member states. The host of advisory committees serving the Commission in formulating its proposals and composed of national government experts reflects this state. One of these committees will be presented in Chapter V.

What distinguishes the Commission from national authorities, though, is not only its increased information requirements but also its lack of in-house technical expertise. In fact, in contrast to its popular image, one of the most striking features of the Commission is its small size in relation to its tasks (Ludlow 1991: 102f). There are no overall data at hand on the number of staff actually involved in the preparation of Commission proposals in the field of technical regulation. The Commission as a whole comprises some 4,500 A-grade officials with management and policy responsibilities. Its Environment Directorate-General (DG XI), as one of the services strongly involved in regulation, has about 240 permanent and temporary officials including all grades. Taking car emission control as the example in this study, between DG XI and the Industry Directorate-General (DG III), currently about four A-grade or equivalent officials are exclusively involved in this field, but also cover emissions from other mobile sources. Compared to national administrations and their relevant subordinate bodies at least in the bigger member states, these figures are modest. In addition, the Commission’s recruitment and career system does not promote specialist expertise among the category of life-time civil servants. It is through the contracting-in of outside experts in the form of temporary personnel, consultants and so-called "national experts" seconded from national government or semi-public bodies that the need for technical experts is often met.

\[\text{\smaller^{25}}\text{ see the Community's annual budget, e.g. for 1993 OJ No. L 31, 8.2.1993, pp. 128f.}\]
Perhaps most significant, however, is the fact that the Commission has little in terms of subordinate scientific and research facilities. While the Joint Research Centre, Eurostat or some other Community bodies may in some cases be able to play that role, and the new European Environment Agency represents a significant addition in this respect, overall, most regulatory expertise is located with the member states. This is not very surprising if one considers that the emergence of the European Community as a regulatory authority is comparatively recent, and has been based on harmonising national law. Regulatory expertise, by contrast, is often a result of the implementation of regulation, which is left in the hands of national and sub-national administrations. In sum, without input from the regulated sectors and experts from the member states, EC regulation is hardly conceivable.

Generally, the authorities' dependence on information which only interest groups can provide has been one of the conditions conducive to the development of sectorial "policy networks" at national level (see e.g. van Waarden 1992). In a "domestic politics approach" to Community studies, as Adrienne Héritier (1993) suggests, the concept of policy networks can be made useful for the analysis of EC policy-making (see also Schumann 1993: 417-423; Peterson 1995). She applies this idea to an analysis of EC regulation to control air pollution from stationary sources (see also Héritier et al. 1994), and highlights a number of features which distinguish the policy network in this field from networks usually found in a national context. These characteristics include the lesser degree of stability of networks, the bigger heterogeneity of network participants in terms of problem perceptions and interests, the possibility of unexpected actor constellations across national and hierarchical divisions, the central position of the Commission and the lack of coordination between different issue areas, i.e. between different policy networks. On the whole, the picture which emerges in comparison to national policy networks is that of less stable interactions between a more heterogeneous group of actors, mostly with governmental status, and the prominent position of the Commission. EC policy networks are thus still lacking the institutional character of national policy networks (see Lehmbruch 1991).

The conflictual cooperation between different actors in the Community and national administrations with the participation of private interest groups is also at the centre of an analysis of EC policy-making as "bureaucratic politics" (Bach 1992; Peters 1992: 115-121). At the level of functional policy areas, "it should not be surprising if policies were the product of loosely organized and flexible policy communities." (Peters 1992: 117) The fragmentation of the policy community, the striving of actors to maintain their autonomy, the importance of negotiations and the possibility of inter-departmental conflict within an organization are characteristic of bureaucratic politics.
The "policy network" and the "bureaucratic politics models" suggest at least two (related) hypotheses which contradict the assumption that Community policy-making is shaped by the play of national interests, as posited under the liberal intergovernmentalist approach. In essence, these hypotheses imply that the identity of the policy area reduces cross-national differences at least at the policy formulation stage in Commission advisory committees, "so that professional and technical criteria often guide decisions more than the national concerns which may arise in the Council." (Peters 1992: 119).

The first proposition is that of depoliticization as a key ingredient to policy progress in the European Community (Peters 1992: 76f). Accordingly, by breaking down what are really political decisions into numerous technical issues, and shifting their solution to the technical experts in the administrations, potential political conflicts are fudged. The officials involved in advising the Commission in the drafting of legislation and in negotiations at the lowest Council level, it is assumed, will deal with many questions as technical and not as political problems which eases their solution.

Secondly, and closely linked to the first hypothesis, a policy community model suggests the existence of shared professional values. As the expert officials from twelve national governments and the Commission meet their respective counterparts to prepare legislation, they do so on the basis of a common professional background. In this context, while Héritier (1993) emphasizes the existence of different national problem perceptions and approaches in European policy networks, she also points to the possibility of "regulatory zealots" from different member states cooperating in Commission advisory committees to influence Commission proposals in their interest (ibid.: 438). This is one observation in Volker Eichener's (1992) highly suggestive study on European Community regulation on workplace health and safety. In short, he suggests that certain national representatives committed to high standards of protection see the consultations by the Commission as an opportunity to carry through their ideas which were blocked earlier at home. Equipped with the necessary technical expertise to back up their proposals, they dominate the proceedings in advisory committees. The Commission bureaucracy, for its part, is favourably disposed to regulation at a high level of protection (ibid.: 50-57). Thus, professionals at the drafting stage of legislation jointly push for ambitious standards, and professional values become more important than national interests. The greater leeway for "regulatory zealots" at the Community level would distinguish European from national policy networks. In sum, it is suggested, functional and professional influences transcend political boundaries. While this study does not confirm these hypotheses, it underscores the central importance of manifold inputs into EC policy preparation.
In addition, the "bureaucratic politics" approach directs our attention to the behaviour of the Community institutions and the importance of intra-organizational divisions, in this case especially within the Commission (Peters 1992: 89, 117f; Héritier 1993: 440-442). Formally, of course, the Commission is ruled by the collegiality principle.\footnote{Rules of Procedure of the Commission, Article 1; OJ No. L 230, 11.9.1993, p. 15.} This means that, although each Commissioner has a portfolio for which he or she is primarily responsible (there is an "Environment Commissioner", a "Taxation Commissioner" etc.), the Commission has to act collectively, and all Commissioners are responsible for all questions on the table. On the other hand, and arguably particularly due to the collegiality principle, serious disagreements often split the Commission College, as Commissioners themselves are ready to admit (Bardi and Pasquino 1994: 37-39). This situation, it can be assumed, repeats itself at the level of the Commission services. As, in fact, we will see confirmed below, although the directorates-general are obliged to consult closely on policy proposals and search for the integration of their concerns, different departments have different views, reflecting their policy commitments and priorities. They also draw both pressure and support from different quarters of the Commission's political environment. It has even been suggested that Commission departments build outright alliances with, for example, a committee in the European Parliament (Judge 1992: 199f).

Beyond the conjecture of intra-Commission frictions, the broader question naturally relates to the ways in which such frictions materialize, and are solved. More generally, the question is what determines the Commission's decision in favour of one rather than another policy option both in drafting its legislative proposal, and in adapting it in response to member states requests in the Council and amendments demanded by the European Parliament. In fact, this issue links up with the theme of agency capture introduced above. As the Commission's draft directive has considerable weight in the legislative process especially with qualified-majority voting in the Council, and as the Commission is also in a pivotal position between the Parliament and the Council, the question is of particular relevance of how much leverage the regulated sector may have over the Commission’s line. Eichener's (1992) argument that the Commission will usually be ambitious in its regulatory proposals in terms of the level of protection is an interesting reference point in this regard.
c) Policy decisions: Negotiations in the Council and the role of the European Parliament

The last complex of questions addressed in this thesis concerns the formal legislative process in which the final decisions about EC regulation are made. Before the institutional changes introduced by the Single European Act, this analysis was rather straightforward. The account would have highlighted a Commission as proposal-maker and broker, an uninfluential European Parliament and Economic and Social Committee, and a Council blocked unless all member states agreed on all details. Today, with the advent of qualified-majority voting and the strengthening of the powers of the Parliament, a similarly simple account is no longer possible. How, then, is regulation negotiated in the Council, and what is the role of the European Parliament now? Despite sustained scholarly interest, a lack of empirical information and certain research biases are apparent concerning both of these questions.32

Turning to Council negotiations first, a mixed impression has been cast by earlier studies. It often contrasts with the federalist idea of the upgrading of national interests in common policies and the positive-sum logic of cooperation. It is important to recognize, though, that these accounts have largely been shaped by the effects of the unanimity rule and a focus on negotiations at the highest political level, and on the most difficult problems. It is these research biases which are responsible for the prevalent picture of log-rolling, package deals, side payments, compromises at the lowest common denominator, and outright stalemates easily seen as typical for Council business.

Consider the effects of different research biases on our understanding of EC negotiations. To start with, package deals based on positive-sum games between the participants are the most attractive feature ascribed to European negotiations (see H. Wallace 1990: 223f). They are thought to facilitate progress by balancing the costs and benefits of decisions among the member states. A basic convergence of interests must, of course, exist to bring a package deal within reach.

A good example is the Single Act which combined the substantive policy commitment to complete the internal market with institutional reform (see Moravcsik 1991; Cameron 1992). It was founded on the shared conviction among governments that a large, open European market was a suitable response to the malaise which had plagued European business for many years. A few years later, the agreement on European Monetary Union (EMU) embodied in the Maastricht Treaty saw the interest of the Bonn

government to have the country's unification accompanied by closer European union override the interest in maintaining German monetary independence (see Sandholtz 1993). This coincided with the interests of the other member states (with the exception of the habitual British reticence). In a nutshell, general interest convergence and compromises on the details paved the way to the EMU accord. Idealizations should be avoided, though. The United Kingdom was partly pressured into the acceptance of stronger Community institutions provided for in the Single Act by the credible threat by France and Germany to exclude Britain from a move towards strengthening the EC (Moravcsik 1991). The attractions of liberalization would not have sufficed to convince Mrs Thatcher. Hence, coalition formation (see H. Wallace 1985), power politics, the subtle play of diplomacy and the clout of individual member states and their leaders can be the necessary ingredients to political breakthroughs.

The key point, however, is that the real package deals largely depend on negotiations at the highest political level. The authority to make potentially bold decisions to trade one interest against another can only be made by ministers - if at all - or in the European Council. They also are contingent on a convergence of interests and the existence, at one time, of critical issues that can be linked together. Package deals are, therefore, not the daily currency of Council business. Their importance in EC affairs has been exaggerated by the (understandable) special interest of scholars in the "big deals" which move forward European union.

The second bias is partly historical in nature as it ensues from the unanimity rule. Until 1987, the unanimity rule shaped EC negotiations at all levels. Where a decision-making system gives a veto right to each participant, however, blockages, incrementalism and outcomes on the lowest common denominator are likely to result. Until the mid-1980s, certainly for regulation, the effects of the unanimity rule were compounded by the absence of political guidance over the negotiating officials, and of a top-level commitment to reaching agreements (see European Commission 1983a: 17f, 27; Pelkmans and Vollebergh 1986: 25-27). Blockages are truly inevitable where delegates in Council working parties believe in the superiority of their domestic policies, and are under no pressure to make progress. The situation is even more difficult when the fragmentation of policy-making along sectoral lines hinders a "political solution" in the form of a package deal. The creation, in 1982, of a separate Internal Market Council to pull together the negotiations on the diverse pieces of technical harmonisation was intended precisely to foster cross-sectorial coordination and a new political impetus.

The most incisive analysis of the pathology of EC negotiations under the unanimity rule is Fritz W. Scharpf's (1988) model of the "joint-decision trap." At the same time, the scope of his
description is clearly limited. Indeed, besides the unanimity rule, it is a bargaining as opposed to a problem-solving style which explains the sub-optimal solutions in the Common Agricultural Policy (CAP), as the example chosen by Scharpf. A bargaining style is characterized by the prevalence of individual self-interests over common interests. Where exit from the system is (virtually) excluded, and the achievement of a common goal (e.g. the reform of the CAP) would involve a re-distribution of costs and benefits to the disadvantage of some member states, participants are unable to escape even from an increasingly deleterious situation. The solution found in the Agriculture Council was sometimes simply to enlarge the cake with the finance ministers (and the tax payers) paying the bill (Pearce 1981: 16, quoted in Swinbank 1989: 304; Pearce 1983). The CAP, though, is special in that it is an ongoing decision system which has to be adapted to a changing environment to remain effective, and in that distributional issues are arguably conducive to a bargaining decision style based on a zero-sum logic. Similarly, at the March 1984 Brussels European Council, in talks on the UK budgetary rebate, struggle over the relatively modest sum of 150 million ECU brought the EC "to the brink of disaster" (Taylor 1989: 5), as heads of state and government bickered for hours without finding an agreement.

Viewing this not really appealing picture of EC negotiations, the crucial question is what change has been brought about for the daily Council practice by qualified-majority voting. Majority voting was introduced by the Single Act for legislation related to the completion of the internal market, extended to other areas by the Maastricht Treaty, and is now a crucial ingredient to the EC regulatory process. Helen Wallace (1991: 21-23) suggests a number of factors which have expedited Council business since the mid-1980s. She argues that an exclusive focus on decision-making rules to explain Council proceedings would not be sufficient. Briefly, Wallace emphasizes especially the renewed commitment by the member states to forge ahead. The 1992 deadline focused the attention of the Commission and the Council on a commonly agreed objective, and exercised a wholesome pressure to solve the arising problems. Progress in Council negotiations could now be clearly monitored and measured against the overall aim.

In addition, as Helen Wallace points out, the amount of potential obstacles was reduced by a number of changes in the general legislative framework. First, based on the so-called "Cassis de Dijon" judgement of the EC Court in 1979, the principle of mutual recognition means that "[A]ny product lawfully produced and marketed in one Member State must, in principle, be admitted to the market of any other Member State." (European Commission 1980: 2) Although this principle has not been taken to eliminate the need for EC harmonisation overall, it has decreased the need for legislative
The same is true, one might add, for the "new approach" to technical harmonisation and its reference-to-standards method. The "new approach" provides for EC directives being limited to generally worded "essential requirements" and referring to technical standards issued by (semi-)private European standardization bodies for all detailed specifications. While the "new approach" was not applied to all regulatory areas, where it was it certainly facilitated the negotiators' job. In sum, through mutual recognition and the "new approach", the threshold for a successful negotiation outcome was lowered, and many of the very technical details were shifted to private standardization bodies. Finally, Article 100a (4) EEC introduced by the Single Act allowed member states, under certain conditions, to maintain higher standards than set by EC law. This reduced the perceived need for member states to veto a directive which was not equivalent to their existing rules.

Generally speaking, Helen Wallace (1991: 26) concludes, "[T]he real impact of the option of majority voting (...) seems to be more evident in the new climate of negotiations than in the roll call record." To be sure, voting does play a role on occasions to break through an impasse, and votes have, indeed, been taken on a number of occasions (Ungerer 1989: 98; Wessels 1991: 146f). Nevertheless, more than by the actual exercise of majority voting, Council work has been facilitated by the simple possibility to resort to it, and by a new commitment to make progress on pending legislation. Rather than an optimizing strategy, member states now follow a satisficing approach (H. Wallace 1989). As a Council practitioner - the then German Permanent Representative to the EC - noted, there has been "a change in the modes of behaviour of the delegations. Each delegation tries to design its strategy so as to not be put in a minority position. (...) The delegation which enters negotiations with a firmed-up line or is unable to respond to compromise proposals by the Presidency or the Commission rapidly enough falls behind." (Ungerer 1989: 99; translation H.A.)

In an ironical twist, according to another observer, the principle of majority voting may now induce unanimous decisions, while the principle of unanimity led to no decisions at all (Schmitt von Sydow 1988: 98).

The empirical analysis in Chapter VII will broadly confirm H. Wallace's (1991) account of a flexible negotiation behaviour of member states in the Council under the new political and institutional conditions. In addition, below, light is shed on how exactly Council negotiations on three individual directives went, and more generally on how the interests of individual member states and of a policy entrepreneur were accommodated. Thus, this study gives both a more detailed and a more benign interpretation of EC negotiations than that provided by earlier work in relation to day-to-day Council affairs.
The central importance of the Council for EC regulation notwithstanding, however, a significant conclusion will be that restricting the analysis of Community regulation to the formal decision-making process and neglecting the dynamics arising from "informal integration" would fail to account fully for Community policy-making. The importance of the agenda-setting and policy formulation phases has been mentioned above. A third caveat, which especially applies to Moravcsik's (1993) "liberal intergovernmentalist model", concerns the effects of informal integration. "Informal integration" has been defined as

"those intense patterns of interaction which develop without the impetus of deliberate political decisions, following the dynamics of markets, technology, communications networks, and social change." (W. Wallace 1990: 9)

After all, informal integration is the (intended) outcome of formal decisions and should, therefore, be considered as part of European regulation. This thesis advocates this wider understanding of the European Community policy-making process, and shows how a development made possible by informal integration crucially influenced formal car emission legislation.

The analysis in Chapters VI and VII will turn mainly around the negotiations in the Council. Nonetheless, the role played by the European Parliament especially under the cooperation and the new co-decision procedures will obviously be considered. The Parliament's influence over the 1989 Small Car Directive, in fact, is nearly ritually cited as a key example of Parliament's potential influence in the Community's political process (e.g. Jacobs and Corbett 1990: 170; Tsebelis 1994). With regard to regulatory policies in general, the Parliament has been credited with being an advocate of higher levels of protection for consumers, workers and the environment (Jacobs and Corbett 1990: 185). However, as David Judge et al. (1994) rightly point out, early generalizations should be avoided and only case studies can produce a valid picture. The empirical analysis below will contribute to this enterprise. More generally, it will point to certain institutional weaknesses of Parliament in the Community regulatory process.

4. The concept of "polycentrism" in brief

The answers to be given to the research questions and hypotheses presented above based on the empirical evidence in this study will qualify the description of the Community system in purely intergovernmentalist terms; equally, they will caution against the hasty conclusion that the EC is similar to a national political system. The justification of looking at the European Community with concepts drawn from the study of national policy-making is underlined. However, it is precisely the
blend of the continuing importance of the member states as arenas and political actors on the one hand, and of the transfer of regulatory powers to the Community on the other which makes for the special characteristics of the new European regulatory system. I denote this peculiarity under the term "polycentrism", and claim that it is a feature of the EC system which is here to stay.

While the concept will be further discussed in Chapter VIII, briefly, there are two crucial aspects to polycentrism. In the true meaning of the word, first, polycentrism stands for the existence of multiple political centres. In the Community, these are the member states plus the Community institutions themselves. All of these centres constitute both political arenas and actors in the policy process. By a political arena, I understand an institutional framework in which contending political forces are at work to influence policy outcomes (see Windhoff-Heritier 1987: 61-63). The organization and articulation of interests, public preoccupations and opinion, and the competition between ideas and ideologies materialize within a given political arena. For a large part of these political processes, the member states remain the predominant loci.

The national governments and their subordinate bodies, together with the EC institutions are also central actors in the Community policy process. Through multiple channels, the national governments are closely involved at all stages of EC regulation. They launch political initiatives, delegate experts to advise the Commission, and, in the end, decide in the Council. At the same time, they have to share their powers with, especially, the Commission and the European Parliament which have increasingly become actors in their own right. The multiplicity of actors and arenas distinguishes the European Union from unitary states. Where a "domestic politics approach" is in danger of overstating its case is precisely in underrating the continuing importance and separateness of the member states in EC policy-making.

At the same time, secondly, the different arenas do not exist independently from each other. That polycentrism at all matters, first of all, is curiously due to the fact that the competence for many questions has moved to the Community. This is the formal force which binds the different national centres into a single system. It also makes the Community arena stand out from the national centres, as the locus of decision-making on most regulatory matters. The EC is also a source of policy initiative. Nonetheless, the national centres remain important, but are linked to each other through their membership in the European Union. They perform their functions of agenda-setting, policy formulation

\[33\] This term has been used in a similar context, albeit cursorily, by Elliott et al. (1985: 328f) in an analysis of preemptive federalism and the development of US environmental legislation.
and decision-taking in relation to EC policy. Indeed, this conceptualization of the EC policy process is well in line with the study by Heritier et al. (1994) on EC air pollution policy more generally which shows the varying influence by different member states over common policy at various points in time.

In addition, besides their being interconnected in Brussels, the national centres are also interrelated between themselves. Through numerous formal and informal channels, related or not to EC regulation, exchanges take place which, in the end, influence European policy. Economic integration promotes the transmission of market and industrial developments, possibly influenced by public policy; intensive communication fosters the exchange of ideas and learning at all levels. Although hardly studied empirically so far, these forces of "informal integration" (see above) are part of the emerging European regulatory system. Here, liberal intergovernmentalism, with its narrow focus on Council negotiations, fails to capture the entire picture.

Incidentally, by broadening our perspective beyond the Council, also the positive effects of polycentrism will become apparent. Hitherto, the role of the member states in Community regulation stood for incompatible national policies and blockages in the Council. Now it is suggested that, by encompassing multiple policy arenas, multiple participants in the policy process and, more specifically, multiple potential "policy entrepreneurs", polycentrism increases the potential for policy innovation in the Community. Furthermore, in a polycentric system, the leverage of the regulated sectors over the outcome of regulation ("agency capture") is reduced. The introduction of qualified-majority voting in the Council, in turn, mitigates some of the cumbersomeness of the law-making process. Under these new conditions, polycentrism becomes an asset.

No single case study can illustrate all sides of a concept, let alone "prove" its validity. However, this thesis sets out to substantiate the claim that polycentrism adds to our understanding of European Community regulation. Indeed, without resorting to it, the development of car emission control in Europe over the past ten years could not be explained.
Chapter II

Car emission legislation in Europe: The economic and political setting

Regulatory policy-making cannot be seen detached from the economics of the sector concerned and the institutional framework in which decisions are made. The economics shape the interests of industry as a key actor in the regulatory process. Indeed, as will be shown in Chapters III and IV, the positions of individual vehicle manufacturers towards European Community car emission control in the 1980s can be put down to the technical and economic implications which new standards had for each of them. This, in turn, influenced their respective national governments' lines in EC negotiations. Before going into the details, the present chapter takes a more general perspective. The mis-match between the economics of a highly globalized industry, such as the motor industry, and the political framework of the nation state will be highlighted. By way of introduction, this illustrates the fundamental need for a harmonised regulatory system above the nation state. In fact, the tension between the industrial imperative to regulate the automobile at a European or even international level on the one hand, and the sometimes diverging interests between different car companies and different national governments as regards this regulation on the other is at the roots of regulatory politics in the EC in this area. As noted earlier, polycentrism is based on the shifting of competences to the Community in conjunction with the persistent relevance of the member states as political actors. This chapter first points to the economic underpinnings of this constellation.

Further, this chapter looks back at the origins of Community car emission legislation and traces the emergence of the EC as the central regulatory agency in this field in Europe. This involves a brief description of related work done by the United Nations Economic Commission for Europe (UN-ECE).

A. Regulating a multinational industry: The economic background

Historically speaking, the automobile industry was one of the first to "go multinational" (see Maxcy 1981). As early as at the beginning of the twentieth century, European firms such as Daimler and Fiat, and the American Ford concern had established subsidiaries in other than their home countries. Today, there are few other sectors which are as globalized as the motor industry, both in terms of their
ownership structure and with regard to the nature of their product.34

1. Car manufacturing as a multinational industry

Generally speaking, there are two main aspects to the multinational character of the motor industry: its structure and the attributes of its product. Together, they are reflected in the fact that trade in automotive products alone accounted for 13 per cent of world exports in manufactures in 1990 (GATT 1992: 58). For most car manufacturers, the export outlet is crucial. Consequently, trade barriers are serious impediments to their welfare.

Its worldwide make-up in terms of foreign investment and the dominance of few big companies is one feature of the motor sector. Clearly, the same is not true for all companies. In terms of foreign investment, some are more advanced than others. With operations in 40 countries, General Motors (GM) is a prime example of a big multinational (see General Motors 1992). Indeed, with worldwide sales and revenues of $123 billion and 756,000 employees in 1991, it claims to be "the world’s largest industrial company" (ibid.: 3). In Europe, for example, GM cars (under the Opel and Vauxhall makes) are manufactured or assembled in Germany, Britain, Belgium, Spain, Finland, Hungary and Turkey. Components are produced also in other European countries. 90,000 people are directly employed in the development, production and sale of General Motors cars in Europe.

A push to the development of a global motor industry - initially in terms of trade, and later also in terms of foreign investment - was given by the emergence of Japanese companies as producers on a world scale. The Japanese car makers started by serving their markets from their home base. Car exports from Japan rose over sixfold between 1969 and 1989.35 Since the early 1980s, the big Japanese motor companies have opened transplants in the United States and Europe (see JAMA 1992: 16f). At the beginning of the 1990s, they had an annual production capacity of around 2 million cars in the United States and Canada, partly in joint ventures with Ford and General Motors. In Europe, Japanese car makers now have their own factories in Britain, and joint ventures or production arrangements in Germany (with Volkswagen), Spain and Portugal. Production at the first Japanese transplant in Europe, the Nissan factory in Sunderland, England, started in 1986. Honda and (in a joint

34 For a more in-depth treatment of the globalization of the auto industry, see Dicken (1992: ch. 9).

35 If not otherwise indicated, statistical data in this chapter are own calculations from SMMT (1988; 1990a) and refer to the year 1989.

For the West European motor industry, the picture is less clear-cut. While, in 1989, only some 40 per cent of Ford cars and some 60 per cent of GM cars were assembled in the United States as these manufacturers' home base, the corresponding shares were about 70 per cent for Volkswagen (in Germany), Volvo (in Sweden) and Honda (in Japan) respectively (Dicken 1992: 290). On the other hand, some latecomers have joined the club of multinationals. BMW and Mercedes-Benz are building plants for the production or assembly of vehicles in the US and Mexico respectively. In 1994, BMW bought the British Rover Group. But there are contrary developments as well. Fiat gave up its stake in the Spanish Seat company in the early 1980s, which was subsequently taken over by Volkswagen; Renault sold its share in American Motors to Chrysler in 1987. Also Rover disinvested abroad. Nevertheless, for most of the big manufacturers, it is true to say that foreign investment has become an important part of their production combine. This investment goes along with a high degree of business concentration. In 1987, the world's ten largest car manufacturers accounted for three fourths of global car production, while the biggest five companies still accounted for over half. General Motors alone produced 5.6 million passenger cars that year (MVMA 1989: 16).

Another aspect is the growing number of cooperation agreements, joint ventures and (partial) takeovers between car companies across national borders. For example, since 1989, the Swedish car maker Saab is 50 per cent owned by GM. After the fall of the Socialist regimes in Eastern Europe, GM entered into a joint venture for the production of engines in Hungary, and signed a Memorandum of Understanding for a joint venture to assemble Opel cars in Poland (General Motors 1992); Volkswagen owns part of the Czech Skoda company; Audi, a part of the Volkswagen concern, opened an engine factory in Hungary. Honda was closely involved with Rover, Isuzu supplies diesel engines and transaxels to Opel, and Mitsubishi has agreements on engine technology with Porsche, Saab and Volvo (JAMA 1992: 19). Partly, companies even cooperate in the development and production of components and entire cars. For instance, two engines used by Rover in its 200 and 400 series were Honda engines.

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Besides the multinational ownership and cooperation structure, the second dimension of globalization is the nature of the car as a world product. With the exception of a few luxury cars, the design and manufacture of motor vehicles for a large clientele technically requires a system of mass production. This makes the cross-national harmonisation of technical requirements so important. At the same time, product differentiation remains a feature of the car market (see Dicken 1992: ch. 9).

Generally speaking, considerable economies of scale are achievable in auto production. Making cars is a capital-intensive process with high fixed costs. The minimum efficient scale of production in the motor industry has been estimated at 250,000 units for final assembly, 500,000 units for axle machining and assembly, and 1,000,000 for engine casting, for example (Rhys 1989, quoted in Dicken 1992: 280). Hence, the manufacture of certain vehicle parts is concentrated in one factory serving different final assembly plants. Engines for GM’s European production are partly delivered from Australia, Japan and Korea; CKD kits from GM in Germany will in future be assembled in Taiwan; and 60 per cent of the components for the car which GM produces in Brasil are shipped over from Germany. To some extent, preferred relationships between a car company and its traditional component suppliers limit international sourcing arrangements. On the other hand, manufacturers are hesitant to rely on only one supplier. Overall, however, today’s cars are assembled from a host of pieces sourced on a regional or even worldwide scale.

Despite these technical and economic factors pushing towards globalization, the analysis should not be overdrawn, of course. Countervailing forces became first apparent in the failure of the concept which epitomized the advantages of large-scale production. According to the idea of a "world car", the big multinationals (mainly Ford and GM) would have produced and sold the same car everywhere. Production would have been integrated in regional and global sourcing arrangements with high economies of scale (Dicken 1992: 293). Some analysts saw an opportunity for business in general to actively shape global customer preferences. It was predicted that "[e]verywhere everything gets more and more like everything else as the world’s preference structure is relentlessly homogenized." (Levitt 1983: 93) In the end, however, this did not happen. Due not only to differences in government regulation but also for reasons of consumer taste and marketing strategies, complete uniformity has not been achieved. Despite a near-to-complete integration of its Vauxhall and Opel makes in Europe,

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38 The study on the "costs of non-Europe" in the auto sector done for the Commission reported detailed estimates of economy-of-scale effects for a large range of components (European Commission 1988a: 94-121).


for example, General Motors differentiates its models by special add-on features to customer preferences in the different countries. A basic model is sold with different features in the individual markets. Even more, the age of mass production may give way to the flexible methods of "lean production" where smaller series of customized cars are manufactured for an increasingly demanding clientele (Womack et al. 1990: 204-213, 221).

The efficiency gains from large-series production particularly in the motor sector, besides the potential (safety, environmental) externalities associated with the use of cars in cross-border traffic, have been at the roots of international technical harmonisation efforts. As will be shown below, the United Nations Economic Commission for Europe (UN-ECE) in Geneva has worked on the harmonisation of standards for cars under a 1958 agreement. The harmonisation of standards for road vehicles also stood at the origin of the European Community's programme to abolish technical barriers to trade. In 1988, the Cecchini Report, propagating the economic case for the Internal Market programme, saw motor manufacturing as one of the industries "losing billions of Ecus because of inefficiencies imposed by divergent product standards or protectionist procurement." (Cecchini 1988: 3) Indeed, in a survey for this report, national standards and regulations generally were singled out as the second-most important barrier to be removed in the internal market, behind administrative obstacles. Technical trade barriers were considered most damaging for motor vehicles, as compared to other sectors (ibid.: 5, 27).

Of course, the real costs of market segmentation can be assessed only for individual specifications. Thus, a Commission survey among some 20 car manufacturers found that the technical EC directives in the motor vehicle sector were not as widely used in the early 1980s as expected (European Commission 1983b: 20). The survey revealed that many manufacturers produced to two different standards (the EC standard and the national one) rather than only the EC norm for a considerable number of items, despite economy-of-scale considerations. Later, the study on "the costs of non-Europe" in the automobile sector, as one of the sectoral studies underpinning the Cecchini Report, came to rather cautious findings as well (see European Commission 1988: 75-86). Design diversification on the basis of marketing concerns and for non-EC countries required flexibility in any case, and break-even points on even relatively low production volumes for some componentry were reported. It was forecasted that common standards and a common EC type-approval would reduce design and engineering costs by 10 per cent, or 0.5 per cent of the vehicle cost (ibid.: 18). The major benefit of technical harmonisation was, indeed, seen to lie in a single EEC type-approval (see below).

41 This was possible as these directives were optional at the time, i.e. left it to the member states to apply EC standards or not; see below.
Further, the harmonisation of the break points in national car taxation systems was identified as most promising for allowing a reduction in the number of vehicle variants, enhancing the potential for large production runs, and consequently reducing manufacturing costs.

In short, in the 1980s, the lack of complete harmonisation of technical standards in the Common Market no longer significantly hindered the reaping of the economies of scale needed in car production. This was, of course, mainly due to the degree of harmonisation already attained. With three exceptions, all technical directives needed for the establishment of a common EEC type-approval had been adopted until 1980, and it was the administrative hurdle of having to go through the individual national type-approvals which was complained about by the manufacturers. Incidentally, the fact that the last three pieces of legislation were delayed in the Council until 1992 was related to the fear by some member states that Japanese car importers might be the main beneficiaries of a common type-approval. An EEC type-approval meant that also they could sell their cars throughout the Community with only one license. The European car makers were certainly not keen to share the benefits of a large single market with their Japanese competitors.

By contrast, in relation to exhaust emission standards, the possibility of different norms in Western Europe has been a major worry to manufacturers. While placing yellow instead of white headlights to a car does not pose a particular problem even for a small production series (see European Commission 1988: 310, 316, 326), the situation is different where special R&D efforts and changes in key technical features are required to comply with different national regulations. A non-harmonised action on car emissions and the ensuing barriers to trade would have led to major disruptions within the Community.

These concerns were borne out by experience. When Sweden introduced, in the late 1970s, emission control regulations which coincided neither with European (UN-ECE or EC) nor with US standards, for example, Mercedes-Benz reduced the number of its models offered in that country from 20 to six (Berg 1982: 50). Similarly, in 1988, the European car industry noted that the model availability in the category of small cars was lower in Switzerland with its stringent US'83 emission standards than in the EC countries which had not yet enacted equivalent norms (CCMC 1988a: 6). The splitting of the Western European market along three sets of emission standards in the 1980s - UN-ECE standards.

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42 see the answers given by the Commission and the Council to the Written Questions No. 1498/81 and 778/82 in the European Parliament (OJ No. C 85, 5.4.82, p. 4; OJ No. C 287, 4.11.82, pp. 15f); see also European Commission (1981: 43).
US'83-equivalent standards and new European Community regulations - forced General Motors to increase the number of its car engine versions from 17 to 32 by adapting them to different requirements. This shows that, from a technical perspective, it is not impossible for the car industry to deal with the division of the Common Market in, say, two groups of member states with different sets of emission standards. However, some car models are then at least in the short run excluded from, or at a disadvantage in the high-standard markets, and costs increase. A splitting-up of the European market in zones with different standards was a situation much dreaded by manufacturers in the mid-1980s (see European Parliament 1985: 19).

Because of the importance of car manufacturing activities to the national economy, a national "going-it-alone", in turn, would clearly have considerable political repercussions. These became most salient in 1983, when Germany initially announced that it might introduce the catalytic converter emission control technology unilaterally (see Chapter III). The fear in Bonn that other member states would then retaliate by denying German cars access to their markets was instrumental in aborting this plan. As will be shown, the German motor industry made a commitment to an EC solution a key condition for its cooperation with the Federal Government on this matter. In 1986, for example, 63 per cent of German car production was exported to the then eleven other EC member countries.

The temporary uncertainty caused by the German Government's 1983 announcements aside, generally, the imperative to maintain uniform EC regulations on vehicle emissions was never questioned in Community politics, although national tax incentives for low-polluting cars later qualified this principle.41 Besides the legal situation in the Community which arguably would have made national regulation a violation of the Treaty, the economic importance of avoiding the creation of trade barriers especially in this sector has always been the material backcloth for the search for compromises on new emission standards. After 1987, the "1992 Programme" added an overarching political commitment to this economic dimension.

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41 Such tax incentives were introduced by Germany in 1985, and other member states followed suit later. By giving "clean cars" a financial advantage, tax incentives may indirectly create barriers to trade.
2. The example of the United Kingdom

How the globalized nature of the auto industry no longer fits the political framework of the nation state is well illustrated by the British example. The United Kingdom is special in that foreign companies have come to dominate the sector. In a way, over the last few years, the United Kingdom has become a "manufacturing platform" for multinational companies.\textsuperscript{44}

Essentially, the long-time presence of foreign motor companies, the decline of the original British manufacturers and the establishment of Japanese car companies account for today's multinational shape of car manufacturing in the UK. The British automobile sector has since a long time been characterized by the presence of foreign firms. Ford opened its first factory in Britain in 1911, and General Motors implanted itself by buying Vauxhall in 1925. Chrysler followed in 1964. In recent years, Ford UK and General Motors/Vauxhall have been closely integrated into their parent companies' European and worldwide organization. Vauxhalls are rebadged Opel cars, and only the combinations of serial or extra pieces of equipment distinguish the two brands. Similarly, identical models are produced in Ford's factories in different European countries. In contrast to Vauxhall, however, Ford of Britain has its own R&D facilities, and shares in Ford of Europe's engineering work. Both Ford UK and Vauxhall are wholly-owned subsidiaries of their American parent companies. Chrysler sold its British operations to Peugeot in 1978. Peugeot Talbot UK is a pure assembly plant owned and directed by PSA in Paris, and some 60 per cent of production is exported.

The sector's international shape grew more pronounced over the last 20 years. It accompanied the decline of British-Leyland/BL (called Rover since 1986) as the centrepiece of the UK motor industry. During the 1970s, a deep crisis hit the entire UK motor sector. Passenger car production fell from around 1.6 million in 1970 to some 1 million in 1979, while import penetration rose from 14.3 to 56.3 per cent (Phillips and Way 1980: 13; Chanaron 1988: 40f). BL was nationalised in 1975, and underwent major restructuring and capacity reduction. In the 1980s, the industry partly recovered. Rover returned to the private sector in 1988, and in 1989, Honda took a 20 per cent share in its capital. This was an important step in an alliance which had begun ten years earlier. The end of a major independent British auto industry came when the German BMW car producer bought Rover in 1994. Already before, General Motors had bought Lotus in 1986, and Jaguar had been taken over by Ford in 1989.

Finally, the implantation of Japanese firms, supported by the British Government, completed the multinationalization of the UK motor sector. Nissan began manufacturing at a greenfield site in the north-east of England in 1986, and accounted for 6 per cent of total British car output in 1989. Some 45 per cent of British Nissan cars were exported, mainly to other EC countries. Nissan’s European Technology Centre is also located in Britain. Honda established itself with its own car-manufacturing plant in 1989. Isuzu has a minority share in a joint venture plant with General Motors since 1989, and Toyota opened an engine and a car factory in 1992 (JAMA 1992: 17). In a sense, it is the Japanese transplants which have secured the future of Britain as a major car-manufacturing and car-exporting nation.

While the car industry in Britain is today nearly completely owned by foreign companies, it remains an important part of the UK economy. Nearly one out of ten jobs in Britain is in the motor industry including the production of components. The motor industry accounts for over 8 per cent of UK exports, although the deficit in the balance of trade for motor products amounts to over £6.5 billion. The economic importance of the sector translates into its political clout in London. As will be shown in greater detail in Chapter IV, Rover and Ford, exercised considerable influence in the 1980s with regard to car emission policy. Peugeot was absent from the British scene but lobbied in Paris. The importance of the national industry-government link in general will be illustrated in the case study below.

Similarly, the increasing importance of the Japanese transplants in Britain made itself felt in the early 1990s in European Community negotiations on a policy on Japanese car imports. In these negotiations, the views of member states’ governments clashed over how to reconcile free trade in the single market with the wish to give the European industry protection from its Japanese competitors. France and Italy, most notably, called for a limitation of Japanese auto imports, and wanted Japanese cars produced in European transplants to be counted against an overall quota. Unsurprisingly, the UK opposed itself vigorously to such a regime. The purpose of the Japanese transplants in Britain was precisely to serve the European market, and circumvent barriers to trade. Thus, while 15 years earlier a national industry in crisis would have called for protection against foreign competitors, now such a line was no longer possible because of the Japanese transplants. Both on emission standards and on the question of foreign car imports, the British Government defended the interests of (the core of) its motor sector

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46 In fact, also the UK had administered restrictions on the import of Japanese cars.
The case of the British motor industry, it is true, is not typical, in that, for example, in France and Italy the congruence between the national political framework and a national motor industry is much stronger. Nevertheless, the example is illustrative in that it highlights the tension between the structure of a multinational industry, and the economic and political framework of the nation state. While a motor industry is always of considerable economic importance, whether in its home base or a host country, the national political framework no longer fits its economics. As far as regulation is concerned, at least in Europe, it is conceivable only across national markets in order not to impede economies of scale. To be sure, to a certain extent, the protectionist interest of industry to hide behind technical barriers to trade may balance the interest in international or (in the case of the EC) supranational harmonisation, as was mentioned above. Today, however, in Europe, even this interest is no longer aimed at protection at a national but at a European level.

On the basis of Treaty provisions, therefore, but fundamentally for material economic reasons, the European Community has become the main agency in Europe for regulating the motor vehicle. By the same token, the scope for national regulatory policies concerning the product "car" has been severely reduced, and a regulatory initiative now has to be articulated at the EC level. At the same time, as national governments play a crucial role in the EC legislative process and in other regulatory fora (e.g. the UN-ECE), the national political framework has not become obsolete. Multinational companies continue to lobby in the capitals of their home countries, and set up EC offices in Brussels (see Chapter V). In a nutshell, then, the political economy of regulating the product "car" is determined simultaneously by the need for international harmonisation, the political leverage of car companies over governments, and the role that these governments play in international fora and the European Community. The case study in this thesis highlights the tension between different regulatory priorities and industry interests in the member states on the one hand, and the imperative of supranational harmonisation on the other.

B. The European regulatory context of car emission control

The setting of standards for motor vehicle emissions by the European Community is not a free-standing regulatory programme but grew out of a broader political effort to create a common market for automobiles in Europe. The development of a Community environment policy gave a further
impetus to this programme. At the same time, the EC initially was not the main regulatory actor in this field. Indeed, only in the 1980s, Community vehicle emission legislation detached itself from standards set by the United Nations Economic Commission for Europe (UN-ECE) on the one hand, and started to fully replace the regulation by its member states on the other.

1. Between free-trade and environmental objectives: The development of European Community car emission policy

A central objective of the founding of the European Economic Community (EEC) in 1957 was to create a common market for industrial products. In 1960, therefore, quantitative restrictions between the member states on the import of manufactures were done away with. In a second step, in 1968, the programme for the lowering and abolition of all internal customs was completed (Harbrecht 1984: 145). By contrast, although a legal basis existed also for the harmonisation of technical product specifications in the form of Article 100 EEC, during the 1960s, only few related directives were passed (Slot 1975: 99; Dashwood 1983: 184f). It was only when all quantitative and tariff barriers had been removed that the General Programme for the elimination of technical barriers to trade was adopted by the Council in 1969. One of the main foci of the Programme was the harmonisation of national technical requirements relating to motor vehicles.

The basic directive for all EC legislation on motor vehicles, which, indeed, was the first item listed in the General Programme, is Directive 70/156/EEC on an EEC vehicle type-approval. Its provisions contained the main elements of the future regulatory system. The directive, first, gave a vehicle manufacturer the right to request an EEC type-approval by the competent authorities in any one member state. This type-approval subsequently had to be recognized equally in all member states, i.e. vehicles conforming to the type approved could be sold and registered freely throughout the Common Market. Importantly, though, Directive 70/156/EEC represented only a framework, and the individual technical specifications were to be laid down in separate ("daughter") directives. In the

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46 General Programme of 28 May 1969 for the elimination of technical barriers to trade which result from disparities between the provisions laid down by law, regulation or administrative action in Member States; OJ No. C 76, 17.6.1969, p. 1.

meantime, EEC type-approvals could be given only for the specifications covered by these daughter directives, but not on any other technical items. In fact, as mentioned above, the last three out of 44 technical directives for passenger cars were adopted by the Council only in 1992. It was this step which concluded the harmonisation effort started over 20 years earlier, and made a full EEC type-approval possible.

Only from 1996 (respectively 1998 for the so-called "multi-stage type-approval") will the common Community type-approval according to Directive 92/53/EEC, which amended (and de facto replaced) the original directive in 1992,^50 entirely substitute for national type-approvals. Until now, the free-trade origins of EC legislation have been reflected in the so-called "optional" (as opposed to "total") character of its harmonisation effect. Optional harmonisation means that a member state must not refuse the sale or registration of a vehicle which meets EC standards and has accordingly been type-approved in another member state. Further, manufacturers cannot be refused type-approval to EC standards. However, national authorities were not obliged to require vehicles to meet Community standards, and national provisions persisted besides those of the EC. For car emission standards, optional harmonisation was given up with the so-called "Small Car Directive" in 1989.^51 This directive stipulated that, in a first step, member states must not refuse the type-approval or entry-into-service of vehicles meeting the new standards (optional harmonisation); and they had to make these standards compulsory in a second step, later, so that Community standards replaced all national provisions (total harmonisation). Total harmonisation is today the rule for all technical regulation on motor vehicles.

Formally, European Community car emission regulation forms part of the standards for a single EEC type-approval. The first emission directive was adopted only few weeks after the framework type-approval directive in March 1970.^52 It explicitly mentioned the trade-impeding effect arising from preceding national provisions in Germany and France as the justification for a Community measure. Indeed, the original free-trade purpose has remained important while environmental objectives in the member states and at Community level have provided the impetus for the development of EC vehicle emission control. To environmental policy-makers, the emissions of motor vehicles have been a cause of particular concern for over 20 years, and it is the Council in its composition of

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environment ministers ("Environment Council") which deals with EC emission directives. The case study below describes the conflicts between environmental and industrial interests in the context of the need to agree on a Community solution which has characterized the policy field since the early 1980s. In legal terms, though, related EC law continues to be based on Article 100a EEC, i.e. the Treaty's internal market provision, instead of on the environment Article 130s EEC inserted by the Single Act and amended by the Maastricht Treaty. Significantly, as well, Community legislation has restricted the freedom of member states to give financial incentives for the purchase of "clean cars" in order to avoid trade distortions in the internal market. On the other hand, as optional harmonisation has given way to total harmonisation, it is Community standards alone which determine the environmental performance of cars in the whole of the European Union today.

The persistent concern about vehicle emissions from an environmental point of view has been reflected in the ongoing nature and extension of relevant Community legislation. While the original 1970 directive covered carbon monoxide (CO) and hydrocarbon (HC) emissions from petrol cars, soot emissions from diesel engines were limited in 1972. In 1974, the limit values set in 1970 were reduced, and in 1976, nitrogen oxides (NOx) were added to the list of regulated pollutants. Before the legislation covered in the chapters below, further directives followed in 1978 and 1983. In total, for petrol passenger cars, emission standards have been lowered and/or extended eight times since the 1970 directive. Formally, these directives constitute amendments to the first car emission directive of 1970.

Incidentally, already a Council agreement in 1969 in conjunction with the General Programme provided for a model procedure for the adaptation of technical harmonisation directives to technical progress. It is based on the executive powers of the Commission, and in particular on its power to

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enact its own directives in accordance with the EEC Treaty.\textsuperscript{60} Thus, the Commission was assigned the task of adapting existing Council directives to technical progress, albeit under close supervision by the member states exercised through sectoral committees of national government representatives, and with the Council as the ultimate decision-making body if needed. The 1970 EEC type-approval directive indeed provided for the setting-up of a "Committee on the Adaptation to Technical Progress of the Directives on the Removal of Technical Barriers to Trade in the Motor Vehicle Sector." Thus, it was the Commission which enacted the 1976 and 1978 directives, after it had failed in the Committee with its proposal in 1974. The Commission preferred to abandon the simplified procedure with the 1983 directive all together, as vehicle emission legislation became more political. Since then, the Commission has preferred to take its proposals to the Council directly.

2. The setting of motor vehicle standards by the United Nations Economic Commission for Europe (UN-ECE)

While European Community legislation today is the dominant body of car emission rules in Europe as a whole, this was not always the case. Indeed, the leading role in this area was initially played by the United Nations Economic Commission for Europe (UN-ECE). In addition, in the 1980s, the so-called "Stockholm Group" was important.

Set up in 1947, the United Nations Economic Commission for Europe (UN-ECE), based in Geneva, is one of the five regional Commissions of the United Nation's Economic and Social Council. It is composed of Eastern and Western European countries as well as the United States and Canada. In contrast to the European Community, UN-ECE is an international organization in which the member states keep their full sovereignty, and are free to become, or not, parties to newly negotiated agreements. Hence, it is weaker than the EC with its powers to pass binding law. On the other hand, the wide membership of UN-ECE gave it a role in tackling problems of common regional interest and in maintaining contacts between Eastern and Western Europe during the Cold War. Thus, it served as a forum for cooperation in various fields, including transport and the environment (see Kokine 1992).

Technical standard-setting on motor vehicles grew out of UN-ECE's work in the field of road safety, and, still today, is done under the responsibility of the Commission's Inland Transport Committee. The

\textsuperscript{60} Article 155 in combination with Article 189 EEC.
legal base for its standard-setting programme is a 1958 convention which provides for the adoption of common standards laid down as UN-ECE regulations for the type-approval of motor vehicle equipment and parts. According to this agreement, components type-approved in any one of the member countries in accordance with an ECE regulation are held to be in compliance with the regulation by all other contracting parties. The contracting parties are free to decide which regulations to apply. However, amendments to these regulations can only enter into force if they are accepted by all parties to the regulation concerned. In practice, this means, for instance, that decisions to change UN-ECE emission standards have to be taken unanimously by all countries which have originally become contracting parties to the corresponding regulation. Until mid-1992, 88 regulations were adopted under the 1958 convention. They cover a range of technical specifications for motor vehicles and motorcycles, and are implemented by changing sets among the, by now, more than twenty parties to the 1958 convention in both Western and Eastern Europe.

Technical work under the 1958 agreement is done in the framework of the Working Party on the Construction of Vehicles (Working Party 29), which, in turn, gets its input from six "meetings of experts." For emission control, it is the Meeting of Experts on Pollution and Energy (GRPE, from the French name "groupe de rapporteurs sur la pollution et l'énergie") which is responsible. GRPE is composed of government experts from 18 European countries, the United States, as well as Japan and the European Commission. Industry experts representing the motor, vehicle components and oil industries, as well as the International Organization for Standardization (ISO) also take part. Work in GRPE is characterized by technical expertise, but the underlying industrial and political interests, obviously, influence the discussions.

As far as car emissions are concerned, UN-ECE standards initially set the pace for the development in this field in Europe. In 1970, ECE Regulation No. 15 on emissions from passenger cars and light-duty vehicles first set standards for CO and HC. Limit values were tightened up in four amendments to Regulation No. 15, and last in 1981 ("ECE 15/04"). Limit values for NOx were included in the second amendment which entered into force in 1977. Visible pollutants from diesel engines were covered by Regulation No. 24 in 1971, and gaseous and particulate emissions from diesel vehicles, both passenger cars and buses and trucks, by Regulation No. 49 in 1982. The amendments to Regulation No. 15 became the basis for the various EC car emission directives up to 1983. As the

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61 United Nations Economic Commission for Europe, Inland Transport Committee, Agreement Concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle Equipment and Parts, done at Geneva on 20 March 1958; slight changes to this agreement were made in 1967, and a protocol was annexed to it in 1989.
EC member states based their national type-approvals on ECE regulations, the Community was forced to take account of these (Henssler and Gospage 1987: 70). Indeed, apart from the formal lay-out, the technical specifications of the Community car emission directives were identical with the amendments to Regulation No. 15, and the 1983 directive corresponded to ECE 15/04. The only major difference was that the EC legislation stipulated the entry-into-force of new (albeit optional) standards while this is left to the discretion of the countries in the UN-ECE.

Already in the 1970s, though, the major motor-manufacturing EC countries played a considerable role in the GRPE. In fact, the setting of an NOx limit value by the UN-ECE in 1977 had largely been prepared in Brussels. The national representatives in GRPE were generally the same as those in the corresponding technical committees of the EC (Henssler 1975: 175f). Since many years, the chairman of the GRPE, an official from the French Ministry of Transport, is the same as the chairman of the Motor Vehicle Emissions Group (MVEG) as the Commission's advisory committee in the field (see Chapter V). Therefore, when introducing UN-ECE standards into its own legislation, the Community in fact adopted regulations in the preparation of which it had been strongly involved. According to two participants,

"[A] certain distribution of the work has appeared over the years. Politically sensitive tasks (...) are mainly carried out in Brussels. Technical questions requiring extensive expert work are, by preference, discussed and solved in Geneva. The results achieved within the one organisation are then taken over by the other, thus avoiding duplication of expert work on a European level." (Henssler and Gospage 1987: 71)

During the 1980s, UN-ECE fully lost its leading role in the setting of car emission standards in Europe, as a consequence of the developments recounted in this thesis. In a nutshell, unilateral national standard-setting and political developments in the Community overrolled GRPE work. Thus, the 1983 directive, which took over ECE 15/04, was the last directive to follow UN-ECE standards. Community standards then were tightened up more significantly than would have been possible within a UN-ECE framework. In addition, some non-EC countries (Sweden, Switzerland and Austria) aligned their legislation with US standards (see below).

At the same time, the separation of the European market into zones with different emission regulations was undesirable from the point of view of all countries involved. The re-harmonisation of standards across Europe, this time on the basis of existing EC regulations, facilitates both exports from the EC to other European countries, and imports from there into the Community. In particular, by creating an equivalence between UN-ECE regulations and EC directives, the number of separate type-approvals can be reduced. Clearly, however, in this new system, the anchor are EC rules, and importers to the
EC have to adapt to EC requirements which have become more demanding since the mid-1980s. The Community, on the basis of its economic and political clout and the size of its market, increasingly serves as the reference point for emission regulation in Europe, and dominates related UN-ECE work.

The first step towards the re-alignment of emission control regulations was taken in 1989, when UN-ECE Regulation No. 83 replaced Regulation No. 15 and its amendments. A new regulation became necessary as unanimous agreement for another amendment of Regulation No. 15 to introduce more stringent standards could not be achieved. Consequently, as stringent Community emission standards started to become mandatory under the rule of total harmonisation, the EC countries were forced to cease the application of the ECE 15/04 standards. In a second step in 1992, the first amendment to the new ECE Regulation (ECE 83/01) essentially took over the standards of the Community's 1991 Consolidated Directive. By recognizing the equivalence between the Consolidated Directive and ECE 83/01, both EC member states and the other parties to Regulation No. 83 can accept cars type-approved to either regulations in another country. While the EC member states, under total harmonisation, have to make the Consolidated Directive the basis of their type-approval and car registration conditions, authorities in the other UN-ECE countries may apply UN-ECE 83/01 only for car imports while setting some other (presumably lower) standard for cars produced and sold within their own borders. For the car industry in the European Community this means that once a new model has an EEC type-approval, it can be sold in the other (non-EC) countries applying UN-ECE 83/01 standards without another emission type-approval. Alternatively, a manufacturer can choose to produce to lower standards in the importing country (e.g. by not fitting a catalytic converter) but then may have to go through the national type-approval procedure in that country. Importers to the EC, by contrast, have to show that their product has been type-approved according to high UN-ECE 83/01 standards. This type-approval will then be recognized in the importing EC country. After the splitting of the European market in terms of emission standards in the 1980s, a re-harmonisation at a European level has thus been achieved.

Besides the European Community and the UN-ECE, finally, an additional forum for the discussion of car emission regulation in the 1980s was the so-called "Stockholm Group." Based on a ministerial declaration of 1985, the Stockholm Group was an informal club of countries including Austria, Switzerland, Germany, the Scandinavian countries and the Netherlands, and the United States as an observer. The Group met at an expert level to discuss technical issues related to emission control. In

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62 Yugoslavia, Romania and the Russian Federation, in fact, continued to apply the 1981 ECE 15/04 standards.
particular, the US standards were transposed into a so-called "Master Document" for application under European conditions. The Master Document could be used by the non-EC countries to align their standards with US regulations. Thus, the Stockholm Group served as a coordination and technical forum for countries committed to rapidly introducing stringent emission standards in the 1980s. Working outside the EC, it helped especially non-EC countries to gather the necessary technical knowledge to move beyond UN-ECE and, at the time, Community regulation.
Chapter III

Becoming a policy entrepreneur: Germany and the European Community politics of car emission control

Looking back on the history of Community car emission policy, there is little doubt that without German insistence EC standards would not have closed up with leading United States regulations in the early 1990s. It is a finding of this thesis that Germany has been the policy entrepreneur in the area of European vehicle emission control. To account for its part, in turn, the domestic forces behind it must be properly understood. In the overall plan of this study, therefore, this chapter and the next focus on the domestic underpinnings of member states behaviour in Community politics (H. Wallace 1981; Bulmer 1983), before Chapters V to VII turn to the EC level. First, the German case is analyzed in the present chapter. Chapter IV then looks at the cases of Britain, France and Italy. As will be shown, the industrial implications of the introduction of US-equivalent car exhaust standards go some way in explaining these countries’ opposed positions in the Community politics of car emission control in the mid-1980s. However, broader political influences are also important.

In the following, to set the scene, a few preliminary remarks will be made about German environmental policy first. In the empirical sections, then, the politics of forest damage and car emissions are traced. Overall, this chapter and the overview of the industrial implications in the next explain the special circumstances which favoured a German entrepreneurial role in the specific area of this study. Incidentally, it should be kept in mind that there is no habitual policy entrepreneur. Any generalization about any country’s or EC institution’s role in the Community policy process in this respect should be avoided.

1. German environmental policy: A propensity for action

Individual policy decisions cannot be understood without regard to the institutional background against which they are made. Every policy is embedded in a wider context of related policies, institutions and historical legacies, which form part of a national institutional and cultural framework (e.g. Scharpf 1985). In comparative political analysis, the concept of "policy style" has been introduced as a paraphrase for the interweaving of political, institutional and cultural factors which, in turn, influence political processes. A policy style can be defined
"as the interaction between (a) the government’s approach to problem-solving and (b) the relationship between government and other actors in the policy process." (Richardson et al. 1982: 13).

Of course, policy styles can be observed at different levels, from the national to the sectorial, and variations over time do occur. In fact, the contingencies of certain policies may lead to a cross-national convergence of policy styles in one sector across countries (Freeman 1985). Both this case study on Germany and the next one on Britain use the concept of policy style to characterize the general setting of car emission control in both countries in the 1980s.

The focus here is on German environmental policy, as opposed to industrial policy. To be sure, this is not meant to imply that German policy on car emissions was void of industrial concerns. Indeed, as will be shown below, the line taken by the government in Bonn not least reflected the outcome of negotiations with the car manufacturers. However, by comparison with the cases of Britain, Italy and France, the thrust of German policy was not the defense of industrial interests. German developments were largely a matter of environmental politics.

a) The German environmental policy style I: The institutional and policy side

Generally speaking, for the Federal Republic, a uniform policy style across different sectors is hard to make out. Instead, a number of recurrent and structural features of policy-making can be identified (see Dyson 1982). Thus, policy is characterized by a reference to clearly spelled-out principles, an emphasis on rationality, and a tradition of public authority. Somewhat in contradiction to these attributes of a strong government, negotiation and partnership are the preferred relationship between government and social groups. The mechanisms of a federal system, a strong and independent central bank and judiciary, and coalition politics are conducive to power-sharing and a dispersal of responsibilities. Accordingly, along the two dimensions of policy style defined by Jeremy Richardson et al. (see above), different policy sectors in the Federal Republic can exhibit an essentially anticipatory or reactive approach to problem-solving, and a negotiation or imposition relationship, thus contributing to the "extraordinary complexity" (ibid.: 21) of the German system. In addition, the dominant mode may change over time. In energy policy, for instance, an initially impositional policy mode wavered under popular resistance against the nuclear programme (Joppke 1992).

Environmental policy is a good example of the transition between different policy styles, and the importance of (pseudo-)legal principles as a basis for government. Until the end of the 1960s, West German pollution control policy consisted of reactive solutions to individual problems (see Wey 1982:
In a situation of low public awareness and little politization, legislation emanated from a small circle of experts in the parliaments and administrations at federal and Ländere (state) level. At the federal level, framework legislation on water quality was enacted in 1957, and 1959 saw the passage of new rules on air pollution control. Against the background of more pressing problems in the Ruhr Area, Northrhine-Westphalia passed its own air quality law going beyond federal standards. On the whole, these measures were of a remedial nature, and took account of the opposition from industry. In Kenneth Dyson's (1982: 19) terminology, German environment policy before the 1970s was probably best characterized by "status preservation" involving "a politics of routine, day-to-day relationships, of quiet collaboration between 'insider groups' and governments."

A shift in West Germany's environmental policy style occurred under the reform-minded Social-liberal coalition which entered office in 1969 (see Müller 1984; 1986: 51-143). A phase of activist policy followed. Between 1971 and 1974, several major acts of environmental legislation were passed covering noise, lead in petrol, waste, the use of DDT and environmental statistics. The 1974 Federal Air Quality Act (Bundes-Immissionsschutzgesetz) provided a new basis for the control of emissions from stationary sources. Having assumed the responsibility for pollution control from the Ministry of Health, it was the Federal Ministry of the Interior which took the lead. It was run by the small liberal FDP searching for a progressive profile, and backed by the Chancellor's Office. Although industry resisted part of the new legislation, in principle, it acquiesced to higher standards.

The early 1970s lay the basis for future environmental policy also in institutional terms. The Federal Government strengthened its competences by acquiring concurrent legislative powers for waste, air pollution control and noise protection through an amendment of the Basic Law. An independent Council of Environmental Advisors (Rat von Sachverständigen für Umweltfragen) was established in 1971. Three years later, the Umweltbundesamt (Federal Environment Agency) was set up. As the research branch of the environment department, the Umweltbundesamt not rarely put its political masters on the spot later on (Müller 1986: 70). In 1971, the Association for Environmental Questions (Arbeitsgemeinschaft für Umweltfragen) was created as a forum for the exchange of ideas between policy-makers, business, other societal groups and the academic world.

With hindsight, it is apparent that the activist spirit of the early 1970s has not survived as the normal German environmental policy style. After 1974, under Chancellor Helmut Schmidt and in a period of

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63 see Article 74 Basic Law; In the areas of water, nature protection and landscape protection, the Federal Government only has powers to set a legislative framework; see Article 75 Basic Law.
economic recession, the reform drive waned. It was only following the first electoral successes of the Greens after 1978 that more regulations were put into the pipeline. Although Germany's pollution control laws are among the most advanced internationally, a government style ready to impose policy on society cannot be observed. Instead, while ambitious solutions may be devised at the outset by environmental policy-makers, these solutions are then negotiated with the affected parties. Dyson's (1982: 19) model of "concertation" shaped "by the pursuit of enlightenment and innovation via a politics of summit diplomacy" comes closest to depicting German environment policy. The case of car emission control supports this analysis.

Importantly, though, the activist episode of German pollution control has left a legacy of spelled-out rationality and policy zeal which was fleshed out later on, and which can both legitimise and require forceful initiatives. Crucial in this context were the orientations set by the 1971 Umweltprogramm (environment programme), and the policy principles which it announced. These reflected the genesis of the Umweltprogramm. Influenced by events in the United States and in a general reform euphoria, the Umweltprogramm drew up an outline for policy, and set ambitious long-term targets in individual areas (see Müller 1986: 60-66). Three principles - the Vorsorgeprinzip (precautionary principle), the Kooperationsprinzip (cooperation principle) and the Verursacherprinzip (polluter-pays principle) - were to guide environment policy.

The principle which underpins an anticipatory policy style is the Vorsorgeprinzip. From a first implicit mentioning of the concept in the 1971 Umweltprogramm, through its explicit definition in the 1976 Umweltbericht (Environment Report), to the 1986 Guidelines on Environmental Precaution, the precautionary principle has emerged as the overarching standard for German pollution control. Already its 1976 definition was far-reaching:

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64 Dyson (1982: 20) defines "activism" as "an innovative style of imposition of the will of public authorities which perceive themselves to be better informed."


Environmental policy is not limited to averting imminent hazards and to remedying damages which have occurred. Precautionary environmental policy requires in addition that natural resources are protected and used with care.68

This rule included the call on private actors and the authorities to consider the ecological ramifications of their decisions in all fields.

An even more ambitious formulation was given to the Vorsorgeprinzip by the Federal Government ten years later. The 1986 Guidelines on Environmental Precaution elaborated the precautionary principle, and defined it as a "principle for political action."69 More specifically, it came to encompass the protection against imminent hazards, the avoidance and reduction of environmental risks even if they are not imminent, and, generally, the management of the environment in the longer term to protect and develop mankind's natural resources.70 In contrast to earlier statements, the polluter-pays and the cooperation principles are now clearly subordinate to the precautionary principle. Indeed, the cooperation principle, which could, a priori, be seen as restricting the scope for an activist government policy through an obligation for consultation with the parties concerned, has explicitly been limited. Accordingly, the government will aim at a consensus on policy without renouncing its constitutional and legal competences, and calls on the different groups in society to take their own responsibilities. In a nutshell, the principle of precaution amounts to a broad policy imperative, with the objective to ward off the deterioration of the environment through judicious and foresighted public and private behaviour.

Certainly, the legal and political ramifications of the German precautionary principle must be put into perspective. In the first place, a clear definition of precaution does not exist. According to Rehbinder (1988: 132f), not less than eleven different interpretations are possible. This reduces the Vorsorgeprinzip's value in guiding political and legal decisions on concrete problems. The definition of risk, and of the appropriateness of a response remain a matter of scientific and political judgement. Moreover, the Guidelines themselves mention the need for an economic evaluation in policy decisions.71

70 ibid..
71 ibid., p. 8.
Secondly, the historical context of the early 1980s was important. At the time, the Federal Government adopted tough measures in relation to emissions into the air from power plants and industrial installations ("stationary sources"), pushed for tight vehicle emission norms, and translated its policy into corresponding steps at the European and international levels. Prima facie, these efforts followed from the precautionary principle. In reality, though, they were dictated by the domestic political pressure surrounding large-scale forest damages which reflected a lack of precaution earlier. In a way, it can be argued, the strengthening of the *Vorsorge* definition in the 1986 Guidelines provided an ex post rationale for material policy decisions (von Moltke 1987: 21).

The observation that the reality of German environmental policy does not always match the high benchmark of precaution, however, should not cloud the significance of the principle as such. As a conceptual framework, it influences the expectations and attitudes of both the general public and policy-makers. In particular, it raises hopes for an anticipatory approach, stringent standards, and the prevention of environmental damage. High expectations and ambitious goals within the policy community and in the public at large are a major ingredient for a proactive policy.

By the same token, the precautionary principle legitimises vigorous government decisions. The notions of risk and of the need for risk prevention which underpin the precautionary principle exclude a wait-and-see policy. A final proof of ecological damage and causal links is not indispensable before action can be taken. When in doubt, the more stringent option is to be preferred, and safety margins are necessary. It is true that environmental policy-makers in Bonn, like their counterparts in other countries, have to defend their stakes, and often end up on the loosing side. Still, the presumption that precaution is needed supports their argument for a forceful approach. To summarize, as a legacy of the activist phase of German environmental policy in the early 1970s, and in line with the emphasis on rationality, clearly spelled-out principles and public authority in the German policy style (Dyson 1982), the precautionary principle is an important basis for active environmental policy in the Federal Republic.

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b) The German environmental policy style II: The politics side

The precautionary principle affects pollution control both as a conceptual basis and as the standard for public expectations. However, it was public pressure which drove the new departure of environmental policy in Germany in the late 1970s.

Different factors account for the strong awareness of, and concern about environmental problems in the Federal Republic. Sonja Boehmer-Christiansen and Jim Skea (1991: 57-67) point to the cultural dimension. Although the objective state of the environment influences its saliency in the public mind, in Germany, "[C]ulture appears to have amplified the threat perceptions associated with environmental damage" (ibid.: 57). While not necessarily more ecologically caring in their behaviour than other peoples, the environment occupies a special place in German thinking. The Naturerlebnis (experience of nature) has been a long-standing theme in German literature and folk songs. Nature is associated with physical and psychological health and vigour, harmony and community with God. A certain radicalism of perception is reflected in the German language. As compared to English, German terminology emphasizes the effect of human activities on nature: "Umweltverschmutzung" (environmental pollution) makes the environment "dirty", and the term "Schadstoff" (pollutant) implies that damage actually occurs. On the other hand, "Umweltschutz" promises a higher degree of protection than "pollution control" or "environmental management" (ibid.: 59f).

A shortcoming of this cultural explanation is that it does not account for the fact that the environment was not a big issue in the Federal Republic before the 1970s. A policy-related approach, therefore, focuses on the expectations raised and not fulfilled after the activist phase of West German environment policy at the beginning of the 1970s (see Richardson and Watts 1985: 26-31). The 1971 Umweltprogramm and the definition of the Vorsorgeprinzip had put the topic on the political agenda, and, simultaneously, had set ambitious objectives. Citizen involvement had been encouraged. Towards the end of the decade and, especially, in the early 1980s, though, it had to be recognized that little had been achieved, and that the environment had deteriorated. Forest dieback represented the most glaring policy failure (see below). Around nuclear energy, political participation had turned into confrontation with the state. Disillusionment with the policy record of the "established parties" led to the electoral success of the Greens from 1978. Media reports of environmental issues tended to become more critical of the Federal Government (Weidner 1989: 21).
Opinion polls revealed the importance of pollution problems in the Germans' list of concerns (see Hofrichter and Reif 1990). While Germans were not more conservationist than their fellow West Europeans in the 1970s, throughout the 1980s, they expressed a higher environmental disquiet than most other Europeans. In fact, in 1988 and 1989, environmental protection was the most important political question in the Federal Republic, in front of the security of pensions and unemployment. Today, caring for the environment has become part of the German sense of orderliness, civic responsibility and pride. Ecological values are promoted through the media, schools, the churches, social groups and business, and the environment is appealed to as a national cause (Boehmer-Christiansen and Skea 1991: 69). Relatedly, environmental issues are extensively covered by the media, and ecological scandals receive much attention (Müller 1986: 123f; Weidner 1989: 45). This both reflects and increases public attention.

Popular concerns by themselves, of course, do not shape public policy. They have to be transmitted in the political process, and taken up by government. How "green" sentiments are articulated in the political arena is part of the second dimension of a policy style, i.e. "the relationship between government and other actors in the policy process." (Richardson et al. 1982: 13) The remainder of this section deals with the ways in which pollution problems are politicized in Germany. Conservationist groups, political parties and government itself are the players in environmental politics.

*Prima facie*, in a country with a high level of environmental awareness, a conservationist lobby could be expected to be at the forefront of policy-making. Indeed, like in other capitals, lobbying is used by interest groups to press their demands in Bonn (see Weber 1981: 281-329). The Federal Government consults with outside experts and interested parties in a host of committees as well as informally on details of policy. On important issues, special hearings are organized with the different stakeholders. In the Bundestag (Lower House), some committees are literally dominated by the groups in their respective policy fields (ibid.: 310, 313-321).

In reality, however, the federal representation of the "green" movement is weak, and its lobbying underdeveloped. Few environmentalist groupings had actually established themselves at the national level in the 1980s (see e.g. Leonhard 1986: 127-192; Rucht 1989; Comelsen 1991). On the conservationist side of the spectrum, the Deutscher Naturschutzring (DNR) (German Association for Nature Protection) plays a significant role. The constitution of the Federal Nature Protection Act provides for the regular consultation of recognized conservationist associations; see the Gesetz über Naturschutz und Landschaftspflege (Bundesnaturschutzgesetz) (BGBl. I, p. 889) par. 29.

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73 *Gemeinsame Geschäftsordnung der Bundesministerien* (Common Rules of Procedure of the Federal Ministries), Allgemeiner Teil (GGO I), par. 77; Besonderer Teil (GGO II), par. 23(3). In addition, the Federal Nature Protection Act provides for the regular consultation of recognized conservationist associations; see the Gesetz über Naturschutz und Landschaftspflege (Bundesnaturschutzgesetz) (BGBl. I, p. 889) par. 29.
Nature Protection) was set up in 1950 as an umbrella for organizations interested in the environment. However, due to the diversity of its membership, ranging from fishers and hunters to nature conservationists, the Naturschutzring often had difficulties to find positions on critical issues. This was particularly true when environmental policy became politicized. On the more radical end of German environmentalism, the Bundesverband Bürgerinitiativen Umweltschutz (BBU) (Federal League of Citizens' Initiatives for Environmental Protection) organized the grass-roots movement. After its heydays in the 1970s, the BBU went through a crisis during the 1980s. The tension between its role as a network of autonomous local groups with divergent priorities, and the effort to establish an effective lobby in Bonn paralysed the League.

The association most involved in actual lobbying is the Bund Umwelt- und Naturschutz Deutschland (BUND) (German Alliance for Environmental and Nature Protection) created in 1975. With its sections at the Land and the county level, the BUND can build on a country-wide organization working on the basis of a common programme. Public awareness campaigns and lobbying at the different political levels are the main activities.

The environmentalists' under-representation in Bonn reflects Germany's federal structure, the closed character of its government and the orientation of the "green" movement itself (see also Héritier et al. 1994: 62-65). First, the national level is only one out of several arenas where policy is made. Most planning decisions, indeed, are taken at the Land and county levels. The Länder are largely responsible for nature and landscape protection and water management. In this situation, the limited attention paid by environmentalists to federal policy-making is natural. A focus on local and regional action also corresponds to the conservationists' traditional orientation to practical project work, and to their ideological hostility to centralization. With the exception of nuclear energy, citizens’ initiatives mainly targeted local problems.74

Furthermore, the closed nature of German government should be considered (Kitschelt 1986; Joppke 1992). The German state tradition has not favoured close working relationships between government and social groups, especially if these are not "respectable." As newcomers on the political scene, environmentalists have experienced difficulties in this respect (Weidner 1989: 37; Boehmer-Christiansen and Skea 1991: 73). Not seen as sufficiently competent and reliable, they have little to offer; as potential troublemakers, they have been eschewed by the administration.

74 These foci of interest were highlighted by Leonhard's (1986) empirical analysis of the coverage of environmental topics in a number of local and general newspapers in 1982/83.
Finally, the environmental groups themselves have not built a "lobbying culture." On the one hand, this reveals a lack of political pragmatism, experience and resources. As environmentalism had emerged as a grass-roots movement during the 1970s, and in strong opposition to the authorities on nuclear energy, cooperation with government or the "established" parties was seen with suspicion. Internally, activists were loath to provide resources and competences to any national leadership. A fundamentalist outlook including a radical critique of traditional politics, an emphasis on decentralized decision-making and a counter-cultural outlook impede an involvement in the formal political process. Overall, "green" lobbying has remained unprofessional (Cornelsen 1991: 148).

If "green" lobbying is little effective, the party system and the country's federal structure have ensured the politicization of pollution control. Briefly, the success of the Green Party has raised the significance of the environment as an electoral issue. Germany's federal system, in turn, multiplies the number of political arenas for the articulation of interests and electoral politics, as well as the institutional channels through which problems are brought to bear on Bonn's agenda.

Historically, it was the rise of the Greens from 1978 which epitomized the importance of the environment as a political topic, albeit their roots extended beyond conservationism alone. The party has drawn support from a variety of protest groups, including the peace and different emancipatory movements. More generally, it reflected a turning-away of a section in society from "established politics" with its failure to respond to new social concerns and to provide orientation to voters (Guggenberger 1983: 78-81). Still, public anxiety about nuclear energy and environmental pollution was instrumental in the emergence of the Greens in the first place. It was their conservationist appeal which allowed them to reach a larger electorate, and pass the five-percent hurdle to enter Länder parliaments (first in 1979) and the Bundestag (in 1983).75

Although plagued by internal struggles between its "fundamentalist" and its "realist" wing, the Greens remained a pivotal factor in German politics throughout the 1980s. They captured enough of the vote (usually in the order of 5 to 9 per cent) to imperil the position of the Free Democrats (FDP) as the third force in the party system. Also to the Christian Democrats (CDU/CSU) and the Social Democrats (SPD), the Greens meant a warning signal. The "old" parties had largely ignored the growing popular sensitivity to ecological problems during most of the 1970s (see Müller 1984: 130-141). With the emergence of a serious competitor, they rushedly addressed the new policy issue. For the SPD, the

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75 In opinion polls, the Greens have been consistently ascribed the highest competence to deal with environmental problems, as compared to the other parties.
Greens turned into a potential ally. "Red-green" coalitions have governed in several Ländere (Hessen, Berlin, Lower Saxony, Hamburg, Bremen).

Thus, environmental policy gained new momentum. New initiatives were taken by the Social-liberal government in Bonn already at the end of the 1970s (see Müller 1986: 127-143). Several pieces of new legislation were enacted until 1982, and work was started on an integrated approach to pollution control. While the SPD had, in the past, left the ground largely to its FDP partner, heading the Interior and Agriculture Ministries,\(^6\) it now took a fresh interest.

After 1982, the Conservative-liberal (CDU/CSU/FDP) coalition continued on the basis of the catalogue of environmental measures announced by its predecessor just before its fall (see Weidner 1989). While entering office with a commitment to a "Big Change" and deregulation, this did not apply to pollution control. In some respects, the centre-right government’s policy was more active than that of the previous coalition. This was especially true for air pollution where an ambitious clean-up programme was launched in 1983 against the background of forest dieback (ibid.: 8-14). The story told below on the politics of Waldsterben and car emissions was a part of this picture. In the aftermath of the Chernobyl accident, the Federal Ministry of the Environment, Nature Protection and Nuclear Safety was set up in 1986. Concurrently, public disappointment about policy grew, fuelled by a number of scandals (e.g. around the Buschhaus power plant). In sum, the coinciding of widespread environmental concerns, critical media coverage and the existence of the Green Party strong enough to challenge its opponents in the electoral contest ensured the environment attention.

Finally, the country’s federal structure is important for German environmental policy in several respects. On the one hand, of course, the Ländere have their own competencies. In water management and nature protection, the Federal Government can only enact framework laws, and the main prerogatives lie with the Ländere.\(^7\) Even where federal competences overrule state powers - in waste management, air pollution control, noise abatement and radiation protection -,\(^8\) though, the Ländere are not without influence. Although these areas are covered mainly by federal law, this does not

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\(^6\) Before the setting-up of the Federal Environment Ministry, the Agriculture Ministry was responsible for nature protection.

\(^7\) Article 75 Basic Law.

\(^8\) Articles 72, 74 Basic Law.
exclude, and sometimes requires (complementary) Länder action. In addition, the Länder execute most federal regulation, including on the environment. Despite the detail typical for German law, which restricts the scope of the implementing authorities, some "regulation by implementation" can be observed (Peacock 1984; Müller-Brandeck-Boquet 1993: 109f; Héritier et al. 1994: 53f; 73-75). This heightens the significance of the Länder in the policy process.

More importantly in the present context, the Länder participate in federal policy-making through the Bundesrat (Upper House). It has the right to initiate proposals, and has to approve a large part of legislation. Thomas Ellwein (1983: 291-293) distinguishes different aspects to the role of the Bundesrat. Firstly, federal regulation benefits from the administrative expertise of the Länder. As the Länder authorities implement regulations on the ground, they are closer to the problems than the ministerial officials in Bonn. Secondly, of course, in the Bundesrat, the Länder represent their own interests. On regulatory issues, these may relate to the administrative ramifications of new legislation - important to the Länder as executive organs -, to upholding Länder autonomy, or to the philosophy and the costs and benefits of regulation. Finally, the Bundesrat is an arena of party politics. This is particularly true when the party-political majority in the Bundesrat differs from the one which supports the Federal Government.

Relatedly, the federal structure of Germany makes for a multiplicity of political arenas and channels for the articulation of political interests (see also Héritier et al. 1994: 50-53). While the line taken by any one Land in the Bundesrat may be determined by various reasons, political pressure is certainly one. After all, the Länder parliaments and governments are democratically elected, and sensitive to public concerns. As significant decision-making centres, they are also the targets of interest group lobbying. Specifically on the environment, through their monitoring and implementation activities, Länder administrations may be the first to be confronted with emerging problems. This was the case with waste management in the early 1990s (Müller-Brandeck-Boquet 1993: 111). Similarly, as reported more fully below, pressure from individual Land governments in the late 1970s and early 1980s was

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79 see, e.g., in air pollution control the identification of special pollution control areas by the Länder, and their smog ordinances; see Vierter Immissionsschutzbericht (BT-Drucksache 11/2714, 28.7.1988, pp. 56f). In the early 1990s, several Länder enacted their own waste laws (Müller-Brandeck-Boquet 1993: 111f).

80 Article 83 Basic Law.

81 see Articles 76-78 Basic Law; The Bundesrat is heard also on legislation which does not require its approval, and can reject the proposal. In this case, the Bundestag has to overrule the rejection by the same majority as that by which it was voted in the Bundestag.
important in initiating tighter federal regulations on air pollution control (see Müller 1986: 186-315). To be sure, the Länder and the Bundesrat are not automatically pushing for tighter standards. However, they represent additional arenas for the articulation of interests and potential centres of policy initiative.

The purpose of the above analysis was not to give a full account of German environment policy. Rather, a number of features have been highlighted which increase the dynamics in this area. German pollution control is not an activist policy as it is not willing to impose anticipatory solutions on society in a continuous way. However, with an ambitious policy guideline (the precautionary principle), and against the background of a "greening" public opinion, policy-makers may reap political benefits from taking a strong initiative. Moreover, environmental interests have their bridgeheads in the political system. While the environmentalist movement is weak in lobbying Bonn, the Greens have forced the pollution issue onto the agenda of electoral politics. Through the Länder in the Bundesrat, both electoral politics and administrative problem recognition impact on federal policy-making. Its politicization made German environmental regulation susceptible to positive action certainly during the 1980s. It is against this backcloth that the empirical evidence below has to be understood.

2. The emergence of a policy field: Car emission regulation until the early 1980s

Car emissions conquered the headlines of German news in the early 1980s as a culprit of forest damages. Yet, they had been on the mind of the environmental policy community much before. Air pollution from motor vehicles enjoyed continuous attention from technical experts both on the government side and within industry at the latest since the 1971 Umweltprogramm. This programme actually initiated the work which prepared the technical know-how to deal with the problem of car exhausts in Germany later on. In addition, the legacy of the 1970s made policy-makers ready to act decisively when vehicle emissions were identified as a factor behind forest damages. This section, therefore, focuses on the history of car emission control until the early 1980s.

The stage was set when, in line with the bold spirit of the time, the 1971 environment programme defined a precise long-term target for the reduction of gaseous car emissions. It stipulated that such emissions had to be reduced by 90 per cent by 1980 as compared to 1969 levels. This goal was endorsed by the newly created Council of Environmental Advisors (SRU 1973: 52f). The programme itself did not announce any concrete legislative measures. However, the Federal Government wanted
to support research in new engine technologies as well as measuring and testing systems, and act within the European Community to achieve its goal.

The 90 per cent objective, importantly, had more than proclamatory value. Indeed, it was based on a preliminary assessment of the potential of emission control technologies in which industry had been closely involved. In fact, in preparing the programme, technical data had been put together by a working party which, under the chairmanship of an expert from Volkswagen, included representatives from Daimler-Benz and the lorry manufacturer MAN, the oil industry as well as the chemical engineering company Degussa, a future supplier of autocatalysts (see BMI 1971: 465, 475-478). This group had produced an inventory of emission reduction technologies which would be available in the short, medium and long (through 1980) term. The inventory mainly listed improvements at the engine itself but also, already at that point, mentioned catalytic conversion as a technological option. An important contingency was the conditionality of the 90 per cent emission reduction (through the application of catalytic converters) on the availability of unleaded petrol. As autocatalysts are "poisoned" by lead, unleaded fuel is a precondition for their installation.

While the 1971 *Umweltprogramm* had no immediate legislative implications with regard to exhaust emissions, in the same year, a law on the lead content of petrol was enacted. For reasons of public health, this regulation lowered the maximum allowed lead content of petrol to 0.4 g/l from 1972 and 0.15 g/l from 1976.\(^2\) The lead-in-petrol act was fiercely resisted by both the oil and the motor industries, and its actual implementation remained uncertain for some time (SRU 1973: 53-55; Wey 1982: 203f). The car industry objected that different fuel specifications and implementation deadlines between German regulations and the future EC lead-in-petrol directive would hinder intra-Community trade and car travel (VDA 1974: 35-37).

Despite the fact that it had participated in the technical working party preparing the relevant *Umweltprogramm* clause, and that it had officially endorsed a substantial reduction of emissions (e.g. VDA 1975: 40), the motor industry grew more reticent also in this respect later on. Although its exports to the United States had to conform to increasingly more stringent limit values, this did not make industry welcome similar regulations at home. This was reflected already in discussions in 1972 on the definition of the 1969 baseline for the 90 per cent emission reduction target. By understating the 1969 state-of-the-art, the industry tried to make the target less demanding. Also further on, opposition was mounted against individual aspects of the programme. When the UN-ECE in Geneva

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set a limit value for NO\textsubscript{x}, the industry's trade association questioned the need for such a requirement, and called for a revision of this standard and the related implementation deadlines. Its enactment, it was claimed, would require the application of catalytic converter technology. Industry also pointed to possibly mutually contradictory expectations with which it might have to cope, and which would limit the potential for emission control (VDA 1974: 35; VDA 1975: 41f). These positions, indeed, anticipated some of the arguments voiced during the 1980s when especially non-German motor companies tried to avoid new EC exhaust legislation. In the Federal Environment Agency (Umweltbundesamt), however, industry's advice fell on deaf ears (e.g. UBA 1976).

Developments in North America, and, later (and relatedly), in Sweden and Switzerland were nonetheless crucial for the development of car emission control in Germany. Firstly, with a considerable stake in the emerging high-standard markets across the Atlantic and in Europe, industry had to make progress in emission control if only to meet foreign norms. R&D funding by the German Federal Government which flowed from the Umweltprogramm's policy commitment, supported this process. Subsequently, in the 1980s, the relative preparedness of the German auto industry for high standards, in turn, allowed Bonn to put pressure for such standards on the EC (see Chapter IV). Concurrently, American developments in motor vehicle emission control became a yardstick for policy-makers. Although immediately following the US example was not considered practical, and would have implied a revision of the Umweltprogramm objective by anticipating the 1980 deadline (SRU 1973: 52f), German officials looked across the Atlantic for guidance (see e.g. UBA 1976). Interestingly, then, while developments in the United States gave a strong impetus to German environment policy, at the same time, they also prepared the German car makers for more stringent regulations.

In practical terms, the 1971 Umweltprogramm marked the beginning of public and private research programmes. Thus, the Umweltbundesamt sponsored work in the field of motor vehicle emission measurement and control by both motor manufacturers and independent bodies. Under a contract by the Umweltbundesamt, for example, Porsche surveyed the implications of a variety of engine modifications to reduce emissions (UBA 1979). Another project was carried out by Volkswagen specifically on the potential of the lean-burn engine (UBA 1978a). In the 1980s, this technology was advocated as an alternative to catalytic converters mainly by British car engineers (see Chapter IV). In Germany, by contrast, it was discarded at least by the producers of large cars already in the late
1970s. Stringent emission limits for these models would in any case require the catalyst.\footnote{Nevertheless, the lean-burn engine continued to be mentioned as an option by the Federal Government; see \textit{Zweiter Immissionsschutzbericht}, BT-Drucksache 9/1458, 12.3.1982, p. 35.} The \textit{Umweltbundesamt} also surveyed the emission performance of German cars exported to the US to collect data on what car companies were able to achieve in terms of emission control. In the process, the \textit{TÜV Nordrhein-Westfalen} was built up as an independent centre of expertise by the environment agency.\footnote{The regionally organized \textit{Technische Überwachungsvereine} (TÜV) are associations which provide technical services to government and industry related to safety and quality control.} In sum, during the 1970s, research activities were pursued in the perspective of a 90 per cent emission reduction, and for exports to the high-standard US market. Thereby, the German motor industry acquired the know-how of catalytic converters, and the \textit{Umweltbundesamt}, through its own studies and industry contacts, kept abreast of technology developments.\footnote{see also Berg (1982: 299 - 308).}

More generally, the \textit{Umweltbundesamt} as the Federal Government's scientific and monitoring agency in the field of the environment continued to play a key role concerning car emissions through the 1970s and 1980s. The effects of technical improvements on the in-service emission performance of the car fleet were monitored regularly and allowed an assessment of total emissions from road traffic (UBA 1978b; 1980; 1987). These studies fuelled concern that despite "cleaner" cars, total emissions from motor vehicles might not be reduced due to growing mileages. This concern was voiced in an important \textit{Umweltbundesamt} report of 1976 (UBA 1976). This report reviewed the air quality situation against the backdrop of traffic growth, and concluded that past emission reductions would be cancelled out by 1982. The agency painted an alarming picture of air quality, and pointed to strict standards enacted or envisaged in other countries. It also observed that the engine modifications applied to reduce CO and HC emissions tended to increase NO\textsubscript{x} emissions. These observations led the \textit{Umweltbundesamt} to call for a more rigorous approach to vehicle emission control.\footnote{A NO\textsubscript{x} limit value was first set by Commission Directive 77/102/EEC of 30.11.1976, OJ No. L 32, 3.2.1977, p. 32.} On the basis of the 1976 UBA report and its recommendations, Germany, in 1977, made a proposal to the UN-ECE significantly to lower the limit values in the order of 50 to 70 per cent against the standards in force (Becker 1988: 4). Certainly in industry's eyes, the agency had by then assumed the role of a "green" zealot.
That the Federal Republic (somewhat behind Switzerland) pushed for more stringent requirements at the international level, of course, ensued from the dependency of progress at home on international agreements. This was true, firstly, for the emission standards as such, to be decided in the UN-ECE and EC frameworks. A second hurdle was Community legislation on lead in petrol. As mentioned above, the German lead-in-petrol act of 1971 had reduced the maximum lead content of petrol to 0.15 g/l in 1976. Later, the EC’s first directive on lead in petrol in 1978 had put the maximum permitted lead content of petrol at between 0.15 and 0.40 g/l, and thus de facto precluded the introduction of unleaded petrol in the member states.\footnote{Council Directive 78/611/EEC of 29.6.1978, OJ No. L 197, 20.7.1978, p. 19.} Unfortunately, meeting the 90 per cent emission reduction target was conditional on the availability of unleaded petrol. Technically speaking, indeed, this target could no longer be achieved by modifications in the engine design, but required the application of catalytic converters, and, hence, lead-free petrol. The realization of the 90 per cent reduction thus depended on decisions in Brussels in a twofold way, both for the emission standards themselves and for unleaded petrol.\footnote{It was not possible for this study to find out about the domestic German decision-making process in the run-up to the 1978 EC lead directive, i.e. why Germany agreed to this directive at a time when the contingency of the 90 per cent reduction goal on the availability of unleaded petrol was already apparent.} Initially, the Umweltbundesamt put its hopes in the development of a lead-resistant catalyst (see UBA 1976: 46f). To explore this possibility, it gave research contracts in the second half of the 1970s. The manufacturers of cars and catalysts included the question of lead resistance into their own R&D work.\footnote{see VDA-Mitteilungen 10/1978.} At least in the short run, though, no solution was found. Against this background, the emission reduction objective set in 1971 appeared increasingly jeopardized.

After the environment had generally been low on the agenda in the mid-1970s, government pressure on the motor industry to reduce vehicle emissions grew stronger at the end of the decade. This was reflected in a higher profile being given to government-industry talks on the issue. These talks had hitherto taken place at the working level with the Umweltbundesamt and the experts in the Federal Interior Ministry. They assumed a new political dimension in 1981 when a first meeting on emission control was held between Interior Minister Gerhard Baum and the chairmen of the car companies. This meeting yielded no agreement on the Federal Government’s proposals for future standards. However, a joint expert committee was formed to further discuss the different points of view. In addition, the industry committed itself to a voluntary emission reduction by some 20 per cent, ahead of the coming-into-force of the UN-ECE Regulation No. 15/04. In addition, further R&D efforts in this field
were promised. The minister later called for more substantial steps, and announced to put pressure on Brussels. In sum, car emissions had become a matter of high-level attention for Bonn in 1981. This laid the ground for the decision to introduce the catalytic converter two years later. Shortly before the end of the SPD/FDP coalition, the Federal Government included an initiative on car emissions at international level in a priority catalogue of new environmental measures in September 1982 (Weidner 1989: 5). The incoming Conservative-liberal government built on these earlier commitments.

On the side of the motor manufacturers, the response to renewed government pressure was mixed (see VDA 1981: 43-49; 1982: 48-51). On the one hand, the industry contested the need for a significant tightening of emission standards. It pointed to uncertainties concerning the contribution of road traffic to bad air quality. Equally, the effects of air pollution on human health, plants and animals were not sufficiently clear. Industry, therefore, proposed to co-fund studies in these areas in cooperation with the authorities. In addition, limitations to the further reduction of emissions in terms of costs, engine performance and fuel consumption were mentioned. Against the background of the deepening recession, economic considerations received particular heed. At the same time, the industry declared itself ready to collaborate with the authorities, and undertake further steps in line with the precautionary principle. It would also help Bonn in its international political efforts. However, it warned, a national "going-it-alone" of Germany in imposing more stringent requirements would have fatal consequences for the country's car exports.

By way of summary, a number of elements shaped the starting point for the politics of car emissions in Germany at the beginning of the 1980s. In policy terms, the 1971 Umweltprogramm's goal to reduce exhaust emissions by 90 per cent within ten years had motivated efforts by both industry and government itself, and directed the political outlook. Reducing road traffic emissions had become a prime objective of West German environment policy. Within the Federal Government, the Umweltbundesamt had emerged as an advocate of stringent exhaust requirements. At the latest by 1981, car emissions had also become the object of concern at the highest ranks in the Interior Ministry as the department responsible. At the UN-ECE and the European Community levels, the Federal Republic had pushed for tighter emission norms.

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90 Zweiter Immissionsschutzbericht, BT-Drucksache 9/1458, 12.3.1982, pp. 21f.
91 See the preface by Minister Baum in BMI (1982a: 3f).
Industry, for its part, had in principle agreed to a significant lowering of emissions in 1971, and had benefitted from related public R&D funding. In addition, its commercial interest in the emerging high-standards markets in North America and Europe forced it to work on emission reduction technologies in any case. While this did not make German motor manufacturers support stringent regulations, it fostered their adaptation. For the time being, though, the non-availability of unleaded petrol or, alternatively, a lead-resistant catalyst saved the industry from having to apply catalytic converters. At the same time, the lean-burn engine as an alternative technology was not greatly favoured by German car engineers. Even from the industry's point of view, the discussion on further progress towards the low-polluting vehicle had increasingly narrowed down to the autocatalyst as the only option to arrive at the 90 per cent target. What was still missing to initiate the application of this technology was a breakthrough on the problem of lead in petrol, and the political thrust to carry new standards through.

3. Pressures for stringent car emission standards: The politics of Waldsterben

There are few German words which have found their way into the vocabulary of other languages, and "Waldsterben" ("forest dying") is one of them. To the French, in the 1980s, "le Waldsterben" represented a phenomenon across the Rhine which was difficult to understand, and mainly seen from the angle of the economic and industrial repercussions of the measures taken in Germany (see Roqueplo 1988: 46-48). In Britain, as will be described in Chapter IV, the awareness of forest damages due to long-range air pollution was imported from Scandinavia and Germany, and had to be impressed on the national forestry community from abroad.

In Germany, by contrast, initially unexplained and widespread forest damages and strong public concern that the collapse of large parts of German forests might be imminent precipitated political decisions. It is true that the problem of car emissions had already found its way on the policy agenda at the beginning of the 1980s. However, it would never have gained the political salience it did had it not been for the anxiety about the health of its forests which swept Germany in those years. This political pressure, in turn, was the main driving force behind the politics of car emission control at the European Community level. More generally, the Waldsterben issue and its political ramifications exemplify the spill-over of national politics into Community politics which is so characteristic for the Community's polycentric system.
a) *Waldsterben I: An environmental hazard*

Although this and the next section both focus on forest dieback, they do so from different angles. Indeed, a regulatory problem in itself, its definition by the scientific and policy-making communities, and its perception in society at large and potential political weight are different things that have to be distinguished in a careful analysis. It would go beyond the ambit of this thesis to really review the scientific evidence and debate surrounding forest dieback. Moreover, while research into the causes of *Waldsterben* was stepped up in Germany in the 1980s, related political decisions were not based on a proven explanation but on preliminary evidence and the precautionary principle.

At the same time, in the general public and the political debate, a social problem may assume a lesser or bigger importance. It may or may not be taken up by the media, and may or may not become politically relevant.92 While this section deals with the scientific understanding of forest damages, therefore, the next one is more on its political dynamics.

As an observable phenomenon in the natural world, forest damages are characterized by the yellowing of needles and leaves on trees, and, at an advanced stage, by needle and leaf loss. Finally, trees and entire forests actually die. In principle, the causes of this phenomenon can lie with stress factors such as diseases, insects, fungi, bad climatic conditions or air pollution. In the forest health surveys conducted in Germany in the 1980s, the state of forests was categorized into four classes based on the extent of needle or leaf yellowing and loss. These surveys yielded the following picture: The percentage of forests showing slight damages grew from around 33 per cent in the mid-1980s to about 37 per cent in 1988/89; the shares of moderately damaged and severely damaged or dead forests remained fairly constant around 15 to 16 per cent and 1 to 2 per cent respectively. In terms of their spatial distribution, large differences were observed between different regions. Generally speaking, the upper reaches of mountains and the Southern parts of West Germany were most affected (UBA 1990: 86-92).

Although such large-scale damages were measured in Germany only in the 1980s, pollution-related tree ill-health as such was first recognized near coal heatings as early as in the Middle Ages, and, to a larger extent, around furnaces and power plants during industrialization (see SRU 1983: 7f). Later,

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92 This could clearly be observed in the case of forest damages in comparing the British or French and the German responses; see Boehmer-Christiansen and Skea (1991: 57-71) and Roqueplo (1988: 50-53), and Chapter IV below.
the possibility was realized that SO₂ emissions from such stationary sources might also lead to geographically widespread problems. In fact, long-range air pollution was a consequence of measures taken since the 1960s. As the predominant concern, initially, was with local air quality and its effect on human health in industrial areas, the response then consisted in increasing the height of stacks to disperse the pollutant gases. This, in turn, only led to their transport over longer distances and more extensive damages. An understanding of this mechanism figured in discussions on air pollution control already during the 1970s (see Müller 1986: 206-315). Although some damages were observed, however, the magnitude of the problem was not yet such as to arouse concern. Forest owners concentrated their efforts on receiving compensations in the courts, and on including a liability clause in the law (ibid.: 236f). Otherwise, Swedish complaints about transboundary air pollution, which acified Scandinavian lakes, were made a "non-issue" by decision of the Federal Government (ibid.: 224; see also Wetstone and Rosencranz 1983). In sum, the damaging effect of certain pollutants on trees, and the fact that pollution can be transported over long distances was known to scientists and policy-makers much before the 1980s but were largely ignored.

This started to change in the late 1970s. In 1978, an expert hearing by the Federal Interior Ministry made it clear that the SO₂ air quality standards in force, while in general sufficient to protect human health, were insufficient to protect vegetation (Müller 1986: 277). In the same year, the Federal Government's first *Immissionsschutzbericht* (air quality report) pointed to the link between a high-stack policy, the long-distance transport of SO₂ and forest damages (ibid.: 297). Thus, while the protection of plants had been an objective of German air pollution regulation before, besides the protection of human health, this concern now moved to the centre of attention.

Henceforth, the perception that bad air quality endangered an entire ecosystem gave the issue additional urgency. In 1981, the Federal Ministry of Agriculture and Forests presented a report on the dieback of fir and spruce trees (ibid.: 302, 307). Few weeks later, the Conference of Environment Ministers of the Länder and the Federal Government created an expert working group to examine the forest damages. This group presented its report in the fall of 1982 (see BML 1982; cf. SRU 1983: 11). On the basis of a first country-wide tree-health assessment, conducted in the summer of 1982 by public and private forestry bodies, the report estimated the extent of damages at 7.7 per cent of total forests - a figure drastically revised upwards later on (see above). At the beginning of that year, the Federal Government's second air quality report⁹¹ had reflected the new awareness of possible large-scale air pollution problems. *Waldsterben* brought the problem of long-distance effects of air pollution, which

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Bonn had so far denied at the international level, home to Germany. In a special report on "Forest Damages and Air Pollution" in 1983, the Council of Environmental Advisors warned of a "new damage syndrome" in German forests which increased dramatically and fuelled concern of "serious harm to large parts of the total forest area." (SRU 1983: 72) Annual country-wide forest-health surveys were conducted from 1983 (UBA 1990: 87) to yield a comprehensive picture of the state of German forests beyond individual measurements, and the publication of their results were widely covered in the media.

While the basic link between SO$_2$ long-range transport and resulting tree damages distant to the emission sources was known at the beginning of the 1980s, however, a precise explanation for the forest damages was not available. The 1983 special report by the Council of Environmental Advisors, for instance, reflected the considerable uncertainties in this regard (see also BML 1982). It pointed to a number of possible natural and forestry-related causes of the damages observed, and to potential interactions between them. Whilst the effects of individual pollutants in the vicinity of plants seemed sufficiently clear, the explanation of what the Council called "the new type of forest damages distant to emission sources" posed a problem (SRU 1983: 78; translation H.A.). In any case, though, the natural and forestry-related impacts were considered as not sufficient to account for the phenomenon (ibid.: 83). Thus, air pollution was suspected to be a likely factor. Despite these uncertainties, the Council recommended stringent pollution control measures. The willingness of both the experts and, as will be shown below, the authorities not to postpone their final assessment until all questions had been answered was a key element in the debate about Waldsterben in Germany.

The 1983 report by the Council of Environmental Advisors was shaped also by its focus on emissions from stationary sources, as sulphur dioxide emissions from power plants were first recognized as causes of forest damage. Correspondingly, in 1983, Germany imposed new severe requirements on large furnaces.\footnote{\textsuperscript{4}} The contribution of motor vehicle exhausts was initially less clear. It is true that vehicle emissions were an acknowledged problem since the beginning of the 1970s (see above). However, as with emissions from industrial installations, traditionally, the focus was on local pollution mainly in urban areas by smoke, carbon monoxide and hydrocarbons, and their effects on human health. In fact, at the same time as total SO$_2$ and CO emissions from all sources decreased in the 1970s, and SO$_2$ and CO emissions from transport at least stabilized, NO$_x$ emissions grew significantly. Between 1974 and 1978, the strong growth of NO$_x$ emissions from traffic in fact partly cancelled out

\footnote{\textsuperscript{4} see on the politics concerning the control of emissions from stationary sources Müller (1986: 271-315) and Boehmer-Christiansen and Skea (1991).}

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reductions in industry. The Federal Government’s 1982 air quality report noted this increase in NOx, and the role played by road transport. NOx emissions from motor vehicles thus became a major concern.

The involvement of traffic-related nitrogen oxides and hydrocarbons in forest ill-health moved car emissions to the limelight in the early 1980s. Important was the conclusion of the experts that, for forest damages distant to emission sources, acid rain was not the sole explanatory factor. The 1983 report by the Council of Environmental Advisors, for example, noted individual measurements of high concentrations of ozone in rural and mountainous regions. Ozone is a secondary pollutant formed from NOx and HC under the impact of sunlight. The Council recommended to pay more attention to ozone as a possible factor in forest dieback (SRU 1983: 101f). Relatedly, although the precise contribution of traffic to total NOx and HC emissions was not certain, it was obvious that road vehicles were one of the principal sources. The 1982 air quality report put traffic’s share in total emissions of the two pollutants at 45 and 37 per cent respectively. Thus, again, considerable uncertainties beset the contribution of road vehicles to total NOx and HC emissions, and the link between these emissions, ozone and forest damages. These uncertainties, however, did not hinder German policy-makers and their scientific advisors to point to cars as culprits in the context of Waldsterben. While the experts initially considered emissions from stationary sources as more important than motor exhaust gases, and the Council of Environmental Advisors, in 1983, looked mainly to “cleaner” combustion plants for relief, motor vehicles were mentioned as sources of NOx. The non-availability of unleaded petrol was cited as an as yet unresolved constraint to a major emission reduction in this area (SRU 1983: 108f, 121).

Beyond its conclusions and recommendations in detail, the Council’s 1983 report on forest damages is indicative of the line which determined the German approach to the scientific problems around forest damages in those years. The German response to the new phenomenon of Waldsterben was shaped by the application of the precautionary principle.

"The emission reduction can already be imposed if there are objective grounds to believe that the pollutants concerned, by themselves or together with other factors, may cause damages. A putting-into-concrete-terms of the causal chain, of the relative contribution of different factors and of the extent of the damages need not be waited for." (ibid.: 105)

The only condition imposed on the application of the Vorsorgeprinzip was the principle of

95 Zweiter Immissionsschutzbericht, BT-Drucksache 9/1458, 12.3.1982, p. 11.

96 Zweiter Immissionsschutzbericht, BT-Drucksache 9/1458, 12.3.1982, pp. 11f.
proportionality the relevance of which in the context of Waldsterben, however, was markedly played down by the Council.

Incidentally, the significance of the above rationale comes out best when compared with the cautious attitude in Britain. There, as will be shown in Chapter IV, the unknowns surrounding forest damages hindered scientists and policy-makers to respond to the hazard. It is true that the monitoring network for air quality, in particular in relation to $\text{NO}_x$, was denser in Germany than in Britain. Consequently, the German experts probably had a better picture about air quality in their country and related trends. German basic research in this field was arguably more extensive as well. Nonetheless, scientific uncertainties plagued the German understanding about Waldsterben as they did across the Channel. The Council of Environmental Advisors went so far as to doubt whether a full explanation of the causes of forest dieback could ever be found (SRU 1983: 78f). However, the weight of this dilemma was balanced by the precautionary principle. Actually, the Council based its recommendations entirely on this principle, corroborated by some already available scientific evidence.

By way of summary, at the beginning of the 1980s, while concern about forest damages was strong, considerable uncertainties affected the explanation of the phenomenon in general, and the implication of automobiles in particular. Even more so than for $\text{SO}_2$ emissions from stationary sources, Germany drew on the principle of precaution to justify measures against tailpipe emissions. Thus, decisions had to be, essentially, political ones. As will be shown below, they were taken when an opportunity opened up for the introduction of unleaded petrol in 1983.

b) Waldsterben II: A national concern

In the first half of the 1980s, no other environmental problem, and few other issues in general dominated the West German political agenda more than forest dieback. Waldsterben, together with the deployment of further nuclear weapons and economic recession contributed to the feeling of gloom in society which was a hallmark of those years. Photos of dead forests underlay the horror vision of a future without woods in an end-of-the-world scenario. Government's own rhetoric was dramatic. In 1985, a postage stamp, under the title "Save the woods" showed perished trees and a clock at five

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97 In Britain, $\text{NO}_x$ was monitored intermittently at 56 sites since 1972. In mid-1989, for example, 21 sites were in operation (DoE 1990a: 30). In Germany, in 1982, $\text{NO}_x$ concentrations were measured at 126 permanent monitoring stations (BM 1982b: 23).
minutes to twelve. In this section, the political ramifications of the natural phenomenon of forest damages will be described.

In a nutshell, the politics of Waldsterben were fed by media reports about the state of German forests, and reflected popular anxiety as well as pressures on and within government. At the beginning of the 1980s, Germans had become increasingly sensitive to environmental destruction in general, and Waldsterben was seen as the tip of an iceberg (see Boehmer-Christiansen and Skea 1991: 57-67). Forest dieback fuelled the growing awareness about the harm done to the environment. Especially, forests cover a substantial part of Germany’s territory, and are, therefore, of major ecological and landscape importance. They have a deeply rooted value in German culture and myths. Against this background, many people felt personally affected by an insidious development not open to any rapid cure.

The public debate on forest damages was triggered by a series of articles in the weekly magazine "Der Spiegel" in the fall of 1981 (Müller 1986: 302). It rapidly gained the headlines of the German media, and became a topic for numerous features. The coverage included reports on the scientific explanation of forest damages, as well as on the political measures in relation to both industrial emissions and car exhausts. A wave of popular-science books gave background information. Guides were published on how one could distinguish ill from healthy trees. The Federal President Karl Carstens publicly expressed his worries on the state of the forests, and photos and television showed him inspecting damaged woods. His personal interest in the problem put additional pressure on the Federal Government.

Environmentalist groups picked up on the topic. In 1982, Robin Wood was founded as an organization to focus specifically on forest damages by former Greenpeace activists (see Lange and Wingert 1984; Scholz 1989). Robin Wood became famous when its members climbed the stacks of power plants to draw attention to their smoke trails. White crosses were painted on road-side trees to symbolize their fate. Environmentalists and the media accused industry of irresponsible carelessness for the sake of profits, and politicians of glossing over the true extent of the damages. As to motor vehicle emissions, however, environmental groups were not at the forefront of developments. Robin Wood, for example, started its campaigning in this field only in 1984, i.e. after Bonn had announced the decision to

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* see e.g. Die Zeit, 19.10.1984. Unfortunately, the analysis by Leonhard (1986) on the press coverage on environmental topics between April 1982 and June 1983 does not individualize reporting on forest damages.

** see e.g. Bosch (1983), Stern (1983), Guratzsch (1984).
introduce catalytic converters (see Scholz 1989: 19f, 64-73). Measures called for included the early introduction of unleaded petrol and catalytic converters, a 100 km/h speed limit as well as the improvement of public transport and railways. Certainly, targeting the behaviour of millions of motorists is more difficult than targeting a conspicuously dirty energy industry. Hence, Robin Wood gave relatively less prominence to noxious exhaust gases. In fact, it is arguable that the Waldsterben issue in general, and the campaign against motor emissions in particular were more carried by the media, and, later, by government and the political parties, than by conservationists.

The perishing of forests had also economic overtones. Forest owners exerted leverage behind the scenes, and found an ally in the Federal Ministry of Agriculture and Forests and some Länder governments. The plight of private and public forest owners was highlighted in the media. It was reported, for instance, that the small town of Freudenstadt in the Black Forest lost about half a million deutschmarks in one year due to pollution-related damages in its communal forest. The legal profession discussed a possible liability of air polluters to forest owners (e.g. Leisner 1983). The interaction between media attention, popular disquiet, private lobbying as well as real concern and political pressure within government at both the Länder and federal levels created the momentum which overrode the scientific uncertainties surrounding the issue and industry resistance.

Edda Müller (1986: 186-315) has provided us with an in-depth analysis of decision-making processes in the field of air pollution control within German government in those years. Her study stresses the importance of regional interests and Länder initiatives in the German federal system. The relationship between emissions from stationary sources and forest damages had been an - albeit initially taboo and later underestimated - issue in German air pollution policy already in the 1970s (see above). At the start of the 1980s, awareness of the problem grew among officials and politicians, and the media raised the topic. Alarm about forest ill-health and pressure to tackle it built up in the Länder and in the Federal Ministry of Agriculture and Forests (see ibid.: 271-311). These forces materialized in the context of dragging legislative work on SO₂ emissions from combustion plants which had started in 1977. Indeed, in 1978, a first draft proposal had been put on ice by the Interior Ministry after resistance from the power industry and, within government, from the Economics Ministry and the Chancellor’s Office. In early 1980, after an initiative from the Saarland, the Conference of Environment Ministers of the Länder passed a recommendation for a lower SO₂ standard for power plants. In addition, further work was initiated by the Conference in a committee between the Interior Ministry in Bonn and the Länder.

After it had not been strongly involved in discussions on new power plant emission standards before, the Agriculture Ministry changed its line in 1981 when evidence of widespread forest damages increased, and alarming reports appeared in the press. Within the Federal Government, the Agriculture Ministry now acted as the main advocate of stringent regulations. This followed from both its role as the department responsible for nature protection, and the interest of its forest owner clientele. Curiously, the Interior Ministry’s services initially did not welcome this support for their original draft proposal on new standards as they continued to fear industry opposition. Under the impression of heightened political pressures, it was the Interior Minister himself who, after discussions with his FDP colleague in the Agriculture Ministry, reversed the position of his department. The ordinance on emissions from large combustion plants, passed by the (new Conservative-liberal) Federal Government in 1983, was subsequently worked out between the Interior Ministry and the Umweltbundesamt, and the competent Länder ministries.

In an article on West German energy policy in the 1980s, Boehmer-Christiansen (1988) suggests that Waldsterben was to some extent engineered by politicians and industry to improve the acceptability of nuclear power as against coal-fired electricity generation. Prima facie, as forest damages were larger in Southern Germany where the industrial and political interests in nuclear power were concentrated, this analysis appears plausible. On the other hand, it arguably overrates any industry/politics/media concertation, and underestimates genuine popular feelings. In addition, Müller’s (1986) well-informed analysis does not support Boehmer-Christiansen’s interpretation. As mentioned above, in fact, in the early stages, pressure at the federal level came from the Saarland, despite its strong coal interest, and from the Agriculture Ministry. In the effect, also, nuclear power did certainly not become more popular in the context of Waldsterben. Therefore, while the rising concern about Waldsterben may have been secretly welcomed by the proponents of nuclear power, this was only one element of a more complex political constellation. Basically, Waldsterben, was put on the agenda by the media, and was taken up by politicians, especially the small liberal FDP, and, since 1982, Interior Minister Zimmermann of the Bavarian CSU. They seized the opportunity to demonstrate environmental competence against the background of growing general concern and the electoral rise of the Greens. The minister from Bavaria not least defended the interests of forest owners in his home state. In sum, electoral politics instead of a hidden industrial policy agenda determined the political echo which Waldsterben caused. Later on in the process, in any case, the disquiet about forest ill-health was so overwhelming that it influenced all political, ministerial and, probably, even industrial decision-makers.
After forest damages had conquered the political agenda, policy options had to be identified. As has been explained in the previous section, it was originally emissions from power plants and industrial installations which were held responsible for forest damages. Hence, these were tackled first. The link between motor exhaust gases, long-range air pollution and forest dieback was made by both scientists and policy-makers in a second step. Incidentally, this causal chain was also more difficult politically. Vehicle emissions are an inherently sensitive issue in Germany (as in other countries) where cars enjoy strong predilection among people. Here, a large number of motorists and their behaviour are put in the dock instead of big business. The Allgemeiner Deutscher Automobilclub (ADAC) motoring association is a powerful lobby. Relatedly, the car industry is a backbone of the German economy. Therefore, any solution which restricts car use is likely to meet with resistance. Being "hostile to the car" is not a favourable reputation in the Federal Republic.

By way of conclusion, besides causing an economic loss to forest owners, Waldsterben aroused nation-wide concern in Germany in the first half of the 1980s. The Länder and the Federal Ministry of Agriculture and Forests urged for special measures, and the public called for political decisiveness. At the same time, although the ozone (indirectly) produced by motor vehicles came to be seen as a crucial factor in forest dieback, pressure specifically for stringent car emission standards, or for other measures to reduce air pollution from traffic, was limited. Clearly, the decision to tackle this source of pollution had to be a political one.

4. The German move to the "clean car"

After political pressure had built up since 1981 to tackle the causes of Waldsterben, and road traffic had to be seen as one of them, the year 1983 saw the breakthrough for the catalytic converter in Germany. This development, in turn, translated into action at the European Community level. It was possible in a "window of opportunity" for German policy-makers, and paved the way for an entrepreneurial role of the Federal Government in the EC arena.101

Briefly, the initiative to tighten emission regulations emanated from the authorities but was, somewhat inadvertently, encouraged by two car companies. The position of the motor industry vis-à-vis the Federal Government was weakened by a lack of agreement within industry itself, a card which the Government played. In the end, while no manufacturer welcomed the authorities' initiative, all

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acquiesced to it. At the same time, industry put up a number of conditions which the Government took on board, and which became part of a tacit overall government/industry agreement. In this section, the 1983 turn of events and this agreement are reviewed.

Before turning to this analysis, however, the political and technical forces, opportunities and constraints at the beginning of the 1980s need to be recalled from the previous sections to set the scene. In technical terms, the issue of emission control had been on the German motor industry’s agenda for several years. Indeed, in cooperation with the Umweltbundesamt, and under the obligation of gradually more stringent UN-ECE and European Community standards, the industry had continuously been involved in research and development on the control of vehicle exhausts. The 90 per cent emission reduction target in the Federal Government’s first environment programme of 1971 and growing concern about air pollution already during the 1970s put pressure on car engineers to improve their product. Manufacturers exporting to the North American market - i.e. Volkswagen, Mercedes-Benz, BMW and Porsche - also had to follow regulatory developments there. These, indeed, started to require the application of catalytic converters already in the mid-1970s. Thus, in 1982, of the 379 car models with 84 different engines (excluding Diesel cars) offered in Germany, 37 models with 12 engines were also available in a US version, i.e. equipped with a three-way catalyst. As other technical possibilities were progressively exhausted, also in Germany, achieving the 90 per cent reduction target came to depend on the catalytic converter. It was the non-availability of unleaded petrol which prevented the application of this technology. By policy-makers, lead in petrol was increasingly seen as a major stumbling block.

Concurrently, the wave of concern about the state of the forests put growing expectations on the German authorities. While these related initially above all to emissions from industrial sources, road traffic was another focus. All disquiet about German forests notwithstanding, limitations on car use, however, would have been extremely unpopular. They also ran squarely against the programme of the new Conservative-liberal government. The ADAC motoring association with its demand for “free driving for free citizens!” is one of the strongest lobbies in the country. In addition, of course, the motor industry is one of the key sectors in Germany’s economy. In 1983, the road vehicle industry and related services accounted for nearly 12 per cent of industrial employment and over 12 per cent

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102 see the annual reports by the motor industry’s VDA (Verband der Automobilindustrie) trade association, various editions, since the 1970s.

103 Incidentally, this was more than all models of British, French and Italian car companies sold in the US together; see VDA (1983: 51, 54).
of sales. In sum, a real conundrum confronted the incoming Conservative-liberal government in the fall of 1982. On the one hand, it had to demonstrate forcefulness in the face of what was considered a major ecological desaster. On the other hand, the motoring public was not to be hurt.

a) 1983: A "window of opportunity"

In 1983, Bonn was presented with an unusual "window of opportunity." Two events in the spring of that year changed the political context recounted above. First, for reasons to be explained below, Mercedes and BMW stated their willingness to introduce catalytic converters if the availability of unleaded petrol was secured and some other conditions were met. This announcement highlighted the technical possibilities and contingencies for lower exhaust emissions, and gave the authorities a "green light" if they could solve the lead-in-petrol problem. A breakthrough on this problem was the second element.

Let us turn first to the lead-in-petrol question. As mentioned before, the oil industry had fiercely resisted the elimination of lead from petrol in the 1970s. Subsequently, the 1978 EC directive had set a minimum lead-in-petrol content. Since then, however, changes in German refineries had made a conversion to lead-free gasoline easier, and had even aroused an industry interest to go that way (Westheide 1987: 18f, 63). Even before tax incentives started to further the introduction of unleaded petrol in 1985, in fact, over 500 stations in West Germany sold unleaded already (ibid.: 51f). Thus, certainly if government provided support through tax incentives, and if a continuous rise in the fleet of cars using lead-free petrol (because equipped with catalytic converters) could be expected, "going unleaded" was acceptable to the refiners.

What hindered progress at that point was the EC lead-in-petrol directive. This, incidentally, was more than a purely legal constraint. Indeed, a national German "going-it-alone" on unleaded petrol and the catalytic converter would have confined German motorists at home in the absence of the provision of lead-free petrol abroad. This prospect was clearly unacceptable. It was an unexpected happening in the United Kingdom which broke the impasse, and came at the right time indeed from a German point of view. In brief, after a report by the British Royal Commission on Environmental Pollution in the spring of 1983 had warned against the health hazards of airborne lead, Her Majesty's Government acted swiftly. In April 1983, it announced its intention to abolish lead in petrol (see Hooper 1987).
This provided Germany with an ally for a revision of the 1978 directive.

Little later, the corresponding initiative in Brussels was agreed between Bonn and London. Of course, while public health concerns underpinned the UK Government's stance, the German authorities pursued the objective of introducing the autocatalyst - which was strenuously opposed by the United Kingdom later on.\textsuperscript{105} Accordingly, the May 1983 memorandum to the EC Environment Council by the Federal Government called both for the tightening of emission standards on the basis of best available technology - i.e. requiring the three-way catalytic converter - and for the introduction of unleaded petrol (see Holzinger 1994: 194f). The latter demand was supported by Britain, Denmark and the Netherlands. This initiative started the process which led to the enactment of the Community's 1985 lead-in-petrol directive, and, from a technical point of view, cleared the way for the catalytic converter. In November 1983, a further German communication to the EC Commission underlined Bonn's demands (ibid.: 195f). In sum, the offer by BMW and Mercedes-Benz to introduce the autocatalyst, and the prospect of solving the lead-in-petrol problem combined to make a "clean car" look possible in 1983.

Before taking any steps in Brussels, the Federal Government, naturally, consulted with its domestic auto industry. An ambitious national strategy prepared and accompanied the Government's efforts within the European Community. Incidentally, although this was certainly not emphasized, the new Conservative-liberal government, in fact, only took up the policy of its predecessor. Only little earlier, under less propitious circumstances, the last Social-liberal Interior Minister had tried and failed to make progress towards achieving the 90 per cent emission reduction target (see above). While these efforts had not aroused much public attention, from 1983, government action was well publicized. The incoming Interior Minister Friedrich Zimmermann made the issue a personal priority. With its "clean car" offensive, the Federal Government demonstrated competence in environment policy. Combatting air pollution became the single most important environmental topic of the 1980s.

More precisely, the stage was set in a first meeting between Zimmermann and the oil and motor industries in April 1983. With Mercedes-Benz' and BMW's offer in his hands and a solution to the lead-in-petrol problem no longer out of reach, the minister called on industry to make proposals for the reduction of vehicle emissions. His opposites declared themselves ready in principle to support the Government under the condition that measures should be harmonised at the European level. This meeting led to Bonn's memorandum to the EC in May (see above). The official announcement of the

\textsuperscript{105} see Chapters IV and VI below. Of course, public health concerns also influenced the German position.
Government’s fresh policy followed in July 1983. In apparent contrast to industry’s exhortation, the Federal Government made a decision to introduce lead-free petrol and require catalytic converters for all new cars from January 1986. The Interior and Transport Ministries were charged to implement this mandate. Although the Government stated that it aimed at an EC agreement, the decision did not contain a corresponding *proviso*. While in the Federal Republic itself it was the signal which launched the campaign for low-polluting cars, in Brussels and in the capitals of the other member states it turned up German pressure.

Further talks between the oil and motor industries and the Federal Government took place during the summer and autumn of 1983. After the Government had fixed and publicized its ambitious goal, it tried to secure industry backing. Slowly, a policy package acceptable to both sides emerged. In a second decision, in October 1983, the Government chose to take over the US limit values and test cycle as the basis for its own regulations thus satisfying motor manufacturers’ demands (Holzinger 1994: 201f). At the same time, the concept of fiscal incentives for unleaded petrol and catalytic converters took shape. Another meeting between Mr Zimmermann and the directors of the board of the German car manufacturers, in November 1983, confirmed the industry’s general support for the reduction of vehicle emissions, and emphasized the need for an EC solution. The companies promised to try and convince the car makers in the other member states of the need to significantly curb exhaust emissions. In the *Bundestag*, despite heavy polemic, both Government and the opposition agreed on the importance of introducing the "clean car" as soon as possible (ibid.). Overall, the pace of developments was set by Minister Zimmermann.

Generally speaking, movements in 1983 were characterized by uncertainty as to the precise context of measures to be taken - especially with regard to the future availability of unleaded petrol and the chances for progress at the EC level -, by a government on the offensive, strong public attention, and an internally divided and basically acquiescent motor industry. Obviously, the cooperation of the main motor groups was crucial for any successful strategy. At the outset, with their overtures towards Bonn concerning the introduction of unleaded petrol and the catalytic converter, Mercedes-Benz and BMW had broken ranks with the other firms. They had put them in a difficult position, and caused annoyance within the *Verband der Automobilindustrie* (Association of the Automobile Industry - VDA). As later on the European level, the varying preparedness for further emission reductions strongly influenced the individual companies’ response to calls for tighter standards. For reasons to be explained in more detail below, the positions of the mass manufacturers Volkswagen, Opel and Ford differed from those

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106 BMI-Pressemitteilung, 11.11.1983.
of the luxury-car makers. Their initial resistance against more stringent regulations was voiced through the VDA which fought a rearguard action against the catalytic converter at the beginning. The split within industry, of course, weakened its position in talks with the Federal Government. On the other hand, faced with rising concern about the environmental side-effects of car traffic, all manufacturers in Germany understood the need to act. While not happy with the Government's demands, industry decided to collaborate, and linked this collaboration to certain conditions.

In the talks with the Government, the motor industry voiced a number of demands which were gradually taken on board by the authorities as they hammered out their strategy. To begin with, the problem of unleaded petrol remained a concern to industry. Despite the British, Danish and Dutch alignment behind the German move for a revision of the EC's lead-in-petrol directive, the outcome of this initiative was open in 1983. It was essential for the car industry to have lead-free petrol introduced widely not only in Germany but also in the rest of (Western) Europe before cars were equipped with catalysts. Hence, the industry called on Bonn to make certain that unleaded petrol would be generally available before the introduction of catalytic converters. Industry also warned that the use of unleaded petrol and three-way catalysts would have negative effects on fuel efficiency as the compression rates of engines would have to be lowered. This meant that industry might not be able to meet its 1981 voluntary commitment to reduce the fuel consumption of its vehicles by up to 15 per cent by 1985 (Berg 1983: 4f).

A European solution was imperative also more generally as far as vehicle emissions were concerned. In fact, industry had always objected to any national "going-it-alone" as the authorities in Bonn had pushed for tighter exhaust gas control (e.g. VDA 1981: 43). German motor companies - as the government in Bonn itself - were only too aware of the resistance against lower emission limit values in the other member states with a national auto industry. At a top-level meeting of the European car companies in Paris in March 1984, in fact, it was agreed to accept the introduction of lead-free petrol only if this did not imply a short-term introduction of catalytic converters on more than just a few large cars (Berg 1985: 13). In a nutshell, retaliatory measures against German car imports by other

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107 see e.g. the article by VDA president Achim Diekmann (1984).


109 More in detail, also the availability of sufficient quantities of high-octane unleaded petrol was initially seen as a problem. The concern was that due to constraints in the refining process, European refineries would be unable to meet the share of super petrol in total EC petrol demand of around 75 per cent in unleaded quality (Berg 1983: 5f).
member states were feared should the Federal Republic unilaterally impose the catalytic converter. This would have entailed dramatic consequences for the so export-dependent German motor industry. In 1983, German motor manufacturers exported around 34 per cent of their total output to the nine other EC member states, and nearly 25 per cent to Britain, France and Italy alone.110

A third industry request related to the possibility of type-approval to American (US'83) standards. This demand was urgent in the light of the short lead time - until the beginning of 1986 - envisaged by the Federal Government for the introduction of catalysts. A type-approval to US regulations meant that industry could sell the same models in Europe as across the Atlantic, without any changes concerning emission control. Indeed, emission regulations do not prescribe a certain technology but set limit values related to a specific test cycle. It is then up to the car engineer of how to meet them. Incidentally, when the German authorities talked about "introducing the catalytic converter", they were reminded by industry of this principle. However, a car may meet a set of standards based on one test cycle but fail another set of standards based on another cycle even though both are equally stringent. In short, industry wanted to avoid having to adapt their US catalyst versions to European conditions because of small regulatory differences. In view of the need to convert the entire model range to catalyst versions, R&D resources were scarce in any case.

Finally, the marketability of "clean cars" was a natural concern to motor manufacturers. Whilst the estimates of the additional costs for three-way catalysts varied, the VDA in 1983 put them at some 1,250 DM for a medium-size car (VDA 1983: 52). Much higher numbers were also suggested by VDA spokesmen in a political move. The industry worried about the sales of catalyst-equipped cars if motorists had to pay the full price. Hence, fiscal incentives were suggested. Like the insistence on a harmonised European approach to the tightening of emission norms, the idea of fiscal incentives, in fact, was a long-standing industry proposal (see VDA 1981: 43).

At the outset, the Federal Government's July 1983 decision to require the three-way catalyst from 1986 had looked like a confrontational course taken against the motor industry, and, indeed, the industry objected to this step. Later, policy took account of the companies' concerns. Firstly, negotiations in Brussels led to the enactment of a new EC lead-in-petrol directive in March 1985.111 It obliged the member states to ensure the availability of unleaded petrol within their territories from October 1989.

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110 Own calculations from VDA (1985; 1991). Note that, due to lack of more precise data, this export share also includes lorries and buses. However, their share in total vehicle production was only 6.66 per cent in 1983.

Although the availability of unleaded petrol abroad did remain a problem for German motorists through the second half of the 1980s, and a potential argument against the purchase of a catalyst car, it was clear that, at least in the medium term, lead in petrol was no longer an issue.112

As to the second demand, for a common solution to the introduction of the catalytic converter, the Government soon abandoned the idea of a "going-it-alone" - if it had ever seriously considered it. The risk of an intra-Community trade war in the motor sector was unacceptable to both industry and the authorities. In addition, the possibility of tax incentives emerged as an avenue to comply with EC rules while not renouncing the objective to introduce catalytic converters earlier in Germany. In fact, as will be shown below, fiscal incentives paved the way for the rapid phase-in of the low-polluting car in the Federal Republic after 1985. It is true that the uncertainty about the timing and stringency of new standards has been a problem for European motor manufacturers. However, after 1983, at least the German car makers knew that, sooner or later, the catalyst would come, and they prepared themselves accordingly. Incidentally, the delay caused by Germany’s Community obligations probably helped the producers in adapting to new standards.

Both new EC and new German provisions in 1985 also satisfied industry’s third concern over the possibility of type-approval to US standards. Already in October 1983, the Federal Government announced that it would take over US’83 regulations as the basis for its own measures (Holzinger 1994: 202). Later, cars meeting US’83 standards qualified for German fiscal incentives under the Federal Government’s tax break rules.113 Similarly, the 1987 EC emission directive allowed for the type-approval of cars to US’83 standards.114 These clauses considerably helped at least those motor manufacturers which exported to the USA in offering a wide range of catalyst cars early on.

Finally, of course, the tax incentive scheme itself was crucial in winning the German auto makers’ support for the Government’s "clean car" policy. Details of this scheme will be discussed below, and its effectiveness in "greening" the German car market will be shown. Suffice is to say here that the German tax breaks which were prepared since 1983, and sanctioned by the so-called "Luxemburg

112 Other problems related to the availability of high-octane unleaded petrol, but this was an issue which involved more the oil industry than government.


Compromise" of 1985 did much to solve the manufacturers' concern about the marketability of (more expensive) catalyst cars.

By way of conclusion, since 1983, the German Government, basically backed by the opposition parties and public opinion, was formally committed to a rapid introduction of catalytic converters, but had to seek a Community solution. The catalyst promised the clean-up of exhaust gases for the sake of German forests without restricting motorists' freedom. In fact, with its announcement of mandating the catalytic converter from 1986, the Federal Government had considerably raised the political stakes. Its ambitious claims partly reflected the personal style of Mr Zimmermann as the minister responsible. At the same time, they rallied support, channelled the political pressures around forest damages, and tactically prepared the ground for negotiations in Brussels. Taking the lead, Zimmermann made the introduction of low-polluting cars a top political issue. Chancellor Kohl talked about Waldsterben and the need to combat air pollution with his counterparts in the other member states.

At the same time, the motor and oil industries were closely consulted. The car makers' response to government pressure was determined by their natural misgivings about tighter regulations, the technical and economic problems of individual companies as well as concern about policy details. Progressively, however, these were alleviated as the Federal Government took account of industry's demands. The more industry saw its interests taken on board by the Government, the easier it found it to accept the initial political decision for lower emission standards. Bonn's initiative in Brussels was part of this domestic policy deal.

b) The German motor industry and car emission control

Its domestic motor industry was the Bonn government's central reference point as it prepared its "clean car" programme. At the same time, the industry was not homogeneous in its position on lower emission limits. Rather, each individual company's response to the proposal for such limits was determined by its specific technical and economic constraints (see also Chapter IV). Therefore, the present section analyses the circumstances determining each company's preparedness "to go catalyst." To do so, also their adaptation to catalytic converters between 1984 and 1986 is described. In the following section it will be explained how this transition process was crucially helped by the Federal Government's tax incentive scheme for low-emission cars.

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Looking at the factors behind the industry's attitude towards a strengthening of car emission control, generally speaking, two sets of factors need to be considered. Firstly, the motor industry responded to the call for tighter emission control in the light of the technical changes involved and their economic implications. Besides the narrow technical and cost considerations, a more strategic concern also related to general regulatory developments in Europe. What worried the export-oriented manufacturers across the Community was the danger of increasingly divergent national standards. Sweden had taken over US regulations already in the 1970s. Switzerland required the catalytic converter from model year 1985, and Austria followed in 1987 (for cars above 1.5 litres cylinder capacity) and 1988 (below 1.5 litres) respectively. Also in Germany, pressure was mounting to follow the US path of emission control. This diverging of regulatory requirements meant higher costs and less flexibility for motor manufacturers in Europe.

In contrast to their foreign counterparts, however, the German manufacturers were additionally influenced by the widespread concern in German society about forest damages and the contribution of road traffic. Their direct exposure to German public opinion and their big stake in the German market made car manufacturers in the Federal Republic sensitive to this preoccupation. Generally speaking, an industry like the car industry never acts in a vacuum as far as social trends are concerned. Firstly, such trends affect industry decision-makers as individual citizens and private persons.Embedded in a social context, they are not isolated from perceptions, opinions or fashions carried through the media and personal contacts. In the present case, even if they were not convinced of the scientific evidence around Waldsterben and its causes, and wary about the economic situation of their companies, the managers of German car makers could not avoid being impressed by the nationwide apprehension about forest ill-health (Boehmer-Christiansen and Weidner 1992: 47f).

Secondly, to be successful in the market place, a product has to enjoy social acceptability. While the German fondness for the car was not reversed even by road traffic's implication in forest damages, nevertheless, the role of the motor vehicle in this respect tainted its reputation. Driving by car, and especially driving it fast started to be seen as a socially damaging way of transport. Not only in narrow environmental circles was the positive image of the automobile as a means of freedom and convenience suddenly tarnished by the counterimage of the polluter-car. The significance of this development in terms of long-term market prospects was understood by forward-looking industry planners.
Incidentally, it was the question of speed limits that focused the criticism (see also Braun 1987: 27-38). Against the background of forest ill-health, environmentalists in 1983/84 campaigned for a new 100 km/h speed limit on motorways and the lowering of the speed limit on roads to 80 km/h. The motor industry and the powerful ADAC motoring association were strongly opposed. Especially for the producers of large and sporty cars, the promise of power and speed is a main sales argument. The environmental effectiveness of a speed limit on motorways was finally tested for the Federal Ministry of Transport in a real-life experiment on different motorway sections in 1985 (VdTÜV 1985). In fact, the test conditions were arguably biased as the speed limit was not enforced and motorists knew that. Moreover, the experiment was limited to motorway driving although the lowering of the speed limit on roads had also been proposed. Unsurprisingly, the study results showed only a marginal reduction in emissions, and the Federal Government subsequently rejected all speed limit proposals in the fall of 1985. Interestingly, while the ADAC was against any speed limit, it spoke out for the catalytic converter already in 1983. Promoting the catalyst and the opposition to speed limits for the ADAC were the two sides of the same coin (Braun 1987: 52). The same idea certainly guided many car industry managers. Their professional sensitivity to the societal acceptance of their product made them keen to pull it out of the focus of conservationist criticism.

These pressures emanating from their social and economic environment combined with the more specific technical and economic considerations to shape the position of German motor manufacturers in the debate about catalytic converters. To start with, the producers of large cars - Mercedes-Benz and BMW - were specially uneasy about the market and potential political implications of growing "green" sentiments. The social status which their cars confer upon their owners is an important component in their marketing strategies. The ownership of a Mercedes or BMW is supposed to reflect personal success and arouse social esteem. These were not to be tarnished by a polluter image. From a product point of view, moreover, technical performance and sophistication are key features of the two companies' strategy. Driving a Mercedes or BMW, it is suggested in their advertisement, means driving a high-tech and perfectly engineered vehicle. The awareness that it emits noxious gases goes against this idea of perfection.

Relatedly, it was difficult to explain to the German public that Mercedes and BMW cars exported to the United States could be equipped with catalytic converters while the same models sold in Europe could not. The knowledge of American regulations made people aware of the state-of-the-art in emission control, and that it was mastered by German car engineers. This was a key point in the political debate. Finally, a potential alternative to tighter emission regulations were speed limits on
West German motorways to reduce noxious emissions. Speed limits, however, were particularly anathema to the two luxury-car makers.

These considerations led Mercedes-Benz and BMW to their announcement, in the spring of 1983, that they were willing to introduce the catalytic converter. Arguably, some window-dressing was involved when this statement was made, and the two firms did not expect that the conditions attached to their offer - particularly the availability of unleaded petrol - would be met so soon. Nonetheless, the decision to go ahead in this direction was a major one, and the uncertainties surrounding it need to be underlined. In particular, at the time it was made, it was quite open how political developments would progress, and whether the interests of industry would be taken care of by policy-makers. In that sense, the two companies took the bull by the horns.

To illustrate the case of the large-car producers, BMW is taken here as the example. At the Geneva motor fair in March 1983, BMW announced the first models with catalytic converters one year after corresponding regulations might be published. The full model range with catalysts would be available after four years. This offer was conditional, naturally, on the availability of unleaded petrol. This was a clear signal to policy-makers. Significantly, BMW little later also decided to not get involved in the scientific debate about the causes of forest ill-health, and to not question the responsibility of road vehicles in this regard.  

BMW's move in 1983 has to be understood in the light of the company's preparedness for better emission control. Generally speaking, the presence or not of a manufacturer on existing high-standard markets - and especially in North America - influenced its readiness to accept higher standards at home. However, even for an upmarket manufacturer, this was only a starting point. More precisely, BMW had exported to the US for some time, but these exports did not encompass all available models. Thus, in 1983, only one version of each of BMW's three basic engines were already adapted to US requirements. These versions, though, could be sold in Germany without major changes.  

In February 1984, BMW presented its first three models with a three-way catalytic converter in the Federal Republic. Hence, under the clause that cars type-approved to US emission standards were accepted in Germany, BMW was able to meet the political demand for "clean cars" rapidly.

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115 This was in contrast to Daimler-Benz which initially emphasized the scientific uncertainties surrounding Waldsterben (see Daimler-Benz 1984).

116 Initially, these US versions had less horsepower than their non-catalyzed European brothers, in adaptation to American low-octane fuel. This "defect", however, was gradually rectified.
Over the following years, BMW expanded its cat-model range. In July 1985, six models were offered with a three-way catalytic converter. At the end of 1987, it became the standard option in Germany. In making this happen, the company’s engineers were helped by the fact that BMW cars above 1.8 litres were regularly equipped with electronic fuel injection already. Electronic fuel injection is a technical prerequisite for the three-way catalytic converter, and, at the same time, a costly device (see also Chapter IV). In addition, the floor panel had already been formed to take up the catalyst.

The cost side was a further factor which helped the manufacturers of larger cars, and posed problems to producers of less expensive vehicles. This was a key element in the European story of car emission control. Chapter IV will explain the higher relative, and often even absolute costs of the three-way catalyst for smaller than for larger cars. BMW was less affected than most of its competitors - i.e. with the exception of the other luxury-car makers - by regulation-induced cost increases. Indeed, the relative price increase of the catalyst over the non-catalyst version of its models was relatively small. In 1985, BMW’s catalyst-equipped versions in Germany were between 1,800 and 1,950 DM more expensive than the same models without the converter. This represented a surcharge in the range of 3 to 8 per cent. By contrast, with the exception of the Fiat Spider, "clean" Fiat cars were around 3,000 DM more expensive than the corresponding non-cat versions. This was a more substantial price increase of between 14 and 18 per cent. Even though no manufacturer likes to see the price of its product increase, BMW could undoubtedly easier live with it than Fiat. This is particularly true when the respective clientele of both companies is considered.

Significantly, BMW’s catalyst sales picked up rapidly, and favoured the ongoing conversion to the new technology. Already in 1986, nearly a quarter of all German BMW sales had the catalytic converter. This share rose to over 90 per cent in 1988 (see Table 1). Clearly, the German tax incentive scheme had a large part in this process (see below).

Like BMW, also Mercedes-Benz and Porsche acted swiftly (see Westheide 1987: 106f). A cat-version was offered for nearly half of all Mercedes models as early as mid-1985. In the fall of 1986, the three-way catalyst became the standard version for all models. Porsche offered all its models in cat-versions as early as the end of 1984 (ibid.: 109). This demonstrated the ease with which also the other German upmarket car makers adapted to the new conditions.

117 own calculations from ADAC Motorwelt 3/85. Some firms (Volkswagen, Opel) offered catalyst versions rather cheaply, and partly at lower prices than non-catalyst versions. This was possible through cross-subsidization between different models and changes in other equipment.
To summarize, then, an important segment of the German car industry - Mercedes-Benz, Porsche and BMW - had little difficulty with the transition to catalytic converters. Wary of their product image they even favoured the new device. With their exports to the US market, on the other hand, the upmarket companies had already adapted at least part of their models to stringent standards. This provided them with a good base, even if more engineering was required to complete the process. From an economic point of view, the buyers of expensive cars can also more easily bear the extra charge due to pollution control. Hence, worry about the cost implications of the autocatalyst was less big in the boards of BMW, Mercedes-Benz and Porsche than it was in the other companies.

The world looked different for the other motor manufacturers, i.e. Volkswagen, Opel and Ford. While all of them have their upmarket models, their main production is smaller and medium-size cars. It is these categories of cars which are particularly sensitive to regulation-induced price increases. Hence, it is not surprising that these three companies were more hesitant to accept more stringent emission standards. Indeed, the signals from Mercedes-Benz and BMW in this regard, in the spring of 1983, came as an unpleasant surprise to the mass manufacturers.

Although within the VDA, in 1983, Volkswagen, Ford and Opel espoused common interests towards emission control, the analysis has to distinguish between the three firms. In view of their similar product ranges, all three were equally affected by the economic consequences of emission control. At the same time, Opel and Ford had more problems than Volkswagen in R&D terms. Still, Opel decided earlier than Ford to equip its models with catalytic converters.

Prima facie, the special difficulties of Ford and Opel are surprising. The two firms are subsidiaries of American companies which had applied the autocatalyst in the USA earlier. A transfer of pollution-control know-how from the mother companies to their European subsidiaries might thus be expected. Accordingly, Ford and Opel should have had the least problems with the introduction of catalytic converters. The opposite was true. In terms of their products, the European Ford and Opel (and, in Britain, General Motors’ Vauxhall) are quite separate from their US mothers. Especially, Ford and Opel/Vauxhall models in Europe are not the same as Ford and GM cars across the Atlantic. In addition, European Ford and Opel/Vauxhall do not export to the United States. Therefore, the effect of the US market in forcing European exporters to improve their technology did not apply to Ford and Opel, in contrast to Mercedes-Benz, BMW, Porsche and Volkswagen.
Consider Ford first. Ford-Werke in Germany is part of Ford of Europe with its centralized product planning and engineering. Product development, including potential adaptations of models to national market requirements, is decided by a high-level Programme Office for the whole of Europe. Equally, R&D is centrally coordinated, and done partly in Britain and partly in Germany. For Ford-Werke, this structure turned out to be a detriment in the mid-1980s.

At the time, engine R&D of Ford of Europe was committed to the lean-burn concept. The lean-burn engine aims at reducing emissions (and fuel consumption) through changes in the engine design. In 1983, this concept was still at the stage of development and its potential and feasibility were not clear. Besides Ford, also other European manufacturers had worked on it, specifically with a view to small and medium-size cars. The lean-burn engine was not considered a promising trajectory in the German motor industry, partly because of its emphasis on large cars. By contrast, Ford UK, together with BL/Rover and Peugeot, was its most vocal advocate. The lean-burn engine played a major role in British thinking on car emission control (see Chapter IV). Ford engineers based in Britain tenaciously defended the lean-burn project when the German authorities pushed for the catalytic converter. Ford of Europe’s line, in turn, was shaped by its British branch.

The German Ford’s situation in 1983 was therefore difficult. Ford of Europe’s commitment to the lean-burn engine initially impeded the Ford-Werke from adapting to German events. Ford of Europe’s Programme Office originally chose not to develop catalyst-equipped cars for the German market. This decision was revised only later when the importance of developments there, and, in particular, the potential effect of the German tax incentive scheme for "clean cars" became apparent. In 1985, an R&D crash programme was started to fit catalytic converters to Ford models and catch up with the other manufacturers. Lagging behind, Ford offered its first three cat-models in mid-1985, but otherwise relied on its non-catalyzed versions. Only at the end of 1986, when the R&D crash programme bore its fruits, was the catalytic converter more actively advertised (Westheide 1987: 107f). Meanwhile, Ford UK continued to advocate the lean-burn concept.

Ford’s problems with an early transition to the autocatalyst were arguably bigger than those of any other German car company. In political terms, though, these problems and Ford’s commitment to an alternative technology did not greatly influence discussions in Germany. Unlike in Britain (see Chapter IV), the lean-burn engine was not an issue even within the German industry. As the determination of the Federal Government to introduce the catalytic converter was so strong, and as the other firms soon acquiesced to Bonn’s will, Ford decided to mainly work through the UK Government
to defend its stake in the lean-burn project.

From a technical point of view, General Motors Europe, with its two brand names Opel and Vauxhall, was in a similar position as Ford of Europe. It had no exports to the United States and hence no catalyst-equipped models ready for a "green" market in Europe. Like Ford, General Motors is organized at the European level. Major product decisions are taken by a European Product Programme Committee, and engineering is done centrally in GM's technical design centre in Germany. With few variations, Vauxhall and Opel are identical models.

In contrast to Ford, however, GM Europe orientated its policy to German developments when the introduction of the autocatalyst was prepared in that country. Its engineers were helped by the fact that two of GM's three European basic petrol engines had been designed, in the 1970s, with a view to the US market. Hence, they had been prepared to be fitted with catalytic converters. These basic engines were now fully brought up to more stringent requirements. Thus, already in the spring of 1985, Opel offered two medium-size three-way-catalyst models in the Federal Republic. In addition, it offered a retro-fit option with exhaust gas recirculation or simple oxidation catalyst for a number of other models. Later, Opel rapidly expanded its range of cat-cars. With one exception, the three-way catalyst became the standard option of individual models in all model series in the fall of 1986 (Westheide 1987: 108). In sum, also GM/Opel was rather unprepared for new stringent emission norms, and disadvantaged by the fact that most of its models are in the small and medium-size categories. In contrast to Ford, though, the company decided early on to adjust to the new environment (ibid.: 127).

Like Ford and Opel, also Volkswagen (including its Audi branch) feared the cost implications of more stringent standards for its range of small and medium-size cars. However, it had exported some of its models to the United States before, and, therefore, fitted them with the catalytic converter. More precisely, while Volkswagen's 1.1, 1.3, 1.6 and 2.0 litres engines had not been adapted to US'83 standards, its 1.8 and 2.2 litres engines had. In addition, the VW Golf's chassis had already been formed to leave room for the catalytic converter. While this situation left much engineering work to be done to convert the entire model range to stringent emission requirements, the ground was laid. Thus, in late 1984, Volkswagen introduced its first four catalyst models in Germany. In the fall of 1985, eleven models were available with a three-way catalyst, and one year later, nearly half of the models were regularly equipped in that way (ibid.: 110). This rapid upgrading of a broad model range, nevertheless,

118 ADAC Motorwelt 3/85.
represented a considerable effort.

Politically speaking, the approach of Volkswagen as the biggest German motor manufacturer to the question of emission control was of considerable importance for the government in Bonn. With Opel and Ford, moreover, Volkswagen potentially had powerful allies. In fact, initially, Volkswagen was loath to accept an early move to the catalytic converter. Firstly, work had been done on a lean-burn engine as an alternative technical solution. Even though Volkswagen engineers had not succeeded in bringing the concept to fruition, the de facto imposition of the catalyst through new standards was not welcomed either. More importantly, its strong interest in the segment of small and medium-size cars made the company wary of the economic implications of catalytic converters. Consequently, Volkswagen was annoyed about the signals sent out by Mercedes-Benz and BMW in the spring of 1983. Later, it voiced reservations to the authorities' plans.

At the same time, Volkswagen felt the public and political pressure related to forest damages. It understood that the auto industry could not avoid contributing to the problem's solution. Especially after BMW and Mercedes-Benz had announced their readiness "to go catalyst", and after Minister Zimmermann had grasped this opportunity, refusing cooperation was difficult. This was particularly true if the authorities ensured that industry's conditions were met (see above). In short, also Volkswagen accepted the Federal Government's policy.

The analysis in this section points to both the respective preparedness and the difficulties of the German motor groups in relation to the transition to three-way catalytic converters. The different situations in which the individual motor groups found themselves at the outset were highlighted. What was common to all German car firms, though, albeit arguably to different degrees, was the awareness that the industry could not escape from making an effort to reduce emissions in the context of Waldsterben. The public and the political pressure from government's side, including Mr Zimmermann's personal resolve, were simply too strong. This pressure, the relative technical preparedness of at least BMW, Mercedes-Benz and Volkswagen due to exports to the United States, as well as the consideration of industry's interests by policy-makers account for the cooperative attitude of the German companies towards the Federal Government in 1983. The assessment that, in any case, the need to negotiate new standards within the European Community would hinder the Government to really mandate the three-way catalyst from as early as 1986 may have also played a role.
The description in this and the previous sections, on the other hand, contradicts a conspiracy theory. There have been allegations that the "clean car" policy was a plot in environmental disguise in favour of the German motor industry.\textsuperscript{119} Accordingly, German car producers gained from imposing a technology familiar and acceptable to them to their competitors in Europe. They enjoyed a technological lead in converting their model ranges to catalytic converters due to their exports to the United States, and produced more larger cars with lower relative additional costs for pollution abatement. While this is objectively true, that this situation was consciously used by industry and the Government is highly unlikely.

Instead, the present study suggests a different story. First, the driving force in German policy in 1983 should be remembered. There is no doubt that it was the \textit{Waldsterben} which provided the impetus for Bonn to act. It was also the Federal Government which took the initiative. It is true that an initial signal had come from Mercedes-Benz and BMW. These two companies were also, undoubtedly, aware of their competitive advantage when it came to the application of catalytic converters. However, it is argued here, rather than exploiting this advantage, their motive was to preempt developments which threatened their market outlook. What is more, the majority of the major car makers in Germany did not welcome stringent norms. Volkswagen, Opel and Ford had objective problems with a leap forward towards "greener cars." Overall, therefore, the environmental pressure on the authorities and a "window of opportunity" precipitated the events. It was a forceful minister who engineered a new policy. That, later, the Government did not act against the interests of a major industry in its country but tailored its policy to adapt it to industry needs was only too natural.

c) "Greening" the market: German tax incentives as a substitute for European Community regulation

The previous parts of this chapter have centred on the forces behind Bonn's initiative for tighter exhaust gas standards at the European Community level. This section turns to the interaction between developments in the Federal Republic and developments in Brussels. Both were inextricably intertwined.

More precisely, the German policy for reducing car emissions since 1983 was partly the outcome of the EC political process. As the Federal Government could not carry through its demand for a passage

\textsuperscript{119} see e.g. Le Monde, 26.2.1985; Le Soir, 6.3.1985.
to catalytic converters at Community level, a tax incentive scheme became the alternative means to speed up the introduction of less polluting passenger cars at least in West Germany. This policy, conversely, changed the market outlook for the European motor industry, weakened its resistance against "cleaner" cars and, later, paved the way for a further tightening of emission controls. In fact, besides the German Government's political role within the EC institutions of pressing for tighter standards and showing their technical feasibility (see Chapters V to VII), the German tax incentives for low-emission cars were crucial for the progress of Community regulation.

First, however, even since the mid-1980s, the limitation of vehicle exhaust gases has remained a priority environmental concern. At the technical level, the Umweltbundesamt has sponsored research and kept up with technical developments. It has provided the Interior and, later, the Environment Ministry in Bonn with the expertise needed for negotiations in Brussels, and prepared further initiatives. Especially particulate emissions from Diesel engines and emissions from heavy-duty vehicles (i.e. lorries and buses) became a new work emphasis (see e.g. UBA 1988: 74-80). The environment agency also did not refrain from involving in the public debate.

At the political level, after Minister Zimmermann had made car pollution his personal political cause, the issue stayed on the agenda of his successors in the Environment Ministry set up in 1986. Minister Klaus Töpfer again met with German motor manufacturers to discuss the state of conversion of the German car fleet towards "cleaner" vehicles as well as further initiatives.\textsuperscript{120} The yearly reports on the state of German forests and negotiations on vehicle emission control in the European Community have continued to receive attention in the press.

As to policy development, complementary measures to more stringent standards and tax incentives were taken. Based on a model ordinance of 1984 by the Länder Committee on Air Pollution Control (Landesausschuss für Immissionsschutz), the Länder, in 1985/86, tightened up their regulations relating to smog alarm. As a result, the alarm was given more often and, for the first time, involved traffic restrictions.\textsuperscript{121} From these, low-emission cars were exempted, although precise conditions varied between the individual Länder.\textsuperscript{122} The exemption for low-emission cars arguably acted as an

\textsuperscript{120} see e.g. on a meeting in 1989, Pressemitteilung des Bundesministeriums für Umwelt, Naturschutz und Reaktorsicherheit, 15.3.1989.

\textsuperscript{121} Vierter Immissionsschutzbericht, BT-Drucksache 11/2714, 28.7.1988, pp. 56f.

\textsuperscript{122} Süddeutsche Zeitung, 9.10.1987.
additional incentive for their purchase. The model ordinance was revised in 1987 to harmonise rules on traffic restrictions.\textsuperscript{123} In 1990, the Federal Air Quality Act (\textit{Bundes-Immissionsschutzgesetz}) was amended to enlarge the possibility of traffic bans when certain air quality limit values were not met.\textsuperscript{124} In addition, from 1985, petrol cars without a catalyst had to take a special yearly in-service emission test (\textit{Abgassonderuntersuchung - ASU}) to prevent increasing emissions by de-tuned engines (\textit{BMI} 1985: 11).\textsuperscript{125} Also acting on the existing vehicle fleet, tax incentives were given for the retro-fit of cars with emission control, in addition to the incentives for new cars discussed below.\textsuperscript{126} Although some car manufacturers actively supported retro-fits, on the whole, this scheme did not yield the hoped-for results.

The introduction of unleaded petrol was furthered by a lowering of the mineral oil tax on unleaded, and an increase of the tax on leaded petrol from April 1985. As the initial tax differential left the market price of unleaded petrol higher than that of leaded petrol, the tax differential was increased few months later.\textsuperscript{127} In February 1988, leaded regular petrol was totally banned.\textsuperscript{128}

After the problem of gaseous emissions from petrol-driven passenger cars had been tackled, attention increasingly turned to emissions of particulate matter from Diesel engines, and to emissions from light-duty and heavy-duty commercial vehicles in general. In August 1985, the Federal Government passed a decision on an initiative for new EC regulations on commercial vehicles (\textit{BMU} 1990: 57). The development of particulate traps for lorries and buses was supported by the authorities with a major two-year in-service test programme.\textsuperscript{129} The discussion on possible carcinogenic effects of Diesel exhausts fuelled doubts about the cleanliness of this engine. Motor manufacturers, for their part, were annoyed about the exclusion of even low-emission Diesel cars from driving exemptions under

\textsuperscript{123} \textit{Vierter Immissionsschutzbericht}, BT-Drucksache 11/2714, 28.7.1988, p. 57.
\textsuperscript{128} \textit{Vierter Immissionsschutzbericht}, BT-Drucksache 11/2714, 28.7.1988, p. 55.
\textsuperscript{129} \textit{Wir und unsere Umwelt} 1/1989.
traffic bans, as well as the early end of tax incentives for "clean Diesels" (Daimler-Benz 1988).

In its outlook on future initiatives, the Federal Government’s fourth air quality report of 1988 listed as priority actions new Community emission limits for small cars and new particulate limits for Diesel cars, requirements for emission performance at high speeds, a tightening of standards for light and heavy-duty vehicles, standards for the durability of emission control systems and for evaporative emissions, quality standards for both Diesel and petrol fuels, and, lastly, the extension of in-service emission testing to Diesel and catalyst-equipped cars.130 Most of these measures also featured on the European Community’s car emission agenda. Developments in Germany and at the EC level, in fact, could hardly be separated, and, also in the second half of the 1980s, Germany remained a driving force of EC regulation in this area.

At least equally significant for the development of EC car emission policy during that period, though, was the "greening" of the German car market. Instrumental for it were the tax incentives for low-emission vehicles introduced by the Federal Government in July 1985. These incentives subsequently changed the market outlook of the European car industry, and thereby lessened its resistance to new Community standards.

Historically, fiscal measures had been demanded by German motor manufacturers earlier. Faced with increasing pressure to do more in cleaning up emissions, the VDA manufacturers’ association, already in 1981, suggested that the authorities aid the industry in the application of sophisticated emission control systems where these systems entailed higher vehicle prices (e.g. VDA 1981: 43). In 1983, this point ranked high on the industry’s demand list presented to the authorities. When the Federal Government, on the basis of its decision of July 1983 proceeded with its plans to mandate three-way catalysts, it picked up this proposal (see Westheide 1987: 43-46). Interministerial discussions on this issue between the Interior, Transport, Economics and Finance Ministries started in the summer of 1983. Initially, an important argument in Bonn was the concern that, in 1986, when the catalyst would become obligatory, motorists might refrain from buying more expensive catalyst-equipped cars with ensuing significant macro-economic repercussions. A fall in car sales was, of course, exactly what the motor groups feared.

As interministerial negotiations went on, different schemes were deliberated including a VAT reduction for catalyst cars and a direct subsidy to the consumer. Finally, it was agreed to work through a

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differential in annual road taxes, even though this solution had to be considered less effective because of the less immediate advantage of the incentive to the motorist. In addition, the magnitude of the incentive to be given was a matter of debate. The VDA strongly exaggerated the actual costs of equipping a car with a three-way catalyst, and a war of words on this issue involved the association's president and the Umweltbundesamt. Finally, government estimated the additional cost of applying a three-way catalyst for the manufacturer at 1,500 DM, and envisaged a tax incentive of 3,000 DM. Draft legislation for the incentive scheme was presented by the Federal Government in November 1984.\textsuperscript{131}

Originally, it was domestic considerations which prompted the German authorities to bring in tax incentives for "clean cars." In 1985, however, the scheme became a substitute for EC regulation when an early obligatory introduction of catalytic converters was blocked in Brussels. Without anticipating the account in Chapter VI, in a nutshell, the so-called "Luxemburg Compromise" of 1985 on more stringent emission standards for passenger cars was a far cry of what Bonn had sought in terms both of the limits themselves, and their dates of application. Only the limit values for cars with a cylinder capacity of 2 litres and above required the three-way catalyst, and this only from October 1988 for new models, and from October 1989 for all new cars. Standards for cars below 2 litres could in general be met with less effective technical solutions.

Against this background, the voluntary introduction of catalytic converters by means of fiscal incentives saved the Government's face. Indeed, what made the compromise acceptable to the Federal Government was, above all, a clause in the Environment Council minutes which allowed Germany to promote low-polluting cars through tax incentives (see Westheide 1987: 39). Even though this provision was linked to a number of conditions - especially, the magnitude of the incentive was to be significantly lower than the additional costs of the emission control equipment -, it allowed the German Government to offer the public an alternative to stringent EC limit values.

The German Government did not lose time in implementing its plan. It presented its already worked-out scheme to the European Commission immediately after the Luxemburg Compromise, albeit with a lower than originally foreseen maximum value of the tax reduction (i.e. 2,200 DM). This figure took into account the high surcharge for a car with a three-way catalyst at the beginning,\textsuperscript{132} the costs

\textsuperscript{131} Entwurf eines Gesetzes über steuerliche Maßnahmen zur Förderung des schadstoffarmen Personenkraftwagens, BT-Drucksache 10/2523, 28.11.1984.

\textsuperscript{132} for many models these ranged between 1,800 DM and 2,200 DM in 1985; see ADAC Motorwelt 3/85.
of a possibly necessary catalyst replacement during the vehicle lifetime, and a time discount for the annual road tax. The acceptance of the proposal by the Commission cleared the way for Bonn’s national "clean car" programme (ibid.: 40f). The corresponding law was passed in May 1985,133 and applied as from July of the same year.

The German tax break system was rather complex. Briefly, for cars of 1.4 litres and above, the incentive was given in the form of a waiver from the annual road tax (Kraftfahrzeugsteuer) if the car complied either with US’83 standards, or with the EC standards for 2 litres cars which equally required the three-way catalyst ("schadstoffarme Pkw" - low-emission passenger cars).134 This waiver was limited in time, and its duration depended on cylinder capacity and on the date of when the car was certified as low-polluting (i.e. for new cars in general the first registration). After the end of the waiver, a lower-than-normal annual road tax rate applied. This latter benefit was not included in the 2,200 DM maximum tax reduction. Diesel cars which complied with the US’83 or new equivalent EC limit values received half of the tax advantage.

In addition, three categories A, B and C ("bedingt schadstoffarme Pkw A/B/C" - partially low-emission passenger cars A/B/C) were defined according to a car’s emission performance.135 Category C only applied to cars with a cylinder capacity below 1.4 litres. The owners of such vehicles enjoyed a tax waiver plus annual-road-tax-rate reduction similar to the one described above but limited to up to 750 DM.136 Again, Diesel models received half of the tax advantage. Cars in classes A and B were promoted by a reduced annual road tax rate depending on their first putting-into-service and certification as less polluting vehicle. Diesel cars enjoyed the same benefits as petrol cars in these two categories.

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133 Gesetz über steuerliche Maßnahmen zur Förderung des schadstoffarmen Personenkraftwagens vom 22.5.1985, BGBI. 1985 I, p. 784; the details on the scheme given in the following paragraphs are based on Westheide (1987: XXVII-XXIX).

134 Zwölfte Verordnung zur Änderung der Straßenverkehrs-Zulassungs-Ordnung vom 24. Juli 1985, BGBI 1985 I, p. 1617; This description refers to the initial scheme which entered into force in 1985. This system was changed on several occasions.

135 Elfte Verordnung zur Änderung der Straßenverkehrs-Zulassungs-Ordnung vom 24. Juli 1985, BGBI 1985 I, p. 1605; limit values in these three categories could be met without the three-way catalytic converter.

136 The maximum tax incentive of 750 DM had been laid down in the 1985 Luxemburg Compromise; see Westheide (1987: 39).
By mid-1985, then, the Federal Government had put into place a scheme of tax incentives which promised the buyer of a "clean car" a financial advantage spread over the lifetime of his vehicle. Now it was up to the consumers and the motor industry to react. In fact, although an opinion poll in 1984 had revealed a high degree of willingness of German motorists to buy "clean cars" (Westheide 1987: 87f), until about mid-1986, a number of factors hindered a rapid introduction of catalytic converters (see ibid.: 90-95). Initially, reports about the negative effect of autocatalysts on engine power and fuel consumption as well as alleged safety and health hazards disturbed the consumer. In addition, car dealers first had little interest in selling catalyst cars due to the risks involved in long delivery periods. As research showed, they often advised their clients against the catalyst. These clients, for their part, at the moment of making their purchase decision, perceived mainly the extra charge of a model's cat version rather than the road tax advantage later on. They were also uncertain about the implications of catalyst equipment for the re-sale value of their car. Finally, the availability of unleaded petrol especially abroad was often bad which was an important consideration for German holiday-makers.

Nevertheless, both German and foreign car makers started to market catalyst-equipped cars rapidly. Already in early 1985, before the tax incentive scheme had actually been enacted, they either sold, or had announced the putting-on-the-market within a few months of 66 models conforming with tight US’83 or equivalent new EC standards. Apart from Ford and BL/Rover, all big West European manufacturers as well as the Japanese car makers were represented in this listing. In total, 77 cat models were available in 1985, and this number rose considerably in the following year (Westheide 1987: 85f). Besides the catalyst-equipped petrol cars, a large range of Diesel cars was on sale which met the tax incentive conditions. Indeed, at the beginning, the choice of "clean" Diesel cars was on sale which was bigger than the choice of "clean" petrol cars (ibid.). The early marketing of cat cars is indicative not least of the fact that the motor companies had used the time since 1983 to prepare for new regulatory requirements and/or tax incentives.

Despite the initial uncertainties about catalyst technology and the availability of unleaded fuel, and reticence by both car dealers and their clients to "go catalyst", the fiscal incentive scheme, within a very short time, helped the three-way catalytic converter off the ground. By doing so, it changed the interest calculus not only of German car manufacturers but also of their foreign competitors. Key developments are reflected in Tables 1 and 2. Firstly, the introduction of catalytic converters happened within an expanding West German car market. In fact, the limbo created by the uncertainty, from 1983 through spring 1985, about new EC regulations and the Federal Government’s plan for a tax incentive

137 ADAC Motorwelt 3/85.
Table 1: Shares of low-emission cars in total first registrations for different manufacturers

<table>
<thead>
<tr>
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<tr>
<td>BL/Rover</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- petrol</td>
<td>0.00%</td>
<td>6.59%</td>
<td>16.48%</td>
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<td>0.00%</td>
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<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Peugeot/Citroën</td>
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<td></td>
</tr>
<tr>
<td>- petrol</td>
<td>9.29%</td>
<td>20.19%</td>
<td>22.99%</td>
<td>27.97%</td>
<td>76.33%</td>
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<td>- Diesel</td>
<td>40.09%</td>
<td>32.83%</td>
<td>25.44%</td>
<td>17.53%</td>
<td>18.46%</td>
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<td>Renault</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>- petrol</td>
<td>6.15%</td>
<td>24.91%</td>
<td>34.38%</td>
<td>52.80%</td>
<td>91.46%</td>
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<td>- Diesel</td>
<td>29.09%</td>
<td>16.15%</td>
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<tr>
<td>- petrol</td>
<td>17.23%</td>
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<td>- Diesel</td>
<td>11.38%</td>
<td>10.65%</td>
<td>2.80%</td>
<td>0.72%</td>
<td>2.10%</td>
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<td>Ford</td>
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<td></td>
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<td>- petrol</td>
<td>4.35%</td>
<td>18.28%</td>
<td>36.53%</td>
<td>41.15%</td>
<td>80.28%</td>
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<tr>
<td>- Diesel</td>
<td>29.15%</td>
<td>16.41%</td>
<td>15.08%</td>
<td>9.47%</td>
<td>11.28%</td>
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<td>- petrol</td>
<td>17.33%</td>
<td>49.38%</td>
<td>70.07%</td>
<td>77.42%</td>
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<td>- Diesel</td>
<td>19.13%</td>
<td>8.10%</td>
<td>4.06%</td>
<td>2.75%</td>
<td>2.87%</td>
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<td>BMW</td>
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<td>- petrol</td>
<td>23.89%</td>
<td>64.56%</td>
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<td>94.53%</td>
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<tr>
<td>- Diesel</td>
<td>18.19%</td>
<td>11.82%</td>
<td>5.76%</td>
<td>5.05%</td>
<td>5.22%</td>
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<td>Mercedes-Benz</td>
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<td>- petrol</td>
<td>24.65%</td>
<td>48.58%</td>
<td>57.37%</td>
<td>64.80%</td>
<td>67.49%</td>
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<tr>
<td>- Diesel</td>
<td>43.34%</td>
<td>40.39%</td>
<td>34.70%</td>
<td>28.68%</td>
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<td>Volkswagen/Audi</td>
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<td></td>
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<tr>
<td>- petrol</td>
<td>18.52%</td>
<td>46.95%</td>
<td>63.44%</td>
<td>68.47%</td>
<td>85.13%</td>
</tr>
<tr>
<td>- Diesel</td>
<td>31.32%</td>
<td>19.91%</td>
<td>12.03%</td>
<td>10.49%</td>
<td>12.76%</td>
</tr>
</tbody>
</table>

Source: Own calculations from VDA (Verband der Automobilindustrie), Tatsachen und Zahlen aus der Kraftverkehrswirtschaft, various editions.
Table 2: The development of the market for low-emission cars (petrol and Diesel) in West Germany

<table>
<thead>
<tr>
<th>Year</th>
<th>German Registrations</th>
<th>German Manufacturers</th>
<th>Foreign Manufacturers</th>
<th>Total Registrations</th>
<th>Total Share of Low-Emission Cars in Total Cars</th>
<th>Share of Low-Emission Manufacturers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>15.4%</td>
<td>68.5%</td>
<td>26.1%</td>
<td>2.9%</td>
<td>10.7%</td>
<td>62.4%</td>
</tr>
<tr>
<td>1981</td>
<td>13.1%</td>
<td>63.5%</td>
<td>23.5%</td>
<td>2.5%</td>
<td>8.4%</td>
<td>61.4%</td>
</tr>
<tr>
<td>1982</td>
<td>11.4%</td>
<td>59.7%</td>
<td>25.8%</td>
<td>2.1%</td>
<td>7.0%</td>
<td>60.3%</td>
</tr>
<tr>
<td>1983</td>
<td>10.4%</td>
<td>55.0%</td>
<td>27.4%</td>
<td>1.6%</td>
<td>5.9%</td>
<td>58.2%</td>
</tr>
<tr>
<td>1984</td>
<td>9.4%</td>
<td>50.5%</td>
<td>27.2%</td>
<td>1.3%</td>
<td>5.4%</td>
<td>56.1%</td>
</tr>
<tr>
<td>1985</td>
<td>9.3%</td>
<td>47.7%</td>
<td>27.0%</td>
<td>1.2%</td>
<td>5.1%</td>
<td>54.0%</td>
</tr>
<tr>
<td>1986</td>
<td>8.6%</td>
<td>44.8%</td>
<td>26.8%</td>
<td>1.1%</td>
<td>4.7%</td>
<td>51.9%</td>
</tr>
<tr>
<td>1987</td>
<td>8.4%</td>
<td>42.8%</td>
<td>26.5%</td>
<td>1.1%</td>
<td>4.5%</td>
<td>50.8%</td>
</tr>
<tr>
<td>1988</td>
<td>8.1%</td>
<td>40.7%</td>
<td>26.2%</td>
<td>1.1%</td>
<td>4.3%</td>
<td>49.7%</td>
</tr>
<tr>
<td>1989</td>
<td>7.8%</td>
<td>38.6%</td>
<td>25.9%</td>
<td>1.1%</td>
<td>4.1%</td>
<td>48.6%</td>
</tr>
<tr>
<td>1990</td>
<td>7.6%</td>
<td>36.6%</td>
<td>25.6%</td>
<td>1.1%</td>
<td>3.9%</td>
<td>47.5%</td>
</tr>
</tbody>
</table>

Source: own calculations from VDA (Verband der Automobilindustrie), Tatsachen und Zahlen aus der Verkehrswirtschaft, various editions.
scheme had arguably created a pent-up demand (Hild 1985). Consumers had postponed their purchase of a new car as long as the outcome of these political decisions, the availability of lead-free petrol and the technical implications of autocatalysts were unclear. When these open questions were resolved, the demand picked up. The growing market mitigated the problems which the motor industry felt as it converted its models to less polluting versions.

The industry was also helped by the fact that many Diesel cars were eligible for a tax reduction. Indeed, the demand for Diesel cars saw a veritable boom, and over 60 per cent of new low-emission car registrations were Diesel cars in 1986. Significantly, the situation of some companies which had difficulties with a rapid introduction of catalytic converters, was, in a first time, alleviated by the fact that many of their Diesel cars qualified as low-emission vehicle. This was particularly true for Ford, Volkswagen, Peugeot and Renault. From 1987, the share of Diesel cars within sales of low-emission cars dropped as more three-way-catalyst models were offered. In addition, both German and non-German manufacturers benefitted from the possibility to have their cars type-approved to US’83 regulations. This allowed them to sell the same models which they exported to North America in Germany without changes related to emission control.

The most important change in the West German car market, however, is reflected in Table 2 in the share of low-emission cars, both petrol and Diesel, in total first registrations. The numbers show the rapid breakthrough of the catalytic converter, and the effectiveness of the Federal Government’s tax incentive scheme in "greening" the German motor market. The share of low-emission cars in new car registrations grew rapidly from 1986, and reached over 90 per cent in 1990. At the same time, the share of Diesel engines within this number declined to just over 10 per cent. Within a timespan of only five years, the three-way catalytic converter had become the standard option for most vehicle models.

Importantly, not only the German but also the British, French and Italian manufacturers participated in this trend. It is true that, initially, these foreign car makers, just as the German Ford, Opel and Volkswagen, were in a more difficult position than, especially, Mercedes-Benz and BMW. Thus, through the 1980s, the market share of foreign manufacturers in the sector of low-emission cars was smaller than their market share in total sales. Only in 1990 had the overall and the low-emission market shares converged. These numbers reflect the initial under-representation of foreign manufacturers and their gradual catching-up in the expanding market segment of "clean cars." At the same time, the foreign manufacturers shared in the growth in the German car market so that their
lagging-behind in the sales of low-emission cars was alleviated.

Table 1 also highlights the differences in the starting positions of the individual car firms. BMW and Mercedes-Benz enjoyed a clear advantage at the beginning, and rapidly increased their sales of low-emission cars. Mercedes-Benz was additionally favoured by its strong tradition in Diesel engines. At the same time, the company was the first in Europe to make the catalyst the standard option on all its models (Westheide 1987: 118f). BMW, for its part, led in the share of low-emission cars in total company sales. The two German mass manufacturers Volkswagen and Opel did not lag behind the luxury-car maker by much. In view of their product range and (especially in the case of Opel) the substantial amount of engineering needed to equip their model range with catalytic converters, their performance is particularly remarkable. It reflects an offensive strategy to adapt to a new market environment (ibid.: 120-122). The weak starting position of the two French motor groups in relation to the catalytic converter was somewhat balanced by their sales of low-polluting Diesel cars. This was particularly true for Peugeot (ibid.: 123). Renault was stronger on petrol cars and, in 1990, ranked fourth in terms of the share of low-emission cars in total car sales, behind BMW, Opel and Volkswagen. After a slow start, also Fiat and Ford caught up with market developments, with Ford being helped by its Diesel sales. BL/Rover was the last to adapt.

In a nutshell, albeit at differing speeds, both German and foreign car manufacturers, in the course of the second half of the 1980s, converted their model fleets to low-emission vehicles, and, as far as petrol cars are concerned, to catalytic converters. On a European level, market developments in the Federal Republic acted as a pull factor for all motor companies to apply catalyst technology. From a financial point of view, the bill for more expensive emission control was footed by the owners of regular "dirty cars." To make the tax incentive scheme revenue-neutral, the Federal Government increased the annual road tax rates for those cars.

Summary

Events in West Germany are the key to understanding the progress made during the 1980s in European Community car emission policy. Indeed, it is hardly possible to separate developments in the EC from developments in Germany and vice versa. The Federal Republic, supported by some smaller EC member states, was the policy entrepreneur in Community regulation in this field. This chapter has not recounted all the details of the German politics of Waldsterben and car emission control. The broad
picture has been given, however, of the institutional, political and economic circumstances which shaped Bonn’s role in the Community framework. In addition, the effectiveness of German tax incentives in modifying the market environment of European car makers was shown.

On a general level, from its departure in the early 1970s, German environmental policy has inherited an activist rationale in the form of the precautionary principle. This principle justifies forceful government action even against the background of scientific uncertainties. Politically, the challenge posed by the Green Party made the environment an issue in the electoral contest. Soon after their formation, the Greens became pivotal in German party politics. Throughout the 1980s, popular disquiet about environmental pollution and its expression in the form of the Greens’ success forced the other parties to take the environment seriously. In addition, the federal system allowed for an amplification of related pressures in multiple arenas. The case of car emission control, in fact, exemplifies those underlying features of German environment policy.

Historically, the reduction of car exhaust gases had been an important issue for both the authorities and the industry since the Federal Government’s first environment programme of 1971. This programme had set a target for reducing exhaust gases by 90 per cent over ten years. Together with gradually tightening UN-ECE and EC emission requirements and the need (at least for BMW, Mercedes-Benz, Porsche and Volkswagen) to meet more ambitious US standards with car exports, the 1971 objective had focused the attention of all parties concerned. The federal environment agency had established itself as an advocate of tighter standards in this field. Later, the non-availability of unleaded petrol frustrated the achievement of the objective as it ruled out the use of catalytic converters. When the lead-in-petrol obstacle could be removed, though, a technical solution to emission control was immediately at hand.

The year of 1983 became the turning point for policy on car emissions. Events were triggered by the concern about Waldsterben which implicated both SO$_2$ emissions from (mainly) power plants, and, at a second stage, NO$_x$ emissions and related ozone formation to which road traffic is a major contributor. Pressure to act came both from an environmentally minded public, and from forest owners. It was channelled through some Länder governments and the Federal Ministry for Agriculture and Forests, and amplified by the media. Despite scientific uncertainties about the causes of forest ill-health, Bonn had to respond. While any limitation on vehicle use was politically difficult, a "technical fix" in the form of catalytic converters promised a solution. When unrelated developments in Britain, in the spring of 1983, opened a "window of opportunity" for the EC-wide introduction of unleaded fuel, this
solution moved within reach.

The opportunity was grasped by Interior Minister Zimmermann responsible within the Government for air pollution control. At the time of the British U-turn, Zimmermann already had in his hands a statement by Mercedes-Benz and BMW that they were willing "to go catalyst" if unleaded petrol became available. With this announcement, the two upmarket manufacturers had broken ranks with the remainder of the German car industry which, for technical and cost considerations, were reticent to equip their cars with three-way catalysts. Indeed, the three German mass manufacturers - Volkswagen, Opel and Ford-Werke - had similar reasons as their counterparts in Britain, France and Italy to be wary about stringent emission requirements for their small and medium-size vehicles. At the same time, at least Volkswagen and Opel, like Mercedes-Benz and BMW, acted under the impression of the rising "green" mood in the country. With the industry divided but willing to cooperate, and political pressure for tighter emission control in his back, Mr Zimmermann acted energetically. In July 1983, the Federal Government decided to mandate the catalytic converter in January 1986. In parallel, Bonn stepped up pressure within the EC for corresponding new legislation.

Negotiations with the motor manufacturers prepared both Bonn's domestic measures for the introduction of "clean cars", and its initiative in Brussels. Essentially, the German motor manufacturers, in 1983, did not resist the authorities' push for more stringent car exhaust control under the condition that, firstly, it was translated into a harmonised European solution, and, secondly, the transition was eased by certain supportive measures. In particular, a German "going-it-alone" was strongly opposed. Besides the general availability, within Europe, of unleaded petrol and the possibility of type-approval to US regulations, some form of fiscal incentives was demanded by the motor groups to balance the costs to consumers of improved emission control.

For the Federal Government, by contrast, which had substantially committed itself in public, everything now depended on the EC. What was achieved in Brussels did not correspond to Germany's hopes. The Luxemburg Compromise of March 1985 required only larger cars to be fitted with three-way catalytic converters. In addition, the coming-into-force of new standards was greatly delayed by comparison with the Federal Government's original 1986 target. The result was made acceptable to Germany, however, by a clause which allowed Bonn to introduce (limited) tax incentives to promote the sale of less polluting cars.
With hindsight, this clause paved the way for the general introduction of three-way catalysts in the European Community by the Small Car Directive of 1989 and the Consolidated Directive of 1991 (see Chapters VI and VII). Actually, the tax incentives were as important as the standards themselves. Indeed, Bonn's tax incentive scheme proved singularly effective in increasing the demand for "clean cars" in the big German market in the second half of the 1980s, and in pushing car manufacturers to convert their models to catalytic converters. Thereby, it changed the market outlook of the European auto industry. What car manufacturers were not obliged to do under new EC standards, they were forced to do by market pressures. As they gradually adapted their model fleets to low-emission requirements, in turn, their initial resistance against strict emission standards waned.
Chapter IV

Resistance against higher standards: The cases of Britain and Italy

Understanding the economic and political interests at stake in the member states and for their
governments is of prime importance in any analysis of policy-making in the European Community.
In the last chapter, therefore, the focus was on Germany, which drove EC car emission policy in the
mid-1980s. The German intentions were not welcomed by all its partners, though, and especially the
three other member states with a national auto industry objected to the transition to catalytic
converters. The reasons behind their resistance are explained in the following. On a more general level,
this chapter underlines the point that forces in the member states arenas often shape Community
developments. As these forces are not equal in many cases, member states are set against each other
in the Council of Ministers.

The above analysis on the Federal Republic centred on the politics of forest dieback as the roots for
the German role as a policy entrepreneur in Brussels. As has been shown, however, the industrial
implications of new regulation were considered by the German Government. What is more, the
circumstances for at least part of the German car industry were favourable with respect to the
introduction of catalyst technology. In Britain, France and Italy, by contrast, broadly speaking, the
outlook was different. Here, the negative response by industry combined with a subdued concern about
air pollution at the time and consideration of the expected costs of standards to consumers in
determining the country's position in EC negotiations. Actually, the differences between Germany on
the one side, and France, Italy and the UK on the other regarding the industrial and cost implications
of the introduction of three-way catalytic converters go some way in explaining the struggle in the
Council on the new emission rules. This industrial and economic plane will be sketched in the first
part of this chapter. Then, a look at the British case and (more cursorily) the Italian situation will again
show the wider political context in those two countries.

The limits of this thesis have not allowed for full country studies on all four motor-manufacturing
member states. Against this background, Germany had to be looked at as the policy entrepreneur. The
example of Britain has been chosen as the second in-depth study for its special interest. Indeed, the
British-German dissent was based not only on different problem perceptions and political and
economic interests, but also involved a discussion on the appropriate technology to combat noxious
exhaust gases (see Boehmer-Christiansen and Weidner 1992). This debate about "lean-burn" versus "catalytic converter" provided an additional dimension to the British-German disagreement which is less clear, albeit equally present, in the French-German and Italian-German comparisons. It enriches the comparison. Finally, a brief analysis of the Italian case completes the picture. Like the chapter on Germany, the accounts on Britain and Italy do not provide all the details of the development of car emission control policy. Rather, the purpose is to illuminate the main pertinent conditions and developments in both countries.

A. Industry and the move towards new emission standards: A comparative overview of the implications for German, British, French and Italian car manufacturers

By way of introduction, three kinds of considerations stand out in the factors which influenced the government's line in Britain, France, Germany and Italy on new EC car emission standards in the mid-1980s. That these considerations pointed in different directions and were of different importance in the four countries largely explains why Germany and the three other member states took opposed positions in the negotiations in the EC Council.

First, the authorities in the various countries saw themselves confronted with differing environmental pressures. While the potential effect of car emissions on human health and the natural and built environment is the same everywhere, certain spatial differences do exist. Meteorological conditions can enhance or mitigate the environmental effect of pollutants. Thus, wind disperses emissions, and the amount of sunshine determines the formation of ozone from its precursor substances. In addition, the capacity of the natural environment to sustain the exposure to air pollution can vary from one location to another depending on chemical and biological factors. German forests, obviously, did not withstand the degree of air pollution to which they were exposed. Of course, as has been suggested in Chapter III, in the end, it is not the empirical observation of an environmental impact as such but the risk perceptions of scientists, policy-makers and the public at large, and potentially the affectedness of special interest groups (here: the forest owners) which determine the political response. As will become clear in the British case study below, risk perceptions varied between the Federal Republic and the UK in relation to the effect of exhaust emissions. In addition, the general sensitivity in the population about (certain forms of) ecological damages or health hazards and their causes varies between countries. These differences relate both to the rank of environmental quality in the hierarchy of personal and political concerns, and to the importance attached to individual forms of environmental
degradation. In sum, environmental considerations were not the same in all national capitals with respect to car emissions.

Secondly, the cost implications of more stringent standards for consumers were on the minds of policy-makers. The stringency of standards determines the technical changes needed in car design and in the form of add-on equipment to meet them. These, in turn, are reflected in higher production costs which, in the end, have to be borne (at least partly) by the motorist. Even beyond the moment of car purchase, different technical solutions of emission control can imply different maintenance costs which also affect car drivers. The argument for the lean-burn engine rested, inter alia, on the fact that no extra maintenance was needed, while a catalyst might have to be replaced later on. The fuel savings associated with the lean-burn engine was another crucial point. For the motor manufacturers, the question is to what extent consumers are willing to buy "cleaner" but more expensive cars. If car prices rise, motorists may postpone their purchase of a new car. For governments, it is a political question whether they accept an additional cost burden on consumers. Macro-economic concerns and simple electoral considerations here play a role.

In effect, however, it arguably was the narrow industrial implications of the introduction of three-way catalytic converters by EC regulation which mainly underlay the British, French and Italian positions in Council negotiations. On the one hand, as explained in Chapter II, the European motor industry had a common interest in Community standards, reflecting its multinational character and the economies of scale involved in its product. Maintaining regulatory uniformity in terms of emission norms and rebuilding it where it had been lost was a preeminent concern for the European car industry throughout the 1980s. This goal was shared by the national authorities. Other technical and economic factors, however, mitigated against a solid interest congruence and caused new, more stringent standards to affect the interests of national car industries in different ways. They combined to have different effects on manufacturers in terms of the lead times necessary for technical adaptation and of the add-on costs for their product imposed by required technical changes. The present section turns to this industrial dimension.

In general terms, for car manufacturers, the setting of emission standards means that they have to develop the technology to meet these standards, and apply this technology to their individual car models subsequently. To do so, they need time between the enactment of regulations and their coming-into-force. Emission regulations generally set a date some years in the future when the new standards apply. In the case of EC regulations, moreover, a difference is made between the time when
emission standards become applicable to new car models, and when they apply to all new cars, with the latter deadline further ahead than the former. The time span between the fixing of new standards and their coming-into-force is the lead time available to car producers to adapt to new requirements. Together with the splitting of the market into different areas with different standards, uncertainty about future requirements and short lead times are industry nightmares.

Briefly, the main technical means to achieve the kind of emission reduction envisaged in the EC debate on emission control in the 1980s included the lean-burn engine on the one hand, based on changes in the engine itself, and the after-treatment of exhaust gases by either simple oxidation catalysts or more sophisticated closed-loop three-way catalytic converters. Three-way catalytic converters were the best available technology, and their imposition by an EC directive was sought by Germany. In fact, standards coming into force in the United States in 1983 were met there precisely with three-way catalytic converters.

The technology of three-way catalytic converters was basically available to the European auto industry in the 1980s, certainly for larger passenger cars. For this class of cars, in purely technical terms, lead time was only needed to adapt the technology specifically to each car model. This, however, represents a potentially time-consuming task in itself. Especially the adaptation of three-way catalytic converters, and the concomitant need to use electronic fuel injection, requires research and development work to fine-tune the different elements of the new emission control system. In addition, the low-polluting version of each model has to be newly type-approved. The motor industry at the time estimated the time span needed from the selection of an emission-control system to successful type-approval at a minimum of 36 months (CCMC 1988a: 5). For the producers of small cars, an additional problem consisted in the fact that electronic fuel injectors only existed for larger models and still had to be developed for small engines.

Besides the lead times needed for the application of catalytic converters, very importantly, the additional time demanded by individual car manufacturers to fully develop the lean-burn engine was important. At the beginning of the 1980s, the lean-burn engine concept was an emission-control and energy-saving technology which was seen to promise considerable advantages by many car engineers. Giving this technology a chance by allowing it to be further developed and to prove its performance was a key motivation for the resistance against the rapid introduction of high standards by some car companies. This aspect will become evident especially in the British case study below.
The differences between different car manufacturers with regard to the lead time they needed to gear up to more stringent emission standards was an important element in the industrial dimension of the EC emission debate. Leaving aside for the moment the question of the lean-burn engine, the crucial factor which made the situation of different producers differ in this respect was their presence or not on high-standard markets. These were essentially the United States, Japan and Sweden. Briefly, if a European car manufacturer had sold a model in one of those markets, it had already done the engineering work to apply three-way catalytic converters to that model. The larger the share of its European model range adapted to stringent foreign requirements, the less the lead time required by this manufacturer to conform with equivalent EC regulation. The situation of the German auto industry in this context has been analysed in Chapter III, and the following further illustrates this analysis.

Although, strictly speaking, the following numbers do not refer to the key variable of share of European model range exported to the United States and other high-standard markets, and do not distinguish between different car companies, they provide a rough guide to the differences between the car industries in Germany on the one side, and in Britain, France and Italy on the other. Table 3 shows the share of total car production exported, as well as the share of the US and the two other high-standard markets, Japan and Sweden, in total exports for the four countries mentioned above. The numbers are for 1984 when the debate in the European Community on a tightening of emission legislation started to heat up.

Table 3: The importance of foreign high-standard markets for national European car industries in 1984

<table>
<thead>
<tr>
<th>Export share (in per cent)</th>
<th>Share of exports to US in total exports (in per cent)</th>
<th>Share of exports to Japan and Sweden in total exports (in per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Germany</td>
<td>68.07</td>
<td>14.30</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>24.11</td>
<td>9.11</td>
</tr>
<tr>
<td>France</td>
<td>40.97</td>
<td>4.02</td>
</tr>
<tr>
<td>Italy</td>
<td>33.40</td>
<td>2.03</td>
</tr>
</tbody>
</table>

Source: own calculations from SMMT (1986).

¹¹⁶ Unless otherwise indicated, all numbers in this section are own calculations from SMMT (1986).
As can easily be seen from the table, the situation of the German motor industry stands out from that of its competitors in the other three countries. Firstly, the German manufacturers are highly dependent on exports in general, more so than their counterparts abroad. More importantly, although most German car exports go to other West European countries, the US market is an important outlet indeed for Germany's car production. Of course, these numbers blur the differences between General Motors/Opel and Ford on the one hand, with no exposure to US regulatory developments, and BMW, Mercedes-Benz, Porsche and Volkswagen with their exports to the United States on the other. In essence, the high dependence on the US market shown in the above table underscores the special position of the German luxury-car makers and Volkswagen. Nonetheless, with the (admittedly significant) exception of Ford and Opel, German manufacturers had adapted at least part of their model range to stringent US '83 requirements before equivalent standards were envisaged in the EC.

While the share of British exports going to the United States also seems rather high at first glance, really, these exports consisted nearly exclusively of (mainly Jaguar and Rolls Royce) luxury cars. Rover exported a small number of cars to Japan, and started to export to the US on a significant scale only in 1986. Again, these exports consisted of one of the large Rover models. Similarly, the French and the Italian car industries were represented on high-standards markets to a much lesser extent than the Germans. More lead time had to be given to these car companies.

Even more important than the issue of lead time was the composition of the product range of different national auto industries. It made the German producers on the whole less vulnerable to the cost increases caused by the application of sophisticated emission control. Unsurprisingly, different technologies vary not only in their emission reduction potential but also in their cost. These costs are devolved wholly or partly on the consumer, and affect the relative competitiveness of the product. It is these economic impacts which are feared by the manufacturer. Industry came up with the following estimates of how consumer prices are related to certain emission reduction levels for a 1.4 litres car. Taking the standards of the 1983 EC directive\(^\text{139}\) as a baseline, an emission reduction of about 20 per cent, achievable for example with an improved conventional engine, imposes an additional cost of 0.5 per cent on the consumer; making the same car about 50 per cent "cleaner" with a (future) lean-burn engine plus oxidation catalyst increases the consumer price by around 4 per cent; the three-way catalytic converter with electronic fuel injection and an emission reduction potential of over 70 per cent, finally, means a cost increase of 13 per cent. In all cases, moreover, where the lean-burn engine is not part of the solution, fuel consumption was expected to increase by some 2 or 3 per cent.

Another way to look at cost increases is to consider the relative additional costs for the attainment of the same emission control target for different categories of cars. It is these additional costs in relation to the baseline price which are of particular concern to the manufacturer. To start with, quite generally, as buyers of small and medium-size cars are particularly price-sensitive, higher prices pose a particular problem to producers of such cars. In addition, the relative price advantage of smaller cars is eroded as the same cost increment leads to a relatively higher price increase for a cheap car than for an expensive car. As car prices roughly vary with car size, smaller cars, therefore, are more affected by price increases due to mandated emission control than larger cars. Furthermore, as profit margins are smaller for small cars than for large cars, additional costs which cannot be passed on to the market squeeze manufacturers’ profits.

Ironically, in the case considered here, even the absolute cost increase due to emission control was bigger for small than for large cars under certain circumstances. It has been mentioned above that the three-way catalytic converter requires the application of a fuel injection system. As this system is more expensive than the catalytic converter itself, the need for electronic fuel injection accounts for much of the costs induced by stringent standards. Because high-performance, in general larger and more expensive cars were regularly equipped with electronic fuel injection anyhow for improved engine management, the upshot of this was that the cost increment for the application of the three-way catalyst was comparatively small in their case. For small and medium-size cars, by contrast, it was largely the need to also install electronic fuel injection which made stringent standards costly, and disfavoured them in comparison to larger cars. This situation appears from the following industry estimates at the time on the absolute additional costs incurred to make different classes of cars conform with emission standards equivalent to US'83 requirements. According to these estimates, these costs remained below 300 ECU for a 1.8 to 2.0 litres upper middle-market car regularly equipped with electronic fuel injection. For all cars below this range, the cost increments varied between some 400 and 500 ECU. The largest cost item of between 200 and 300 ECU on these models was the fuel injection system. The hardest hit were 1.5 to 1.6 litres cars with additional costs of some 500 ECU. These higher cost increments for small and small middle-size cars then have to be related to their lower baseline price. In short, not only the relative but even the absolute added costs for a state-of-the-art emission control system may be markedly higher for smaller and cheaper than for larger high-performance vehicles.
The higher sensitivity of small cars as compared to large cars in relation to cost increases had considerable political implications. As will become clear in Chapter VI, the setting of stringent standards for large cars was not much resisted by the car industry. All West European motor manufacturers had at least some upmarket models in their product range, and the application of expensive emission control to them was not the problem. Especially those car makers who only produced exclusive vehicles had little to fear from a tightening of emission regulations. However, some manufacturers produced mainly price-sensitive small and medium-size cars, and were therefore more likely to suffer from regulation-induced cost increases. The manufacturers in these model ranges were consequently particularly affected by stringent emission reduction requirements.

In terms of the national distribution of regulation-induced costs, it is true that the lines between the different national motor-manufacturing industries were not clear-cut. In Britain, for example, there are some companies which specialize in expensive luxury vehicles, even though medium-size cars account for the bulk of national production. Although German car producers make many larger cars, Volkswagen, Opel and Ford have a strong stake in the small and medium-size car market. At the same time, all manufacturers of small and middle-market cars have some large models in their product range. Nevertheless, a look at the composition of production in terms of car size in the four main car-manufacturing countries is revealing.

Table 4: Production of cars by engine capacity in 1984

<table>
<thead>
<tr>
<th></th>
<th>below 1.0 litres</th>
<th>1.0 - 1.5 litres (UK: 1.6 litres)</th>
<th>above 1.5 litres (UK: 1.6 litres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Germany</td>
<td>1.49</td>
<td>23.05</td>
<td>75.46</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>17.81</td>
<td>70.18</td>
<td>12.01</td>
</tr>
<tr>
<td>France</td>
<td>8.37</td>
<td>51.95</td>
<td>39.68</td>
</tr>
<tr>
<td>Italy</td>
<td>30.85</td>
<td>46.53</td>
<td>22.61</td>
</tr>
</tbody>
</table>

Source: own calculations from SMMT (1985)

From Table 4 it is apparent that the German car industry as a whole again was in a special situation as compared to its European competitors also as far as the composition of its output was concerned. The largest part of German car production is in the upper medium-size and large-car segment. Indeed, large cars above 2.0 litres engine capacity accounted for nearly one fifth of total production in 1984. The importance of bigger cars in German production even grew through the 1980s. By contrast, the
car industries in the other three countries manufacture mainly in the lower middle-market ranges, and the Italian industry is also very strong in the class of small cars. Indeed, through the 1980s, the Italian industry even increased its stake in the small-car category, while the French and British manufacturers shifted their production towards larger cars. In a nutshell, when the pressure towards a tightening of emission norms mounted in the EC, the French, Italian and British motor vehicle industries were considerably more affected by the price increases due to possible stringent new emission regulations than the German industry.

In 1985, the European Community’s so-called Luxemburg Compromise on car emissions took account of these differences between the car manufacturers in Britain, France, Germany and Italy, and the related problems which they had to adapt to more stringent requirements. The solution found was to differentiate the new standards and the related dates of their application by different classes of cars (see Chapter VI). This outcome reflected a balance struck between the different industrial interests at stake, and has to be understood in this light. However, in addition to this technical and economic background, there also was a more rational argument which could be used to justify the structure of the agreement. Taking a consumer point of view, this line of reasoning was based on the consideration of the relative contribution of each class of cars to the problem of air quality, and of the relative costs imposed on the motorists in each country (see Henssler and Gospage 1987).

Relating to these costs, firstly, the composition of the car fleets in different countries has to be noted. Thus, for the four countries mentioned above, the share of large cars (above 2.0 litres) varied between 1 per cent in Italy and 13 per cent in Germany in the mid-1980s. By contrast, small cars (below 1.4 litres) made up 84 per cent of the fleet in Italy but only 37 per cent in Germany, and accounted for 67 per cent in France and 51 per cent in Britain (ibid.: 75). This meant, that the average Italian, French and British motorist would be hit much more by considerable price increases due to the application of three-way catalysts to small cars than car buyers in Germany.

In addition, it was argued that larger cars due to their special driving patterns and speeds contribute more to air pollution, and especially the NOx emissions implicated in forest damages, than smaller cars. Average mileages per year are bigger for larger than for smaller cars. Moreover, middle-size and large cars are driven more on motorways rather than on urban and suburban streets than small cars. They can also be assumed to drive faster than small cars. Finally, Germany stands out in that 26 per cent of total car mileage is on motorways, while the corresponding shares are between 10 and 12 per cent in the other three countries (ibid.). These differences are important as far as NOx emissions
are concerned. Higher mileages at higher speeds on motorways imply higher NO\textsubscript{x} emissions. These were precisely the operating conditions typical for middle-size and large cars in Germany. At least on a car-by-car basis, the small cars in Britain, France and Italy, by contrast, were less responsible for the NO\textsubscript{x} problem which so much preoccupied German policy-makers. From a consumer perspective, this was an additional argument for why the owner of a small car especially in those three countries should be spared the costs of expensive emission control equipment. From this point of view, the solution to the NO\textsubscript{x} problem lay overproportionally with large cars, and particularly in Germany itself. In sum, the average large car was a bigger polluter than the average small car, and (see above) could more easily bear the cost increment due to the application of catalytic converters. Moreover, of course, a speed limit on the West German Autobahnen would have brought some immediate relief.
B. Resistance to new EC regulation: Britain and the European Community politics of car emission control

While Germany has played a driving role in Community car emission policy, the United Kingdom for several years resisted any significant tightening of standards. A first indication of the reasons for this line was given in the first part of this chapter. A closer look at the British circumstances is taken in the following. The implicit reference point for the analysis is the situation and developments in Germany (see Chapter III). In the overall framework of this study, the German and the UK case studies (plus the shorter description of the Italian case) together illustrate the widely diverging domestic forces around an issue which can emerge in the Community's polycentric system. In fact, whilst it will be one of the conclusions of this thesis that EC regulation benefits from the multiplicity of arenas and centres of expertise constituted by its member states, the drawback of its constitution, of course, is the burdening of its decision-making process by opposed national interests. How this materialized from the German-British rift over car emissions in the mid-1980s is reported in Chapter VI. Particularly the negotiations leading up to the 1985 Luxemburg Compromise were influenced by the contrasting interests of both countries.

Here, however, first, the relative lack of an environmental case in London for setting stringent vehicle emission standards is described. Indeed, a problem requiring such a measure was not really perceived. Rather, in the early 1980s, exhaust gas control was imposed on Britain from abroad as a policy issue. As will be shown in a second part of this section, therefore, it was the concerns of the motor industry which dominated the UK Government's political line in EC negotiations. In the absence of environmental pressures, industry, at least until the end of the 1980s, shaped Whitehall's agenda. Importantly, the Government's own perception on one crucial technical point - the advantages of the lean-burn engine - coincided with industry's requests. Since the failure of this technology, the UK Government has been less blindly committed to defending its motor manufacturers' interest in Brussels.

1. Lacking pressures for stringent standards: The environmental policy context

During the 1970s and 1980s, Britain, in the eyes of some of its European neighbours, acquired the reputation of being a laggard in environment policy. The British role in the EC concerning motor vehicle emissions contributed to this opinion. While it is true that the picture of Britain "dragging its
feet" in environmental matters is partly due to misperceptions in other countries (Brackley 1987). British resistance to higher car emission standards in the 1980s cannot be denied. In this context, the cautious and consensus-oriented British environmental policy style has to be considered which contrasts with what was said above about German pollution control. At the same time, the historical nature of the following account of British environment policy should be kept in mind. It centers on the period of the 1980s when Germany pressed for the introduction of catalytic converters, and the UK resisted it. Today's British environment policy is different from what it was ten years ago.

The concept of "policy style" (Richardson et al. 1982: 13) was used in the German case study to capture the background for political developments in the area of car emission control. It encompasses both the authorities' own approach to policy-making, including their legal and conceptual frameworks and standard operating modes, and the relationships between different actors, i.e. the politics involved in the policy process. In the following, both of these aspects will be looked at in turn concerning British pollution control.

a) The British environmental policy style I: The institutional and policy side

While variations across time and across policy sectors and issues do exist, for Britain a policy style "emphasizing consensus and a desire to avoid the imposition of solutions on sections of society" (Jordan and Richardson 1982: 81) has been noted. A broadly shared norm that government should be by consent, and a liberal tradition reticent to state intervention into the economy determine the cultural context. Consulting and accommodating the parties affected by regulation is the preferred operating procedure in the policy process. As diverse private interests are taken into account continuously, this approach inhibits radical change and an active (as opposed to reactive) government policy. In institutional terms, an interventionist strategy is impeded by a powerful and inherently cautious civil service. As ministers are weak, the civil service ensures continuity (e.g. Grant and Wilks 1983). If anything, the bias against government regulation of industry has been strengthened by the present Conservative government.

The way in which British environmental policy is made corresponds well to this dominant national policy style (Richardson and Watts 1985). The pragmatism, consensus orientation and reactive mode of British environment policy was revealed, for example, in a comparison with the US experience. Contrasting American and British policy in the fields of pollution control and land-use planning, and
drawing on additional evidence from occupational health and safety, consumer protection and economic regulation, David Vogel (1986: 220) concluded that regulation of industry tends to be "more informal (...) more flexible, and more private" in Britain. Close working relationships between regulators and industry, and the consultation of the latter in the preparation of new regulations are the rule. Unlike in the United States, conflicts at the implementation stage are managed between the authorities and the regulated industry directly, without being taken to the courts.

Clearly, Vogel focuses mainly on the implementation of regulation and follows a "most different cases" approach, with Britain and the United States at opposite ends of a formality/informality scale. Yet, the British way of doing things also appears in comparison to other European countries. Especially the juxtaposition of the UK and Germany has highlighted the characteristics of the British environmental policy style (see Boehmer-Christiansen and Skea 1991; Boehmer-Christiansen and Weidner 1992; Weale 1992). On a general level, the pragmatic British way of thinking is noteworthy. There is a reticence in Britain to enunciate sweeping policy principles. Rather, policy decisions are to be taken on the merits of the individual case. On concrete problems, policy-makers sustain a rationalist outlook, as opposed to a more moralistic approach for example in Germany. Moreover, the old British concept of "best practicable means" to reduce pollution is less technically ambitious than, for instance, the German requirement to apply the Stand der Technik (state of technology). And while the German principle of precaution legitimizes a proactive government line (see Chapter III), a similar concept is lacking in Britain. By contrast, the broad philosophy of British pollution control

"would probably amount to the claim that pollution should be reduced, as long as the costs of doing so remain less than the benefits. In other words, the implicit policy principle would aim to optimise pollution, in the light of a series of calculations about the costs and benefits of alternative courses of action." (Weale et al. 1991: 210)

As far as technical regulation is concerned, a government emphasizing consensus is unlikely to set standards which impose costly solutions or even force technology, and to pursue ambitious goals more generally. Indeed, until recently, British legal requirements were little specific, and took second place to negotiations in order to find mutually acceptable solutions. A cautious approach based on agreement with the regulated industry prevailed. Particularly in the absence of strong environmental concerns, this was true in the cases of both the power-generating (see Boehmer-Christiansen and Skea 1991: 277), and - as will be further shown below - the car industries.

The system of air pollution control with regard to stationary sources was a prime example of the British style of environmental regulation. Since the Alkali Act of 1873, the Alkali Inspectorate, germ
of today's HM Inspectorate of Pollution, regulated gaseous emissions from the main industrial processes. Local authorities were responsible for localized pollution, and more standard emissions and processes. The Inspectorate enjoyed large discretionary powers in the setting of standards in the framework of little specific statutory requirements. It worked in close collaboration with the industries it regulated, dealing with emission sources on a case-by-case basis (Haigh 1990: 171-175). The statutory guideline of air pollution control was the concept of "best practicable means" which in the Clean Air Act of 1956 was defined as "reasonably practicable having regard, amongst other things, to local conditions and circumstances, to the financial implications and to the current state of technical knowledge" (quoted from Ashby and Anderson 1981: 115).

It is this concept which shaped the flexible and pragmatic style of pollution-control in Britain. As the National Society for Clean Air (NSCA) criticized, this implied "no sense of urgency in exploring new technologies which may benefit the environment." At the same time, changes in organizational arrangements and conceptual frames of reference of British environment policy have found their expression in the Environmental Protection Act of 1990 (see Haigh: ch. 6.1). These changes will not erase the tradition of pragmatism and consensuality characteristic for the British environmental policy style. However, the increased formality of procedures and centralization of powers with the Secretary of State for the Environment undermine these traditions. Negotiations between the regulators and the regulated industries, and the flexibility in the implementation of regulation were limited by increased legal requirements both in terms of procedures and in terms of numeric standards. Incidentally, these changes in British environmental policy are partly due to EC regulation (see ibid.; Héritier et al. 1994: 238-265). The need to comply with formal EC rules and to prove this compliance indeed pushes towards a more organized system of pollution control in the Community’s member states.

It is true that what has been said above on the legal flexibility of air pollution control in the field of stationary sources has never applied to motor vehicle emission standards. These are regulated under the Road Traffic Act of 1972 through type-approval standards set by the Secretary of State for Transport. By nature, they are formal and specific. Nevertheless, the philosophy of cost-consciousness and restriction to readily attainable standards has characterized the British attitude also in this field. A quest for scientific certainty on environmental damages and their causes before action is taken; an emphasis on the costs of environmental regulation for industry or consumers; the belief that pollution

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140 In a memorandum to the House of Lords Select Committee on the European Communities for a report on air pollution (House of Lords 1984: 94).
levels need not necessarily be minimized but that some pollution may be acceptable; a reliance in voluntary "green" behaviour by business and consumers - these features do not square with an active environmental policy. They were borne out in the case of car pollution policy.

b) The British environmental policy style II: The politics side

The second element of the concept of policy style, besides the government's own ways of handling policy issues, is its relations with other actors in the political process. The government's consensual approach towards private interest groups has already been noted. Traditionally, in Britain, private interest groups are closely involved in the preparation of new policies within Whitehall. The "four Cs' of insider pressure group politics: 1. consultation with recognised interests, 2. consent by the interest groups consulted to the decisions taken by government, 3. co-operation by the groups in the implementation of the decisions, 4. continuity in the contours of the policy-making process" (Grant 1989: 65) shape the regulatory process. As a preferred routine on the administrative level, this style transcends political rhetoric and party government. To some extent, Mrs Thatcher's reign upset the traditional British way of making policy as the Conservatives followed through their neo-liberal credo. The labour unions were marginalized, and business was more exposed to the discipline of the market. In day-to-day Whitehall affairs, however, changes were arguably not as significant as the Conservative U-turn would make us believe.

At the same time, environmentalism in the UK has traditionally been of a pragmatic kind, shunning broader ideological discussions and overt conflict, and thus well in tune with a consensual policy style. Working through the administrative channels of Whitehall both as members on formal committees and in informal contacts with civil servants has been the environmentalists' main strategy (see Lowe and Goyder 1983: 57-85).

Their close relations with government is the environmentalists' strength. In the absence of other means, however, it is a source of weakness at the same time. On the one hand, close participation in the preparation of policy gives environmental groups direct access to decision-makers and to valued information. It makes them, to some extent, insiders to the political machine. As such, however, "group leaders become enveloped in the consensual atmosphere of Whitehall with civil servants attempting to explain the constraints on government action and the rival claims which have to be balanced." (ibid.: 66)

They have to moderate their claims and tactics, and subject to bureaucracy's confidentiality rules.
Thus, they are constantly running the risk of being co-opted and estranging themselves from their membership. Insider status, moreover, does not mean that government listens. Significantly, the conservation lobby has better access to politically marginal government agencies than to the centres of political power. The Department of Trade and Industry and the Department of Agriculture, for instance, are less accessible and cooperative than the Department of the Environment (DoE), or "quangos" like the Countryside Commission and the Nature Conservancy Council. The latter tend to see environmental groups as allies within Whitehall (see Lowe and Goyder 1983).

It is true that the Green Party has a more fundamentalist slant. Yet, it has remained somewhat dissociated from the environmental movement (Rüdig and Lowe 1986). In addition, individual organizations, like Friends of the Earth (FoE) and Greenpeace, have sometimes employed more media-oriented and spectacular means. Especially during the early years of the Thatcher Government, as conservationist groups found their concerns disregarded politically, did they resort to a more confrontational course. Generally speaking, however, the political involvement of environmental groups in British policy-making confirms the general policy style in that country.

In terms of the internal Whitehall politics, environment policy was not in a strong position through the 1980s. This is true, firstly, in administrative terms. Within the Department of the Environment, pollution control and nature conservation are only one of the responsibilities of the ministry, besides local government and housing. Hence, the demands of "green" pressure groups face other, and possibly contradictory interests even within the ministry (Rothgang 1990: 79f). In addition, severe cuts in the DoE's environmental staff in the early 1980s hampered its capacity for a pro-active line. In 1985, resources had to be considered "generally insufficient for new policy initiatives or to allow more than a reactive approach to new environmental problems and international developments." More generally, the environmental movement in the UK has never found it easy to impose its case politically, despite its strength, as economic concerns dominated the agenda more than elsewhere. Industrial decline and unemployment are little conducive to heightened environmental awareness.

Furthermore, the control of air pollution in particular was not a priority of the Thatcher Government. In the case of emissions from combustion plants, in 1984, the DoE succumbed to the Treasury, the Department of Energy and the state-owned Central Electricity Generating Board (CEGB) concerning Britain's position in international negotiations on SO₂ cuts. Political pressure in Parliament and the Conservative Party concerning air pollution was initially overruled by the Government's wish to avoid

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141 ENDS Report 127 (August 1985).
new costly regulation both for private industry and the CEGB, and by different situational factors (Boehmer-Christiansen and Skea 1991: 211-217). Geographically, the regions in the north of the British Isles where environmental damages due to acidification mainly occur, are the Labour heartland and were politically disenfranchised under the Conservatives' reign. Significantly, Greenpeace's forest damage campaign focused on the Tory strongholds in Southern England.

While in the Federal Republic, the electoral success of the Greens spurred the other parties to take environment issues more seriously (see Chapter III), a similar force was absent from the UK scene. Under the "first-past-the-post" voting system, the British Greens stand no chance of emulating the rise of their German friends. A strongly visible environmentalist force does not exist in British party politics. It is true that networks link up environmentally minded MPs in all three parties represented in Parliament (see Robinson 1992). Some Members associate themselves with conservationist groups on occasions, in exchange for their helping them to keep up a "green" profile. Besides, evidence given to House of Lords or House of Commons parliamentary committees is an important way of making their voice heard for environmental groups. The actual influence of the conservationist movement on at least the Conservatives and Labour remains limited, though. The more immediate economic and social policy problems are generally in the fore of the politicians' minds.

Nevertheless, a certain "greening" has occurred in British politics in recent years (see Robinson 1992). Initially, the Conservative leadership was little open to environmental concerns. With access to ministers and, eventually, the Prime Minister being essential to effect policy change in UK government, this blocked major inroads. In two speeches in the autumn of 1988, however, Mrs Thatcher indicated a greater commitment to environmental policy. In contrast to acidification, climate change seemed to attract her attention. While her government had staunchly resisted calls to commit itself to a 30 per cent reduction in SO\textsubscript{2} emissions under the UN-ECE's 1979 Long-Range Transboundary Air Pollution Convention, it signed the NO\textsubscript{x} Protocol to this convention together with most other EC countries in November 1988 (UN-ECE 1990: 20). In 1990, the government published a White Paper on environment policy and passed the Environmental Protection Act which brought institutional reforms (see O'Riordan 1990). Chris Patten as the new Secretary of State for the Environment raised the hopes of conservationists. In 1991, the DoE's institutional resources were strengthened with the setting-up of a Global Atmosphere Division dealing with the greenhouse effect.

\footnote{Reflecting on the situation from his own political point of view, and in relation to car emission standards, the Parliamentary Under-Secretary of State for Transport, Peter Bottomley, told the House of Commons in 1988 that "[I]n countries with proportional representation minority groups may have more power, and may show it by demanding (...) programmes that are not cost-beneficial." (Weekly Hansard, vol. 139, no. 1462, col. 978)
Overall, the DoE seems politically stronger within Whitehall today than it was ten years ago. However, these developments came too late to change the role which the UK played during the most difficult phase of EC car emission negotiations.

To summarize, the general context of British environment policy was little propitious for a proactive attitude with respect to car exhausts for most of the 1980s. A policy style stressing negotiation and consensus with the industry concerned and the *de facto* exclusion of the "green" movement from the arena of electoral politics is not conducive to the implementation of ambitious environmental measures. In addition, through the 1980s, the government in power was little inclined to lend an ear to environmental demands. Only later, after the catalytic converter had made its breakthrough, did Britain review its approach to pollution control.

c) Scientific uncertainties and car emissions

A cornerstone of the British environmental policy style, which has not yet been discussed, is the emphasis put on a secure scientific basis for regulatory decisions. In international negotiations on the reduction of air pollution since the 1970s, the conservative British attitude towards the scientific questions involved hindered the UK Government from taking a more proactive line. Its alleged political nature and lack of scientific soundness was one of the criticisms that HM Government voiced of EC environment policy.143

Generally speaking, hard evidence about ecological damages and their causes is considered necessary in Britain to justify the imposition of obligations on industry. In theory, a scientific assessment of environmental damages and their origins should first lead to a clear understanding of the problem. On this basis, the need for pollution control measures would be deduced, and the costs and benefits of action squared. All politics would thus be excluded from what becomes a purely science-based "environmental management." Conceptually, the insistence on scientific certainty before action is taken contrasts with the German *Vorsorgeprinzip*, and how it was applied in the context of *Waldsterben* (see Chapter III). On the other hand, insufficient knowledge about an ecological cause-effect chain may be used as a cheap excuse for avoiding action.

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143 According to Environment Minister William Waldegrave, in evidence to the House of Lords on the EC's Fourth Environmental Action Programme, proposals from the EC Commission are often "a result of the changing fashions in pressures from outside", rather than being based on a thorough assessment of the problem (House of Lords 1987a: 85).
In the 1970s and 1980s, the question of scientific evidence was at the centre of international discussions about the transboundary transport of \( \text{SO}_2 \) and \( \text{NO}_x \) emitted from stationary sources. Worried about the acidification of their lakes and rivers, the Scandinavian countries, already in the 1970s, had pressured their neighbours to reduce these emissions. However, Britain, like initially the Federal Republic, turned a deaf ear to the Scandinavian concerns. Before abatement measures were considered, Britain first had to be convinced that its transboundary export of air pollutants contributed to damages abroad. The Central Electricity Generating Board (CEGB) responsible for Britain's power stations, and with it the government, until 1986 contested the need for action by reference to scientific uncertainty. This prevented the UK from supporting international air pollution abatement agreements in the framework of the UN-ECE (Boehmer-Christiansen and Skea 1991: 205-221).

In the case of emissions from motor vehicles, the local and regional effects are more important. The international aspect is brought in mainly through Community regulatory competencies. The German disquiet about forest die-back forced the European Community into action while Britain did not share this concern. In fact, the car emission issue was imposed on Britain via Brussels. Scientifically, the UK largely reacted to foreign scientific claims, and its response was initially based on doubts in their validity.

The scientific problems were if anything more acute in relation to car emissions than for combustion plants. This became clear in hearings of the House of Commons Environment Committee in the summer 1984 and the fall 1985.\(^{144}\) Not only did road transport share with combustion plants the general uncertainty about the link between emissions and depositions, and about the actual effects of acidification on the natural environment. In addition, the data base concerning nitrogen oxides (\( \text{NO}_x \)) as a strongly transport-related kind of emissions, and the understanding of their contribution to air pollution was particularly weak, in comparison to \( \text{SO}_2 \). Indeed, the \( \text{NO}_x \) emissions from a multiplicity of motor vehicles and strongly dependent on driving conditions are more difficult to calculate than \( \text{SO}_2 \) or \( \text{NO}_x \) emissions from a limited number of power stations. It is these nitrogen oxides which are implicated in acidification (together with \( \text{SO}_2 \)), and (together with hydrocarbons) the formation of ozone (\( \text{O}_3 \)). Acid deposition, both in wet ("acid rain", "acid mist") and in gaseous form, and ozone are held responsible for damages to buildings, crops and forests. The formation of ozone from various primary pollutants is specially difficult to comprehend. Related to vehicle exhausts, \( \text{NO}_x \) was the focus

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\(^{144}\) The account in this section is based on the evidence given to the House of Commons Environment Committee, if not otherwise indicated; see House of Commons (1984a; 1986). The House of Lords Select Committee on the European Communities also held hearings in relation to air pollution and vehicle emissions; see references in the next section below.
At the beginning of the 1980s, the evidence gained by British scientists about causes and effects of acid deposition in general, and about the contribution of NO\textsubscript{x} in particular, was patchy indeed. Firstly, policy-makers had to struggle with a shortage of data on the actual amount of acid deposition and NO\textsubscript{x} pollution on the British Isles. Only very few measuring stations recorded ambient NO\textsubscript{x} concentrations and the chemical composition of precipitations. No evidence was available as far as dry depositions of NO\textsubscript{x} and ozone were concerned. It was these dry depositions which were focused on strongly in relation to forest die-back in Germany. The gaps in the measuring network impeded a clear assessment of the pollution situation on a regional and nation-wide level, and across time. It was only in the second half of the 1980s, after demands from Parliament and the Royal Commission on Environmental Pollution, and presumably also in response to international pressure on Britain concerning its contribution to research and control of transboundary air pollution, that monitoring efforts were stepped up, and allowed for an encompassing evaluation of air quality (see DoE 1990a: 30-32).

A lack of reliable data also prevented the Department of the Environment (DoE) from an accurate analysis of the contribution of road transport to total NO\textsubscript{x} emissions. For example, DoE data in 1984 showed a decline in NO\textsubscript{x} emissions from motor vehicles between 1978 and 1982, as opposed to a strong increase in West Germany. The Department was unable to explain this surprising discrepancy. Subsequent figures corrected the mistake and showed an increase in road NO\textsubscript{x} emissions also for the UK. Thus, in 1988, the government's Warren Spring Laboratory (WSL) noted that "[d]ecreases in power station emissions [of NO\textsubscript{x}] have been offset by increases in road transport emissions" during the 1980s. Besides, CO emissions had increased by some 15 per cent from 1975 to 1985 mainly due to increased road transport emissions, and hydrocarbon emissions had increased by about 12 per cent in the same period (House of Commons 1988a: 263). Similarly, government had to revise its initial estimate that some 30 per cent of total NO\textsubscript{x} emissions were accounted for by road transport in 1982. In 1990, the DoE put the contribution from road transport to overall NO\textsubscript{x} emissions at 45 per cent (DoE 1990a: 7f). In sum, the role of the car as a cause of environmental pollution beyond a strictly local level emerged in the understanding of British scientists and officials only in the second half of the 1980s, and partly in emulation of foreign research.

To the gap in the knowledge about the amount of transport-related forms of air contamination was added uncertainty about actual environmental damages. Forest ill-health like in Central Europe stirred
little concern in Britain, while British attention extended to the acidification of lakes and rivers, and to pollution-related damages to historic buildings. Indeed, the Forestry Commission, as the competent official body, only started to deal with forest die-back more seriously in 1984, in order to find out whether what happened on the Continent might also be happening in Britain. For a long time, the Forestry Commission did not take its limited evidence to draw firm conclusions between tree damage and pollution. Rather, it stated that it had not observed any generalized air pollution-related forest decline like that reported from abroad. Accordingly, it did not advise government to take pollution-abatement measures. Counter-evidence produced by Friends of the Earth (FoE) was rejected by government as not scientific, although subsequent studies tended to confirm the FoE findings.145 Its reticence to come out with more straightforward conclusions earned the Forestry Commission heavy criticism not only from conservationist groups. In its 1988 report, the House of Commons Environment Committee, commenting on the Forestry Commission’s apparent demand "for strict scientific proof of an unbroken causal chain between acid rain and damage to trees", found it "very difficult to understand how the Forestry Commission continues to stand apart from the conclusions reached by virtually every other body or organisation concerned with the health of trees." (House of Commons 1988b: xxi)

As might be expected, industry took this situation to ward off demands for better pollution abatement. High costs of pollution control were contrasted with allegedly dubious benefits. In unison with the Confederation of British Industry (CBI), the motor industry, through its trade association, the Society of Motor Manufacturers and Traders (SMMT), stressed the uncertain scientific ground on which government action would have to be based. The SMMT underlined the small overall contribution (between 7 and 8 per cent) of NOx emissions from motor vehicles to global acid deposition. As the factors behind acidification were not well understood, and the evidence in the scientific literature was inconclusive, new stringent standards on emissions were considered unjustified. This all the more as a reduction in NOx emissions would entail an (environmentally unsound) penalty on fuel consumption. On the natural science side, for instance, SMMT drew benefit from the complex relationships involved in ozone formation. The photochemistry involved was interpreted to mean that a reduction in NOx concentrations might actually lead to an increase in O3 - a possibility also considered by the DoE’s Scientific Adviser.

145 see the FoE memorandum to the House of Commons Environment Committee (House of Commons 1988a: 127f).
It was the link between emissions and observed environmental damages which most preoccupied the scientists in the Department of the Environment. The evidence on damages to the natural and built environment was generally acknowledged, although the damage observed abroad "is far more extensive than we appear to be experiencing in the United Kingdom." (DoE 1984: 3) NO\textsubscript{x} and ozone as the two main transport-related forms of pollution were made out as important, but the DoE was concerned about the lack of knowledge concerning the mechanisms which linked the damages to emissions and the relative contribution of gaseous pollutants and possible other factors to the observed effects. These knowledge gaps translated into uncertainties as to how much gain in environmental improvement could be achieved by investing into pollution abatement. Instead, the DoE reiterated "the Government's overall policy: that action against pollution shall rest on the best scientific evidence, the best technical and economic analysis, and the best possible assessment of priorities." (ibid.: 3) Government should let itself be guided by scientific evidence, and the benefits of any action should be clearly understood before action was taken and costs be imposed on British industry and consumers. Although these arguments related initially to the electricity industry, they obviously equally applied to motor vehicles later.

In line with a science-based approach to environmental management, the DoE's immediate response in 1984 was nearly to double its research expenditures on acid rain between 1983/84 and 1985/86, thus offsetting earlier cut-backs. It also set up five scientific review groups on different aspects of the acidification problem (including photochemical oxidants) to pull together the knowledge already available (House of Commons 1988a: 2f). Apparently, however, these review groups limited themselves to drawing up a pure summary of the established scientific findings, and to pointing to knowledge gaps in which further research was necessary.\textsuperscript{146} It was also not certain that, at least initially, more scientific evidence would really improve the conditions for regulatory action. In fact, even when the increased monitoring and research efforts bore fruit in the late 1980s, the government continued to rule out strong pollution control policies. Instead, it was concluded that "the problems are much more complex than was earlier envisaged." (House of Commons 1988a: 10) Concerning forest die-back, for example, even in 1988, the DoE was reticent to make a clear-cut judgement. It conceded that "the trees are of only moderate health", and that further surveys might change the picture to the worse (House of Commons 1988a: 28). On the other hand, it found its earlier assessment confirmed that forest damages comparable to those observed in Germany were not to be found in Britain. Moreover, the DoE stressed that air pollution was not the only factor affecting tree health, and played down its effects. Only further studies would yield sufficiently conclusive evidence on the

\textsuperscript{146} see four of the reports published by these review groups (DoE 1987; 1988; 1990a; 1990b).
development of forest health, and the link between air quality and forest health.

Although the UK Government thus found scientific findings insufficiently secure to justify stringent regulatory action even at the end of the 1980s, it was nonetheless apparent that the problem of transport-related air pollution was taken more seriously. Indeed, the DoE conceded that the government’s 1984 target of a 30 per cent reduction in NO\textsubscript{x} emissions between 1980 and the end of the 1990s looked difficult to achieve, even despite new controls in car emissions. In 1990, the DoE also acknowledged that ambient NO\textsubscript{2} standards proposed by the World Health Organisation (WHO) for the protection of human health, and corresponding UN-ECE standards for the protection of vegetation were exceeded especially in many urban areas in Britain (see DoE 1990a).

Importantly, the science-led British approach to environmental regulation in the 1980s did not necessarily lead to the conclusion that action against acidification was not sufficiently vindicated. Some experts advising the government, and, indeed, the Parliament committees concerned, did not share Whitehall’s cautious attitude. Already in 1984, although recognizing the incompleteness of the scientific understanding of the consequences of transport-related emissions on the natural environment, the Natural Environment Research Council (NERC) made it clear that the potential dangers involved could justify political steps. The body responsible for research into the pathways and effects of pollutants expressed concern about environmental damages due to both wet and dry depositions as well as interactive effects between various pollutants. For its part, the Nature Conservancy Council advising government on questions related to nature conservation, noted "ever-increasing evidence of damage to natural ecosystems in sensitive regions" (House of Commons 1988a: 242) in Britain due to acid deposition. The Council challenged the claim that further studies were necessary before a decision could be made to reduce emissions. Current measures for emission control both for power plants and for motor vehicles were thought insufficient to achieve reductions in acid deposition to allow ecosystem recovery.

The questions around the scientific evidence on road transport-related environmental damages and the empirical justification for corresponding political action were discussed at several occasions in hearings by the House of Commons Environment Committee. That even from a politician’s point of view more affirmative conclusions were possible on acidification than those drawn by HM Government, was reflected in the reports issued after these hearings. Although strongly emphasizing in its own work the scientific side of pollution control, the House of Commons Environment Committee, already in 1984, voiced the opinion that
"[u]ncertainty over the mechanisms of damage persists, but in all hypotheses the culprits, ultimately, are SO\textsubscript{2}, NO\textsubscript{x} and hydrocarbons. Evidence exists that reduced depositions will alleviate damage. Further evidence proves that a reduction in emissions will lead to a reduction in depositions." (House of Commons 1984b: lxxi)

According to the Committee, the government was misled by the scientific advise it had drawn on, and the degree of agreement in the scientific community pointing to causes and effects of acid deposition was higher than government assumed. Therefore, not only should research efforts be stepped up but also immediate reduction measures be taken. In a similar vein, the House of Lords Select Committee on the European Communities, in 1984, considered it "foolish and dangerous for no action to be taken to combat the problems of air pollution." (House of Lords 1984: xxiv) Although referring in this statement to emissions from stationary sources, the Committee said that it looked forward to EC proposals on NO\textsubscript{x} emissions from motor vehicles.

The insistence of British environmental policy-makers on basing decisions on a sound scientific evaluation and a clear assessment of the costs and benefits of action is a crucial element of the British environmental policy style. In the case of air pollution control, this science-led approach contributed to the British Government's reticent attitude in international and EC environmental negotiations. As British monitoring in this field had been wanting, and neither the scientific community, nor government, nor the public at large had really taken notice of pollution-related damages, at the beginning of the 1980s, concern about, mainly, forest die-back and water acidification had not arisen. Indeed, when protests about British pollution exports to its neighbouring countries, and pressures within the EC to tighten controls on both mobile and stationary emission sources, were brought home to Britain, British policy-makers were taken aback. Unconvinced about the need for action, they reacted by delaying agreements in the EC and under the UN-ECE's Long-Range Transboundary Air Pollution Convention.

The above is a benign interpretation of the British Government's policy. Of course, a critical evaluation has to take account of the possibility that scientific uncertainties are used as an easy excuse to avoid difficult political decisions. Indeed, the rather one-sided reliance by Whitehall on those elements in the scientists' analysis which were clouded by uncertainty, and the negation of the existent certainties, is remarkable in this context. The reports by the House of Commons Environment Committee, written under the responsibility of active politicians as well, albeit outside government, talked another language. They confirm that even under a science-based environmental policy style different conclusions from the evidence available were possible.
A general lack of public interest in air pollution and the government's opposition to a more active policy in turn provided little incentive for the scientific community to raise a warning voice. As the example of the Forestry Commission suggests, British scientists arguably resisted new evidence also to ward off criticism of their work in the past. Moreover, drawing the attention of government to gaps in the scientific evidence might mean further research funding. But even apart from such a hidden agenda on the part of individual scientists, a science-based outlook on environmental policy - as opposed, for instance, to a precautionary approach - is generally not conducive to a proactive policy line. Arguably, a mixture of honest scientific conservatism, and resistance fuelled by other motivations was at work in shaping the British position.

In contrast to the 1980s, when the demand for better car emission control was imposed on an unconvinced and reluctant UK Government, Britain more recently, has come to define its own problem agenda in this respect. It emphasizes urban pollution problems and their effects on human health, and reflects the growing awareness that emission reductions will gradually be offset by traffic growth. While these concerns are by no means unique to policy-makers in the UK, a focus on local air quality and its effects on public health corresponds to the traditional orientation of British clean-air policy. It is in marked contrast to the focus of the European clean-air debate in the 1970s and 1980s, fuelled by Scandinavian and Central European concerns about long-range pollution. In technical terms, a concentration on urban air quality includes, in particular, attention to the problem of cold-start emissions. Indeed, the present test methods enshrined in EC legislation neglect emissions when vehicles are cold-started, although emissions tend to be particularly high during that phase. In order to rectify this situation, the amendment of the EC test cycle by a special cold-start phase has been pushed by Britain.

d) No domestic political pressure in the field of air pollution

Indifference by the scientific community and government in Britain about problems related to air pollution was embedded in a lack of wider public interest. Generally speaking, political pressure for tighter vehicle emission controls was low, and the UK Government, therefore, had little incentives to

147 for an interesting discussion on this point see Boehmer-Christiansen and Weidner (1992: 91-95).

support more stringent Community legislation in this area.

Objectively, geographical factors do cause air pollution to be less of a problem on the British Isles than on the Continent. In addition, the sensitivity to certain environmental issues is different in Britain, as compared to, for instance, Germany. Indeed, what the forests are to the Germans is the countryside to the British. While the former are worried about the ailing of trees because of acid rain, the British see their cherished landscape as little affected by this form of degradation (Boehmer-Christiansen and Skea 1991: 63, 66f). Since the big London smog of 1952 which caused some 4000 deaths, air pollution and its effects has certainly not been a cause of particular worry in the British public. In the words of a 1988 House of Commons Environment Committee report, since then there was "a remarkable complacency in the British people and Parliament regarding the problems of Air Pollution." (House of Commons 1988b: x) A report commissioned by government in preparation for the 1972 Stockholm Environment Conference surely revealed some public concern on motor exhausts and recommended the adoption of UN-ECE emission standards (Ashby et al. 1972: 27-29). More recently, the greenhouse effect has attracted the attention of at least the political community. Only the alarm about ambient levels of lead due to the leading of petrol, though, qualified the relative indifference in relation to air quality (see below).

This analysis was confirmed by opinion polls conducted for the European Commission in 1982, 1986 and 1988. The results showed that the British are little concerned about air pollution both in their local environment and more generally, as compared to other EC citizens. Cars were less seen as major polluters than in most other EC countries. Both in 1986 and in 1988, hardly any of the British respondents indicated to already have had installed an emission control device on their car. In view of the fact that few catalyst-equipped cars were on offer in British salesrooms, this result is not astonishing. What is more significant is that, as compared to their fellow EC citizens, the British were also little willing to consider buying a low-polluting car as one of the options to contribute personally to the protection of the environment (European Commission 1986; 1988b). This was reflected in the car manufacturers' advertising where, in the eyes of a casual observer, performance, comfort, safety and reliability ranked far before environmental "cleanliness" (Watkins 1991: 87).

Even for British environmentalists, air pollution from motor vehicles did not become a major issue. On acid rain, it originally was Swedish environmental groups which, in the early 1980s, elicited the interest of their British friends, in order to build up domestic political allies in their international efforts against dirty British smoke stacks. In 1985, Friends of the Earth (FoE) conducted a tree
die-back survey with volunteers, which revealed considerable damages and challenged the evaluation of the Forestry Commission and the DoE (Friends of the Earth 1985). In 1984 and in 1988, FoE testified to the House of Commons Environment Committee's hearings on atmospheric pollution. For the second hearing, it presented a detailed memorandum in which, among other things, it called for the rapid introduction of lead-free petrol with a view to introducing catalytic converters.\footnote{see the 1988 FoE memorandum to the House of Commons Environment Committee (House of Commons 1988a: 127-131).} On the same occasion, the powerful Royal Society for the Protection of Birds reported on the disappearance of the Dipper bird from acidified water courses and made air pollution, together with conifer afforestation, responsible for acidification (House of Commons 1988a: 353-355). In January 1987, FoE organized a scientific seminar on the problem of acid rain and air pollution with speakers from the UK, Sweden and Germany. In the same year, it published a research review on air pollution damage to natural habitats (Friends of the Earth 1987), as well as its first information material on acid rain. In 1989, Greenpeace targeted ministerial constituencies to highlight the impact of air pollution on trees. Following concerns in Sweden on the one hand and Germany on the other, British environmental groups campaigned both on water acidification and forest damage, although it proved difficult for them to construct a vivid image of threat especially for forest die-back. The activities by Friends of the Earth (FoE) and Greenpeace around acidification did not arouse much public anxiety (cf. Boehmer-Christiansen and Skea 1991: 77-85).

It was only from 1988 that the British conservation lobby took on the issue of car exhausts. The political debate in the EC on the so-called Small Car Directive (see Chapter VI), disquiet about the government's traffic growth forecasts published in 1989, and heightened concern about urban air quality underlay its activities. In fact, before, for example FoE, in company with the National Society for Clean Air (NSCA) (Boehmer-Christiansen and Skea 1991: 79), had not even made up its mind about the appropriate technical solution for the control of car emissions. As will be shown below, important parts of the UK motor industry and the UK Government fought hard for the lean-burn engine as an alternative to the three-way catalytic converter. Until as late as 1989, FoE and NSCA did not challenge this position. A traditional preoccupation with energy saving in the light of which lean-burn technology is attractive probably contributed to this reticence. Moreover, the emphasis by some British environmental groups on transport planning made them cautious about limited technological solutions. This contrasted with the reliance on a "technical fix" in Germany.
On the whole, campaigning by "green" groups on vehicle emissions neither reflected nor aroused much public disquiet. Indeed, besides emphasizing domestic air quality problems, FoE and Greenpeace often took political developments at the EC level as the starting point of their actions. In November 1988, FoE local chapters, in the context of their Lead-Free Petrol Week, picketed Peugeot dealers in protest of this company's resistance against tighter emission standards for small cars. Greenpeace targeted Ford Britain for its opposition to catalytic converters. It also lobbied British Members of the European Parliament to vote for more stringent standards for small cars. Later, the NSCA followed negotiations on the Consolidated Directive. Other actions focused on the motorists' behaviour. In 1989 and again in 1990, FoE published an information sheet on the availability of catalyst-equipped versions of the main car models. Environmental groups also advocated tax incentives for low-polluting cars. The environmental problems of Diesel vehicles always attracted FoE attention, and the contribution of CO₂ emissions from automobiles to the greenhouse effect has been publicized by the organization since 1990. In 1990, also the World Wide Fund for Nature (WWF) became involved with a conference on traffic growth, air pollution and the greenhouse effect (WWF 1990).

The one big exception to the relative indifference in the British public to air quality was the lead-in-petrol issue (see Haigh: ch. 6.7; Hooper 1987150). In this case, the UK acted more according to the precautionary principle than usually.151 Already in the 1970s, the dangers to human health and child development arising from lead contamination had caused worries in the United Kingdom and prompted campaigning by environmentalists. In response to a warning by its Chief Medical Officer in 1971, the government had reduced the allowed maximum content of lead in petrol in several steps during the 1970s, first by voluntary agreement with the oil industry, then by regulations. The UK had also promoted the enactment of the European Community's first directive on lead in petrol in 1978.152 In the run-up to the government decision to ban lead in petrol, the Campaign for Lead Free Air (CLEAR) was launched by environmentalists in 1982 and led a well-targeted professional campaign. When CLEAR's concerns were vindicated in a report by the Royal Commission on Environmental Pollution in 1983, the UK Government acted immediately, and pushed for the introduction of unleaded petrol under EC law. As described in Chapter III, this policy reversal was

150 Hooper provides additional details on the lead-in-petrol story. Her general conclusion that the government decision to work for a ban of lead in petrol was motivated more by international developments and pressures rather than domestic developments, however, is not convincing. Indeed, the government decision preceded, and partly helped to promote these international changes especially in the EC context (see Chapter III).

151 This was, in fact, the charge by an MP in the House of Commons debate on the proposal for the 1985 EC lead-in-petrol directive (see Weekly Hansard, vol. 69, no. 22, cols. 314-317).

part of the "window of opportunity" for the German Federal Government to start its initiative for the catalytic converter.

In relation to the capability of new cars to run on unleaded petrol, the UK pressed for earlier deadlines than originally proposed by the European Commission. Since the 1987 budget, government furthered the introduction of unleaded petrol through tax incentives, and promoted it in advertisement efforts together with the motor and the oil industries. Incidentally, later, the "clean car" was often associated by politicians with a car running on unleaded petrol, instead of a catalyst-equipped vehicle like in Germany. Confusion about the relationship between the use of unleaded petrol and the control of gaseous exhaust emissions abounded.

In sum, although environmental organizations addressed air pollution and emissions from motor vehicles, apart from the lead-in-petrol problem, their activities mainly followed developments abroad rather than that they reflected domestic concerns. This is true both for the initial "discovery" of acidification and ozone as environmental problems, and for the focus on political developments at the EC level. Only later did the observation of air quality problems in Britain itself and disquiet about government forecasts concerning traffic growth provide a home-made matrix for political involvement. Significantly, the activities of environmental organizations seem to have risen and fallen with the work of individual campaigners which is indicative of the weak thrust behind car emissions as a political issue. Certainly in the early and mid-1980s, when political developments in this field heated up within the European Community, pressure from environmental groups on government were quasi non-existent.

As to Parliament, again, political pressure on HM Government specifically on motor vehicle emissions came late, and was arguably of little effect. Lead in petrol was more in the mind of MPs than the reduction of gaseous emissions so hotly debated in the EC. Significantly, air pollution in general did not become a partisan issue (Boehmer-Christiansen and Skea 1991: 212f). Interestingly, besides air pollution-related damages to public health and the ecosystem, parliamentary attention was also attracted by damages to buildings, and especially Britain's historical monuments.

As has been mentioned in the previous section, the House of Commons Environment Committee took an active interest in air pollution and acid rain, and published three reports in this area during the 1980s (House of Commons 1984b; 1986; 1988b). In these reports, the Committee took a more

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precautionary approach to atmospheric pollution than HM Government, and gave an alternative assessment of the scientific basis for policy. Against the background of the government's position, the 1984 report was remarkable in that it expressed the Committee's belief that, despite persisting scientific uncertainties, "sufficient evidence exists to show that the decision to reduce emissions of SO₂, NOₓ and hydrocarbons should be taken now." (House of Commons 1984b: lxx) The Committee therefore urged the government to commit itself to the targets of the "30 per cent club" for SO₂ emissions negotiated under the 1979 UN-ECE convention on transboundary air pollution, and take practical air pollution abatement measures against both SO₂ and NOₓ. At the same time, the 1984 report dealt nearly exclusively with emissions from power plants, and scarce attention was given to road transport. Here, MPs believed that

"a reduction in emissions on NOₓ and hydrocarbons by motor vehicles is desirable; first, because of the contribution of these emissions to acid precipitation, but also, more significantly, because of their role in producing ozone." (ibid.: lix)

However, the Committee in the end followed the car industry's argument by considering lean-burn engines instead of three-way catalytic converters as the best available technology. This perfectly went along with government's view.

After the 1985 follow-up report had not aimed at new conclusions, the 1988 report was another full-scale scrutiny, including on the more recent ozone depletion and climate change issues. In relation to vehicle emissions, though, it concentrated nearly entirely on lead in petrol. In the hearings held by the Committee to prepare its report, the problem of car emissions was not specifically dealt with. Indeed, the motor industry was not even invited to give evidence. In the Committee’s conclusions, lead in petrol was curiously overrated in terms of its political significance. In commenting on the EC car emissions directive enacted in December 1987154, the Environment Committee welcomed that passenger cars should be designed to run on lead-free petrol. In the political struggle preceding this directive, however, this aspect had been of secondary importance, and its real breakthrough was in the field of gaseous pollutants. An important change in mind of the Committee was reflected in two small sentences. Thus, the Committee expressed its hope that the introduction of lead-free petrol would make the application of three-way catalysts "more of a practical proposition than appeared to us in 1984."

And even more clearly:

"Certainly, urgent steps need to be taken to reduce emissions from motor vehicles and the development of the lean-burn engine, which we favoured in 1984, may no longer be the best means of ensuring this." (House of Commons 1988b: xv-xvi)

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With this turn away from the lean-burn engine, in May 1988, the Committee preceded the government's acceptance of the catalytic converter for other than large cars in EC negotiations one year later. In a nutshell, then, while the Environment Committee contributed to making air pollution a political issue, behind power plants car emissions ranked second in its attention, and lead in petrol was considered more important than car exhausts. On the adequate technology to clean up vehicle exhausts, the Committee did little to challenge the government’s view.

The House of Lords Select Committee on the European Communities was more attuned to Community developments. After its 1984 report on air pollution had focused on stationary sources (House of Lords 1984), the Committee published a separate report on the EC Commission’s proposals for directives on lead in petrol and emissions from cars (House of Lords 1985). This report came out in February 1985, i.e. shortly before the decisive ministerial negotiations leading to the Community’s so-called Luxemburg Compromise (see Chapter VI). Like the House of Commons Environment Committee, the Lords recommended precautionary action against vehicle emissions despite uncertainties as to their contribution to air pollution. Their report stood out, however, in its discussion of measures to be taken. Indeed, the Lords called for an earlier enactment of stringent US'83 limit values, than provided for in the Commission’s proposal. They justified this call not only with environmental reasons, but also with their scepticism about the medium-term availability of a true lean-burn engine which would fulfil the hopes put in it both by car manufacturers and the UK Government. With its early proposition to enact limit values which could only be met with catalytic converters, the Select Committee was a lonely voice running against the positions taken by Whitehall, the House of Commons Environment Committee, and, of course, the car industry.

The House of Commons Environment Committee’s relative lack of interest in motor vehicle emissions was shared by the House as a whole. Judging from the number of written questions put to government by MPs, again, lead in petrol was considered more important in the early 1980s. The problem of how tight EC standards for car emissions should be set, and what the technological implications were, was hardly brought up. Only later, did vehicle emissions and related EC developments, and, since 1989, the contribution of road transport to the greenhouse effect receive more attention. This pattern confirms the more general picture in which air pollution from motor vehicles aroused political concern.

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155 Another report by the House of Lords Select Committee on the European Communities, in 1987, dealt with particulate emissions from passenger cars (House of Lords 1987b).

156 This analysis is based on the results of a database search kindly provided by the House of Lords Library Reader Service. Unfortunately, the records do not seem to be complete.
in Britain only in the late 1980s, and earlier preoccupations focused on lead contamination instead.

This became clear also in the House of Commons debate on the government’s position in EC talks on new emission standards and lead in petrol during 1984/85. At the time, negotiations on both matters were held in parallel in Brussels, although negotiations on what later became the Luxemburg Package on emission standards were far more difficult. Nevertheless, it was the proposals on lead in petrol which surely drew more attention in the House. In a late-night debate in December 1984, both Environment Minister William Waldegrave, and most speakers concentrated on the questions related to lead pollution. In fact, the minister’s statement that new emission standards must not be so high as to require the application of catalytic converters was not challenged by any speaker. Those MPs who referred to this question at all shared the minister’s view that the lean-burn engine was the better technical solution, as compared to the control of emissions by autocatalysts.

At the time of the debate on new emission standards for small cars, the situation had changed. In January 1988, the MP for Luton South, where Vauxhall has its main plant, criticized past EC car emission legislation as not stringent enough and argued for the general application of three-way catalytic converters. This at that time was rejected by Whitehall. Not surprisingly, Vauxhall had less problems with this technology than Ford and Rover as the other two big UK car manufacturers. In November 1988, the government was attacked by opposition speakers in the House for its refusal to accept EC standards which would require the use of catalytic converters. This was taken to invalidate the Prime Minister’s greater commitment to environmental policy exhibited in speeches earlier that year.

One year later, even a group of Conservative back-bench MPs backed a motion for the earlier introduction of catalytic converters and corresponding tax incentives. Thus, the times in which the Commons would quietly register in support of government for car emission regulations based on other than best available technology were gone. In reality, however, this new enthusiasm in the lower House for stringent emission control came late. In November 1988, even within Whitehall, the hopes put in the lean-burn engine were waning, and little more than half a year later, the UK accepted EC standards

157 see Weekly Hansard, vol. 69, no. 22, cols. 302-322.

158 ENDS Report 156 (January 1988).

159 see Weekly Hansard, vol. 139, no. 1462, cols. 975-994.

for small cars which required the autocatalyst (see Chapter VI).

2. Government policy and the motor industry: The predominance of industrial interests in British car emission policy

The previous analysis has looked at British environment policy in the 1980s. The upshot is that an air pollution problem was not really perceived, that domestic pressure on government for a proactive environment policy in general was weak, and that such a policy would have run against a cautious British policy style. Indeed, the question of tighter car emission control was imposed on the UK from abroad, through its membership in the European Community. By contrast, there was considerable resistance within parts of the UK motor industry and within government itself against stringent new standards. Being a beleaguered industrial sector in the recovery of which the government had a big stake, the UK motor industry found a sympathetic ear in Whitehall when it came to arguing against further environmental constraints. In addition, the great hopes put by both industry and government in the lean-burn engine as an alternative technological pathway motivated a policy to resist EC standards which could only be met with catalytic converters. The next and the following sections elaborate on the reasons why Britain was intransigent in the face of German demands for the three-way catalyst.

a) The general context of government-industry relations in the motor sector

Whitehall's outlook on new regulation affecting British car manufacturers was first of all shaped by the sector's economic situation. Indeed, the UK motor industry had been a true headache for the government for a number of years. What is more, Whitehall was involved in the management of BL/Rover as the country's biggest car maker.

Plagued by a weak product line and weaknesses in product quality, poor labour productivity and a high level of industrial strife, uncompetitive production costs, failure to rationalize and outright mismanagement (Pryke 1981), the motor sector was a prime example of the decline of British manufacturing. During the 1970s and 1980s, a strong fall in production and increasing import penetration spelled contraction for British car manufacturers and massive job losses. Ford and GM

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161 On the history of the British motor industry see e.g. Adeney (1988), Wood (1988).
transferred part of their production to other European plants. Only Ford earned profits in the late 1970s and early 1980s. Whether BL/Rover would survive was an open question at the beginning of the 1980s.

Historically, problems had not least been caused by unfortunate government policies themselves. The instrumentalization of the motor industry for macro-economic policies (i.e. demand and balance of payments management), for regional development and for employment policy had contributed to its structural weaknesses (Dunnett 1980). In 1968, the government, through its Industrial Reorganisation Corporation, initiated the merger of Leyland and British Motor Holdings into British Leyland (later renamed BL, and, today, Rover Group) which thus became the only British-owned volume producer (Hague and Wilkinson 1983: 119-133). British Leyland was nationalized on the verge of bankruptcy in 1975, but massive state subsidies, and changes in management and strategy did not bring the hoped-for upturn. The foreign-owned car firms did not escape the crisis either and were affected by similar weaknesses in industrial culture and management as those which crippled BL/Rover. In 1975, Chrysler’s threat of liquidating its British subsidiary got the government involved in another rescue operation.

In fact, the government was drawn into the management of the motor industry through ad hoc interventions in times of emergency, and without having developed a strategy for the sector (see Wilks 1984). The Chrysler rescue in 1975, for reasons of political and financial expediency, discredited the government’s new "backing winners" industrial policy at the moment it was launched. Involvement with Chrysler’s business planning afterwards was distant and little coordinated within government itself, before the company sold out its European operation to Peugeot in 1978. Government’s experience with BL was not better. Initially, the so-called Ryder Report prepared to justify the nationalization of the company but flawed in terms of its analysis and proposals was allowed to become the basis for an unrealistic company strategy. A programme of expanding production failed to address the problems of British Leyland’s malaise, such as low productivity. After a debilitating strike in 1977, a new management initiated radical cut-backs. From then on, government policy was marked by personal backing for the new chief executive who impressed Mrs Thatcher with his professional approach.

Hence, at the time when the EC debate on car emission control started to heat up, government had bailed out two car companies, and was still closely enmeshed in the management of one of them, BL/Rover. The Conservative government did not disentangle itself quickly from this job. In fact, the
head of the BL car division was later to claim "that Conservatives were much more interventionist than Labour politicians." (quoted in Wood 1988: 241) Government involvement was steered by the Department of Trade and Industry (DTI). As other sectors, the motor industry had its own sponsorship division within the DTI. Generally speaking, these sponsorship divisions monitored industry developments, communicated government policy to the industry, and acted as channels for financial support. In addition, for the industry, they "acted as 'institutionalised trade associations' within government, raising issues that concerned their industry with other departments, and also offering trade associations general advice on their relationships with government." (Grant 1989: 58).

In the case of the motor industry, the DTI had regular discussions with all major companies, including the multinationals, on their business planning, and a close relationship seems to have developed over time. Of prime importance was the task of managing the establishment of the Japanese car makers Nissan, Honda and Toyota in Britain (see also Chapter II). This foreign investment was strongly welcomed by London, and Nissan received financial support for building its plant. Government's association with nationalized BL/Rover was particularly close, as it had to approve major individual investment decisions, including on new models and important components. On the other hand, this interference in the company's affairs, the management's refusal to privatize individual sections of its business as wanted by Whitehall, and the firm's continuing need for subsidies created conflicts (see Wilks 1984). Between 1975 and 1984, public funding for BL amounted to 2.411 million £, a substantial part of which was given by the Thatcher administration (ibid.: 231).

Industry sponsorship, of course, was not in line with the Conservatives' "hands-off" approach to the economy. The DTI sponsorship divisions were, therefore, abolished in 1988 in a move to distance government from business. Due to its importance and the government's on-going interest in the sector, however, an exception de facto was made for the motor industry. Indeed, a strong element of continuity behind the history of DTI's internal re-organizations is indicative of the government's commitment for this sector beyond party-political orientations. In 1988, officially, vehicle and vehicle component manufacturing were lumped together with other industries such as clothing, tobacco and consumer chemicals, and with general consumer protection, foreign trade, technology transfer and Single Market issues into a rather undefinable "Consumer and Vehicles Market Division." This division was to serve as a "contact point" for car manufacturers. In practice, the main task of the new division was to continue the DTI's earlier sponsorship function. In 1991, a new system of "business task forces" for individual industrial sectors was created, one of them for the motor sector, with the designation of "task force" implying a temporary activity and less direct government involvement.
Today, a "Vehicles Division" has been openly re-born, and its existence confirms Whitehall's continuing interest in the motor industry.\textsuperscript{162}

At last, during the 1980s, the situation of the industry stabilized and relieved government from some of its headaches. While employment continued to decline drastically, car production rose from some 900,000 in 1984 to 1.3 million in 1989 (SMMT 1990a: 16). Productivity increased, labour relations improved and new investments were made. Vauxhall and Peugeot Talbot regained profitability in the second half of the decade. On the negative side, the fact that the balance of trade in motor products has been negative since 1982 cannot have left the UK Government indifferent. In 1989, the trade deficit reached 6,550 million £ which was nearly a quarter of the overall British trade deficit (SMMT 1990a: 199; own calculations).

Finally, the Thatcher administration also succeeded in its objective to privatize the state-owned part of the motor industry. Jaguar was removed from the public sector in 1984, but the government initially retained a veto power ("golden share") over the acquisition by any single shareholder of more than 15 per cent of the firm's equity. It gave up this instrument in late 1989 after which Jaguar was taken over by Ford. In 1985/86, the government negotiated with Ford over the acquisition of Austin Rover, and with GM over Leyland Trucks and Land-Rover. More financial support was given when Rover returned to the private sector as a part of British Aerospace in 1988. In short, government involvement in the British motor industry, both managerial and financial, was significant through the 1980s.

It would certainly be too easy to assume that the UK Government, in the 1980s, opposed more stringent car emission standards only to save its industry additional costs. Two other factors, to be discussed below, were certainly more important. Nonetheless, the proposal to introduce catalytic converters was arguably seen as another burden on an already struggling industry. The imposition of new requirements on British car makers which spelled costly investments or reduced competitiveness could therefore be expected to be anathema to HM Government. In addition, the relations between at least the established, i.e. non-Japanese car companies and Whitehall had been shaped by government's long-standing involvement. Even though the industry's need for government care lessened as its outlook improved, and a disengagement took place on government's side, the industry could rely on a sympathetic ear for its representations. The characteristics of the general British policy style, the "four Cs" of consultation, consent, cooperation and continuity (Grant 1989: 65) between industry and government are well borne out when it comes to car emission policy.

\textsuperscript{162} see Civil Service Yearbook, London, HMSO (various editions).
b) The UK motor industry’s interests in the European Community politics of car emission control

Before government policy and the politics of car emission control in the United Kingdom are addressed further on, this section outlines the motor manufacturers’ interests in this respect. In fact, stringent new standards were not a problem for the British motor industry in purely technical terms. Provided that sufficient lead time was given for the engineers to fit three-way catalytic converters to the individual car models, and to have these type-approved to the new emission rules, the availability of the autocatalyst also to UK companies was not in doubt. Hence, if the time frame for the application of new standards was right, and the supply of the necessary components ensured, no British car manufacturer would find it impossible to comply with low emission limits. The world’s biggest producer of autocatalysts, Johnson Matthey, indeed, is a British company.

Nevertheless, important parts of the British motor manufacturing industry fiercely opposed the new standards called for by Germany. To explain this resistance, the implications of these new standards need to be considered. Like for the German motor industry (see Chapter III), for each company, three parameters determined the base line from which it had to adapt to a new set of regulatory requirements. Briefly, the structure of the company’s business, the company’s R&D programme, and, in common to all UK car makers, the nature of their domestic market were important in determining each firm’s position in the political debate. In fact, like for the German case, the summary analysis on the overall positions of the national auto industries in the main EC countries in the first part of this chapter (see Tables 3 and 4) blurs the differences between the individual British motor companies. However, it was especially for the two major companies, Rover and Ford, that all conditions worked against the three-way catalyst.

Consider first the structure of the company’s business, and remember what was said in the first part of this chapter on the relative cost implications of the introduction of three-way catalytic converters for different categories of cars. Both the three-way catalyst and the fuel injection needed for it to work increase manufacturing costs and, consequently, the price of the vehicle. Smaller and cheaper cars become relatively more expensive when a three-way catalyst has to be fitted than larger and more expensive cars. Even in absolute cost terms, larger and sports cars may be less affected by the obligation to fit three-way catalytic converters than smaller cars as they already have electronic fuel injection from the outset for improved engine performance. Thus, stringent emission standards have bigger implications for manufacturers of small and medium-size cars than for producers of large, expensive vehicles.
The second point relates to the presence or not of a car maker on the North American market. It will be recalled that most German manufacturers had exported to this market when the German Government started to press for US-equivalent standards. Therefore, the engineering work for fitting three-way catalytic converters had been done already at least for those models which were sold in the US, even if they were marketed without catalysts at home. Little additional engineering work was needed to live up to more stringent emission requirements.

In addition to the nature of each company's business, technological priorities in terms of a company's R&D were important. More precisely, the so-called "lean-burn engine" was developed since the 1970s by different European car manufacturers as a technology to reduce fuel consumption and improve emission performance. In Britain, this technology gained considerable political weight when it came to the discussion about the EC "going down the American way" by setting standards requiring catalytic converters. As a technical alternative to catalytic converters, the lean-burn engine appealed to many car engineers and the UK Government (see below). The two biggest British car producers, Rover and Ford, had embarked on an R&D programme to develop the lean-burn concept. Equally had Riccardo Consulting Engineers who, at the same time, though, worked on catalytic converter solutions. However, although they put big hopes in it, British car engineers had not turned lean-burn into a finished product at the beginning of the 1980s. Yet, its perceived technical promise and the substantial engineering resources invested made Rover and Ford wary of new EC emission standards which might put their work at risk because of their tightness. The commitment of a manufacturer to lean-burn was a key factor in determining its view in the European emission debate. As mentioned in Chapter III, by contrast, the German manufacturers (with the possible exception of Volkswagen) had abandoned this technological trajectory.

Against the background of these factors - the relative cost implications of high standards for different categories of cars, the presence of car companies on the American market and the commitment to the lean-burn engine -, both differences and commonalities in the positions of the main UK manufacturers with regard to new EC legislation can be explained. Firstly, the British producers of prestige cars, i.e. mainly Jaguar and Rolls-Royce, had no significant problems with stringent emission standards. The application of catalytic converters and the related price increase were unlikely to deter their customers from buying their products. In addition, as far as engineering was concerned, their model range was prepared to be fit with this pollution control device for exports to the United States. In 1984, three out of four cars produced by Jaguar were for export, and over 70 per cent of these exports went to the
United States. Similarly, nearly three quarters of Rolls-Royce cars were shipped abroad, a lot of which to North America. Both Jaguar and Rolls-Royce had thus engineered their models to strict US requirements, and only had to fit the catalyst also to their cars sold in Europe in serial production. Indeed, the motor industry’s trade association, the Society of Motor Manufacturers and Traders (SMMT), already in 1984 accepted the application of three-way catalysts to heavy passenger cars. Moreover, for large engines geared towards high power output, lean-burn was never seen as a viable technology.

What was important to Jaguar and Rolls-Royce, however, as to their German counterparts (see Chapter III), was a regulatory detail in any new EC directive. To be able to sell the same catalyst-equipped models marketed in the US unchanged also within the Community, Jaguar and Rolls-Royce called for an optional clause. Accordingly, manufacturers should have the possibility to get an EEC type-approval if their vehicle passed a US emission test. The "Luxemburg Compromise" directive later contained this possibility. On the whole, however, the British luxury car makers were little affected by stringent EC standards.

The same was true, concerning the up-market end of its model range, for BL/Rover. In the mid-1980s, the company did have some experience on the Japanese market, and started to export at least one of its models - the Rover 800 Sterling with its 2.7 litres engine - to the United States. Also the 2 litres engine was available with catalyst already at the time. Otherwise, however, BL/Rover’s model range and exports meant that it was little prepared for a significant tightening of European emission regulations. Its Mini and Metro models are small cars, and accounted for 47 per cent of overall production in 1984. Its Maestro and Montego cars, introduced into the market in 1982 and 1984 respectively, and accounting for another 37 per cent, belong to the small to medium-size categories. These cars were particularly vulnerable to price increases due to the fitting of catalytic converters. In addition, in 1983, over 40 per cent of BL/Rover’s output was exported, mainly to other EC countries in which, up to then, lenient UN-ECE 15.04 standards had applied. In Switzerland, by contrast, with its standards equivalent to US'83 standards, for example, still in 1988, the small Rover models were

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163 If not otherwise indicated, statistical data in this section are own calculations from SMMT (1986, 1988, 1990a).

164 see the memorandum by the SMMT to the House of Lords Select Committee on the European Communities (House of Lords 1985: 24).

simply not on sale (CCMC 1988: Annex 8).

BL/Rover was also working on the lean-burn engine. The new BL/Rover K-series of small engines was lean-burn, and was used for small car models in lean-burn conditions for some time. Later, they had to be changed to richer air/fuel mixtures to be fitted with three-way catalytic converters. BL/Rover even managed to meet the limit values of the Luxemburg Compromise (see Chapter VI) for smaller medium-size cars by lean-burn technology. Generally speaking, however, due to its commitment to lean-burn engines, and its lack of experience on high-standard markets, BL/Rover had difficulties in adapting its models to catalytic converters. Initially, simple oxidation catalysts, the fitting of which does not require much engineering work, were used by BL/Rover to make its cars qualify for some of the German tax incentives. Only slowly were cars adapted to three-way catalysts. Together with Ford, Fiat and PSA, Rover brought up the rear in the conversion of its sales to three-way catalytic converters. For example, in the third quarter of 1992, immediately before EC legislation made three-way catalysts mandatory on all cars, just over half of Rover’s petrol cars sold in Britain were equipped with either an oxidation or a three-way catalyst.¹⁶⁶ In the end, Rover was not much ahead in meeting the schedule set by Community legislation across its entire model range. The slump in its sales on the "green" German and Dutch markets in the second half of the 1980s reflected the disadvantage from which Rover suffered as it could not provide "clean cars" to benefit from tax incentives.

For Ford, its commitment to a lean-burn engine was crucial in determining the company’s position. Its European engine development is mostly done by Ford of Britain whose engineering programme strongly focused on lean-burn technology (see also Chapter III). Indeed, Ford was little prepared when catalytic converters started to be required in Europe. The engineering "spill-over" from the Ford mother company in the USA was limited due to the different model range. Thus, in 1985, it was reported that the company had to re-direct the work of 400 of its European engineers to a 200 million $ crash programme to fit catalysts to its model range, particularly for the "green" German market.¹⁶⁷ As Ford of Britain produces nearly entirely for the UK and Irish markets, it had also little incentive to give emission control a high priority. In addition, Ford models largely belong to the medium-size class of cars in which additional costs due to the fitting of catalytic converters matter in a competitive market. Unsurprisingly, Ford lagged much behind other manufacturers in Britain in sales

¹⁶⁶ Data kindly provided by Vauxhall Motors Ltd..

¹⁶⁷ Financial Times, 10.5.1985.
of catalyst-equipped cars.

For GM/Vauxhall, finally, as the other US car maker in Britain, the situation was different again (see also Chapter III). General Motors in Europe aligned its product policy to German developments from the outset, and the situation of its Opel branch. This meant that Vauxhall was not much opposed to a tightening of exhaust regulations. This was reflected also in Vauxhall's position in the UK. To be sure, with the exception of the up-market Senator range, Vauxhall models are in the small and medium-sized bracket particularly affected by price increases due to emission control. However, as Ford and Rover led the resistance against the new norms and helped to delay their introduction, Vauxhall could proceed slowly in the conversion of its model range to more stringent requirements. The actual engineering work was done by Opel in Germany anyhow, and on the UK market, there was no pressure to equip cars with catalysts before standards became mandatory. When it became clear, in 1989, that this would finally happen, Vauxhall benefitted from its engineering advance. It introduced catalyst versions of its cars whenever new models were brought in. It then also advertised catalytic converters (see Vauxhall 1990), and made the catalyst option cheaper by cross-subsidization between catalyst-equipped large and catalyst-equipped small models. From 1990, the new Calibra range, the Senator range and some other models were equipped with three-way catalysts on a standard basis. In sum, behind Jaguar, Vauxhall was the British manufacturer to lead the introduction of catalytic converters in the UK.

Lastly, besides each company's business structure and R&D orientation, the conditions on their home market were a common parameter for all British manufacturers. For a car maker, the domestic market is in general most important in determining business strategy. Unlike in Germany, the UK market was not "greened" by widespread concern about air pollution and tax incentives. If at all, a "clean car" was seen by most British as a car running on lead-free petrol. Initially, the slow introduction of unleaded petrol was a hindrance for the introduction of catalytic converters, dependent as they are on the provision of lead-free fuel. At the end of 1988, only 21 per cent of filling stations in Britain sold unleaded petrol (SMMT 1990b), and the distribution network was thus all but complete. Moreover, although it made unleaded petrol cheaper than leaded petrol through a duty differential, HM Government steadfastly rejected the promotion of low-polluting cars through tax incentives. Not only would such incentives have run against its political conviction that the market should decide. In addition, it was feared, they would rather help the Japanese and some European firms who were more prepared to sell catalyst-equipped cars than Rover and Ford. Thus, motorists had to put up the extra cost for a "cleaner" car, and few were willing to do so.
In the event, catalytic converters came to being applied in Britain only slowly, certainly as compared to Germany. Ford and Rover as the UK market leaders did not offer them until rather late (see Friends of the Earth 1989; 1990). In 1989, when more than half of all new cars sold in Germany were equipped with a three-way catalyst (VDA 1990: 260), not even half a per cent were three-way catalyst-equipped in the UK, and progress remained slow afterwards.\textsuperscript{168} Indeed, even when EC law required the three-way catalyst on all new cars at the start of 1993, some British motor companies successfully pressed the UK authorities to apply for a derogation from this rule with the European Commission as they had not sold all their cars without catalyst before that date.\textsuperscript{169} In fact, together with Jaguar, it was the car importers which led the move towards catalytic converters. In 1991, all Porsche cars as well as all Kia cars imported from Korea, and most Saab, Volvo, BMW, Mercedes and Volkswagen/Audi cars were equipped with (mostly a three-way) catalyst.\textsuperscript{170} Clearly, most of them belong to the less price-sensitive up-market model brackets. Briefly, not only did the main UK car manufacturers lag behind the conversion of their products to more ambitious emission requirements, but also was their home market little favourable to this change.

Against the background of these factors, the major UK car manufacturers' reaction against a tightening of EC vehicle emission norms is readily understandable. Particularly in the early and mid-1980s, the UK Government's negotiating position reflected the arguments and interests of its two biggest car companies, Rover and Ford. For both companies, the industry's general reflex against more stringent government regulations combined with their R&D stake in the lean-burn engine. Drawing on experiences in the United States, particularly Ford was strident in the critique of the "complex and expensive", "fuel hungry", and, under in-service conditions, "badly performing" catalytic converter (see Ford 1983). While the company accepted that the European Community go beyond the UN-ECE 15.04 limit values, and showed its conviction that this would be possible with lean-burn solutions, it believed that "the 'Lean-Burn' engine offers greater benefit to the public at large, in respect of both fuel economy and vehicle emissions, than the Catalyst concept. The task is to make European Governments, the Press, the Oil Industry, our competitors and the general public equally aware of the 'Lean-Burn' advantage, and to prefer that solution." (ibid.: 14f)

On the other hand, considerable uncertainty affected Ford's expectations. More time for further R&D was needed, and meanwhile new EC regulations had to be prevented which might have been too early

\textsuperscript{168} Data by the Society of Motor Manufacturers and Traders (SMMT), kindly provided by Vauxhall Motors Ltd.

\textsuperscript{169} ENDS Report 208 (May 1992).

\textsuperscript{170} Data kindly provided by Vauxhall Motors Ltd.
and/or too stringent to be met with a lean-burn engine. Together with BL/Rover (see BL/Rover 1984), Ford put these arguments to Parliament,\textsuperscript{171} Whitehall and the European Community, and they found their echo in the British press.\textsuperscript{172} Through the 1980s, lobbying by Ford and Rover for the lean-burn engine, and against a significant tightening of EC emission legislation was intense.

The other British car manufacturers were less present in the emission debate. Jaguar, Rolls-Royce and Vauxhall, for the reasons outlined above, only objected to matters of detail but did not resist the introduction of catalytic converters in principle. PSA strongly lobbied in Paris but did little to influence the UK Government. The Japanese manufacturers kept themselves informed of regulatory developments. Only recently, Nissan, with a strong engineering presence in the UK in the form of its European Technology Centre is becoming more involved in discussions on technical standards. Also within the industry's trade association, the Society of Motor Manufacturers and Traders (SMMT), Ford and Rover's interest in the lean-burn engine dominated. Later, Vauxhall teased its competitors by politically supporting the early introduction of three-way catalytic converters.\textsuperscript{173} In reality, however, the fact that the positions of the different car companies as to new emission requirements objectively differed, had no political consequences. No pressure from the environment policy side, a government strongly concerned with the well-being of its domestic auto industry, and resistance by the two most important British car manufacturers to the introduction of catalytic converters - this was the context of UK policy on car emissions in the mid-1980s.

c) The political setting for technical regulation on motor vehicles

In a nutshell, through most of the 1980s, the UK line was shaped by the defense of the lean-burn engine against new emission standards which would have endangered its further development and application in practice. In the remainder of this chapter, the formation and the development of

\textsuperscript{171} see the memorandum by the Society of Motor Manufacturers and Traders (SMMT) to the House of Lords Select Committee on the European Communities (House of Lords 1985: 23-33).


\textsuperscript{173} see above, when the MP for Luton South, where Vauxhall has its main plant (sic!), supported such a move in the House of Commons (ENDS Report 156, January 1988), and when Vauxhall opposed a derogation for British car manufacturers from the 1993 deadline for the application of stringent new EC standards (ENDS Report 208, May 1992).
government policy in this area is looked at which determined the British position in facing German demands at the Community level. This section first turns to the organizational setting.

Generally speaking, the UK Government’s management of EC negotiations on vehicle emission control takes place within the regular Whitehall machinery. It is the Department of Transport (DoT) with its Vehicle Standards and Engineering Division which deals with the technical aspects. Formally, standards are set by the Secretary of State for Transport under the Road Traffic Act. Within Whitehall, the Department of Transport emphasizes the regulatory details of Community legislation, and it is here that the technical experts advise the government. DoT officials go to Brussels for the work in preparation of EC directives, and to Geneva for discussions in the UN-ECE (see Chapter II). Nevertheless, it normally is the environment minister who speaks for the British Government in the EC Council on this matter. The Department of the Environment’s (DoE) Air Quality Division is responsible for the environmental assessment of regulatory needs. During the period under scrutiny here, the DoE’s natural sponsorship of the cause of air pollution control ran into resistance within Whitehall. As the scientific evidence for strong measures was felt to be lacking, even the DoE itself saw little reason to urge for high standards. The DoT and the DoE together represent the Government’s position on vehicle emissions in Parliament.

Other players are the Department of Trade and Industry (DTI) and the Foreign Office. The DTI looks at regulations from an industrial policy side, and has been closely involved in the definition of the Government’s line. During the early and mid-1980s, its close contacts with the car industry in general, and especially its own financial interests in BL/Rover, made the DTI sensitive to the costs of regulation-induced technological change. At least at that time, the DTI was in a powerful position to ward off unwelcome regulatory measures. In practice, the DTI and the motor industry cooperated closely to define the implications of negotiations in Brussels for the UK industry. When German plans on tax incentives for “clean cars” came out in early 1985, for example, the DTI sent a letter to the SMMT informing them on details of the German scheme and asking for the industry’s views. The letter reflected a situation in which DTI and industry representatives joined in the analysis of the potential effects of such tax breaks for British car firms. When the Department of Transport showed itself unreceptive to an industry request, the companies asked the DTI for support.

Somewhat curiously, the main opponent within Whitehall against which the DTI had to defend industrial interests was arguably not the Department of the Environment but the Foreign Office. Being less concerned with the policy details, the Foreign Office has a wider political perspective, and seeks
ways to avoid a straining of relations between the UK and its partners. Moreover, the DTI's Warren Spring Laboratory and the Department of Transport's Transport and Road Research Laboratory had been working on air pollution and air pollution abatement for many years, although their input on technology questions was apparently of little importance.

The various departments are coordinated through a Cabinet Office committee in which decisions about the UK position on individual questions are taken. The principle that possible differences of view between different parts of government must be solved within Whitehall itself and not be fought outside, is firmly upheld. This means that all departments are locked into a government discipline, and represent a common government position to the outside world.

The motor industry is represented by the sector's trade association, the Society of Motor Manufacturers and Traders (SMMT). SMMT has as its members both the British and the foreign car manufacturers operating in Britain, as well as the component manufacturers. It thus encompasses broadly the entire motor sector. Within the association, technical work is organized in various committees composed of engineers from the individual companies and SMMT staff. These committees look at the technical implications of proposed new legislation, and strive for a common line on related questions. However, SMMT's broad membership often makes an agreement difficult. In those cases, it is agreed to disagree, and differences may be spelled out towards the outside world. As far as emission standards were concerned, for example, the views of the autocatalyst manufacturer Johnson Matthey (JM) clashed with those of Rover and Ford who opposed the application of this device. Clearly, for most part of the 1980s, JM did not succeed in imposing its ideas on SMMT. Similarly, individual motor manufacturers sometimes have their own special problems and demands which they do not share with their competitors and therefore wish to impress on government directly. In turn, even though Whitehall looks to trade associations for an industry-wide view, it has recently fostered direct relations with individual companies (see Grant 1989: 58f). Indeed, as far as the technical and economic details of new emission regulations are concerned, direct talks with the experts from the individual car manufacturers are often more helpful to officials than contacts with SMMT. Through those contacts, government can see beyond the association's common denominator and learn more precisely about the technical details.

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174 This was the case e.g. on the question of whether only one or two grades of unleaded petrol should be introduced in the EC, where Ford took another view than the majority of SMMT members; see the 1984 SMMT memorandum to the House of Lords Select Committee on the European Communities (House of Lords 1985: 23).
Although the DoT, the DoE and the DTI talk to industry also individually, the central forum in the area of car pollution control is the Government-Industry Vehicle Emissions Group. Chaired by the Department of Trade and Industry, this committee is composed of officials from the DTI, DoT and DoE, SMMT staff and industry representatives. It tracks the development of EC regulatory affairs, and discusses their ramifications for Britain. That all government departments concerned are involved in joint discussions with industry certainly helps to reach a common understanding of the problems by all parties. In that way, the arrangement certainly contributed to the low level of disagreement around the question of emission standards within Whitehall. Importantly, it engages the DoE as the potential advocate of stringent standards in a dialogue about their technical and economic feasibility. As the DoE does not have its own expertise in relation to technical details of car emission control, it is difficult for it to challenge industry claims. Besides, industry enjoyed a (for Whitehall standards) considerable continuity in its main interlocutors in the Department of Transport as the lead department on technical standards. This continuity furthers a common "in-group" understanding of the problems.

Looking at the overall picture, the framework of government-industry relations has been favourable to the motor companies as far as the setting of emission standards is concerned. All technical details coming up in the Community’s policy-making process are discussed between government and industry experts. The British regulatory style of close and consensual cooperation between the authorities and industry (see above) bears out well also in this field. Indeed, the industry has generally been satisfied with government’s response to its demands. According to industry representatives, the government trusts SMMT as being "pretty objective." Conversely, it "is reasonably open to its major manufacturing companies and it is always available to us and other companies to go in directly on particular issues." (interview, 28.3.1991) Whitehall officials have contacts also with foreign companies. These contacts, however, are sporadic, while relations with the UK-based companies and SMMT, and specifically with Ford and Rover during the 1980s, were continuous and close.

d) British car emission policy in the 1980s: The dominance and demise of the lean-burn engine

Turning to the political developments during the 1980s, not surprisingly, the motor industry impressed its views on the UK Government. In the absence of environmental disquiet which would have called for more ambitious measures, industry arguments found little counterbalance within the political system. At least at the beginning, a real need for a further significant tightening of car emission regulations was not seen.
In addition, the lean-burn engine concept united in conviction the two most important British motor manufacturers and the Whitehall community. Importantly, policy-makers were not simply eschewing environmental considerations for the sake of industrial interests, but where thoroughly convinced of the superiority of the lean-burn concept, both in environmental and cost-effectiveness terms. Indeed, reportedly, Prime Minister Thatcher herself was personally committed to it, and, as a chemist by training, understood its scientific ramifications. Thus, until 1989, the defense of the lean-burn engine against new standards which would have endangered its further development determined Whitehall’s line in EC negotiations. In this situation, the quiet lobbying of Johnson Matthey, the catalyst producer, fell on deaf ears.

The government’s case for the lean-burn engine and against the three-way catalyst, as it was presented to Parliament and the general public, emphasized a number of arguments and reflected the rational - though partly little considered - underpinnings of Whitehall’s position. They echoed Ford’s and BL/Rover’s views on the issue, and arguably took over these companies’ arguments without closer and independent review. As criticism or doubts against the superiority of the lean-burn concept were hardly voiced in the British debate, at least initially, Whitehall was under little pressure to corroborate its case for this technology certainly at home.

In its outline, the Government’s reasoning mainly insisted on the cost-effectiveness and the scientific justification of new regulations, and the quality of the technologies required to meet them. Firstly, Whitehall’s case was one against the catalytic converter. Here, the United States experience was important. In the US, the introduction of catalytic converters had suffered from considerable teething problems. Tampering with catalytic converters and their removal by motorists, and the misfuelling of cars with leaded petrol which poisons the catalyst, had greatly reduced the effectiveness of the device under in-service conditions. These problems were cited as inherent deficiencies of catalyst technology. Accordingly, catalytic converters were described as basically inefficient "bolt-on" equipment.

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175 see Ford (1983), BL/Rover (1984), as well as the memorandum and the oral evidence given to the House of Lords Select Committee on the European Communities by the Society of Motor Manufacturers and Traders (House of Lords 1985: 23-46).

176 The exception to this was the 1985 report by the House of Lords Select Committee on the European Communities (House of Lords 1985) which, obviously, did not change Whitehall’s mind; see above.

177 see the statements made by the Parliamentary Under-Secretary of State for the Environment William Waldegrave in the House of Commons on 4.12.1984 (Weekly Hansard, vol. 69, no. 22, cols. 302-322), and the government evidence given to the House of Lords Select Committee on the European Communities (House of Lords 1985: 14-22).
What is more, in HM Government's view, catalytic converters were not only little effective, but also costly to motorists. The consumer argument weighed heavily, and extended both to the initial purchase costs, and to the costs of running the car. In 1984, the price increase for a car equipped with a three-way catalyst was put at 500 £, although later this figure was revised downwards.\(^{178}\) In terms of regular motoring costs, the fuel-efficiency penalty associated with three-way catalytic converters by around 5 per cent would have to be borne by consumers.\(^{179}\) Overall, and without specifying what costs had been included in the calculation, the government stated that the application of catalytic converters would add the sum of "about £2,000 million per year to United Kingdom motoring expenditure."\(^{180}\) The government was clearly not willing to impose these costs on British motorists, especially as it considered the money badly spent. The spirit of its case against the catalyst is well conveyed in the following statement by an official in the Department of Transport:

"To go for the 3-way catalyst system would be to adopt technology which is probably on the way out anyhow and would be extremely expensive to introduce in Europe, for what might be only a temporary stage. We do not see it as a system which lends itself to further development. It simply impedes a number of developments in engine technology which everybody wants to see for other reasons, mainly in terms of energy conservation." (House of Lords 1985: 16)

More important than the case against the catalytic converter, however, was the case for the lean-burn engine. Here, the UK Government relied on the promises made by Ford and Rover that they would deliver, in a few years time, an advanced lean-burn engine operating at an air/fuel ratio beyond 18:1. This new technology would combine a significant reduction in exhaust gases with a substantial improvement in fuel efficiency. The government was only too happy to believe the car engineers. Indeed, improvements in engine design since the 1970s had made the European cars leaner and more fuel efficient already. This had been the way to reduce both CO and HC emissions, and fuel consumption - both priorities of regulatory authorities in Western Europe at the time. Indirectly, government had supported R&D in this direction through its general aid for BL/Rover, and through R&D funding for the manufacturers of components (e.g. high-energy spark plugs, engine management systems) needed for improved combustion technology. Surely, the logic of an inherently "clean" and

\(^{178}\) see House of Lords (1985: 17), House of Commons (1988a: 307); Vauxhall later offered the three-way catalyst as an option for some 250 £ on average, although the price was lowered for small cars through cross-subsidization. Nevertheless, the lean-burn engine, even when fitted with an oxidation catalyst, was considered cheaper by government, especially when its fuel consumption benefit was taken into account.

\(^{179}\) Both Ford (1983) and BL/Rover (1984) put the fuel consumption penalty at 10 per cent. The figures obviously depended on whether the fuel consumption of existing car models or future lean-burn models was taken as a base line.

\(^{180}\) Weekly Hansard, vol. 55, no. 1302, col. 432.
efficient engine is compelling.

HM Government emphasized these arguments for the lean-burn engine. In contrast to the "American" catalytic converter, they were presented as the natural continuation of past European progress in engine design. Whitehall predicted that the application of lean-burn engines could lead to a reduction in NOx emissions by 40 per cent by the end of the 1980s (DoE 1984: 19). It also emphasized the fuel efficiency of the lean-burn engine and the ensuing cost-effectiveness of the technology, as opposed to the fuel penalty of the catalytic converter. When the greenhouse effect appeared on the environmental agenda in the late 1980s, Whitehall pointed out that a lower fuel consumption also means lower CO2 emissions.181

To be sure, disagreement between different Whitehall departments was reported in the area of car emission control. Thus, Industry Secretary Norman Tebbit voiced reservations against the EC's Luxemburg Compromise in 1985 while the DoE and the Foreign Office wanted it accepted by the UK.182 Later, the question of whether the standards of the Luxemburg Compromise, set under the principle of optional harmonisation, should be applied also on a domestic British basis or not apparently was contentious. While the DoE argued for the implementation of the agreement also in the UK, the DoT said it would never require UK car manufacturers to fit catalytic converters even on large cars.183 Significantly, though, these differences did not concern the case for the lean-burn engine. Indeed, there are no signs that would speak against a broad consensus on the merits of the argument for the lean-burn engine at least at the early stages of the political debate. Certainly, the felt lack of environmental pressures both in the government's own perception as far as the scientific evidence was concerned, and in terms of public opinion made that stringent new regulations found no support within Whitehall. Also the Department of the Environment shared the belief that the lean-burn engine was inherently better than catalytic converters as a solution to exhaust emission control, especially where fuel economy was another criterion. To enable this technology to be fully developed and applied became the common objective of the different Whitehall departments. In essence, not only did formal Cabinet discipline unite government departments, but also agreement on the basic points of policy.

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181 see e.g. the Parliamentary Under-Secretary of State for the Environment Virginia Bottomley in the House of Commons on 26.4.1989 (Weekly Hansard, vol. 151, no. 93, col. 93If).


Over time, though, Whitehall had to modify its position on catalytic converters as developments in the European Community changed the context also of British policy. The Luxemburg Compromise of 1985, agreed to by Britain and acquiesced to by the UK motor industry, was a first step (see Chapter VI). Its standards for large cars in practice required the application of the three-way catalyst. This was accepted by the industry as the lean-burn engine was considered promising mainly for small and medium-size cars. In addition, the understanding grew that traffic growth would cancel out the technical improvements in emission control.\textsuperscript{184} Soon, it became apparent that lean-burn engines generally would have to be fitted with a simple oxidation catalyst to control HC emissions to the extent mandated by EC standards. Thus, the "bolt-on" device became unavoidable. On the other hand, the car industry adapted to the new technology. Britain’s third biggest car manufacturer, Vauxhall, moved to introduce catalytic converters on its models. So did various car importers, albeit the sales of catalyst-equipped cars remained negligible through the 1980s. Most importantly, Rover and Ford failed to make the progress in lean-burn technology which they had promised, and the government’s case for lean-burn lost in persuasiveness.

At the same time, although doubts of the scientific justification for a tightening of standards persisted, concern about vehicle emissions grew within the DoE. It followed the authorities’ reinforced monitoring and research efforts. At least the environmental policy community now took the problem more seriously. Renewed emphasis was given by government to conservation problems by Mrs Thatcher’s personal "greening" in 1988. Consequently, the Department of the Environment began to push for more ambitious emission reductions.

Developments culminated in the fall of 1988 and spring of 1989 against the background of negotiations on the European Community’s Small Car Directive (see Chapter VI). In Brussels, the UK delegation found itself confronted with a Commission proposal which meant that limit values even for small cars could only be met with an oxidation catalyst fitted to the lean-burn engine. Some member states pushed for US-equivalent standards. In the House of Commons debate on the directive in November 1988,\textsuperscript{185} Whitehall again emphasized the costs imposed on motorists by the proposed regulations, and related them to the benefits to be achieved in terms of better air quality. Slightly out of context, the conversion of motorists to unleaded petrol was mentioned by the minister in Parliament

\textsuperscript{184} see the evidence given by the Parliamentary Under-Secretary of State for the Environment William Waldegrave to the House of Commons Environment Committee on 13.11.1985 (House of Commons 1985: 11f).

\textsuperscript{185} see Weekly Hansard, vol 139, no. 1462, cols. 975-994.
as an opportunity for contributing to environmental protection. The increase in carbon dioxide emissions ensuing from the application of catalytic converters was another argument. Meanwhile, focusing on Community developments, British environmentalists started to campaign for stringent emission standards (see above). Car pollution control thus ceased to be a non-issue in the UK. In Parliament, the government faced opposition demands to agree to the introduction of three-way catalytic converters. Even the motor industry was weary of further delays and uncertainty about future requirements. It told government it would accept standards to be met by lean-burn engines plus oxidation catalysts if another agreement could not be achieved.186

Within Whitehall, disillusionment built up with the prospect of the lean-burn engine in 1988 and early 1989. Had it not been for Mrs Thatcher’s commitment to this technology, Whitehall officials might have accepted the coming of three-way catalysts earlier than they actually did. Even few weeks before the enactment of the Small Car Directive in June 1989, however, and after the vote of the European Parliament in April 1989, which catalyzed the EC’s general move to the three-way catalyst, the Department of the Environment still defended the lean-burn engine in the House of Commons.187

By May, though, the Department of Transport acknowledged that there was little chance of avoiding the introduction of three-way catalytic converters on small cars. The DoT had received advice from the motor industry that it was able to fulfil this requirement, provided that lead times were realistic.188 By that time, all British manufacturers had adapted to the new technology. In June 1989, therefore, Britain agreed to the new EC directive. It spelled the end of the hopes for lean-burn. Although R&D in engine design continues, since 1989, for all practical purposes, the lean-burn technology is no longer an option to meet EC emission standards. The demise of the lean-burn engine represented the end of an erroneous policy commitment by the UK Government which had contributed to Britain’s reputation of being an environmental laggard in Europe.

Today, although relations between the authorities and industry remain close, Whitehall is less predisposed to spare industry from more stringent requirements. It is true that, within the EC, the UK still belongs to the more conservative camp in emission control. However, increased concern about air pollution from motor vehicles now motivate a more proactive policy line. In a joint media event with Johnson Matthey, Shell, Ford, Rover and Vauxhall in June 1992, Environment Minister

186 see Weekly Hansard, vol. 139, no. 1462, cols. 975-994.


188 see Department of Transport, Explanatory Memorandum on European Community Legislation: European emission standard for cars below 1.4 litres, 15.5.1989.
Lord Strathclyde officially welcomed the introduction of three-way catalytic converters. This marked a turn-around in government policy as compared to its stance eight years before. Concerned about emissions from Diesel cars, the government today encourages Johnson Matthey to develop and produce related catalyst systems.

Summary

In comparison to the German case study presented above, the British experience of car emission policy during the 1980s is dominated by complacency over air quality - with the notable exception of lead - and the leverage of (parts of) the motor industry over HM Government’s position in the political debate. The latter was linked to the belief in the superiority of a future technology, i.e. lean-burn combustion. The lean-burn engine was developed in Britain mainly by Ford and Rover, and the UK Government made their cause its own in the European Community. As the engineers did not deliver on their promise of a lean-burn engine, however, and the UK could not prevent new emission standards in Brussels, this technology lost out against the three-way catalytic converter. The dominance of the lean-burn engine over government policy in the early and mid-1980s and the inglorious end of this story in 1989 with the Small Car Directive are at the centre of the British case of car emission control (Boehmer-Christiansen and Weidner 1992).

To start with, British policy-makers in the early 1980s were not fully aware of the environmental harm created by road transport. In the first half of the 1980s, neither the British public, nor the scientific community, nor environmentalists, nor the authorities were attuned to the public health and ecological risks arising from gaseous vehicle emissions. Thus, government saw little need to act. The insistence on firm scientific evidence to corroborate environmental policy further impeded a proactive line. Unlike in the Federal Republic, there was no case for introducing catalytic converters.

At the same time, important parts of the UK motor industry strongly resisted more stringent standards. Especially Ford and Rover, as the two biggest manufacturers, lobbied the authorities in London accordingly. Indeed, the two firms saw no reason to accept new regulations which in their eyes only spelled additional costs and put at risk a new technology - the lean-burn engine - which they were in the process of developing. They impressed these arguments on Whitehall. Furthermore, Ford and Rover make mainly smaller and medium-size cars, and had little or no stake in existing high-standard

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markets, which put them at a disadvantage compared to other companies. The government became the agent of these national industrial interests in Brussels.

However, the government was not a mere instrument of business. It followed in its behaviour certain unwritten rules about how policy should be made. Overall, the consensual British regulatory style inhibits an ambitious policy. In particular, Whitehall was committed to and had close relations with the main motor companies. The troubles through which the sector had gone made it a headache to officials, and the recent seeds of recovery were not to be endangered by new regulation. These background factors, historically determined, predisposed government to listen closely to industry representations. In fact, not only did the auto industry lobby government, but also the officials themselves consulted industry.

Most importantly, the commitment by Ford and Rover, and, subsequently, by Whitehall to a concrete technological option was at the heart of the UK position. For industry, the commitment to the lean-burn engine was obvious. The development of fuel-efficient engines had been a prime objective of car engineering since the oil crises of the 1970s, and good engines were central to the success of car manufacturers. Industry had invested heavily in this field. For their part, the administration, led by the Prime Minister, was convinced of the merits of the new technology. Its commitment to the lean-burn concept cannot be explained simply with reference to industry pressure. Rather, it was the lean-burn rationale which convinced government, and made it a "true believer." Unsurprisingly, their emphasis on lean-burn's fuel efficiency, the cost advantages of the lean-burn engine over the catalytic converter, and the criterion of in-service performance corresponded either to the British general approach to regulation or to past policy commitments.
C. A brief look at the Italian case

In the first part of this chapter, the economic and technical factors were outlined which, during the 1980s, made for the differing impact of proposed strict emission rules on different motor manufacturers in the European Community. These factors go some way in explaining why new standards were more of a problem for car makers in France, Italy and the United Kingdom than they were in Germany. At least a majority of German motor companies was in a better position to rapidly adapt to the introduction of catalytic converters (see Chapter III). However, a full picture only emerges if a number of other reasons is taken into account concerning the domestic interests and politics around car emission control. These relate in particular to the perception of environmental harm and a country's general approach to environment policy.

In what follows, a somewhat more cursory examination of the Italian case is presented. Besides Britain, France and the Federal Republic, Italy is the fourth EC country with its own national car industry. As will be shown in Chapter VI, the government in Rome, in the mid-1980s, resisted an early move to US'83 standards. By the time of the 1989 Small Car Directive, however, the Italian industry had prepared to meet the new requirements, and Italy gave up its opposition to the mandatory application of the three-way catalyst. Its orientation on the production of small cars had precisely been one of the reasons why the major Italian auto company Fiat had had problems with stringent emission norms. As in the two country case studies above, the analysis here again focuses both on the environment policy side and the industrial interests at stake, as the two major sources of influences in the domestic political process.

1. Italian environmental policy and the problem of car emissions

It is tempting to describe Italian policy on vehicle emissions simply as indifference about the environment in general, air pollution in particular, and an inefficient political and administrative system. Although there is some truth in each of these assertions, such a sweeping judgement would be too easy.

A number of weaknesses shape Italian environmental policy in general, and explain the relative delay with which the environment has been taken serious as a policy field (see Bulsei 1990: 94-121; Liberatore and Lewanski 1990; Lewanski 1992). Even though the established political parties have
"greened" their programmes, environmental problems tend to go under on Rome's rapidly changing agenda. In a world of petty party politicking between individual politicians and party factions, sustained interest for the environment is hard to generate. If there is attention to the environment from time to time, it mostly relates to individual pollution disasters, and peters out afterwards. In addition, political patronage undercuts the effectiveness of policies by providing for exemptions and delays in favour of powerful interest groups.

On the administrative level, fragmentation between different branches of government hinder strategic planning and policy coordination. Effectiveness and efficiency in general are not the hallmark of the Italian state. The division of competences between central government, the regions, the provinces and local authorities makes for various potentials for friction and incoherence. Relatedly, the implementation of regulation and other measures has been a continuous problem of Italian pollution control. Only since recently, for example, are local systems of environmental monitoring integrated into a coherent national network. Considerable differences exist between the stringency and effectiveness of environmental action in different areas of the country. Individual local authorities and regions, on the other hand, have often been in the vanguard of national developments. On the whole, Italian environment policy is still at a stage where institutions and policy-making procedures have not yet been firmly put into place (Lewanski 1992: 69).

Against this backdrop, an Italian protagonist role in European environmental policy cannot be expected. Italy generally reacts to initiatives transmitted through the European Community. The domestic dynamics of Italian policy-making, though, should not be underrated. The Italian "green" movement is not less varied and articulate than similar movements in neighbouring countries. It ranges from well-established traditional nature protection associations to more radical left-wing alternative groups (see Diani 1988; Lodi 1988; Liberatore and Lewanski 1990). Encompassing both a multitude of local groups and a number of national organizations, the conservationist movement is involved politically at all levels of government. Favoured by an electoral system based on proportional representation, the Italian Greens first entered local councils in 1980, and the national parliament in 1987. The older Radical Party also has an environmentalist bias. Although fragmentation is one of the characteristics of the Italian environmental movement, and was repeated in the splitting of the Greens into separate lists, the 1980s saw increased cooperation between different groups around shared issues.

190 The first category is represented on the national level e.g. by Italia Nostra, WWF and the Lega Italiana Protezione Uccelli (Italian League for the Protection of Birds), the second by the Lega per l'Ambiente (League for the Environment).
In sum, a "green factor" does exist in Italian politics. This had its repercussions not least on Italian business which, like its counterparts in other countries, has become more receptive to environmental concerns (Lewanski 1992: 55-64).

The creation of a national Ministry of the Environment in 1986\(^\text{1}\), secondly, marked an important change. For one thing, it provided environmental groups with a bridgehead in government. In administrative terms, it united competences previously dispersed in other ministries and gave recognition to the need for a comprehensive environment policy. Around the new organization, a policy community can develop and provide the basis for a more active and constant policy line (Bulsei 1990: 107). Importantly, the statute setting up the ministry is explicit in assigning powers to the new ministry, although these powers usually have to be exercised in cooperation with other departments. The difficulties involved in impressing environmental concerns onto a government agenda, however, are not limited to Italy. In any case, the ministry seems to have increased its clout since its founding at least in some sectors.

Turning to air pollution more specifically, the *Legge Anti-Smog* (Anti-Smog Law) of 1966 was the first explicitly environmental act in Italy (Liberatore and Lewanski 1990: 13). In the 1980s, noxious car exhaust gases were ranked by the Italian public as high on the environmental agenda as by the citizens in other Community countries. Italian respondents to an opinion poll in 1986 even showed more willingness to consider installing an emission control device than the average European citizen (see European Commission 1986; 1988b). In terms of political mobilization and attention, on the other hand, air pollution and its effect on nature never became a salient issue. Environmentalists were more absorbed with other problems such as nuclear energy (with a national referendum in 1987), water and marine pollution, and the fight against a number of local industrial pollution events (e.g. Val Bormida). Not surprisingly then, air pollution was also not taken up by politicians.

As in the United Kingdom, moreover, so also in Italy, is air quality seen mainly as a local hazard, and in relation to human health. This contrasts with the German preoccupation with the regional effects of exhaust gases and their implication in forest damages. Accordingly, air quality was measured mainly around major stationary sources such as power plants as well as in the larger cities. The remainder of the national territory was scarcely monitored. There has never been an Italian equivalent to the anxiety about *Waldsterben*.

\[^{1}\text{Legge 8 luglio 1986, n. 349, Supplemento ordinario alla Gazzetta Ufficiale n. 162 del 15 luglio 1986.}\]
If local air quality is at stake, of course, the range of potential policy responses is different from a situation in which regional atmospheric pollution is focused on. Indeed, since 1991, disquiet about local air quality produced a specifically Italian solution in the form of traffic restrictions in larger cities during episodes of winter smog (see below). It was this solution, in turn, which brought air pollution to the attention of the public at large and contributed to the breakthrough of the catalytic converter. At that point, importantly, the more rapid introduction of "clean cars" corresponded to Fiat's interest in selling the catalyst cars it by then manufactured (mainly) for Germany. Before the 1990s, however, the complacency around air pollution allowed government to neglect the problem and give in to industrial pressures for lower limit values and longer delays.

2. Fiat and the "clean car": Resistance and adaptation

Against this backdrop, the interests of Italian car manufacturers were hardly balanced by environmental concerns when Germany pressed for the catalytic converter. Relatedly, unlike the German companies, Italian car makers had little incentive to give themselves a "green" image by converting to sophisticated emission control. Instead, industry's problems with more stringent requirements, and reluctance to accept them, dominated the Italian position within the European Community until the end of the 1980s.

An analysis of the Italian motor industry's role in the political process of car emission control essentially means looking at Fiat. Vying with Volkswagen for the first two places in car sales in Europe, Fiat dominates the motor sector in Italy. After the take-over of Alfa Romeo and Lancia, the Fiat group accounted for over 95 per cent of total Italian car production in 1987 (SMMT 1990a: 36). At the same time, Fiat heavily depends on its home market. 70 per cent of its EC sales are in Italy, and, apart from some minor assembly operations, it has no production facilities abroad (Dicken 1992: 303). In view of its importance, Fiat clearly is an industrial "national champion" and wields corresponding influence with the government in Rome.

Fiat's difficult starting position with regard to the introduction of catalytic converters was reflected already in Tables 3 and 4 in the first section of this chapter. These figures showed the composition of the model range in terms of car size, and the sales on foreign high-standard markets for the motor

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192 Other car manufacturers are Lamborghini and Maserati which make small numbers of exclusive sports cars.
industries in Britain, France, Germany and Italy in 1984. More specifically, first, the emphasis of the Italian motor industry in the class of small cars will be recalled. In 1984, nearly one third of all cars produced in Italy had an engine capacity of below 1.0 litres. Another 47 per cent was in the category between 1.0 and 1.5 litres. Small and small medium-size cars, however, are particularly hit by cost increases due to the application of three-way catalytic converters. For Fiat, this meant that most of its models would be less affordable under strict emission standards, or that its profit margins in this market segment would be reduced. In a market segment in which consumers are particularly cost-conscious and competition is fierce, this represents a particular liability. Hence, the mere composition of its model range made Fiat anxious about the impact of tighter emission norms.

The second aspect highlighted was the fact that Italy, in the mid-1980s, exported only few cars to countries with stringent emission regulations, i.e. essentially the US, Japan and Sweden. Indeed, Fiat had stopped to export to the United States in 1981, and resumed its exports there only several years later. Unsurprisingly, therefore, in the early 1980s, the conversion of its model range to catalytic converters was not yet well advanced. Like the mass manufacturers in France, the UK and, indeed, Germany, Fiat had to make a special effort to adapt to the catalytic converter.

Two further factors influenced Fiat's position. Like other manufacturers, first, also Fiat had invested in the lean-burn engine. Due to its fuel-efficiency advantage, lean-burn is especially attractive to the cost-conscious drivers of small vehicles. This is particularly so in Italy where fuel prices are traditionally high. Like in Britain, the lean-burn argument played an important role in the advocacy within government against a rapid move towards stringent emission requirements.

Secondly, the supply of electronic fuel injection systems posed a particular problem. As was explained earlier, the three-way catalytic converter requires an electronic fuel injection. In Europe, in the early 1980s, the German Bosch company held a quasi-monopoly in this field both through its patents, and in terms of the production of these components. Non-German car manufacturers were apprehensive about a (future) situation in which their meeting of type-approval standards would essentially depend on Bosch supplies of fuel injectors. The concern about the predominant position of Bosch in the market of car electronics was shared in the British and Italian departments of industry. An additional factor was that even Bosch, until the mid-1980s, had developed fuel injection systems only for medium-size and large cars. Consequently, Fiat first wanted this problem to be resolved before accepting the three-way catalyst.
In this situation, the company turned to two component manufacturers - Magneti Marelli and Weber - which belong to the Fiat group. They were told by Fiat to develop and start producing fuel injectors for small engines. Until this was done, US'83 standards for small cars had to be delayed. Fuel injectors from Magneti Marelli and Weber became available at the end of the 1980s, and it was then that Fiat could switch to the broad application of catalytic converters. Today, the two Fiat subsidiaries, incidentally, sell most of their fuel injector production to other companies including Ford, Renault and Peugeot.

In a nutshell, the starting position of Fiat was unfavourable when it came to stringent emission standards in the mid-1980s. When it became clear that a move to catalytic converters could not be avoided, Fiat, together with, especially, the two French car manufacturers and Ford and Rover in Britain lobbied for long lead times as well as a differentiation of requirements between different classes of cars. Specially small cars, generously defined as cars up to 1.4 litres in subsequent Community directives, had to be exempted from an early imposition of US'83 standards. Also for medium-size cars, it was demanded to avoid the mandatory application of expensive three-way catalytic converters. Fiat's call on the Italian Government thus was to prevent stringent standards particularly for smaller cars if possible, and, if not, to delay their introduction until the necessary technical changes were made. As will be shown in Chapter VI, this, indeed, was the baseline of the 1985 Luxemburg Compromise.

In parallel to its resistance against the introduction of catalytic converters across the board, however, Fiat adapted to the new situation. The "greening" of the German market promoted by fiscal incentives furthered this process. For the Italian motor industry, Germany is a crucial market accounting for nearly 20 per cent of its exports (SMMT 1988: 196f; 1990a: 226f). To keep up these sales, Fiat had to be able to offer low-emission vehicles for the various brackets of the German incentive scheme. For the small Fiat Panda, this could be done by relatively simple engine improvements without the application of catalytic converters. On other models, Fiat engineers benefitted from the fact that they had applied electronic fuel injection earlier to two Fiat engines (1.5 litres and 2.0 litres) sold on the US market since 1979. These engines could now be equipped with three-way catalytic converters for German customers. This allowed Fiat to be present on the German "clean car" market with four models already in the spring of 1985, albeit with a substantial extra charge as compared to the non-catalyst versions. Other cat models were soon added to Fiat's programme in Germany (Westheide 1987: 112). For this purpose, for example, a newly developed 2.0 litres precursor lean-burn

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engine was redesigned for fuel injection and the three-way catalytic converter to meet higher emission standards, albeit at the cost of lower fuel economy. In the range of smaller medium-size cars (around 1.5 litres), Fiat could even hope for a competitive advantage over the British and French producers as it offered a larger model selection of catalyst cars earlier than they did. As Table 1 above shows, already in 1988, over a third of Fiat petrol cars sold in Germany were low-emission cars. In sum, for Fiat, as for all other European manufacturers, the "greening" of the German market by tax incentives exercised a considerable pull towards the application of catalytic converters even in the absence of mandatory regulation.

By 1989, finally, when the Small Car Directive was enacted, Fiat had made the passage towards catalytic converters. The production of fuel injectors for its cars by subsidiary companies was about to start, and Fiat had completed the task of re-engineering its model range towards stringent requirements. At this time, the company even developed an interest in bringing forward the introduction of the three-way catalyst, although this came too late to reverse the Italian negotiating position in Brussels on the new directive. In 1990 and 1991, the low sales of catalyst cars in its home market, in fact, became a nuisance to Fiat as it had converted its production to low-polluting cars but could not sell them in sufficient numbers. Fiat had thus moved from opposing this technology to supporting its early application.

3. Italian policy on car emission control

As has been shown above, when it came to the definition of an Italian position in negotiations in Brussels, the government in Rome, until the end of the 1980s, acted in the absence of urging concerns about air pollution from traffic and under the impression of industrial interests expressed, mainly, by Fiat. When Fiat had made the transition to the catalytic converter, however, the Italian Government took steps to improve urban air quality. At the same time, these steps helped Fiat to sell the "clean cars" it by then produced.

Institutionally speaking, three government departments are involved in the setting of car emission standards in Italy. Like in Britain and Germany, type-approval for motor vehicles formally comes under the responsibility of the Ministry of Transport. It usually represents the technical point of view in the policy process. Its engineers are assisted by the Engines Institute of the National Research Council (Istituto Motori del Consiglio Nazionale delle Ricerche) in Naples which does research and
testing on, among other things, exhaust gas control. An engineer of the *Istituto Motori* usually represents Italy in the EC Commission’s Motor Vehicle Emissions Group (MVEG) which advises the Commission on technical questions related to car emissions (see Chapter V).

The formal role of the Ministry of Transport notwithstanding, since its creation in 1986, it is the Ministry of the Environment which is the lead department when it comes to air pollution from motor vehicles, albeit air quality standards are set by the Minister of Health. The environment department represents Italy in the EC Council. Within government, it has emerged as an advocate of more stringent environmental regulations in recent years as individual ministers (Ruffolo, Ripa di Meana) pursued more ambitious policies. At least today, in fact, car emission policy is defined mainly in the environment ministry. Unsurprisingly, though, especially when important industrial interests are at stake, the environment ministry does not have a free hand. Formally, first, it has to act in consultation with the other ministries concerned. In particular, the Ministry of Industry, Commerce and Trade acts as a sounding board for industrial concerns. It is to this ministry that the car industry turns when its representations directly to the environment department fall on deaf ears. Thus, in the mid-1980s, the Ministry of Industry pressed for the exemption of smaller cars from stringent emission norms and for longer lead times required by Fiat. Clearly, it pushed through these demands. The Ministry of Industry’s role was not least motivated by the wish to defend R&D investments made by Fiat into the lean-burn engine.

The sway over government policy by the auto industry and the Fiat concern in the absence of a countervailing environmental case was clear throughout the 1980s. It was not possible in the framework of this thesis to analyze in detail the interactions between the industry and government over car emission control. However, it can be safely assumed that, as in other countries, relations were close, and that Fiat in particular had its part in shaping the Italian line. Before the creation of the Ministry of the Environment, in fact, the industry’s demands met with little opposition in Rome. As will be shown in Chapter VI, the Italian position in EC negotiations on the 1985 Luxemburg Compromise corresponded to Fiat’s interests. The differentiation of standards according to classes of vehicles and the extended lead times which were at the basis of the Luxemburg Compromise later met Fiat demands. When Fiat had successfully managed the switch to catalytic converters, by contrast, government could compromise in the run-up to the 1989 Small Car Directive.
The match between Fiat's interests and government policy, and the close relationship between the administration and its "national champion" persisted subsequently - albeit with another objective. First, in July 1989, a letter of intent was signed between Fiat and the Environment Ministry on a more rapid transition to "cleaner" cars. On this basis, Fiat speeded up its efforts to switch its production to catalyst cars, and to advertise them on the Italian market. Research in the field of emission control was increased. Following another compact, in 1989, between government and the oil industry, the sale of unleaded petrol was incentivized by making it cheaper than leaded petrol. Because of public concern about the content of benzene in unleaded petrol and its potential negative effects in terms of public health, however, the sales of unleaded petrol picked up only slowly (Cavallino 1993: 1f). In addition, in 1990, a campaign for the voluntary emission testing of in-service vehicles was launched in cooperation between the Ministry of the Environment, Fiat, the Italian automobile association ACI and the Agip oil company. Under this campaign, car owners could have their vehicles tested for their emissions in correspondingly equipped garages. A regular obligatory in-service test for emissions was introduced by the new traffic code only in 1993.194

These steps, however, did little to relieve air quality problems in the early 1990s. At the same time, the low sales of "clean cars" in Italy became a problem for Fiat which had prepared for their production by then. In the absence of any tax incentives, catalyst-equipped cars were considerably more expensive than cars without the converter, and Italian motorists were little willing to foot the bill. Moreover, some foreign auto producers manufactured "clean cars" in larger production series and, hence, could offer them cheaper than Fiat. This meant that Fiat was at a competitive disadvantage on its home market as far as low-polluting vehicles were concerned. Against this background, fiscal incentives as a means to further the catalyst car looked as an attractive option to both Fiat and the Ministry of the Environment. The German tax breaks served as an example.

A second agreement was therefore concluded between Fiat and the Ministry of the Environment in February 1991. This agreement covered a number of areas, including, for example, emissions from Fiat plants. It also addressed both the research on and the production of environmentally friendly vehicles of all kinds. Accordingly, Fiat committed itself to complete its model range of catalyst cars, to promote such cars on the market and to proceed with research on new clean technologies. The Ministry, for its part, promised to introduce tax incentives. These were envisaged, firstly, for petrol

cars with three-way catalysts up to 2.0 litres sold during 1992.\footnote{EC standards requiring the application of these devices became mandatory at the beginning of 1993.} In addition, the special tax on Diesel cars ("superbollo") was to be suspended for cars conforming in advance with EC standards. Finally, a tax rebate was to be given to car owners for the fitting of simple oxidation catalysts to their cars bought before 1988. In all of these cases, Fiat agreed to put on the market the corresponding models - something it was only too keen to do. In short, the agreement of February 1991, by promoting the introduction on the Italian market of less polluting cars one year ahead of the schedule of EC legislation, would have served Fiat at least as well as it might have served air quality. In the end, however, the environment ministry's draft provisions on fiscal incentives, combined with other fiscal provisions in a larger package, got stuck in the legislative process. Thus, tax rebates were never handed out. Only the "superbollo" was suspended for "clean" Diesel cars. Within Fiat, this was much deplored.

What finally helped Fiat to sell the catalyst cars it produced were government decrees which provided for the local, provincial and regional authorities to limit traffic in city centres when certain air quality standards were no longer met. Under these rules, cars with three-way or oxidation catalysts were exempted from driving restrictions. Initially, under ministerial ordinances enacted in November 1991 for the first four months of the following year,\footnote{Ordinanze ministeriali in data 20 novembre 1991 recanti misure urgenti per il contenimento dell'inquinamento atmosferico e del rumore nei comuni di Bari, Bologna, Catania, Firenze, Genova, Milano, Palermo, Roma, Torino e Venezia, Supplemento ordinario alla Gazzetta Ufficiale n. 279 del 28 novembre 1991.} the mayors of eleven big Italian cities were obliged to restrict traffic when smog occurred. One year later, these originally temporary provisions were extended by a permanent decree.\footnote{Decreto 12 novembre 1992, Gazzetta Ufficiale, Serie generale, n. 272 del 18 novembre 1992.} In the event, these provisions were widely applied in the bigger Italian cities during wintertimes, albeit in different forms and with different degrees of effectiveness. Most visible were the blocking of traffic in city centres during certain hours of the day, restrictions based on alternating odd and even number plates and, importantly, exemptions given to catalyst cars. What forest dieback had done in Germany in terms of focusing public attention on exhaust emissions was achieved by these emergency measures on the other side of the Alps.\footnote{see e.g. La Repubblica, 22.4.1992.} In fact, the enlarged freedom of movement for less polluting vehicles under the various regimes did not fail to make itself felt in a rapid increase in "clean car" sales. While the share of cars with three-way catalysts in total car sales was around 5 per cent in 1991, it rapidly rose to 60 per cent in the summer of the following year (Cavallino 1993: Annex 13). This effect came as a relief to Fiat. From an environmental policy...
angle, on the other hand, the measures taken since 1991 confirm the special attention given by Italian policy-makers and (now) the Italian public to urban air quality.
Chapter V

Policy formulation: Interest organizations, member states and the Commission in the European Community policy network of car emission control

In the previous two chapters, the focus of the analysis was on the member states. First, developments in Germany around Waldsterben and the German policy response aimed at the more stringent control of car emissions were recounted. These, as will be shown further on, made the Federal Republic a policy entrepreneur in the European Community in this area. The (initial) resistance against higher emission standards in the other three major motor manufacturing countries in the EC was explained with reference to their industrial interests and environmental policies and problem-perceptions. This and the following two chapters turn to Community policy-making on motor vehicle emissions over the last ten years.

By way of introduction, the present chapter looks at the Community arena in the EC’s polycentric system. First, two features will be dealt with which encourage students of the Community to analyze their subject in terms of domestic politics (see Chapter I). One aspect is that of European-wide interest groups ("Euro-groups"), and their lobbying of the Community institutions. Indeed, the re-orientation of private interests to the EC had been postulated as a major force in the emergence of a supranational European entity already by the neofunctionalists (Haas 1958; Lindberg 1963). The burgeoning of "Euro-lobbying" in the run-up to the completion of the Community’s internal market has drawn considerable scholarly attention (e.g. Petite 1989; Andersen and Eliassen 1991; Mazey and Richardson 1993b; 1993c). The extensive direct representation of social and business interests in the Community’s policy process is one of the aspects which is neglected by an intergovernmentalist approach to EC affairs. This chapter starts by presenting three European interest groups concerned with the politics of car emission control.

Another element which distinguishes the EC from an international organization is the myriad of committees, standing and ad hoc working groups and other consultative bodies surrounding especially the Commission, and composed of civil servants, interest group representatives and independent experts. In the legislative process, their primary purpose is to feed the Commission with technical advice. In Chapter I, the concepts of "policy networks" and of "bureaucratic politics" were introduced to capture the institutional context and the mechanisms of policy formulation in the EC. In line with the "domestic politics approach", these concepts particularly suggest the transcendance of national
divisions by functional and professional factors. The analysis below on the Motor Vehicle Emissions Group (MVEG) as the Commission advisory committee in the area of car emissions control will help to test these hypotheses. In fact, it is the diversity of inputs and the role of member states which is essential for MVEG work.

Finally, the Commission as the central node of EC policy networks will be looked at. As the Commission's function is pivotal in Community policy-making due to its monopoly of formal policy initiative and its special position in the Council and between the Council and the European Parliament, its internal politics are of considerable importance for the outcome of legislation. Overall, the key conclusion of this chapter will be that while there is a separate Community arena which goes beyond an intergovernmental organization, this arena is shaped by the Community's polycentric nature.

A. The interest group scene

The presence and activities of interest associations, corporate offices, law firms and lobbying consultants are one of the elements which make Brussels, the "capital of Europe", comparable to the capital of a nation state. The Financial Times (24.1.1992) has estimated the EC "influence industry" at some 3,000 people in Brussels alone, while a directory of European pressure groups lists over 800 organizations (Butt Philip 1991). The European motor manufacturers' association, the group representing the producers of catalytic converters and the environmentalist organizations are three (diverse) examples of this lobbying scene.

1. The car industry

Car emission control and the Community's environmental policy in general have been cited as examples of undue industry influence over EC policy (e.g. Bettinger 1989). Undoubtedly, the motor sector is one of the strongest lobbies in Brussels. Nonetheless, weaknesses have plagued its European association, and its case demonstrates the concurrence of collective action and separate corporate interest representation in the multiple-channel EC strategy of big companies (McLaughlin and Jordan 1993; McLaughlin et al. 1993).199

199 The discussion in this section draws strongly on the two articles quoted, and partly on my own research.
The history of the European car lobby exemplifies well the re-orientation of an industry to the new supranational political centre (see McLaughlin and Jordan 1993: 125-127, 137f). Originally, the Liaison Committee of the Automobile Industry (CLCA) was the industry’s only mouthpiece at European level. Set up in the early 1960s, it comprised the eight national federations of the motor industry in Western Europe. From the beginning, CLCA representation with the EC was weak and little constructive. Decision-making took time, and the information flow back to the individual companies was wanting. In addition, an "association of associations" naturally "dilutes" the positions of the companies as its basic units when speaking to the outside world. For the powerful motor manufacturers with growing stakes in Community regulation, this situation became increasingly unsatisfactory.

Against this background, the Committee of Common Market Automobile Constructors (CCMC) was founded as a federation with direct company membership in 1972. The timing is, of course, significant. The Community’s 1969 General Programme for the elimination of technical barriers to trade put strong emphasis on the harmonisation of technical requirements for motor vehicles, and the directive on a common EEC type-approval was adopted in 1970 (see Chapter II). This meant that the technical standards with which manufacturers had to comply were now written in Brussels, and that an ineffective CLCA might spell serious problems for car makers. Hence, the top executives of Fiat, British Leyland and Volkswagen took the initiative to create the CCMC, with, as additional founding members, Renault and Peugeot. While the CLCA was to represent the sector’s more general interests on legal and fiscal questions, the objective of the new group was to deal with the Commission on the details of technical legislation (see CCMC 1990). The Commission, for its part, welcomed the possibility to discuss these with the companies more directly. In the 1980s, the CCMC had as its members the twelve motor vehicle manufacturers with their head office in the Community, which excluded the American companies General Motors (Opel/Vauxhall) and Ford. The latter, however, were represented through the national auto industry associations in the CLCA.

The organizational structure of CCMC was similar to that of many other Euro-groups. CCMC was governed by a Board of Directors composed of the chairmen of its member companies. Two so-called "Technical Commissions", one for cars and one for commercial vehicles, composed of the respective chief engineers and R&D managers of the member companies, handled technical matters and legislation, while an Administrative Committee discussed the more general policy issues. The

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200 Peugeot, Renault, BMW, Daimler-Benz, MAN, Porsche, Volkswagen, BL/Rover, Rolls-Royce, Fiat, DAF and the Dutch branch of Volvo.
Technical Commissions, in turn, were served by different working groups of member companies' experts. These working groups were responsible for individual problem areas such as noise, safety and emissions. In the field of emissions alone, four different groups specialized in air quality, fuels and lubricants, commercial vehicle emissions and car emissions. Decisions in CCMC required unanimity between the member companies. The CCMC secretariat-general in Brussels was headed by a secretary-general elected by the Board of Directors. Four deputy secretaries respectively dealt with general administration and served the three committees mentioned above. In the late 1980s, a new deputy secretary-general post was created to lobby the European Parliament and the Economic and Social Committee. Strengthened by the 1987 Single Act, and a proponent of stringent car emission standards, the Parliament had become a critical player (McLaughlin and Jordan 1993: 128f).

Significantly, the 1980s saw an extension of CCMC's activities. The group came to serve as a forum for discussing motor manufacturers' common concerns in general, beyond technical regulation, while CLCA became involved also in technical questions (ibid.: 126). The extension of CCMC's scope ensued from the desire of the motor companies to discuss European policy matters directly among themselves, and not indirectly through their national associations and CLCA. It also corresponded to the increasingly political connotations of technical standards and the wishes of the Commission (ibid.: 135f).

At the same time, the 1980s brought crisis on the CCMC and ended with the group breaking up. Together with other problems, it was the area of car emission control which became contentious within the organisation. As described in Chapters III and IV, while all manufacturers resented a tightening of emission legislation, some were potentially more negatively affected by it than others. More specifically, for the reasons explained, German auto makers, in 1983/84, gave up their resistance to stronger requirements. Their primary interest soon came to lay in the maintenance of regulatory uniformity in the common market, with higher EC standards to prevent a German "going-it-alone" - albeit the delay involved in the setting of new Community norms (as compared to the Federal Government's original goal to introduce the catalytic converter in 1986) was certainly welcome to the German manufacturers. In exchange for the government's undertaking not to impose new requirements unilaterally, in fact, the industry, in 1983, promised to try and convince the other West-European car makers of the necessity to further curb exhaust emissions.²⁰¹ Hence, within the CCMC, the German motor companies were more favourably disposed towards tighter Community regulations than their counterparts in the other countries.

²⁰¹ BMI-Pressemitteilung, 11.11.1983.
Such new norms, indeed, met with strong opposition from the other major motor companies in the EC. The situation of the British and Italian producers has been analysed in greater depth above. Briefly, also the French Renault and Peugeot companies were against new emission standards. While Renault modified its position over time, and broke ranks with Peugeot in the run-up to the 1989 Small Car Directive, Peugeot remained unyielding. Its position was determined, like Ford's in the UK, by its interest in developing a lean-burn engine, and by the strong personal view taken by its Président-directeur général.

In this situation, the CCMC had difficulties to stay operational in discussions on emission standards with the Community institutions. Under the group's unanimity principle, positions on the lowest common denominator were expressed, for instance in the form of overly conservative assessments of technical feasibility and costs. Sometimes, no common view could be taken at all. As a consequence, the Committee lost its credibility with policy-makers. In the words of a Commission official: "[T]hey were unable to come up with anything meaningful on the major issues and we became exasperated." (quoted by McLaughlin and Jordan 1993: 139) Reluctantly, the Commission resorted to contacts with individual manufacturers, in the absence of a common CCMC view.

Although the emissions issue was not the only factor in the end of CCMC in 1990, it was one of them (see McLaughlin and Jordan 1993: 135-139, 145f). Both differences over policy and over institutional arrangements saw Peugeot and its chairman isolated within the organization. Critical policy issues included the question of Japanese imports as well as the generally defensive stance of the motor industry in Brussels. On the institutional side, the other manufacturers wanted to admit General Motors and Ford to CCMC. As major car makers in Europe, their absence from the club was seen to weaken its legitimacy. Secondly, the industry's dual representation in the CCMC and CLCA, the respective special roles of which, moreover, were increasingly blurred, had become inefficient. A merger of the two groups in a new organization was the logical solution. The majority within CCMC, lastly, wanted to install qualified-majority voting. In view of the bad experience with the requirement for unanimous decisions, this was thought to improve the organization's effectiveness. When the Peugeot chairman, in November 1990, used his veto to prevent the adoption of a qualified-majority system, the other CCMC members resigned en bloc from the group.

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202 see Chapter IV; Ford UK's resistance to new emission standards, of course, only indirectly impacted on CCMC as Ford was not a member. Its opposition was channeled through the British Society of Motor Manufacturers and Traders (SMMT), and through the UK Government.
The body which emerged after the collapse of CCMC, and which today represents the motor industry vis-à-vis the Community, is the Association of European Automobile Constructors (ACEA) (see ibid.: 145-149). Its members are Europe’s fifteen major motor vehicle manufacturers (including the lorry manufacturers), with the exception of Peugeot, but including the American and the Swedish producers. By contrast, the Japanese manufacturers, even those with production facilities in Europe, were not admitted. The CLCA was dissolved and a Liaison Committee established in ACEA with the eight national trade associations as its members. In fact, the role of the national associations at the EC level has been considerably reduced. Otherwise, the CCMC’s committee structure was taken over, and is now supported by 30 working and strategy groups of company experts. The secretariat-general was strengthened to employ some 20 full-time staff. Decisions in ACEA are taken by a three-quarters majority, i.e. only four firms together can block any decision. Nonetheless, ACEA strives for the largest possible internal agreement on all important issues.

Besides the setting-up of ACEA, finally, the last few years have seen still another major change in the motor industry’s presence in Brussels. It is in the form of EC offices of individual auto manufacturers. While in 1990 only Fiat and Daimler-Benz had their own Brussels base, two years later BMW, Ford, General Motors, Peugeot, Rover and Renault/Volvo (with a joint representation) had installed themselves as well. These offices had a staff of between two and four, including secretaries, and more in the case of Daimler-Benz, Fiat and General Motors (ACEA 1992).

In the context of this thesis, this history vindicates two main conclusions. First, the establishment of a motor lobby in Brussels is a reflection of the emerging supranational regulation of the sector described in Chapter II. In particular, the growing directness of interest representation by the big motor companies is conspicuous. From the CLCA to the CCMC and ACEA, to the opening of companies’ own EC offices, the car manufacturers moved closer to the Community institutions. The only indirect representation of company interests through European "associations of associations" conflicted with the need felt by the motor manufacturers to respond effectively to increasingly relevant Community developments. Today, the national federations, which originally made up CLCA, have

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201 ACEA’s members are BMW, DAF, Daimler-Benz, Fiat, Ford, General Motors, MAN, Porsche, Renault, Rolls-Royce, Rover, Saab-Scania, Volkswagen, AB-Volvo and Volvo Car BV.

204 It should be noted, though, that their offices dealt with the entire range of interests of their respective concerns, including on matters not related to automobile production.

205 The growing direct involvement of companies in Euro-groups can also be observed in the case of the European Chemical Industry Council (CEFIC) (Grant 1993: 33) and of the Union of Industrial and Employers’ Confederations of Europe (UNICE) (Collie 1993: 225).
little to say within ACEA. This does not, of course, imply that they will lose their function. National authorities remain important for fiscal, industrial and labour policy matters. To deal with them, and to have a forum for discussions between the firms in the same country, national associations are still needed. In addition, as the member states remain key players in the EC system, the national channel remains important also in Community politics.

Relatedly, Andrew M. McLaughlin et al. (1993) point to the multiple but complementary strategies employed by big corporations to influence Community policy-making. In essence, membership in a European association is valuable as the Commission prefers to deal with associations rather than individual firms (see ibid: 201-204). This is true, in the field of this study, for the consultation on new technical directives, as exemplified by the representation of the industry in the Motor Vehicle Emissions Group (MVEG) through the ACEA association (see below). At the same time, an independent Brussels base has a number of advantages for companies (see ibid.: 198-200). It facilitates the collection of information, general public relations and the maintenance of potentially important political contacts.

When interests within the Euro-group diverge or special company interests are at stake, furthermore, direct representations with the Community institutions may become crucial. A company-specific argument is more easily put forward directly rather than through associational channels, especially if business confidentiality is involved. Although preferring to talk to European associations, the Commission does not exclude bilateral contacts with individual companies. While this, on the one hand, simply reflects a recognition of the reality of diverging and special interests on the part of the Commission, it also allows it to gather special information which it may not get through the Euro-group. Already in the mid-1980s, for example, Rover would contact the Commission directly to explain the advantages of its lean-burn engine. Five years later, General Motors invited Commission officials to tour its Antwerp plant and discuss environmental issues. The existence of some 200 company EC offices in Brussels (Butt Philip 1991: xii) is indicative of the importance of direct corporate representation in EC policy-making. In sum, the significance of the Community arena in policy-making is such that actors around Europe feel the need to be present in Brussels, instead of relying on their national governments defending their interest in the Council alone.

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As an ACEA member told McLaughlin and Jordan (1993: 148): "(...) the trade associations will increasingly be tied to dealing with local conditions."
In addition, the history of the European car lobby illustrates the problems involved in the aggregation of interests at the Community level. Although no empirical evidence on discussions within CCMC during the 1980s in relation to emission control could be provided, these discussions were reportedly not easy. This was, of course, due to the different objective conditions which determined each manufacturer’s views. While the collapse of CCMC in 1990 was caused not only by disagreement over emission standards, but had its roots also in other areas and in personality factors, the environmental problem did play a role. In a situation of disagreement over policy, the CCMC’s unanimity rule led to deadlocks and lowest-common-denominator solutions. This progressively frustrated both the companies themselves, and the Commission. ACEA’s new voting rules are a response to the CCMC experience of the 1980s, even though the group may go to great lengths to avoid using them (McLaughlin and Jordan 1993: 147).

The possibility of being outvoted in ACEA, in turn, is a further incentive for a motor company to have its direct channels in Brussels, as an alternative option to collective action. In the absence of a veto, another safeguard is indispensable. Somewhat paradoxically, then, the strengthening of the Euro-group by the passage to majority decisions increases the need for direct company representation.

2. The manufacturers of catalytic converters

While CCMC/ACEA represent one of Europe’s biggest industries, other organizations act for highly specialized sectors. An example is the "Groupe Aecc (Auto Emission Control by Catalyst) in the European Chemical Industry Federation (CEFIC)." It speaks for the manufacturers of autocatalysts.

To explain the membership of Aecc, a brief look at the technical process of the manufacture of catalytic converters is useful. Different stages are involved, with different companies at each stage. The first intermediate product is the ceramic substrate which carries the catalyzing substance. Worldwide, there are two companies, Corning Glass (USA) and NGK (Japan), that make ceramic substrates. A wash coat is put onto the ceramic substrate which is supplied mainly by the French company Rhône-Poulenc. Then, the ceramic substrate with its wash coat is impregnated with a mixture of precious metals (platinum, palladium, rhodium). It is these precious metals that have the actual catalytic effect on the exhaust gas. The four major companies ("coaters") in this field are Allied Signal, Engelhard Industries (both USA), Degussa (Germany) and, the biggest, Johnson Matthey (Britain). Finally, the catalyst is canned into a stainless steel box which becomes part of the vehicle’s exhaust
pipe. At this stage, there are many smaller manufacturers ("canners"), including subsidiaries of car companies (e.g. AC Rochester of General Motors). In sum, except for the canning, there are only a handful of firms involved in the manufacturing of catalytic converters. In addition, the industry is highly internationalized. All of the "coaters" mentioned above have factories outside their home countries.

The Aecc represents all seven companies involved in the first three stages of the manufacturing process for catalytic converters. Aecc has a sister organization in the United States, the Manufacturers of Emission Control Association (MECA), from which it emerged in 1986. Actually, MECA has the same members as Aecc, plus the American canners. Aecc, however, has an exclusively European focus, and a condition for Aecc membership is that a company has production facilities in Europe. The organization works as a special group within CEFIC, the chemical industry federation, and has its office in the CEFIC headquarters in Brussels.

The Aecc is another example of a Euro-group of individual firms set up to jointly promote their interests against the background of evolving Community policy. In this case, though, it was less the growing importance of the EC as a policy-making centre than the development of policy itself, as well as ensuing market prospects, which spurred the creation of their association. More precisely, Aecc was founded on the initiative of Degussa and Johnson Matthey at a time when the issue of catalytic converters became salient in the Community. For the manufacturers of autocatalysts, this meant an obvious business opportunity. While, so far, they had manufactured nearly exclusively for exports to the United States and Japan, new Community standards opened an entire new market - and a large one, too - for their product. At the same time, (non-German) car makers remained opposed to the general introduction of catalytic converters for most of the 1980s, and exercised their influence correspondingly. Counterbalancing this pressure was the purpose of Aecc.

Aecc's role was not easy, of course. While its interest in having the catalytic converter introduced was opposed to that of car companies, the motor industry is the catalyst manufacturers' client. Moreover, while the former is a powerful sector, the latter is comparatively unimportant for governments. The drawing of a clear demarcation between the two sectors through the exclusion from Aecc of the canners, close to and sometimes owned by the car companies, was one consequence drawn. In addition, in order not to alienate the motor manufacturers, Aecc and its members limited themselves

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207 Johnson Matthey, for instance, has a total of five factories abroad, in the USA, Australia, Belgium, South Africa and Sweden.
to low-profile information work with political decision-makers and in specialized journals about the potential of catalytic converters. In this light, the admission of Aecc by the Commission to the Motor Vehicle Emissions Group (MVEG), in 1988, was an important step for the new organization. Even before, though, it had had contacts with the Commission.

The Aecc example provides an impression of the variety and possible specialization of Euro-groups, ranging from the Association of Microbiological Food and Enzyme Producers in Europe (AMFEP) to the European Committee of Sugar Manufacturers (CEFS). Their presence in Brussels reflects both the differentiated reality of today's business world, and the scope of Community policies. In addition, the CCMC/ACEA and Aecc relationship points to the potential for opposed lobbying between different interest groups in the Community arena.

3. The European Environmental Bureau (EEB), and other environmental groups

While business is represented in Brussels with a host of organizations, and is in the possession of technical knowledge much needed by the Commission in the preparation of new regulation, environmentalist groups are comparatively weak. This imbalance, to be sure, is not dissimilar to the situation often found at national level. A Commission official recently characterized the environmentalists' role in the EC policy process as "pricking the conscience of the Commission" (Hull 1993: 89). Rucht (1993: 86-89) identifies six constraints on the cross-national cooperation of environmental groups in the Community framework. These include:

- a shortage of resources as national groups are hesitant to fund their EC umbrellas;
- the ensuing dependence on Commission subsidies;
- divergent ideological backgrounds, expectations and policy styles between national member organizations;
- dependence on the Commission for access to information and policy-making;
- the lack of a European public opinion which would allow for agenda-setting by environmentalists;
- and the strength of their (mainly industry) opponents.

In the case of the European Environmental Bureau (EEB), these limitations have fostered a close orientation towards policy developments at Community level, and have allowed for a degree of instrumentalization by the Commission's environment directorate-general (DG XI).

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2 On environmental Euro-groups in general, see Mazey and Richardson (1992), Rucht (1993).
The European Environmental Bureau is the oldest environmental Euro-group. For a long time, indeed, it was the only environmental association at the EC level (see EEB 1984). Set up in 1974, after the Community's first environmental action programme in 1973, by originally 25 member organizations, the Bureau reflected their recognition that the EC was becoming increasingly important in the environmental policy field. Today, the EEB has grown to a federation of some 120 national groups covering a broad political and issue spectrum. The EEB office in Brussels has a staff of some four, including the secretary-general, a scientific advisor and secretaries. Trainees and outside collaborators provide additional support on a project basis. There are about fifteen topic-oriented working groups composed of representatives from EEB members, albeit these groups only meet rarely (Rucht 1993: 83). Major decisions are taken in annual meetings which also elect the EEB president. From the members' point of view, the EEB provides them both with information on EC developments, with a forum for coordination, and with a potential influence on Community policy. In view of this workload and the vast array of topics to be covered, the EEB's organizational structure can only be considered as weak.

The EEB's primary target are the Community institutions. Its main periodic policy statement is a memorandum to each Council presidency, i.e. twice a year. This memorandum serves as the basis for the EEB's usual meeting with the incumbent presidency of the Environment Council at the beginning of its term. Besides, special documents are published as well as press releases on individual important issues. Generally speaking, environmental groups are to a large extent dependent on the readiness of individual officials or parliamentarians to listen to their arguments. As far as technical regulation is concerned, they often do not command the detailed expertise required in policy-making and are, therefore, of little practical help to the legislator. They also often lack the resources to follow an issue through the political process from the beginning to the end (Mazey and Richardson 1992: 123). However, environmentalists may raise problem awareness through media campaigns, conferences and lobbying.

The field of car emission control has been a major aspect of the EEB's work. It figured prominently in the Bureau's public statements in which, usually, the US standards were taken as a point of reference, and the inadequacy of EC measures was denounced. The EEB originally took up the issue of long-range air pollution in response to calls from Scandinavian environmental groups around 1981. Their concern related to the acidification of lakes and rivers in those countries mainly due to sulphurous emissions from power plants. When Waldsterben emerged as an issue in Germany shortly
afterwards, road traffic came on the agenda. In 1985, the EEB and the German *Goethe-Institut* in Brussels held a Colloquium on "Air Pollution and Environmental Damage." It was followed by a conference under the title "Heritage under Attack: Air Pollution", co-sponsored by the EEB in Paris one-and-a-half years later. Both events focused on emissions both from stationary and from mobile sources, and were aimed at calling attention to their environmental effects.

Also in 1985, the EEB was invited to the first meeting of the Commission's Motor Vehicle Emissions Group (MVEG) (see below). However, it did not attend MVEG meetings before 1987. Nonetheless, the group followed the "hot phase" of Council negotiations on the Luxemburg Compromise in 1985, and publicly voiced its criticism on their outcome several times. "Too little, too late" was the tenor, and, as opposed to the compromise reached, the EEB called for the implementation of US standards for all new cars from 1990. Member states should also be free to give financial incentives to further the introduction of "clean cars" before. Moreover, speed limits were advocated.

In 1987, in association with Friends of the Earth, and financially supported by the German Ministry of the Environment and the Commission, the EEB held a seminar on "The Clean Car, a Challenge for Europe" in London. The seminar was attended by some 40 participants from environmental groups, industry and government, and speakers came from the Commission, government bodies in different European countries and Johnson Matthey, the catalytic converter manufacturer (EEB 1987). One speaker was the EEB's consultant on vehicle emissions. Indeed, over several years, the Bureau was advised in this field by a former official in the United States Environmental Protection Agency (EPA) and then independent consultant. He contributed a number of technical papers for the EEB, for example comparing envisaged EC with American standards (Walsh 1985).

When, in 1988/89, the Small Car Directive was negotiated, the EEB again emphasized that more stringent standards than those proposed were not a technical problem but a political decision. Through standards which did not apply best available technology as did those in other countries, EC citizens, since 1982, the EEB had already campaigned against lead in petrol, together with the European Bureau of Consumer Unions (BEUC).

The *Goethe-Instituts* are Germany's foreign cultural exchange centres.

it was charged, were made "second class" citizens. Earlier, the EEB and the European Bureau of Consumer Unions (BEUC) had written to Commission President Jacques Delors calling on the Commission to submit a proposal soon, and supporting the German, Dutch and Danish limit value proposals. For his persistent resistance against the catalytic converter, Jacques Calvet, the top executive of Peugeot was awarded the "Environmental Booby-Prize 1988." Overall, the EEB's activities on car emission control followed closely the Community agenda. This is indicative of the overall role played by this group in EC environmental policy. It would certainly be wrong to claim that the EEB is an agent of the Commission. Nonetheless, the EEB has on occasions let itself be instrumentalized by the Commission, and, more precisely its environment directorate-general (DG XI).

While the original initiative for the founding of the EEB in 1974 had come from environmentalists at the national level, the Commission welcomed the new body. The new environmental Euro-group provided the Commission with a potential partner at the European level, and appeared to confirm the progress of European integration. In this light, the Commission has financially supported the EEB, both in the form of a general subsidy to its overheads, and in the form of project-related funding. In total, in the late 1980s, about 40 per cent of EEB's budget was Community money, with further funding coming from some member states' governments and the EEB members. Of course, the suspicion is natural "that being so dependent on the EC has an effect on a group's critical stance towards the Commission." (Rucht 1993: 87) On the one hand, the subsidy to the overheads is clearly not linked to political obligations. The EEB being a democratic membership organization, it is the members that decide about the line to be taken on individual subjects. Thus, the grouping does not refrain from criticizing the Community in general, or the Commission in particular. This was the

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213 Letter by Tony Venables (BEUC) and Raymond Van Ermen (EEB) to Commission President Jacques Delors, 18.1.1988.


215 In the preface to a brochure on the occasion of the EEB's tenth anniversary, the then Environment Commissioner wrote that the Commission "encouraged and promoted the establishment of a grouping which, as the representative of environmental organizations, would lend impetus to the Commission's own work and represent the popular movements for a better environment." (EEB 1984)

216 See the Commission's answer to a parliamentary question of 26.5.1989; OJ No. C 270, 23.10.1989, pp. 43f. According to this answer, the general subsidy is limited to a maximum of 25 per cent of overheads.
case, for instance, on new car emission standards where the EEB repeatedly criticized the Commission, while welcoming the positions of the European Parliament. At the same time, these statements may have concurred with DG XI’s position in discussions with DG III at the time.

On the other hand, it is clear that the EEB closely follows the Community’s environmental agenda and thereby creates a sounding board for DG XI’s activities. At least from the outside, the EEB’s secretariat-general in Brussels seems to have a considerable degree of independence from the membership which allows it to respond to the Commission’s needs and priorities. At least the secretariat-general’s agenda seems to be that of the Community, though this is, of course, true for Euro-groups in general. On the whole, the Commission/EEB relationship is determined by a long-term perspective, and while frictions over individual issues are acceptable, there arguably is a subtle internalized pressure for the EEB to not "rock the boat." In the shorter term, the EEB may be expected to help when needed. This may take the form of an individual project initiated and/or (co-)funded by the Commission. Thus, in 1988, the EEB organized a conference in Spain to put pressure on the Spanish Government to change its position in negotiations on the Large Combustion Plant Directive. The 1985 Colloquium in Brussels, co-funded (indirectly) by German taxpayers and intended to draw attention to air pollution and its environmental effects, and the 1987 workshop in London on car emission control, supported by the German Environment Ministry and the Commission, have already been mentioned.

Incidentally, lastly, the special importance of the EEB to one specific Commission department needs to be considered (cf. Mazey and Richardson 1992: 121f). The Bureau is DG XI’s natural clientele. In the regulatory process, a clientele is a source of information, expertise and ideas. Conversely, it may act as a sounding board for the administration’s own policies. Politically, moreover, a clientele, while surely awkward sometimes, can be used as a back-up in discussions within the organization and towards the outside world. It may strengthen a division’s position if it can refer to "outside pressures" or "support."

In the mid-1980s, the European Environmental Bureau lost its position as the sole mouthpiece of environmental groups in the EC. The setting-up of Euro-groups and Community offices by other environmental organizations reflected both dissatisfaction with the EEB’s structure and performance.

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218 See Memorandum to the Italian Presidency, July 1990; Memorandum to the Luxemburg Presidency, February 1991.
and the growing awareness of the importance of direct representation with the EC also for environmentalists (cf. also Rucht 1993: 83-86). The European Friends of the Earth (FoE) organizations, while still EEB members, started to meet in the Friends of the Earth European Coordination (CEAT) in 1984, and opened their own office in 1986. CEAT is a rather loose grouping, without strong internal structures, and apparently little involved in actual lobbying. In fact, national FoE groups do not necessarily involve CEAT in their EC-related actions but approach the Community directly. Most of CEAT funding comes from the Commission. Another loose network of both international and national environmental groups is the Climate Action Network/Climate Network Europe (CAN). CAN focuses exclusively on climate change, and facilitates the exchange of information and the coordination between its members. As it operates worldwide, the EC is only one of its targets.

In addition, two large international environmental organizations, Greenpeace and the World Wide Fund for Nature (WWF) established themselves in Brussels at the end of the 1980s. The offices of both organizations are attached to their international headquarters in, respectively, Britain and Switzerland. Thus, their Brussels branches are not umbrella associations with national members but rather representations of international non-governmental organizations. The WWF European Policy Office has a staff of some three to four, and benefits from the resources and effectiveness of WWF International. After its brief had initially been on overseas aid policy, it later focused on the Community’s agricultural and structural policies. The Greenpeace EC Unit, by contrast, mostly supported Greenpeace International’s campaigns, and has recently scaled down its activities. A new grouping is the European Federation Transport and Environment (T&E) which speaks for about a dozen national associations concerned specifically with a "greening" of transport policy.

While the EEB is the group which most closely follows the Community agenda, the other organizations are more independent. In fact, there is a certain division of labour between the EEB, CEAT, Greenpeace and WWF, and common interests are discussed at regular meetings. The multiplication of environmental Euro-groups, though, has arguably reduced the importance of the EEB, including for DG XI.
Conclusions: Euro-groups and polycentrism

The first purpose of the account above was to present one group of actors in the European Community policy network of car emission control. In addition, though, private interest representation at the Community level is an important part of the EC's overall political framework. The examples in this section of three Euro-groups, of course, are not more than glimpses at a complex phenomenon. The literature has to be drawn on for further insight. In essence, the system of interest intermediation contributes to the EC arena resembling the politics of a nation state. At the same time, its pluralism partly reflects the Community's polycentric character.

In the first place, as regularly noted by observers (e.g. Mazey and Richardson 1993d: 5-9), the burgeoning of "Euro-lobbying" and the increased directness of interest representation (e.g. through corporate EC offices; see above) are indicative of the importance attached by policy stakeholders to EC decision-making, and reflect the independent powers wielded especially by the Commission and the European Parliament in the policy process. The degree of freedom which these powers imply make it imperative for potentially affected actors to try and influence decisions taken in Brussels. It is true that lobbying at national level to influence a member state's position in the Council remains crucial, as is, indeed, shown in this thesis (see Chapters III and IV). Especially with voting in the Council, though, exclusive reliance on the national channel would be risky. With changed decision rules and the increased roles of the Commission and the European Parliament brought about by the Single Act, the Community has moved beyond being an intergovernmentalist organization, and interest groups have adapted accordingly. Significantly, then, today's Community arena is populated not only by government officials, but also by private actors, as is the political scene in a national capital.

Relatively, as the "domestic politics approach" suggests, observations made on interest group politics at a national level often find their equivalent in the EC context. This is true for the competition between Euro-groups, and for their relationship with the Community institutions. Unsurprisingly, first, like in a national setting (see e.g. Salisbury et al. 1987), groups with opposed demands vie for consideration by EC policy-makers. In the area covered by this thesis, the car lobby, the manufacturers of autocatalysts and the European Environmental Bureau clearly represent different interests. In the telecommunications sector, operators, equipment manufacturers and users as potentially opposed groups are organized at European level (Schneider 1992). Between Euro-groups, different interaction patterns develop, from neglect to cooperation and conflict. Albeit working in the same direction, for instance, contacts between the EEB and Aecc were restricted to some information exchange as the industry
group did not see fit any closer links.

In addition, overall, the EC system of interest intermediation is more of a pluralist than of a corporatist kind (Schmitter and Streeck 1991). "Brussels is more like Washington as a setting for lobbying than any European capital." (Grant 1993: 34) The Commission has been conspicuously unable to limit its dealings with interest groups to Euro-associations, even if this is in principle its procedural ambition. Although it would like to see lobbyists follow certain basic rules, the Commission has also so far refrained from regulating its contacts with interest groups.2 In the case of the motor industry, the different positions of the individual companies have impeded a corporatist arrangement certainly through the 1980s, even though the sector had its sponsoring division within the Commission’s industry directorate-general (DG III).

Nevertheless, different patterns can also be found. Corporatist relations between the Commission on the one hand and associations respectively big companies on the other have been analyzed for the pharmaceutical and biotechnological (Greenwood and Ronit 1992) and the consumer electronics (Cawson 1992) sectors. The example of the European Environmental Bureau and other environmental groups, for its part, shows a pattern in which (a division of) the Commission supports and, to some extent, uses a Euro-group for its own purposes. This is in line with the observation made in comparative political research that governments may shape and instrumentalize their interest group environment (see Lehmbruch 1987). The Commission has also supported groupings in the social policy domain, although apparently without a clear agenda (Harvey 1993). Thus, a variety of relationships can be found between interest groups and the Commission in individual sectors.

The important point here is that the world of private actors - Euro-groups, corporate offices, consultants, journalists, research institutes - at the EC level, and its interactions with the Community institutions give rise to a political arena which is clearly distinct from that of the member states. It is in addition to the circuit of Permanent Representations and national inputs into Community policy-making, and, as it were, a nascent sixteenth arena in the Community’s polycentric system. In this arena, policy proposals are generated, propagated and dismissed, policy entrepreneurs pursue their cause, and pressures and counter-pressures are exerted. These may or may not influence the Commission and the European Parliament and enter into the policy process. However, they are potentially an independent (from the member states) factor in EC politics. It is this arena which Peters

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219 see the Commission’s communication "An open and structured dialogue between the Commission and special interest groups", OJ No. C 63, 5.3.1993, p. 2.
(1994) has in mind in his account of Community agenda-setting, although he overstretches the argument (see Chapter I).

At the same time, the national factor is still salient in the Community's system of organized interests. Indeed, while the proliferation of Euro-groups and "Euro-lobbying" reflect the growing importance of the Community, and adds to its statelike character, it equally reflects the continuing significance of the member states as frameworks for political organization. It is true that the multiplicity of Euro-groups is partly due to functional divisions between different interest categories, like in the member states (Schneider 1992). Many European trade associations are highly specialized (e.g. Grant et al. 1988: 192-195; Peckstadt et al. 1993). However, it is boosted by the presence of national federations which clearly represent national interests (e.g. Eberlie 1993). For example, while the national peak organizations of business in Western Europe have united in the Union of Industrial and Employers' Confederations of Europe (UNICE), most UNICE members from EC countries maintain their own offices in Brussels. German sectoral associations with a Brussels representation, for instance, include the Federal Union of German Pharmacists' Associations (ABDA), the Federal Association of German Road Hauliers (BDF) and the German Association of Butchers. If they have no permanent base in Brussels, national group representatives may fly in for meetings with Community institutions. Thus, the range of interest organizations, be they associations or individual companies, which make their voice heard in the EC policy process is broadened as compared to a national setting by the activities of national actors.

This, of course, is all the more relevant as Euro-groups sometimes have difficulties in overcoming internal divisions between their members and finding a common line - witness the CCMC example above. The weakness of Euro-associations has been repeatedly highlighted (e.g. Grant 1993: 30-32). If the Euro-association is unable to aggregate the interests of its members or members can be outvoted, they will resort to their own devices. In a nutshell, therefore, as two sides of the same coin, the direct involvement of national stakeholders at the Community level and the persistence of nationally divergent interests and views in relation to EC policies make the European interest group domain reflect the importance of the member states in the polycentric Community system. Correspondingly, the predominantly pluralist character of the representation of interests in Brussels, involving the relative lack of representational monopolies by European groupings, can partly be put down to the importance of the member states as frameworks for interest aggregation. Hence, while the EC system of interest intermediation distinguishes the Community from an international organization, its mainly pluralist mould is at the same time indicative of the polycentric nature of the Community.
B. Advising the Commission: The importance of the member states in policy formulation

As EC level interest representation, so is the continuous and close interaction between private actors, member states authorities and the Commission in the preparation and implementation of policy a peculiarity which distinguishes the Community from international organizations. Scholarly research so far has usually focused on either one of two aspects. On the one hand, interlinkages between member states' and Community administrations have been studied (e.g. Schmitt von Sydow 1980: 131-185; Wessels 1990; 1991; Bach 1992). Experts delegated by the member states take part in EC policy formation both by advising the Commission in the drafting of legislation, and when the Commission exercises its executive competences. Beyond the decision-making stage in the Council, member states' involvement at the Community level thus extends to all phases of the policy process. (In this thesis, only policy formulation is dealt with.) The density of related interactions has led to the characterization of the EC as a system of "shared government" or "cooperative federalism" (Wessels 1990).

Drawing on their research on European interest groups, other students of Community affairs have considered the relations between private actors and the Commission in the making of policy proposals. The dependence of the Commission on external technical expertise has been emphasized in Chapter I. Like in a national context, it may be conducive to what has been called "policy networks" or "policy communities." That Commission/interest group relations are actually stable enough to justify these labels has been suggested for the chemical industry (Grant et al. 1988: 202-205), the telecommunications sector (Schneider 1992: 67) and the regulation of pharmaceuticals and biotechnology (Greenwood and Ronit 1992).

Of course, depending on the issue, both non-governmental and governmental actors may be part of the same policy network. In fact, this has been the case for car emission control where both industry and environmentalist representatives and government experts sit on the Motor Vehicle Emissions Group (MVEG) as the relevant Commission advisory committee. In this section, the nature of the policy network at the preparatory stage of Community car emission regulation will be analyzed.
1. The Motor Vehicle Emissions Group (MVEG): The competent Commission advisory committee

The term "commitology" is undoubtedly one of the most prominent inventions of "Euro-speak." It points to the multitude of committees, staffed in various compositions by national government officials and interest group representatives, which support and control the Commission in the exercise of its functions.

In fact, the term "commitology" in a narrow sense only refers to the about 300 committees set up by secondary Community law (i.e. an act of EC legislation), and whose consultation is compulsory.220 "Commitology committees" advise and supervise the Commission and new Community agencies in the use of powers which have been conferred on them by the legal act concerned. These functions range from the application of Community law on a case-by-case basis221 to the drafting of new rules in the framework of existing legislation.222 Depending on the degree to which they restrict the latitude of the Commission in making decisions, three different committee procedures are distinguished.223 Most commitology committees are composed exclusively of government officials, but some of them also comprise non-government experts.

Another type of committee are those whose consultation by the Commission is not compulsory (see also Azzi 1985). Here, an accurate count is hardly possible. 74 committees are listed in the Community budget for 1993,224 but apparently many more exist.225 These committees may be sub-groups of

220 for a list of these committees see the General Budget of the European Communities, e.g., for the year 1993, OJ No. L 31, 8.2.1993, pp. 480-492. For a discussion on the Commission's executive powers and commitology, see Blumann (1988), Meng (1988) and Kapteyn and Verloren van Themaat (1989: 126-128, 240-247).


222 This is the case with the the so-called "committees for the adaptation to technical progress of directives"; see also Chapter II.


224 Own count based on the list in the General Budget of the European Communities for 1993, OJ No. L 31, 8.2.1993, pp. 493-496.

225 Based on their empirical research, Wessels (1990: 233) counted 537 expert groups advising the Commission in 1985, Grote (1990: 242, 244) a total of nearly 1,000 committees and expert groups in 1988, besides those whose consultation is compulsory.
other committees, set up by the Commission on an *ad hoc* basis for a short period of time, or not listed in the budget for some other reason. By contrast to commitology committees, the opinion of this second category of committees is not binding in any way. Indeed, some of them provide information and advice in the preparation of new legislation where the Commission has a monopoly of initiative. Even if national civil servants participate, they do so, officially, as experts but not as delegates of their governments. Besides, industry, labour unions, consumers, public interest groups, local authorities, professional organizations, academic experts and others may become involved on invitation by the Commission.

The Motor Vehicle Emissions Group (MVEG) is one of the committees in this second category. It does not appear in the Community budget, but is certainly not less influential than some of the groups listed. The MVEG is an *ad hoc* expert group without a specific legal basis, and has come out of the "Committee on the Adaptation to Technical Progress of the Directives on the Removal of Technical Barriers to Trade in the Motor Vehicle Sector." This committee had been set up by the 1970 EEC type-approval directive.226 Over time, though, the MVEG has become a quasi-independent and permanent body.

Originally, the MVEG was created by the Commission in early 1985 in the context of the negotiations on the Luxemburg Compromise (see Chapter VI), and held its first meeting in April 1985. Its purpose has been to provide the Commission with the technical information necessary to draft proposals in the field of emission control for all categories of motor vehicles. Correspondingly, it is technical experts nominated by the member states, industry, the European Environmental Bureau (EEB) and the European Bureau of Consumer Unions (BEUC) who attend MVEG meetings. From the beginning, the MVEG chair has been with an official from the French Ministry of Transport appointed by the Commission in a personal capacity, while the secretariat has been provided by the Directorate-General for Industry (DG III) of the Commission.

Turning to the participants first,227 the government experts are sent by the member states upon invitation by the Commission to the Permanent Representations. Each member state usually sends between one and four experts depending on its interest in MVEG work, the division of competences


227 The information presented here on the participation in MVEG is based on an analysis of the minutes of MVEG meetings between 1985 and October 1991.
between its government departments and the technical expertise at its disposal (e.g. specialized laboratories). Greece, Ireland and Luxemburg, after having attended some meetings in 1985, dropped out of the MVEG afterwards, and a Portuguese expert has participated from time to time. The biggest national delegations, usually of three or four, are from Germany and the United Kingdom. The German participants, for example, come, in various combinations, from the federal transport, environment and economics ministries, and the Umweltbundesamt as the Federal Government's scientific branch in the area. These experts may be accompanied by an expert from, for example, one of the private regional Technische Überwachungsvereine (TÜV) which, inter alia, do technical studies on emission testing and control. The lead of the Department of Transport in Britain in policy-making on vehicle emissions is reflected in this department's predominance in the UK delegation.

Between two and four experts are sent by the Dutch authorities, coming from the environment and economics ministries and a research institute. The strong participation of this country without its own national car industry reflects the Netherlands' interest in environmental policy. The same is true for Denmark which is regularly represented by an official from Miljøstyrelsen, the national environment agency. France, Italy and Spain usually send two or three experts. Again, the experts from these countries are partly government officials, and partly engineers from public or private research laboratories. A special case is the Belgian expert who works for a public research institute. From time to time, he also serves as a consultant to the Commission (DG III). The frequent involvement of non-government experts as national delegates underlines the technical nature of MVEG work.

In addition, a number of Euro-groups have been invited by the Commission to participate in the MVEG. The most important one, both in view of its material interest in the outcome of MVEG discussions and in view of the expertise it can offer, is the motor industry. Originally represented by the Committee of Common Market Automobile Constructors (CCMC) and the Liaison Committee of the Automobile Industry (CLCA), and now in the form of the Association of European Automobile Constructors (ACEA), the car makers have always been the biggest group at the MVEG table, with usually seven to twelve persons. Other organizations represented from the beginning are the Fédération Internationale de l'Automobile (FIA), the Comité de Liaison de la Construction d'Équipements et de Pièces d'Automobiles (CLEPA) as well as the Alliance Internationale de Tourisme (AIT) of national automobile clubs. The European Environmental Bureau (EEB) and the European Bureau of Consumer Unions (BEUC) were invited from the start but have participated regularly (the EEB) or intermittently (the BEUC) only since 1987. Other associations admitted to the MVEG in the course of time speak for, among others, the oil industry (Oil Companies' European Organization for Environmental Health
and Protection - CONCAWE; Union Pétrolière Européenne Indépendante - UPEI), oil additive manufacturers (Technical Committee of Petroleum Additive Manufacturers in Europe - ATC) and the producers of catalysts (Automobile Emissions Control by Catalyst - AECC). Finally, rather specialized industry bodies, such as the Conseil Européen de Coordination pour le Développement des Essais de Performance des Carburants et des Combustibles pour Moteurs (CEC), attend MVEG meetings. In total, in 1991, fifteen Euro-groups were represented in the MVEG with one or two experts each - with the exception of the strong presence of motor manufacturers (see above). Not all of them are always present, but a regular MVEG meeting can well be attended by 40 experts and more, including those from government and from private groupings.

Interest groups need a Commission invitation to join the MVEG. Their being affected by emission control and their capacity to provide relevant expertise are the main criteria for the Commission’s decision. In addition, only European associations are admitted but not national groups or individual firms. Of course, in practice, it is often experts from individual companies or national associations which represent the Euro-group, with a European mandate. By contrast, the EEB and the BEUC are arguably invited mainly for political reasons to increase MVEG transparency and legitimacy.

The third category of people at the table, besides government experts and interest group representatives, are officials from different Commission services. DG III is usually present with between two and four officials, while the environment directorate-general (DG XI) has normally sent one or two persons. DG VII (Transport) and DG XVII (Energy) have participated less regularly. Incidentally, the fact that a government expert, Euro-group or Commission department attends an MVEG meeting does not mean that it takes the floor. On any topic, most participants remain silent, and only few contribute to every point on the agenda.

The Motor Vehicle Emissions Group advises the Commission on technical aspects related to emission control for all kinds of road vehicles. From the first meeting in 1985 to February 1992, the Group held 46 meetings, i.e. six or seven meetings of normally one day per year. In this time, it discussed all of the major technical problems related to the drafting of new emission regulations by the Commission. Subjects included, for example, the definition of criteria for the differentiation of limit values between car categories, in preparation of the 1985 Luxemburg Compromise; the new European test cycle; emission standards for commercial vehicles; Diesel fuel quality; emission limit values for the Consolidated Directive in 1991; in-service testing; instruments to reduce carbon dioxide (CO$_2$) emissions from cars; and standards for motorcycles and mopeds, to take just a few examples.
Sub-groups worked on fuel quality and Diesel emissions, and on tax instruments to promote the introduction of less-CO₂-emitting cars, and the French and British experts joined forces to work on statistical sampling techniques as a basis for a new system of conformity-of-production testing. With the discussions on ways to reduce CO₂ emissions from cars, incidentally, which went much beyond technical requirements to the question of economic incentives to promote technological and behavioural change, the MVEG broke new ground in its work.

In line with its purpose, formally, the work programme of the Group is determined by the Commission in the light of its own needs, although proposals also come from the experts. These subjects are then treated over a series of meetings, with several items being on the agenda each time. When a new point on the agenda is opened, a tour de table first serves to have a picture of each delegation's position and any new information since the last meeting. Afterwards, an exchange of information and views follows, constricted by the formal procedures needed to manage a meeting of that size. The chairman's role in guiding the proceedings is central. Before he closes the point, he summarizes the interim results and gives an outlook on the future treatment of the problem. Reportedly, the long-time MVEG chairman has had a strong influence over the committee's work, including through informal contacts with individual delegations and the Commission outside the Group. The Commission may provide information on its own activities and help the chairman to focus the meeting, but for the most part refrains from involving in the discussions.

Crucial for the progress of the work and for the underpinning of positions and proposals is research done by the experts and presented at the meetings in the form of working documents. Delegations generally prepare such documents on their own initiative, to promote the discussion on an issue important to them, or to refute arguments put forward by other experts. These papers are usually announced and coordinated in previous meetings, and sometimes require considerable research and testing efforts. This implies that only few experts, who command corresponding resources, are able to present substantial working documents.

Although the content and length of official MVEG working papers vary widely which limits their comparability, their authorship provides an idea of the important players in the Group. A large variety of documents is categorized as official MVEG working paper, from substantial research reports, to simple position papers, concrete proposals for elements of draft legislation, brief information notes,

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228 The following is based on the analysis of lists of official MVEG working papers between January 1985 and May 1991.
and minutes of MVEG meetings. Leaving aside the minutes, in total 208 documents are contained in the official list. Rather unsurprisingly, the government experts and the motor industry are the most important contributors. 113 out of the 208 documents were presented by national delegations (of which three were joint papers), and 48 by the motor industry. The next biggest contributor is the oil industry with ten documents. Various smaller industry associations provided thirteen papers, and the EEB five. The Commission services themselves, actually, in addition to the minutes, contributed sixteen documents, of which eight apparently were studies, while the rest was reports summarizing MVEG conclusions or draft legislation. Furthermore, the number of contributions from the individual national delegations is revealing. Most papers came from the Netherlands (33), followed by Germany (31), the United Kingdom (20) and France (16). Italy produced eight papers, and Greece and Denmark one each.

The authorship of MVEG working papers reflects both the allocation of expertise between different experts, and their involvement in the matters discussed in the Group. The motor industry clearly is the major source of expertise on vehicle emission control, and it is most directly affected by the outcome. Hence, its possibilities to provide input into MVEG work and its interest in doing so are equally strong. Other industries participate only to the extent that they are affected by the issues discussed. The European Environmental Bureau (EEB) is constrained by a lack of resources in terms of research capacities. For the national delegations, the special position of the main motor-manufacturing countries is reflected in the high numbers of documents presented, although Italy is an exception. These countries are both strongly concerned about exhaust emission standards, and have the research means to feed the technical debate. Against this background, however, the fact is noteworthy that most working papers actually came from the Dutch delegation.

MVEG’s main purpose is to provide the Commission with the technical information it needs to draft its legislative proposals. Ideally, the MVEG presents the Commission with an agreed recommendation on the problem concerned, corroborated by the necessary data and analysis. In any case, the Commission is not bound to the Group’s conclusions. Its legislative proposals could discard the MVEG opinion. In practice, though, the Commission will not diverge from MVEG’s recommendations unless there are weighty reasons to do so. Incidentally, the MVEG does not actually write the legislative text, which is up to the Commission to do, possibly with the help of one or another expert on an individual basis.
At the same time, the MVEG has an eminently political dimension. Historically, in early 1985, the Motor Vehicle Emissions Group was the child of a political emergency situation. Under German pressure, the issue of car emissions had become highly politicized (see Chapters III and VI). The details of what later became the Luxemburg Compromise, which gradually emerged in the political negotiations in the Council, had to be translated into legislative texts.229 Faced with this task, the Commission needed a body in which technical questions could be worked out under participation of the member states and the industry directly concerned. Drawing in the parties most affected and most knowledgeable, firstly, was a virtual necessity in view of the technical complexity of the matter. With major changes in the legislation required, and under time pressure, the Commission depended on outside expertise. Secondly, involving the member states at an early stage promised to speed up the work in the Council. There, the problems would have had to be discussed with a formal Commission proposal already on the table. The formality of legislative and Council procedures is not conducive to finding solutions to technical problems. Conversely, their political function gave MVEG meetings a special flavour, far away from that of a simple round of experts. In the early meetings, the tone between delegations was harsh, and official government declarations were attached to the minutes. Today, an atmosphere of routine determines MVEG meetings.

More generally, of course, the dual technical and political side of MVEG work is rooted in two conditions. The first aspect is that technical advice in the context of regulation is never neutral (see also Chapter I). When it serves to devise legal rules, technical expertise is nearly automatically affected by material concerns. As the conclusions drawn from technical evidence in the form of new regulations usually create costs to industry and consumers, besides the intended environmental (or other) benefits, they are beset with related economic and political interests. While the data themselves are factual, the research in which they are produced, their presentation and their interpretation are tainted by the political and economic concerns of the parties involved. It is well known that by how you design your testing programme, by what results you report, and by what assumptions you make, you can influence your results.

At the same time, material interests are not everything, and personal preferences by engineers and regulators independently of whom they speak for are important. What technical requirements are

229 In the words of the competent Commission division: "The ad hoc Group 'Motor Vehicle Emissions' was set up by the Commission to study the problems of a technical nature posed, at present, within the Community, by the strengthening of legislation on motor vehicle emissions, following the decisions by the Council of Environment Ministers of 20 March 1985, as well as related technical questions, in order to allow the Commission to make a complete proposal to amend Directive 70/220/EEC." European Commission (DG III), 28.5.1985.
"reasonable" and what would be "exaggerated", or what the "better" solution to a problem is, is partly a matter of personal philosophy. The discussions about the lean-burn engine versus the catalytic converter, which pervaded the EC politics of car emission control in the 1980s, is a case in point (see Chapter IV). Significantly, such philosophical valuations may reflect regulatory priorities and longer-term perspectives. In the field of exhaust control, trade-offs and goal conflicts exist not only between industrial policy and the environment, but even between different environmental objectives. Not allowing, for instance, some standard to preclude progress on another front is a valid concern.

The political dimension of MVEG work is also due to the fact, lastly, that the experts sent by the member states are not, in fact, disinterested experts. They are really government delegates. Indeed, as a general rule, the same officials who sit as experts in the MVEG equally represent their countries in the Council’s Ad hoc Group on Motor Vehicle Emissions as the Council’s technical working party responsible. In practice, they are also those officials who first formulate the positions taken by their respective governments on the issues in question. Typically enough, in MVEG meetings, government experts are not called by their name but addressed, for example, as "the Italian delegation."

2. The problem of restricted national expert communities: The "non-Europe" option as a yardstick

Before turning to an evaluation of the Motor Vehicle Emissions Group (MVEG) and a general discussion of the Community policy network in the field of car emission control, it is useful, at this stage, to consider the alternative to EC regulation, i.e. the "non-Europe" option. This analysis must be somewhat speculative, and, in empirical terms, few hard facts are available to corroborate my point. Rather than "proving" it for a precise case, therefore, the purpose is to bring out, in a general way, the problem of regulation with a restricted expert community.230

The example discussed here is the British insistence, during the 1980s, on the concept of the lean-burn engine. The overall UK response to the tightening of EC standards on car emissions was described in Chapter IV. One of the reasons why the British Government resisted stringent standards was the belief held by policy-makers up to the highest level - i.e. the then Prime Minister - in the future availability of a technology superior to exhaust control by autocatalysts. In principle, the rationale for lean-burn

230 see on the following also Boehmer-Christiansen and Weidner (1992).
was convincing. In the end, however, its basic assumption - i.e. that the lean-burn engine would meet ambitious emission reduction targets - proved wrong.

Prima facie, two potential reasons exist for the failure of the lean-burn engine. Critics may argue that it was the EC policy described in this thesis which "killed" the lean-burn engine. Indeed, the potential of this technology must always be seen in relation to certain emission limit values - the lean-burn engine had the potential to meet certain limit values but not others. Moreover, at the time when EC standards were tightened up in the 1980s, car engineers were still working on its development, so that its full promise had not yet materialized. In that sense, the argument goes, EC regulation came too early for an emerging technology, and/or with too stringent standards.

Besides, lean-burn and the three-way catalyst were (potential) technological solutions to somewhat different environmental problems. More precisely, there is a certain trade-off between fuel efficiency and the limitation of CO₂ emissions on the one hand, and the reduction of NOₓ emissions on the other. While the lean-burn engine is less effective on NOₓ abatement than the three-way catalytic converter, it has an advantage in fuel efficiency. Importantly, within the EC, the concern about NOₓ was initially a German one in the context of forest die-back. As was shown in Chapter III, German environmental regulators became increasingly worried about the increase in NOₓ emissions in the context of earlier emission regulation and traffic growth during the 1970s. Ironically, the fact that NOₓ emissions grew was partly due to the "leaning" of the air-fuel mixture employed to reduce CO and HC emissions (Becker 1988: 5). The acceptance of the catalytic converter by the German car industry must be explained also in relation to an emphasis on NOₓ in that country. By contrast, the concern about NOₓ was initially low in Britain. Hence, it might be concluded, a German "dictate" of European pollution abatement priorities "killed" the lean-burn engine.

However, with hindsight, this critical assessment is difficult to uphold. First, today, NOₓ pollution and the ensuing formation of ozone have emerged as major concerns of British environmental policy-makers as well. Although the recognition of a NOₓ problem was partly "imported" to Britain from the Continent (see Chapter IV), NOₓ is as much an environmental hazard in Britain as it is in Germany. Incidentally, had Whitehall been more aware of the NOₓ problem in the mid-1980s, it might have been more favourable to the introduction of three-way catalysts.

Most importantly, though, it was the inherent technical problems of the lean-burn engine which caused the concept to fail. Of course, especially from the outside, it is difficult to judge how much a fully
developed lean-burn engine might have achieved in terms of emission reduction, and at what cost to the consumer. Nevertheless, a number of obstacles could apparently not be overcome. In particular, the control of NO\textsubscript{x} emissions posed a limit to the potential of lean-burn. While CO emissions are inherently low under lean-burn conditions, and HC emissions can largely be controlled with a simple oxidation catalyst, the control of NO\textsubscript{x} was the major challenge for the new technology. In evidence to the House of Lords, the car industry promised that lean-burn engines would reduce NO\textsubscript{x} emissions by some 80 per cent, as compared to some 97 per cent for the three-way catalyst (House of Lords 1985: 35). In the end, lean-burn never achieved this range of performance.

Other problems have to be added. Thus, it turned out that more ambitious HC standards required lean-burn engines to be fitted with an oxidation catalyst, which reduces their attractiveness from a cost point of view. Advanced lean-burn engines, like three-way catalytic converters, also depend on expensive fuel injection. The cost argument had been a major one for the advocates of lean-burn, and the fact that oxidation catalysts and fuel injection were needed decreases the original cost advantage of a lean-burn engine over three-way catalysts. Later, a lengthy Volkswagen study on the merits of the lean-burn engine revealed operating problems such as unsteady engine idling and misfiring which, again, could only be solved by costly additional technology. Indeed, Volkswagen came to the conclusion that under those conditions lean-burn cars would become more expensive than cars with a three-way catalyst. Finally, lean-burn engines are no longer "lean and clean" during high-speed driving.\textsuperscript{231} In a nutshell, it appeared difficult and costly to push the leaning of combustion beyond a certain point.

To what extent these technical problems were foreseeable in the early 1980s is an open question. In the absence of concern over air pollution related to road transport in general, and NO\textsubscript{x} pollution in particular, and with an emphasis on fuel efficiency and cost-effectiveness as additional criteria for the evaluation of engine qualities, Whitehall initially had good reasons to believe in the future lean-burn engine. What is more difficult to understand is the persistence of Whitehall’s support for this technological trajectory. Elements of an explanation have already been mentioned. They include the low priority of air pollution control and environmental protection to the government in power, the strong influence of the motor industry on Whitehall and the Prime Minister’s personal commitment to the lean-burn technology. Another important factor, however, was that government only drew on a limited range of advice in assessing the relative benefits of catalytic converter and lean-burn technologies. Here, a key problem of technical regulation in a national framework is revealed.

\textsuperscript{231} Financial Times, 12.1.1989.
In fact, today, British officials look back on their earlier commitment to the lean-burn engine with a sense of betrayal. Part of its failure is blamed on regulatory developments in the EC which "killed" the "clean" engine. However, the failure of the motor industry to deliver what it promised in terms of lean-burn is also criticized. Clearly, Whitehall too strongly relied on the advice given to them by Ford and BL/Rover on their ability to build such an engine. On a technical level, this assessment was not seriously challenged by anybody in Britain. Vauxhall, as the major UK manufacturer which had not embarked on the lean-burn trajectory, did little to change the Government's mind. Outside the motor industry, only few organizations could provide an unbiased assessment. Other experts could probably be found in research centres involved in engine development (e.g. Riccardo Consultants). On the whole, however, the number of experts involved in lean-burn R&D was limited, and most of them were naturally biased in favour of the idea. It is true that an objective assessment of the merits of the technology was probably difficult even for the engineers working in this field, as they did so at the leading edge of engine design. Still, the combined view of different experts might have helped the Department of Transport in its judgement. In the absence of a broader spectrum of assessments, however, Whitehall had to rely on the information and opinions given to them by Ford and BL/Rover.

On a more general level, the British case suggests what is called here "the problem of restricted national expert communities." As discussed in Chapter 1, the setting of technical standards for the purpose of environmental and consumer protection, workplace health and safety, public health etc requires a considerable amount of expertise. Where only few experts are available, and these are biased or belonging all to the same school of thought, the possibility for the cross-checking of information and opinions is severely limited. This remains true whether private (e.g. industry) or public bodies are concerned. Hypothetically, had Whitehall been able to consult more widely on the prospects of the lean-burn engine, and rely less on Ford's and BL/Rover's advice, it might not have defended lean-burn so long.

According to Boehmer-Christiansen (1991: 304, endnote 16), knowledge about the problems and costs associated with the lean-burn engine became available to the Department of the Environment in 1987 through an unpublished report by the Fellowship of Engineering.
Conclusions: The benefits of multiple sources of expertise

The example of the Motor Vehicle Emissions Group (MVEG) and the problem of restricted expert communities illustrated with regard to the British experience of the lean-burn engine shed light on a number of issues which have been raised in the introductory chapter. Especially, the importance of the member states in the European policy network of car emission control is highlighted.

To start with, a European policy network of car emission control does exist. It is based, formally, on the invitation by the Commission to the member states and a limited number of interest groups to participate in the MVEG. In fact, though, it is the expertise which actors can provide - reflected in the number of working documents presented - which determines the "core" policy network. In the present case, this "core" network consists of the four member states with a national auto industry plus the Netherlands, the European motor industry, and, depending on the issue, other industries involved. The other member states as well as the environmentalist and consumer organizations form what might be called the "outer circle" of the network. As their resources to provide technical material relevant to the issues discussed is limited, it is difficult for them to influence policy formulation. While inextricably linked with economic and political interests, it is clear that engineering knowledge is the key to influence at this stage of the process. The reader of the 100 pages of technical annexes to the 1991 Consolidated Directive on car emissions will easily appreciate the technical complexity of regulation in this field.

A closer look reveals the difference between the core and the outer circle of the network, and the network's political dimension. Consider Denmark's position. As will be shown in Chapters VI and VII below, Denmark has consistently urged for stringent car emission rules. It has been an equally persistent and active participant in the MVEG. However, its impact on MVEG work was small due to a lack of technical input. Similarly, the admission of the European Environmental Bureau (EEB) and the European Bureau of Consumer Unions (BEUC) was a political decision by the Commission, while their resources to technically corroborate their views is limited. Important, this is not to say that the EEB, the BEUC and, particularly, Denmark are entirely ineffectual. However, their weight derives from their political importance outside the policy formulation network. More generally, all member states are potential members of EC policy networks and are invited as a matter of course. Their degree of involvement and influence then depends on their resources and intentions.
In Chapter 1, two related hypotheses about the relative significance of the political and the functional
dimension of EC policy formulation were put forward. In the EC context, they are closely related to
the question of the national factor in policy-making. Firstly, it is suggested within the
"domestic politics approach", many interest conflicts especially between the member states are fudged
in Community policy-making as they are treated as technical issues (Bach 1992: 24; Peters 1992).
A priori, a depoliticization argument would seem to be vindicated, first, by the inherently technical
nature of much of EC policy certainly in the field of regulation which facilitates the blurring of
political interest conflicts behind technical formulae. Accordingly, although many technical details have
a political dimension, it is mitigated by an engineering perspective. Instead of arousing discussions on
policy substance, new standards are seen primarily as a means in the context of the overall objective
of harmonisation. Moreover, as European policy-makers are less exposed to direct pressure from public
opinion, elected politicians and interest groups than their national counterparts, they are freer to
approach their tasks from a technical angle. Behind closed doors and somewhat removed from
domestic pressures, national expert delegates would take on this perspective. Hence, a depoliticization
hypothesis suggests, political differences are softened by a technocratic bias in the EC policy process.

Relatedly, shared professional values across national boundaries are suggested to play a role in
Commission advisory committees (see Eichener 1992: 53-57). As the experts responsible for a certain
area in the different member states meet, they are guided by similar professional values and ambitions.
Unrestrained by limitations weighing on them at home and in interaction with each other, they may
develop new solutions to technical problems. In sum, it is claimed that within EC policy networks
cross-national differences are reduced by the technical nature of policy and the special institutional
framework of the regulatory process. The member states as carriers of interests and perceptions loose
in importance as compared to sectoral expert communities. This assumption, incidentally, contrasts
with the observation that it was the inflexibility of low-ranking officials which stalled Community
negotiations until the early 1980s (Pelkmans and Vollebergh 1986: 25-27).

Overall, the evidence in this thesis does not confirm the notion that the national factor is reduced by
the functional and professional dimension in EC regulation. It is, of course, true that persuasion and
common professional standards balance the crude pursuit of interests in expert discussions generally.
Factual evidence and a strong argument cannot be brushed aside. In addition, not all questions
(equally) affect material stakes. When a group of French and British MVEG experts devises a
sampling scheme, for instance, no clash of interest is likely to loom. Then, their specialist knowledge
is what counts. Cooperation to find appropriate solutions to technical problems does take place in the
MVEG. At the same time, as technical evidence and arguments are often related to interests in the regulatory process, the scope for non-political technical discussions in the MVEG is limited.

The political nature of the MVEG should come as no surprise. Recall first the MVEG participants. In fact, most of them are stakeholder representatives, with the Commission as the target of their involvement. For the industry, this is obvious. Yet, also the government experts are not independent but represent an official view. Indeed, it is usually these same persons who are directly responsible for road transport emissions in their respective capitals, and hence define their countries' initial position on the Commission's legislative proposal, and represent it in the Council's working party. Thus, while the MVEG's task formally is to pull together technical information and advise the Commission, it de facto also is a pre-negotiation forum. Negotiations take place not on a formal legislative draft and according to the Council's rules. However, a negotiation element is well present in the MVEG in the discussion of technical assessments. For the Commission, both the technical and the political function is important. The ideal case is when all experts, or at least the member states delegates, reach a consensus on the question on the table. This makes it easy for the Commission which then is unlikely to deviate from the MVEG opinion. Otherwise, the Commission services will at least have got a feel for what is politically acceptable in the Council.

At the same time, MVEG work facilitates progress in the Council. It has been observed before that bureaucrats are interested in solving technical problems at their level rather than leaving them to the politicians. What is more, their solutions are likely to be confirmed (Schmitt von Sydow 1980: 161f; Azzi 1985: 103). The MVEG provides an opportunity for this to happen. At least, however, MVEG proceedings foster a common understanding of the issues and of the potential for solutions. Delegates take home with them technical knowledge which allows them to define their government's line. This avoids the need for extensive technical discussions in the Council, and improves the information base of all member states - especially those without much domestic expertise. In sum, besides helping the Commission in drawing up a proposal which corresponds to technical and political reality, through the composition of its participants, MVEG work expedites Council business.

In addition, the political character of the MVEG, is, of course, rooted in its policy environment. In view of the stakes involved for the industry, governments and other groups, the MVEG process inevitably is conflict-laden. The related political and economic interests are strong and entrenched. Whatever the outcome of the MVEG proceedings, in the final result, it is liable to require substantial investments, affect the market positions of individual manufacturers, and influence air quality all over
Europe. As soon as a question has a bearing on the costs and the effectiveness of regulation, opposed interests arise in the MVEG. The main frictions run between the motor industry and some government experts, and between the different member states delegations. The national lines particularly between the auto-manufacturing member states are important due to the differences in their environmental agendas and the varying economic stakes involved. These are clearly reflected in the positions taken in the MVEG. The presentation and assessment of technical data against the background of contrasting interests and significant political and economic stakes is at the heart of MVEG work.

It is probably this specific policy and actor constellation which yields a different picture of the Commission’s consultation process in this thesis as compared to Eichener’s (1992: 50-57) analysis. On the basis of his empirical evidence, Eichener described a dynamic in Commission advisory committees which led to an up-grading of new Community standards. According to one of his interviewees, some experts "hijacked" (ibid.: 56) the EC’s Machinery Directive. The policy entrepreneurs in this case were both in the Commission and in national administrations, and had a professional and institutional commitment to ambitious regulation. However, the field of workplace health and safety, from which Eichener’s evidence is drawn, is arguably characterized by a larger variety of actors and a lower degree of organizational and policy structure than vehicle emission control. These conditions would seem to be conducive to an open environment which facilitates policy entrepreneurialism. By contrast, in the MVEG, a limited number of stakeholder-experts with clearly defined and opposed interests works to influence the Commission. In fact, while the predominant language of MVEG meetings is the language of engineers, industry and member states’ interests pervade the discussions. Relatedly, the MVEG is not the place where emission control specialists from the member states and the Commission jointly agree on high standards. Although the Commission remains independent in the final formulation of its proposal, in reality it is not the master of the process as described by Eichener. In a politicized environment beyond its control, it acts as an uneasy broker.

The political nature of the Motor Vehicle Emissions Group with the strong involvement of some member states and the industries concerned disconfirms the hypothesis that EC policy networks are similar to national regulatory policy communities. As Héritier (1993: 437) suggested, one of the main features of EC policy networks is their heterogeneity in terms of problem perceptions, regulatory philosophies and interests. In the case of European car emission control, individual member states and their opposed interests and policy agendas have played a central part at the policy formulation stage.
At the same time, the benefits of polycentrism in policy formulation should be considered. The preparation of Council proceedings through the MVEG and more equal access to technical data for all member states have already been mentioned. Moreover, the alternatives have to be taken into account to fairly appreciate the MVEG's role. By its genesis and function, the MVEG is an institutional response by the Commission to its own lack of technical expertise. At the same time, it increases the openness of the regulatory process in this field.

The analysis in the previous section on the UK Government's misplaced support for the lean-burn engine provides the needed contrast. Essentially, as argued above, the fact that British policy-makers relied on the motor industry's assurances about the feasibility and effectiveness of lean-burn combustion misguided Whitehall's policy assessment. A restricted expert community did not allow for a cross-checking of information and specialist judgement. The British case above is only an example for the situation which national regulators face in all countries. More generally, the Motor Vehicle Emissions Group substitutes for regulation under one of the following scenarios.

1) **National regulation in a country without a domestic motor industry and no or few other sources of information relevant to vehicle emission control**: This country would have to follow international regulatory developments, and, for example, adopt UN-ECE standards. The Stockholm Group briefly described in Chapter II, which transposed US emission standards into a European "Master Document", was also a response by the countries involved to their own limited technical capabilities. Denmark has been mentioned above as a country which can contribute little to the technical work in MVEG. Yet, through the MVEG, it gained access to relevant information. In parallel, Denmark participated in the Stockholm Group.

2) **National regulation in a country without a domestic motor industry but with other sources of information relevant to vehicle emission control**: In principle, this country might want to impose standards on a national basis. At the same time, this may not be possible for political and economic reasons, and mandatory Community regulation, of course, excludes this option. The Dutch example shows how a member state no longer in the position to set national standards pursues its policy objectives at a technical level in the MVEG.

3) **National regulation faced with the expertise-cum-interests of domestic motor manufacturers**: To the extent that engineering knowledge is the medium for influence in the drafting of auto emission standards and the motor industry enjoys an advantage in this field, its interests are likely to play an important part. Its political clout adds to the predicament. In the absence of a counterweight to industry interests, policy formulation is likely to be strongly influenced by industry experts. National regulators in all countries normally face a similar situation where the range of experts whom they can consult is limited.

4) **Commission legislative proposals without member states' input at the drafting stage**: In the absence of strong Commission in-house expertise, these proposals would have to be based on information by the industry and, possibly, individual other experts under contract by the Commission. This is the model of a supranational super-bureaucracy (Wessels 1985: 28). The scenario of a European policy community under the exclusion of the member states involves a risk of Commission
capture by industry as it repeats the constellation under point 3 (see also Chapter VIII).

By comparison to these four alternatives, the Motor Vehicle Emissions Group and the EC policy network of car emission control as described above enlarge the range of experts who contribute to the formulation of Community law. This counterbalances the problem of restricted expert communities and the danger of agency capture. Of course, it is important to be clear about what the MVEG cannot do. As explained earlier, it does not create a rational discourse between disinterested specialists. The participants also do not have all the same capabilities to contribute to the work. Much evidence, even, cannot be fully scrutinized by the other experts which leaves a grey area of unchecked information. The MVEG is also not the only way in which the Commission might draw on multiple sources of expertise in different member states and thus increase the quality of its information base. By the same token, national regulators are free to draw on bodies outside their country to overcome the limits of their domestic expert communities.

These qualifications notwithstanding, the MVEG is a means by which EC regulation on road vehicle emissions allows for different expert organizations to feed in data and advise the Commission before it makes its proposal. At least on the key contested issues, different information is put on the table, and can be compared and challenged. The variety of sources and the countervailing of interests and expertise between the different stakeholder-experts allows for a more objective examination of policy options. In particular, the motor industry is not the only source of data. Especially Germany as the policy entrepreneur in EC car emission control, and the Netherlands use the MVEG to back up their political demands for high standards with technical evidence. It is the policy entrepreneur's political clout which ensures his influence over the Community agenda and decision-making process, and his ability to feed the Commission with proposals and data advancing his cause which are crucial. The latter factor is important as the Commission's proposal is the basis for legislation, and carries substantial weight especially under a qualified-majority system in the Council.

Holzinger (1994: 286-295) provides us with an account of MVEG discussions in the preparation for the Commission proposal for the 1989 Small Car Directive. Her analysis sheds an interesting light on the MVEG process. In question were the limit values for CO and combined HC+NOx emissions. Four sets of values were on the table. First, the standards for medium-size cars under the 1987 Luxemburg Compromise Directive (30 g/test CO, 8 g/test HC+NOx - in short: "30/8") provided a yardstick. Secondly, on the basis of test results, the Netherlands and Germany proposed a "20/5" pair of limit values. Thirdly, the UK had introduced a recommendation "35/12", and was supported by
France, Italy, Spain, Portugal and Belgium. The car industry's (i.e. CCMC) bid, finally, had been "38/12.8." It is not necessary, here, to report the rationales behind these different proposals. In any case, they are a good illustration of the multiplicity of inputs into EC policy formulation through the MVEG.

In the final result, the Commission decided to take on board the "30/8" values in its draft directive. Holzinger sees this as an indication that industry arguments had prevailed over environmental considerations. Indeed, the conservative CCMC proposal had apparently been determined by Peugeot, while the other companies could live with "30/8." In fact, however, albeit the Commission proposal did not correspond to the Dutch and German wishes, it was significantly more stringent than the (official) industry and the British recommendations. The Commission expected that, in the Council, also Britain, Italy and France would finally accept the "30/8" proposal. The tactical element in the Commission's reasoning is clear. The important point, though, is that the Commission could choose between a number of proposals, and that it was not faced solely with the CCMC position. In the absence of a European policy network involving the member states, this would have been the case. Incidentally, during the 1980s more generally, also the pluralist mould of the European interest group scene helped the Commission in gathering additional information. In the words of a Commission official,

"Daimler were very useful allies (...) they shared our view that CCMC was being intransigent on the issue. In fact Daimler were already implementing some of the standards in other markets which CCMC told us were not possible." (quoted in McLaughlin et al. 1993: 200)

In a nutshell, the key point suggested by the analysis in this section is that European Community regulation benefits from the broader range of expertise available to policy-makers. In the Commission's advisory committees, but, of course, also through the Commission's bilateral contacts with the authorities and other expert organizations in the member states, information and proposals from different sources are presented and can be checked. Like in a national context, many experts are interested parties, and do not provide "objective" advice. However, the greater number of actors with different interests allows for a better review of data and opinions, and an expert is less likely to get away with biased evidence. With a larger range of potential experts, the problem of a restriction of advice is less likely to occur in EC technical regulation.

In the longer term, a European expert community is built which comprises a broader range of expertise than the existing policy networks in the member states. This EC policy network is more heterogeneous than its national counterparts, more informal in its interactions and centred on the Commission (Bach
1992; Héririer 1993). In addition to the network’s focus on Brussels, direct contacts on a bilateral basis between the actors in the network are encouraged. A visit of a British Department of Transport official to Volkswagen in Germany for information and discussions about emission control may have been set up in the MVEG. The multiplicity of member states’ expert bodies is a key advantage of polycentrism.

C. The Commission: A political bureaucracy

The Commission is at the centre of the European Community’s regulatory policy networks. Under the Treaties, EC directives can be enacted by the Council only on a proposal from the Commission which gives this institution a monopoly on the initiation and formulation of policies. In addition, as will be shown in more detail below, the Commission wields considerable influence over the final content of Community law through its strong position in the Council and between the Council and the European Parliament thereafter. The genesis of EC policy networks can largely be put down to the Commission’s need for technical input and the efforts of private actors to influence the Commission’s proposals. In this section, the political character of the Commission is briefly highlighted.

1. The institutional framework

To clarify the terminology, it is first useful to consider the Commission as an institution. From a Treaty point of view, the Commission is only the body ("College") of 17 Commissioners appointed by the member states by common accord, and after approval by the European Parliament, for a term of five years. It is chaired by its President, and takes its decisions by simple majority. Formally, and in all important questions in practice, the Commission acts as a single body (collegiality principle). This means that, while each Commissioner has his own portfolio and gives instructions to the relevant Commission departments (see below), this competence is not exclusive. In principle, all Commissioners have responsibility for all questions on the table, and decisions are taken by the whole Commission on a proposal from the Commissioner responsible.

231 Articles 100, 100a, 189a-c EEC.

234 Articles 157-163 EEC; The changes in the nomination procedure for the Commission was one of the major changes brought about by the Maastricht Treaty.
In a wider sense, the Commission is the administration with some 14,000 civil servants which assists the Commissioners in their obligations under the Treaties ("the Commission services"). This administration is divided into 23 directorates-general responsible for individual policy areas and a number of general functions (personnel and administration, budget, financial control). The directorates-general are usually called by their number (e.g. "DG XVI"), and are divided into directorates, in turn composed of units as the smallest constituent department. In addition, a number of general tasks are exercised by separate services, of which the Legal Service is the most important one for the legislative process. Finally, the Secretariat-General coordinates the work of the different departments, maintains the Commission’s official relations with the other Community institutions, serves the President of the Commission, and ensures some other, more practical or temporary functions.

Finally, each Commissioner has his cabinet as a small staff of personal collaborators (see Ludlow 1991: 93f; Donnelly 1993; Bardi and Pasquino 1994: 61-72). The cabinet is composed of normally up to ten people who are directed by a head of cabinet. Some of this staff follows the Commissioner from his own country, and some are officials seconded from the Commission services. The cabinets are central elements in the internal policy-making process of the Commission. Indeed, they are an instrument for each Commissioner to cope with his co-responsibility for the entire range of Commission policy, and thus a corollary to the collegiality principle. They help a Commissioner to keep track of and define his position especially on questions outside his or her portfolio. Regular and ad hoc meetings between the specialist cabinet members and the heads of cabinet prepare the weekly meeting of the College by focusing the discussions and resolving less politically sensitive questions. Cabinets also provide the Commissioner with an independent source of information, and help him to maintain his political contacts both at the European level and in his member state.

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235 see the Community’s annual budget, e.g. for 1993 OJ No. L 31, 8.2.1993, pp. 128f. To these 14,000 permanent posts have to be added about 750 temporary posts. Out of these staff, about 1,650 are interpreters and translators. The A-grade category of officials with management and policy responsibilities comprises some 4,500 posts.

236 In new areas, or where the establishment of a full-blown directorate-general is not opportune (e.g. for tasks of a temporary nature), task forces have been put into place.
2. The Commission at work

It would be of little interest here to describe in detail the steps leading to the adoption of a formal directive proposal by the Commission (see also Raworth 1993: 24-35). Also, little systematic analysis of the Community bureaucracy has been produced so far which would allow for a general account. The following, therefore, should be seen as not more than a tentative and certainly not encompassing description of the Commission's internal workings. Reference is made to the case of car emission control for empirical evidence.

Generally speaking, the collegiality principle imposes particular requirements in terms of intra-Commission consultation. Briefly, one directorate-general, and within it one unit is responsible for the preparation of a proposal. This usually involves the consultation of outside experts, possibly including experts from member state governments, the actual drafting of the legislative text and the explanatory memorandum, as well as all related administrative work (e.g. ensuring translations, the linguistic revision of the draft directive by the juristes réviseurs). The service responsible has to involve other services potentially interested in the subject, and to take their concerns into account in the finalization of the proposal. This happens at an early stage of the process in a more or less informal way directly between the different units concerned, and, in the end, in a procedure of formal inter-service consultation of the other directorates-general potentially concerned on the fully fledged-out draft. A number of services have to be consulted in any case. These include DG IX (Personnel and Administration) if the proposal implies new needs in terms of Commission personnel or other resources; DGs XIX (Budgets) and XX (Financial Control) if the proposal would involve new Community spending; and DG XXIII (Enterprise Policy, Distributive Trades, Tourism and Cooperatives) if the proposal would have an impact on small and medium-size business. The Legal Service has to give its opinion on all legislative proposals, and the Secretariat-General on proposals foreseeing the creation of comitology committees. Since recently, the Commission's annual legislative programme identifies those items which require a special assessment in terms of their environmental implications.

After formal inter-service consultation, the draft proposal goes to the cabinet of the Commissioner responsible who may then present it to the Commission. If all departments earlier agreed with the

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proposal, it can be submitted to the Commission college in a "written procedure." This means that
the proposal is adopted if no Commissioner raises objections within a certain delay. If objections are
raised by a Commissioner or his cabinet, or if other directorates-general disagreed with the proposal
during inter-service consultation in the first place, the proposal has to be discussed and decided on by
the Commission college in one of its weekly meetings ("oral procedure"). The proceedings of the
College are prepared in meetings between the different Commissioners’ cabinets where the positions
of the individual Commissioners are clarified and the range of contentious issues may be narrowed
down. The heads of cabinet meet on Monday to prepare the weekly meeting by the College.

Beyond the intricacies of the Commission’s internal procedures, it is important to recognize the
political character of this institution. Despite the collegiality principle, individual Commissioners and
Commission departments quite naturally have different, and sometimes contradictory points of view
centering policy proposals and their precise content. At the level of the Commission services, first,
strong interventions by the Commissioners or their cabinets on individual subjects go along with the
relative independence of the administration and a lack of continuous political guidance on others. To
be sure, on decisions of particular interest and political concern to a Commissioner, he or she is likely
to be closely involved. Reportedly, for example, Commission President Jacques Delors and his cabinet
interfered strongly into daily Commission work on occasions through their own network of contacts,
sometimes bypassing the official channels (Grant 1994: 91-115). Commission policy-making is partly
characterized by the ad hoc nature of these political interventions from above. The College as a whole,
of course, also determines the great lines of Commission policy. At the same time, very often, the
Commission bureaucracy operates rather unconstrained by political guidance. Officials joining the
Commission from national administrations are surprised "at the lack of political direction from above
and at the amount of room for policy and legislative initiation that is available to them." (Nugent 1994:
98) The Commission civil service has considerable latitude in putting proposals on the agenda and
defining their content.

Arguably, it is mainly the absence of party government at Community level with its policy
development and coordination function which accounts for the relative lack of political guidance of
the Commission bureaucracy. In the absence of a government platform and of parties as generators

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238 Rules of procedure of the Commission, Article 10.

239 In addition to the written and oral procedures, there is a "habilitation procedure" in which one
Commissioner decides on behalf of the Commission on "clearly defined management or administrative
measures." (Rules of procedure of the Commission. Article 11)
of ideas and carriers of influence, the Commission services have more leeway for policy formulation
than most national ministries - even though the political control over the government apparatus is an
issue also in national capitals (see generally Blondel 1990: 197-200; Blondel and Müller-Rommel
1993). The Commission has always attempted to ensure an overall planning through work programmes,
such as the 1969 General Programme and the 1985 White Paper on the completion of the internal
market. A more recent development is the presentation, since 1988, of an annual legislative programme
which lays out the activities over the next year. Since 1993, this programme is debated in the
European Parliament which adopts a resolution on it. Subsequently, the Council expresses its opinion
in a declaration. Nonetheless, the absence of party government distinguishes the Commission from the
typical national ministerial administration in Western Europe and gives the Commission services
greater scope for decisions on many issues.

Political direction from above on some and the absence of it on other issues combine with the
requirement for extensive inter-service consultation ensuing from the collegiality principle. Different
views on a policy decision in this process reflect the various departments’ own policy commitments
and priorities, as well as the pressure and support which they draw from different quarters of the
Commission’s political environment. Hence, frictions between directorates-general belong to normal
Commission business, even if they actually occur only on a small part of legislative proposals. Indeed,
many conflicts between administrative branches which would be decided at the cabinet table, by
presidential discretion or in parliament or party caucuses in national capitals are frequently dealt with
directly between the different departments within the Commission. The role played by the Commission
services in the policy process is, arguably, more extensive than that of national ministries.

In practice, multifarious political games may be played by actors in the Commission to push or block
an initiative, sometimes involving external support from interest groups, the media, individual member
states or other Community institutions. Thus, Judge (1992: 199f), for instance, reported that
DG XI officials got involved in helping to draft parliamentary amendments to push their own initial
ideas which had been watered down within the Commission. Such tactics may, at times, weaken the
Commission when contradictory interests create a stalemate. Over time, of course, positions change
in response to internal and external pressures and learning by the institution and individual officials.

At the level of the Commission college, Commissioners themselves are ready to admit that serious
disagreements not rarely split the College and are decided by resorting to a vote (Bardi and Pasquino

\[240\] see e.g. the legislative programme for 1994 (European Commission 1994a).
1994: 37-39). These disagreements may arise from the briefings by their different directorates-general. However, they may also be linked to the personal political views and interests of each Commissioner. While the Commission President may on occasions play an important role in mediating and working towards consensus, he is a *primus inter pares* and, thus, cannot decide a disputed question. Overall, politics in the Commission develop along lines determined mainly by departmental differences and Commissioners’ political interests.

The concrete case of car emission control during the 1980s and early 1990s well illustrates a difficult relationship between different parts of the Commission. It is the Directorate-General for Industry (DG III) which has been the lead department. Historically, this reflects the origin of technical vehicle standards in the programme to create a common market (see Chapter II). In practice, DG III is clearly open to industry concerns and will usually speak for industry in inter-service consultations. In addition, as the directorate-general responsible for the 1992 Programme, free trade in the internal market has been DG III’s paramount concern. DG III is the service which actually drafts the directives and their technical annexes, and manages the Motor Vehicle Emissions Group (MVEG). This made it the preferred interlocutor of motor manufacturers. Strong staff continuity at the working level enhanced its expertise and influence.

Over time, the Directorate-General for the Environment, Nuclear Safety and Civil Protection (DG XI) became closely associated with car exhaust regulation. The natural endeavour of DG XI is to set stringent environmental standards. It is therefore more willing to take up related calls by member states or the European Parliament. For the most part of the 1980s, however, DG XI was the weaker player within the Commission against DG III in the field of road vehicle emission control. With less direct influence over the actual drafting of legislation and, until recently, clearly less expertise, it often had to yield to DG III in discussions within the Commission. Indeed, DGs III and XI are forced to cooperate with a view to the Commission’s representation in the Council. While it is a DG III official who represents the Commission in the responsible Council working party, it is the director-general of DG XI who does so in the Committee of Permanent Representatives (COREPER) as the second Council working level, and, of course, the Environment Commissioner in the Council itself. At the same time, quite naturally, the Industry Commissioner takes a close interest in this area.

Importantly, though, the balance between and the positions of DG III, DG XI and, consequently, the Commission as a whole changed in the second half of the 1980s. In this, the Commission, on the one hand, gave way to pressures from individual member states as well as the European Parliament in
favour of tighter environmental norms, and benefitted from lessening resistance to more stringent standards by the motor industry. However, internal changes contributed to the development. The arrival of a German Industry Commissioner, Martin Bangemann, meant that environmental concerns were given higher priority. In addition, Environment Commissioner Carlo Ripa di Meana took a personal interest in the field. Thus, by the end of the 1980s, the Commission had become "greener" as far as car emission control was concerned. Nonetheless, as will be shown in the analysis on the Consolidated Directive below, this did not prevent disagreements even then.
Chapter VI

Policy decisions (Part 1): The breakthrough for the catalytic converter in the 1980s

The political decisions taken in Germany to introduce the catalytic converter, the background of which was analyzed in Chapter III, and the resistance against this move by Britain, France and Italy described in Chapter IV translated into opposed pressures at the European Community level. Indeed, the negotiations around the 1985 Luxemburg Compromise - which became the 1987 emission directive - and the subsequent Small Car Directive of 1989 were difficult and surrounded by considerable political attention. In 1989, moreover, the European Parliament demonstrated the political clout which it had gained under the Single Act. That year saw the breakthrough for the autocatalyst in the EC.

In the following, by way of introduction, first the relevant EC legislative procedures will be described. The weight which they assign to individual member states, the Council, the Commission and the European Parliament will be highlighted. Then, the process leading up to the Luxemburg Compromise and the Small Car Directive will be looked at. As the negotiations around these two directives were traced in detail by Holzinger (1994), the analysis here can be short. From the theoretical angle of this thesis, the guiding question is how Germany fared as the policy entrepreneur in the field of car emission control in related Community negotiations. Developments around the car emission directive of 1991 and since then will be analyzed in Chapter VII. After Chapters III and IV focused on policy initiative and the positioning of member states in relation to EC car emission control, and Chapter V dealt with policy formulation, we now turn to the decision-making stage in the Community policy process.

A. The legislative process: An introduction

Formally, European Community law-making is based on the Treaties setting up the European Communities, as amended by the Single Act of 1986 and the Treaty on European Union ("Maastricht Treaty") which entered into force in 1993. They define the Community institutions and their respective powers, and lay down the legislative procedures in which they cooperate. The powers of the individual institutions as well as the legislative process differ between different policy fields and
types of action, and details are covered by additional rules and inter-institutional agreements. In the following, only the cooperation procedure applicable to regulation related to the internal market since 1987 and the co-decision procedure introduced by the Maastricht Treaty will be dealt with.

In order to highlight the changes made to the Community's legislative process by the Single Act and the Maastricht Treaty, however, and to show how regulation was enacted before 1987, it is useful to briefly recall the old "consultation procedure." Under the consultation procedure, laid down in Article 100 EEC, the Council decides by unanimity on a proposal from the Commission, and after having consulted the European Parliament and the Economic and Social Committee (ESC). In practice, this means that any member state can veto a directive, and that the opinions by the European Parliament and the Economic and Social Committee need not be taken on board by either the Commission or the Council. The Commission, for its part, is in a strong position as the Council can decide only on the basis of a legislative draft from the Commission. Two further important details have to be noted. First, the Commission can change its proposal at any time, in particular to accommodate the opinion of the European Parliament, or to facilitate an agreement in the Council. Secondly, the Council can adopt changes to the Commission's proposal by unanimity. In a nutshell, the consultation procedure gave no actual legislative powers to the European Parliament, underlay the role of the Commission as the "motor of integration", and gave each member state a veto right in the Council.

1. The cooperation procedure

The cooperation procedure was put into place by the Single Act (new Article 149 EEC), and changed the Community's institutional balance for all legislation related to the completion of the internal market. The Treaty on European Union extended the cooperation procedure (now Article 189c EEC, together with Article 189a EEC) to a number of other policy fields, including the environment.

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241 see the rules of procedure of the different institutions, the 1990 Code of Conduct between the Commission and the European Parliament (reprinted in Westlake 1994, Appendix 6) and the 1993 Inter-institutional Agreement on Arrangements for the Proceedings of the Conciliation Committee under Article 189b (reprinted in Westlake 1994, Appendix 9). The Code of Conduct between the Commission and Parliament was revised at the beginning of 1995.

242 Article 149 EEC.

243 for the following discussion, see the corresponding Treaty provisions; see also, e.g., Fitzmaurice (1988), Fornasier (1989), Westlake (1994: 36-39).
Briefly, the cooperation procedure involves two readings of the draft directive in the European Parliament and the Council. Both are based on a proposal from the Commission which can be altered by the Council only by unanimity. In the first reading, the Commission sends its proposal to the Council which forwards it to the Parliament and the Economic and Social Committee. After the opinion of the European Parliament which, in general, contains amendments to the draft directive, the Commission may revise its proposal by adopting one or the other parliamentary amendment. On the basis of this revised proposal, a first round of negotiations takes place in the Council. If these are successful, the Council agrees on a so-called "common position." This common position is a fully-fledged legislative text and has to be based on a Commission proposal. Importantly, the common position can be adopted by a qualified majority according to Article 148 EEC. Before the accession of Austria, Finland and Sweden to the Community, i.e. for the legislation covered by this thesis, a qualified majority consisted of 54 out of the 76 weighted votes in the Council. This meant, for example, that even two of the large member states could not by themselves block a directive, but that, conversely, at least two of them, together with the smaller countries had to agree to it.

The common position, subsequently, is the subject of a second reading in the European Parliament. The House has three months, extendable to four months, to decide on the common position. Generally speaking, there are three possible outcomes of the second reading in the House. Firstly, Parliament approves the common position, in which case it is enacted by the Council. Secondly, the Parliament rejects the common position by a majority of its component members. In this case, it can be adopted by the Council only by unanimity. Finally, again by a majority of its component members, Parliament may adopt amendments to the common position. These amendments have then to be considered by the Commission in a re-examination of its proposal, on which the common position is based. In particular, the Commission may adopt some of Parliament's amendments as they are or in some other form. This re-examined proposal can then be adopted by the Council by qualified majority.

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244 Britain, France, Germany and Italy each have 10 votes, Spain has 8 votes, Belgium, Greece, the Netherlands and Portugal each 5 votes, Denmark and Ireland 3 votes and Luxemburg 2 votes. The new member states have 4 votes (Austria and Sweden) respectively 3 votes (Finland). In preparation of the enlargement of the Union, a safeguard rule was adopted which provided for a special mediation effort if member states representing a total of 23 to 26 votes were in danger of being outvoted; see Council Decision 94/C 105/01 of 29.3.1994, OJ No. C 105, 13.4.1994, p. 1.

245 Looking at the situation in the area of exhaust emissions, for example, the four "green" member states Germany, the Netherlands, Denmark and Greece together could block a directive, while three of them could not. On the other hand, these four countries were not strong enough to enact new standards against their partners.

246 i.e., since the 1994 parliamentary elections, at least 284 out of 567 votes, before that at least 260 out of 518 votes.

222
or changed by unanimity. The Council can also take up amendments made by the European Parliament but not accepted by the Commission. In this case, however, again a unanimous vote is required. The second reading ends with the adoption of the directive. The Economic and Social Committee, albeit consulted, has no means to impose its will.

The significance of the cooperation procedure becomes clear when one looks at the powers of the three main Community institutions in the legislative process, and the dynamics which can develop between them. To start with, the Commission is in a pivotal position. Without a formal proposal from the Commission, no legislative action is possible. It is true that the Council and the European Parliament can ask the Commission to submit a proposal. Furthermore, if it fails to take action in violation of the Treaties, the member states and the other Community institutions can take the Commission to the Court of Justice. Beyond, however, there are no legal means to force the Commission’s hand. Equally, no provision can be enacted against the Commission’s will, unless the Council is unanimous. In other words, in the absence of unanimity, the Commission has to agree to all changes in the draft directive discussed. In fact, even by unanimity, the Council is not free to change the Commission’s proposal as it likes. While the Council’s scope in changing the Commission proposal has not so far been legally established, it is arguably limited to individual modifications which, nonetheless, keep in line with the outline of the proposal. In addition, of course, the Commission can withdraw its proposal at any time (Gosalbo Bono 1993: 15).

The Commission’s position is further strengthened by the passage to qualified majority voting. Under the unanimity rule, the Commission has to adapt its proposal so as to accommodate each individual national demand if it wants to get the directive through. Its role is as much that of a mediator between the member states as that of the representative of the Community interest. Under a qualified majority system, by contrast, as the master of its proposal, the Commission can decide to what extent it wants to satisfy individual requests, as long as it gathers the necessary votes in the Council. While it will normally be open to alter its draft directive to accommodate the wishes of individual member states and ensure the adoption of the directive, its own agenda and ideas as to the content of Community legislation carry more weight.

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247 Articles 138b and 152 EEC; Article 138b which gives the House this right was introduced by the Maastricht Treaty.

248 Article 175 EEC.
The European Parliament has certainly seen its powers increase with the Single Act and the cooperation procedure, although the Commission plays the role of a gate-keeper for Parliament’s amendments. The Single Act thus stopped short of making the House a real (co-)legislator. Firstly, the Parliament does not have the right to draw up legislation itself. Moreover, parliamentary amendments have to be taken up by the Commission to stand a chance with the ministers. If amendments are adopted by the Commission in its re-examined proposal after the first or the second reading of the House, they are passed into law if there is a qualified majority for the directive as a whole in the Council. Amendments not taken on board by the Commission can be adopted by the Council only with unanimity, which is a rather hypothetical case. Hence, even more than strengthening the Parliament, the cooperation procedure put the Commission in the decisive position between the two other Community institutions.

In essence, Parliament’s strongest instrument is the power to reject a common position adopted by the Council. In this case, the directive can be enacted only by a unanimous vote in the Council. Through its power to reject a directive, the Parliament can exercise a strong leverage in the legislative process. Nonetheless, it is essentially a negative power, and Parliament may prefer a (from its point of view) imperfect directive to no directive at all. So far, the House has used this power on four occasions only (Westlake 1994: 37). Importantly, both amendments to a common position, and a rejection of the common position require a vote by the majority of Parliament’s component members to be valid. If this majority is not reached, the common position is held to be adopted by Parliament.

Finally, the cooperation procedure leaves the Council as the ultimate legislative body. However, following from what was said above, the power of the Council and the member states is limited. Firstly, the Council cannot initiate the legislative process itself, but has to wait for the Commission to come forward with a proposal. Relatedly, unless the Council is unanimous, the Commission has to agree to all changes in its draft directive. This makes the Commission proposal the starting point for all legislation. In addition, as to the powers of each member state, the cooperation procedure has abandoned the principle of unanimity in favour of qualified-majority voting. This means that no member state by itself, but only a coalition of member states can block the decision. This provision has reduced the role of the member states individually in the Community’s rule-making system.
2. The co-decision procedure

The cooperation procedure was the instrument to pass the legislation needed for the completion of the internal market. With the entering-into-force of the Maastricht Treaty, however, regulation for the internal market comes under the new co-decision procedure. It is laid down in the new Article 189b EEC, and considerably increases the complexity of the Community's legislative process. Most importantly, the co-decision procedure strengthens the role of the European Parliament.\[^{249}\]

The co-decision procedure, in its first phase, is identical with the cooperation procedure described above. A new conciliation mechanism, however, is provided for in the case that either the European Parliament intends to reject the Council's common position, or the Council does not accept the House's amendments. For this purpose, a Conciliation Committee is put into place composed of the members of the Council - i.e. a representative from each member state - and an equal number of representatives from Parliament. The Commission also participates as a mediator between the two sides. Compromise solutions worked out in the Conciliation Committee have to be approved by a qualified majority of the member states' representatives, and a simple majority of the House's representatives in the Committee. The Committee is formally convened by the Council.

In the first case, in which the Parliament states that it intends to reject the common position, the Council may decide to convene the Conciliation Committee to explain its position. Subsequently, the House may either reject the common position, or propose amendments. Importantly, by comparison to the cooperation procedure, the Council cannot overrule Parliament's rejection of a common position. Thus, the House can now block legislation definitively. However, the clause remains that the House can act only with an absolute majority of its component members.

More interesting is the case in which the House adopts amendments to the common position with an absolute majority of its component members. While under the cooperation procedure, these amendments had to be included into a re-examined proposal by the Commission to reach the Council table, they now reach the Council directly. However, the Commission gives its opinion on each amendment, and amendments subject to a negative opinion, like before, can be adopted by the ministers only by unanimity. If the Council approves all parliamentary amendments, it changes and adopts its common position accordingly. Otherwise, the Conciliation Committee has to be seized. Its task now is to propose a compromise to the Council and the European Parliament. If the Committee

\[^{249}\text{for the following, see Article 189b EEC; see also Westlake (1994: 91-95).}\]
succeeds, both the Council, acting by qualified majority, and the House acting by a simple majority have to approve the compromise, lest the directive is deemed to not have been adopted. In the case, however, that the two institutions do not come to an agreement in the Conciliation Committee, either the act is considered defunct, or the Council again takes the initiative. Indeed, the Council may then adopt its original common position by qualified majority, possibly including amendments proposed by Parliament. However, the House may overrule the Council with the absolute majority of its component members, and thus block the directive. For all of these steps, deadlines between six weeks and three months apply which, though, can be extended.

Comparing the co-decision with the cooperation procedure, a number of changes in the institutional balance and in the potential interactions between the Commission, Parliament and the Council have to be noted. Above all, the position of the European Parliament has been strengthened. This is true, firstly, in that the House can now definitively block legislation. This, of course, is a relatively limited gain. It is a negative power which the House, in a more restricted way, already wielded under the cooperation procedure. More important, therefore, is the possibility for the European Parliament to negotiate directly with the Council in the Conciliation Committee on the draft directive proposed. Potentially, at least, this gives the assembly more leverage to influence the content of legislation.

Where the Parliament has been strengthened, the Council and the Commission have lost some of their power. The Council can no longer overrule a parliamentary rejection of its common position. It may be forced to negotiate with the Parliament on the content of legislation, whereas, before, it only had to deal with the Commission. While the Commission can be expected to be flexible to get its proposal adopted, Parliament might be more confrontational. Further, the rule of qualified majority voting in the Council has been confirmed.

Also the Commission has seen its position changed. It is true that the Commission keeps its monopoly over proposing new law. However, it virtually loses control over its proposals in the second reading. This is especially true when a conciliation procedure is started between the Council and the Parliament. The Commission has no leverage to influence its result. Rather, its role in the Conciliation Committee is that of a mediator who tries to broker an agreement between the other two institutions. By putting its technical knowledge of the file and negotiating skills at the disposal of the Committee, the Commission has to help them to achieve an acceptable outcome.

250 Initial experience with the conciliation mechanism, though, has been positive, agreements being reached on a common text on four out of five cases until May 1994 (Martin Westlake, personal communication).
In a nutshell, the new co-decision procedure represents another modification of the institutional balance in the Community. The European Parliament has become more of a co-legislator, which is reflected in the fact that acts adopted under the co-decision procedure are signed by both the President of Parliament and the President of the Council. The possibility of direct talks between the Council and Parliament in the Conciliation Committee represents a new element in the legislative process. The Commission keeps its prerogative of drafting legislation. However, its position between the Parliament and the Council is not as central as under the cooperation procedure.

B. The Luxemburg Compromise of 1985

The Luxemburg Compromise of 1985 was the first outcome following the German initiative for a significant strengthening of car emission standards in the European Community. It was born after laborious negotiations in the Council and reflected a difficult compromise between the "green" member states and their partners. It is true that, prima facie, the agreement was unsatisfactory from a German point of view when compared with the Federal Government's original plan for the mandatory introduction of catalytic converters by 1986. However, by accepting Bonn's scheme of tax incentives for "clean cars", the other governments and the Commission really opened the door for the phasing-in of autocatalysts in Europe over the following years. Formally, though, the compromise found in 1985 was blocked by a Danish veto, and became law as Directive 88/76/EEC only in 1987. This section first describes the political process leading up to the Luxemburg Compromise. These negotiations have been analyzed in detail by Holzinger (1994: 194-273). In a second part, the outcome is evaluated in terms of how it took account of the opposed interests of the different member states.

251 Article 191 EEC.


253 see also the account by Corcelle (1985; 1986; 1989).
1. The negotiations

With hindsight, the step which formally started the road towards the Luxemburg Compromise was taken by Germany in the spring of 1983. It coincided with the Council's adoption of the previous car emission directive. Indeed, Directive 83/351/EEC, based on the UN-ECE Regulation 15/04, marked an earlier, little successful effort by Germany, with support from the Netherlands, to achieve tighter emission standards against the opposed interests of other countries (Holzinger 1994: 192f).

Then, at the Environment Council in May 1983, the German delegation presented a memorandum in which it called for the introduction of unleaded petrol and a substantial lowering of emission limits (see ibid.: 194-196). At a meeting in June, the Council generally agreed to envisage a reduction in the lead content of petrol and, possibly, the introduction of unleaded petrol, and requested the Commission to make a proposal. In October 1983, the government in Bonn specified its proposals for new emission standards in a communication to the Commission by calling for the application of best available technology and referring to US regulations requiring the catalytic converter. The Environment Council in November, as a result, asked the Commission for a proposal also on car emissions, if possible before April 1984. The agenda was thus set.

The Commission presented its directive proposal in two steps in June and in October 1984. In particular, a uniform limit value for all categories of cars was foreseen, in contrast to earlier legislation where limit values were graduated according to vehicle weight. In a first stage, a new limit value would apply from October 1989 for new vehicle types, and from October 1991 for all new vehicles. It would be lowered to the level of current US (and Japanese) limit values as from October 1995 (second stage). As insufficient data were available to decide what limit values were equivalent to US standards on the European test cycle, a range of limit values was proposed. The Council was to decide about the definitive second-stage limits in the light of further work and an amendment of the European test cycle before the end of 1986. Generally speaking, the Commission proposal was centred on two elements. First, it corresponded to the demand, especially by Germany, that EC standards should be equivalent to US standards, although this equivalence was postponed to the year 1995.

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255 This proposal became the basis for Council Directive 85/210/EEC of 20.3.1985, OJ No. L 96, 3.4.1985, p. 25. Although the introduction of unleaded petrol was a technical condition for the Luxemburg Compromise, and negotiations on both directives proceeded in parallel, the legislative process on the lead-in-petrol directive is not further dealt with in this thesis.

Secondly, one uniform standard for all cars meant that a bigger technical improvement and related costs were imposed on larger cars with their naturally higher emission levels. It implied that different technical solutions could be used by manufacturers to comply with the regulations. Indeed, it was expected that some of the bigger cars would need a three-way catalyst to meet already the 1989 standards (ibid.: 208f).

Under the consultation procedure, the European Parliament and the Economic and Social Committee were asked to give their opinion on the Commission's draft directive. In the end overcoming national divisions across party groups, which reflected the lines between the member states, the Parliament proposed amendments aimed at strengthening the proposed directive. Also the Economic and Social Committee recommended bringing forward the entry-into-force of the new standards (ibid.: 215-222). Both institutions, though, had no means actually to impose their views.

In the Council, the negotiations were politically driven by the decisions taken for the introduction of the catalytic converter in Germany (see ibid.: 224f) (see Chapter III). In September 1984, the Federal Government in Bonn decided to require the compliance with US standards for cars above 2 litres engine capacity from January 1988, and for all new cars from January 1989. Tax incentives were to be given for low-polluting cars from July 1985. The postponement of the application of limit values requiring the three-way catalytic converter, which had originally been foreseen for January 1986, marked a first concession by Germany to the other auto-manufacturing EC countries.

Nevertheless, the German Government's decisions met with opposition in the other capitals (see ibid.: 226-230). The initial reaction was most vehement in Paris, despite a German effort to gain support from France in bilateral talks. The French car industry protested loudly and threatened with legal proceedings in the EC Court of Justice. The UK Government said that it favoured the lean-burn engine over the three-way catalytic converter. The Italian industry, by contrast, announced that it was able to sell catalyst-equipped cars from 1985. The Italian Environment Minister spoke out in favour of the introduction of catalytic converters, albeit with much longer lead times than those demanded by Germany especially for small cars. In a mission to Paris, London and Rome in October 1984, the German Interior Minister tried to enlist support from the other governments for the German plans. Already at this stage, it became clear that for large cars the introduction of US-equivalent standards as from 1988 or 1989 would be agreeable. Among the other member states, the Netherlands, Luxemburg and Denmark supported an early introduction of stringent emission norms as called for by Germany, while Belgium, Greece and Ireland did not take a clear position.
Council negotiations on the new rules started in June 1984, and were concluded one year later (see ibid.: 230-236). They evolved mainly around the definition of vehicle categories to which different standards would apply, the dates of entry-into-force of new standards and the emission limit values themselves. The content of the talks soon departed from the Commission's original draft directive. In view of the political importance of the matter, a High Level Working Party was established by the Council which took over from the regular Council working party responsible.

Agreement on the differentiation of new regulations according to different classes of cars according to engine capacity marked a first step towards a resolution of the differences between the member states. It allowed for the consideration of the different product ranges of the German, British, French and Italian car manufacturers and their related interests (see Chapter IV). However, the number of categories to be distinguished (two or three) and their exact delimitation was disputed. At the same time, these questions were inextricably linked with the dates for the application of new standards and the standards themselves. Only Germany envisaged a uniform new limit value which, however, would apply to different classes of cars at different dates. It also suggested a broad definition for large cars for which US standards would be introduced at an early date, and (together with Denmark) was isolated in its request to apply similar requirements also to small cars as from 1989. In the Environment Council in December 1984, there was agreement in principle that the idea of a differentiation of standards according to vehicle categories should be pursued. In addition, the Council approved of the working-out of a new European test cycle, and called on the Commission to make further proposals on emissions from Diesel and heavy-duty vehicles and on speed limits. In early 1985, the Motor Vehicle Emissions Group (MVEG) was set up by the Commission to discuss the definition of car categories and new limit values.

In the further proceedings, especially Britain, with some support from France, demanded extended lead times and less stringent standards, in particular for medium-sized cars (see ibid.: 236-239). While Germany insisted on US-equivalent standards for this category to apply from January 1989, the UK suggested a first lowering of limit values for medium-sized cars in line with the Commission proposal for a first stage as from October 1989, and a second step of emission reduction for this category at the latest in 1994, however not to a level of US equivalence. Hence, following the British line, the three-way catalytic converter would not have to be used for medium-sized cars. For small cars, most delegations supported the Commission's proposal for a first stage of emission reduction in 1989, and a decision on the introduction of US-equivalent standards before the end of 1987. Britain, again, did not want to commit itself to the introduction of US-equivalent standards for small cars. The
disagreement between the Federal Republic and the other auto-manufacturing countries was heightened in early 1985 when France and Britain objected to the German plans for tax incentives. The UK Government formally requested the Commission to start an infringement procedure against Germany for violating the EEC Treaty's prohibition of financial aids.\(^{257}\) Bonn, for its part, again threatened to introduce the catalytic converter on a national basis. Italy, which held the Council Presidency in the first half of 1985, took a guarded line.

Against this background, the Environment Council on 7/8 March 1985 ended in failure, despite nineteen hours of talks (see ibid.: 240f). It was clear that Germany would not get through with its quest for US-equivalent norms for small and medium-sized cars from 1989. The Commission finally proposed to re-interpret the concept of US-equivalence to mean equivalence in terms of total vehicle emissions instead of equivalence of emission standards. In addition, Germany should renounce to the introduction of three-way catalysts in 1989, but would be allowed to give fiscal incentives for cars meeting the new EC standards in advance.

The Commission's proposal paved the way to a compromise at a special Environment Council meeting two weeks later (see ibid.: 241-243). While leaving open the precise limit values, the outline for a solution was hammered out. New standards would apply to large cars (above 2 litres engine capacity) from October 1988 (for new models) respectively October 1989 (for all new cars), to medium-sized cars (1.4 to 2 litres) from October 1991 respectively 1993, and to small cars (below 1.4 litres) from October 1990 respectively 1991 in a first stage, and 1993 respectively 1994 in a second stage. The limit values would be differentiated between these different categories, and their ultimate environmental effectiveness should be equivalent to that of US regulations. For medium-sized cars, they should be attainable with a lean-burn engine plus a simple oxidation catalyst. The exact limit values should be decided by the end of June 1985. On the tax incentives, a common declaration was adopted in which limits were set on the size of the incentives. The German Government accordingly revised its original tax break scheme, and put it into effect as from July 1985. In fact, even though Germany had failed with its plan to introduce the three-way catalystist for all cars from 1989, the possibility of tax incentives allowed Bonn to save face domestically. As shown in Chapter III, the German tax incentive scheme proved very successful in promoting the catalytic converter.

\(^{257}\) Article 92 EEC.
A decision about the exact limit values for the different car categories was reached at the Environment Council in June 1985 for which the Commission presented a new proposal, in conformance to the March agreement (see ibid.: 244-247). In particular, this proposal provided for different standards for each of the three car classes. The opinions of the member states again diverged, with Germany, the Netherlands and Luxemburg calling for lower limit values, and France, Italy, Belgium and, especially, Britain criticizing the Commission proposal as too severe. Denmark called for American standards to be applied to all categories of cars, and Greece seeked lower limit values for small cars in view of its special air quality problems in Athens. Despite these differences, an agreement was finally achieved as all sides gave in on individual points. Table 5 shows the new standards and their dates of entry-into-force.

Table 5: The Luxemburg Compromise

<table>
<thead>
<tr>
<th>Motor vehicle category</th>
<th>Entry-into-force for new models/new cars</th>
<th>Limit values (in g/test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>above 2 litres</td>
<td>1.10.1988/1989</td>
<td>CO 25; HC+NO, 6.5; NO, 3.5</td>
</tr>
<tr>
<td>1.4 to 2 litres</td>
<td>1.10.1991/1993</td>
<td>CO 30; HC+NO, 8</td>
</tr>
<tr>
<td>below 1.4 litres</td>
<td>1.10.1990/1991</td>
<td>CO 45; HC+NO, 15; NO, 6</td>
</tr>
<tr>
<td></td>
<td>new limit values to be fixed in 1987 for 1992/1993</td>
<td></td>
</tr>
</tbody>
</table>

In the end, however, this Luxemburg Compromise, as it became called, failed to pass the unanimity hurdle (see ibid.: 258-269). While Britain lifted a reserve which it had put in June, Denmark vetoed the directive at the November 1985 Environment Council as not stringent enough. As the entry-into-force of the new standards was some years in the future, however, the Danish veto had little practical effect. Only in March 1987, in view of the forthcoming entry-into-force of the Single European Act and the ensuing possibility to resort to a vote was the draft directive taken up again. Indeed, it was the Danish Council Presidency in the second half of 1987 which pushed the issue, and let itself be outvoted. The Commission re-tabled the (slightly adapted) directive proposal

288 COM(85) 228 final, 8.5.1985.
along the lines of the Luxemburg Compromise on the basis of the new Article 100a EEC. In July, under the cooperation procedure, the Council adopted a common position on the directive against the votes of Denmark and Greece. Despite initial proposals for a rejection of the draft directive respectively for its amendment and the strengthening of its provisions, the European Parliament approved the Council's common position in November 1987. Thus, Directive 88/76/EEC could be ratified by the ministers on 3 December 1987.

2. The outcome

The Luxemburg Compromise as achieved in 1985 and formally enacted in 1987 was the first intermediate step towards the general introduction of three-way catalytic converters in Europe. It clearly did not correspond to the German wishes for a rapid passage to this technology, i.e. the objective which had been set by the government in Bonn in 1983/84. These intentions hurt themselves with the opposed interests represented by France, Italy and, most tenaciously, Britain in view mainly of the situation of their respective motor manufacturers. However, as shown in a comparative overview by Holzinger (1994: 248-250), also Britain, France and Italy had to make concessions. The Commission, for its part, in its first directive proposal, in principle followed the German call for US-equivalent standards for all cars, to be reached in two stages of emission reduction, but was much less ambitious than Bonn in terms of its timetable. Overall, the national economic and political interests described in Chapters III and IV above, were clearly reflected in the European Community negotiations on new car emissions standards in 1984/85. In the end, the agreement reached was a compromise the structure of which took account of individual member states' interests, and left some scope for national solutions.

The national interests were borne out in the Luxemburg Compromise in a number of ways. First, it must be recalled that the directive was based on the principle of optional harmonisation. This meant that vehicles complying with the regulations set in the directive could not be refused type-approval respectively entry-into-service by the member states. However, member states were not obliged to require cars to meet these standards. The purpose of the directive was to allow for free trade, and not to protect the environment. Consequently, member states could apply less stringent standards if they so wished. Thus, only the "green" member states were likely to actually require motor vehicles to meet Community standards. In sum, optional harmonisation left member states free to keep their own rules.

2 COM(87) 303 final and COM(87) 303/2/corr. final, 2.7.1987.
The consideration given to specific national concerns was most apparent in the differentiation of limit values according to car categories. Officially, of course, a different rationale was given to justify this graduation, while at the same time maintaining the reference to US'83 standards. It was based on the re-definition of the concept of US-equivalence. Indeed, the environmentalist camp and, initially, the Commission understood this term as meaning that each single car had to meet standards equivalent to American norms. The Luxemburg Compromise, by contrast, called for "the ultimate effect on the environment" achieved by new standards to be equivalent to US conditions. This new interpretation ignored important differences between the situation in the United States and in the Community, but served the political purpose of loosening the link between future Community and US'83 standards (ibid.: 251f). It was on this basis, in fact, that the fifth recital of Directive 88/76/EEC could stipulate that "compliance with Community requirements" had to be allowed "at a reasonable cost and using different technical means." The reference to the cost-effectiveness of standards and the variety of technologies available - including, notably, the (future) lean-burn engine - , in turn, was used to legitimize standards for small and medium-sized cars which did not require the three-way catalyst - to respond to British, French and Italian concerns.

In reality, the graduation of limit values according to three vehicle classes was not based on any logical argument, but was a practical way to reach an agreement. Germany got stringent standards for large cars adopted. Models in this market segment where partly adapted to US requirements for export already, and, in any case, were less sensitive to regulation-induced cost increases (see Chapter IV). As larger cars make for a significant part of the car fleet and mileages in Germany, and are driven at higher average speeds, this category also accounts for a considerable share of the NOx emissions implicated in forest damages in that country. On the other hand, extended lead times and more lenient standards were adopted for small and medium-sized cars, satisfying British, French and Italian demands. As explained before, these car categories were less prepared for and more vulnerable to a significant tightening of emission rules. Moreover, the lean-burn engine was seen as an alternative to the autocatalyst particularly in this product range. By having smaller cars at least temporarily exempted from US-equivalent standards, the governments in London, Paris and Rome successfully defended the interests of their motor industries. In sum, the differentiation of standards took account of the specific interests of different member states. Because of the different compositions of the car fleets in the individual countries in terms of vehicle size, it also meant that the potential environmental improvement achieved by new EC standards varied between the member states.

Most importantly, though, the Luxemburg Compromise allowed the Federal Republic to take (limited) measures on a national basis in the form of tax incentives. With hindsight, this provision, while not actually part of the legislative text finally adopted, was central to further developments (see Chapter III). It represented an element of renationalization which partly substituted for an agreement on the regulatory requirements themselves. It is significant that the Compromise could only be achieved by giving one member state (and others which might wish to follow suit) the possibility to move ahead nationally, albeit with certain restrictions. Even more, the possibility for national tax incentives within certain Community limits has become a more general feature of European Community regulation on vehicle emissions, and Germany has not remained the only country to use them. The German tax incentives in the second half of the 1980s, in turn, proved highly effective in changing the market conditions for auto manufacturers, and paving the way for future regulation (see below). In a nutshell, the Luxemburg Compromise and its agreement on tax incentives reflected, on the one hand, the differences in policy preoccupations in the various member states which could not entirely be reconciled in common standards. On the other hand, subsequent national action was a driving force behind further Community developments.

C. The Small Car Directive of 1989

While introducing the three-way catalytic converter for large cars and necessitating more simple oxidation catalysts for medium-size cars, the Luxemburg Compromise had left small passenger cars (below 1.4 litres engine capacity) with rather lenient standards. However, the directive stipulated that the Council, before the end of 1987, decide on a further lowering of these limit values applicable at the latest in 1992 for new models, and in 1993 for all new vehicles. The policy process leading up to the Small Car Directive was shaped by the weakening resistance of the European motor industry against tighter exhaust regulations due to their adaptation to new legislative requirements and national tax incentives, by the rule of qualified-majority voting in the Council, and, in the end, by the leverage exercised by the European Parliament. The analysis in this section again draws heavily on

261 In 1993, Belgium, Denmark, France, Germany, Greece, Italy, Luxemburg and the Netherlands had provided for tax incentives for "clean cars" in one form or another.


the account by Holzinger (1994: 273-336) and depicts a further major turn in the history of EC car emission control.264

1. The negotiations and the first vote in the European Parliament

As the Luxemburg Compromise was enacted belatedly in December 1987, the decision-making on another step of emission reduction was delayed. The Commission, indeed, issued its draft directive for new small car standards only in February 1988. Its proposals were based on work done in the Motor Vehicle Emissions Group (MVEG) since September 1986 where different industry and member states' proposals had been put forward (see Holzinger 1994: 278-290). Officially, a rationale of US-equivalence as defined for the Luxemburg Compromise and of the relative contribution of small cars to total road transport emissions underpinned the Commission's proposed limit values (see ibid.: 292-295). In practice, though, tactical considerations were probably more important, and the proposal sought the middle ground between the positions taken in the MVEG. Thus, the Commission suggested the same limit values as applicable to the medium-size category under the Luxemburg Compromise as the new small-car standards (30 g/test CO, 8 g/test HC+NO, for the type-approval of new models - "30/8"). The entry-into-force dates followed the framework set in the Luxemburg Compromise, i.e. 1992 for new models and 1993 for all new cars.

The Small Car Directive proposal came under the cooperation procedure, with a consultation of the Economic and Social Committee (ESC), two readings in the European Parliament and qualified-majority voting in the Council. The opinion of the ESC was adopted in June 1988, and reflected industry concerns (see ibid.: 295-298). A move by German, Danish and Dutch Committee members to suggest limit values which were likely to require the three-way catalyst ("20/5") was voted down, and was published as a minority position. The Parliament, for its part, finished its first reading only in September 1988 (see ibid.: 298-302). Its opinion was prepared by the responsibility of the Environment Committee and the report tabled by its rapporteur, Socialist MEP Kurt Vittinghoff. His amendment proposals provided for a significant tightening of emission requirements. In particular, Vittinghoff and the Environment Committee suggested limit values implying the introduction of catalytic converters for small cars ("20/5"). These standards should be extended to all car categories, thus abrogating the graduation of standards as the cornerstone of the Luxemburg Compromise. A waiver was foreseen for models which could not meet the standards within the entry-into-force dates

set. All Vittinghoff amendments were endorsed by a large majority in the plenary with support from most political groups. With its opinion on the Commission’s directive proposal, the Parliament thus took a markedly "green" position, by contrast to the Economic and Social Committee.

The Council, to be sure, had not waited for Parliament’s opinion, and had started to work on the draft directive in March 1988 (see ibid.: 302-304). As could be expected in the light of the MVEG discussions, the Commission’s proposal was challenged from two sides. On the one hand, Britain, France, Italy, Spain and Portugal opposed the "30/8" limit values suggested by the Commission, and the United Kingdom re-introduced its MVEG proposal of 35 g/test for carbon monoxide and 12 g/test for hydrocarbon and nitrogen oxide emissions combined ("35/12"). In the other camp were Denmark, Germany, Greece and the Netherlands which criticized the Commission proposal as too weak. While the German delegation argued that the demanded "20/5" limit values could be met without sophisticated three-way catalysts with electronic fuel injection, the other three "green" countries thought that, in any case, the associated price increases to the consumer were acceptable. The arguments, hence, turned mainly around the economic implications of one or the other set of standards. A meeting by the president of the Environment Council, the German Federal Minister for the Environment, Klaus Töpfer, with the European motor industry to clarify the situation, though, yielded no tangible results.

Germany, of course, was in a special position as the Council Presidency in the first half of 1988 with its attendant obligations (see ibid.: 304-306). In this role, it put forward a compromise solution. According to the German formula, the Commission proposal should be accepted for the present directive. However, a reduction of the standards to "20/5" was foreseen as a further step, which could be used as the benchmark for tax incentives. In addition, a further revision of the limit values for medium-sized cars on the basis of best available technology and the new test cycle under development was to be laid down. While Denmark rejected the Presidency’s scheme, the Netherlands and Greece wanted to consider it. France, Britain, Italy and Spain, by contrast, voiced reservations both concerning the possibility of tax incentives and a second stage of emission reduction for medium-sized cars. Overall, only few months after the passage of the Luxemburg Compromise Directive, the Commission’s proposition to align the limit values for small cars with those for medium-sized cars had reneged on one of the fundamentals of this directive - the diversification of standards according to car categories -, while the advocates of stringent car emission norms in the Council again pushed for US-equivalent standards across the range of passenger cars.

237
Progress was made by the environment ministers in two Council meetings in June 1988 (see ibid.: 306-311). In the first meeting on 16/17 June, the Commission succeeded in rallying all member states except Germany, the Netherlands, Denmark and Greece behind its proposal. The condition attached to this agreement on the part of some delegations was that national tax incentives and special provisions for the preferential treatment of catalyst cars under smog alarm conditions envisaged in Germany would be excluded under Community law. Indirectly, the focus on independent measures taken in individual member states attested to the effectiveness of the German fiscal incentives in the years before, and that they were a thorn in the flesh of some motor companies. Germany, though, for the time being, insisted on its earlier proposals, and the four "green" member states together formed a blocking minority.

It arguably was a rare package deal which paved the way to a (preliminary) common position in the Council at the end of June 1988 supported by a qualified majority. Although there is no proof of the occurrence of a linkage between the Large Combustion Plant and the Small Car Directives, the indications are strong (see Bennett 1992: 128-130; Holzinger 1994: 306-311). Indeed, the negotiations on emission limits for large combustion plants had dragged on since 1983 and had been particularly arduous (see Bennett 1992: 92-132). In the spring of 1988, France, Italy, Portugal, Spain and the United Kingdom still had problems with the latest compromise proposal. For the German Environment Minister Töpfer, a success on the Large Combustion Plant Directive was one of his priorities. In the Environment Council in mid-June, a consent in principle was achieved on this directive, which had to be voted unanimously. At the same time, France, and less explicitly Britain, linked their final approval of the Large Combustion Plant Directive to a compromise on the Small Car Directive.

Against this background, Minister Töpfer was faced with a difficult choice. If he gave in on the small-car standards by agreeing to the Commission proposal, he could bring in two important directives at the end of his term. If not, both directives would lapse into an uncertain future under the subsequent UK and Spanish Presidencies. After considerable hesitancy during the Council session on 28/29 June, Töpfer agreed to the deal on the two directives, and accepted the Commission's "30/8" proposal instead of insisting on further concessions. The only concession which he had been able to extract on the small cars was a commitment to a further step of emission reduction to be decided before the end of 1991. Denmark, Greece and the Netherlands, for their part, voted against the new norms. The Large Combustion Plant Directive was formally enacted in November 1988.265

For his agreement to the small-car standards, by contrast, Töpfer earned criticism in the German media (Holzinger 1994: 307).

While France had been instrumental in imposing an issue linkage, in July it withdrew from its approval of the draft Small Car Directive (see ibid.: 311-318). The official reason given were the new plans for tax incentives in Denmark and the Netherlands. Arguably responding to French pressure, in October 1988, the Commission initiated legal steps against the Netherlands under Articles 30 (free movement of goods) and 93 (state aids) EEC concerning its tax incentives. The Netherlands, conversely, took the Commission to the Court in January 1989 to obtain a lifting of the delaying effect of the Commission’s legal proceedings. In the end, though, in March 1989, the Commission dropped its proceedings under Article 93 EEC in view of the uncertain prospects of its case and the general political development in this policy field (see below). Actually, the French turn in July 1988 was probably motivated by an intervention from the Peugeot (PSA) président-directeur-général Jacques Calvet and inter-ministerial quarrels in Paris. Indeed, while Renault had adapted to more ambitious emission standards, PSA had remained opposed to catalyst technology. That PSA’s political clout alone was not sufficient to determine the French Government’s line, however, became clear when France confirmed its original agreement to the preliminary common position in the fall of 1988. After the European Parliament had given its opinion in September, the common position was formalized by the Environment Council on 21 December 1988.

2. A Parliament/Commission coup

The Council’s common position did not incorporate any of Parliament’s amendments from the first reading which, in particular, called for the introduction of US-equivalent standards for small cars ("20/5") and the extension of these standards to all car categories. Against this background, basically two scenarios were possible under the cooperation procedure. First, Parliament could reject the common position. In this case, unanimity was needed in the Council to overrule the House. As Denmark, Greece and the Netherlands had voted against the common position in the Council because they considered it too lenient, however, unanimity to overrule the Parliament was unlikely to be reached. A rejection by the House would hence have meant the end of the directive. For an amendment of the common position, secondly, the Parliament depended on the Commission’s support. Only amendments taken on board in a revised draft directive by the Commission were likely to be
adopted by the Council in a qualified-majority vote. This qualified majority would not be achieved if, for instance, Britain, France and Italy confirmed their objection to US'83 standards for small (and medium-sized) cars. Both a rejection and the amendment of the common position required a majority of Parliament's component members.

The Commission, therefore, was in a pivotal and difficult position. It could insist on the common position in the hope that Parliament would not meet the quorum of a majority of its component members to reject the directive. In view of the near-to-unanimous confirmation of the key amendments from the first reading by the Environment Committee in March 1989 and the emerging determination of the House to demonstrate its political strength in the run-up to the European elections in June 1989, an insistence by the Commission on the common position was a risky undertaking. Alternatively, the Commission could avert the rejection of the common position by the Parliament by stating before the assembly's vote that it would support (certain) amendments in the Council. In this case, while the "green" member states would probably agree with the amended proposal, other member states might withhold their approval, and the required qualified majority might not be attained.

Beyond a tactical analysis, more general considerations shaped the Commission's line (see Holzinger 1994: 322-326). Against the background of growing environmental concerns in the Community and, more specifically, in relation to the internal market programme, the Commission sought a "greener" image. A landmark judgement (the "Danish bottle case") by the EC Court of Justice in 1988 had underscored the importance of environmental protection requirements in Community law (Koppen 1993: 140f). Against all expectations, furthermore, the new Environment Commissioner Carlo Ripa di Meana became strongly involved. Hence, the balance within the Commission tipped in favour of supporting the European Parliament. Few days before the House's decisive voting session, the Commission decided to amend its directive proposal by bringing forward the application of the "30/8" limit values contained in the common position to January 1991, to make European standards obligatory in all member states (total harmonisation), and to provide for a further emission reduction in 1993. However, some ambiguity still characterized the details of this decision (Holzinger 1994: 325f).

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266 Amendments not supported by the Commission could be adopted by the Council only unanimously.

267 As explained in Chapter II, under optional harmonisation, pertaining to EC car emission directives so far, products complying with EC standards must not be refused market access, but different (i.e. lower) national standards are allowed. In the second reading, the Parliament's Environment Committee proposed to make future small-car emission standards mandatory.
The proposal for the Small Car Directive was on the Parliament's agenda on 11 April 1989, with the vote one day after (see ibid.: 326-328). In the plenary debate, arguably going slightly beyond the Commission's decisions, Commissioner Ripa di Meana specified the new proposal. Accordingly, the second-stage limit values applicable in 1993 would be equivalent to the US norms. In addition, similar standards would be set for all car categories in a separate directive on the basis of a new test cycle. This basically met the assembly's demands, even though US'83 standards would apply somewhat later than wanted by Parliament. By contrast, the Commission could not accept two other, less important, amendments. After the Environment Committee's rapporteur Vittinghoff had agreed to the Commission's offer, the House adopted the amendments supported by the Commission with the required majority of its component members and nearly unanimously.

The Commission revised its draft directive following its commitments towards the Parliament and presented it to the Council (see ibid.: 328-333). The Council could now adopt the directive with a qualified majority, or change the Commission's amended proposal unanimously. As compared to the common position, this proposal foresaw a significant tightening of emission standards, and was hence decidedly at odds with the French, Italian, Spanish and UK positions at the beginning of the negotiations one year before. At the same time, the motor industry had in principle accepted the need to fit catalytic converters across the entire model range, and had made the necessary adaptations. Only PSA and Ford still resisted the general passage to this new technology. Industry pressure in London, Paris and Rome had thus lessened. Moreover, the German Government once again threatened a "going-it-alone" should the amended Commission proposal not be adopted. Reduced opposition from the car industry and the danger of a split in the market expedited the Council's decisions.

Nevertheless, agreement on the Commission's proposal in the Environment Council in June 1989 was not entirely easy (see ibid.: 330-336). As industry voiced criticism, the ministers discarded the provision for an intermediate step of emission reduction (the "30/8" limit values of the common position) before the application of US'83 standards. Differences between the member states appeared on when exactly the US norms should apply. Finally, July 1992 was fixed as the entry-into-force date for new models and the end of 1992 for all new cars. On a French proposal, an Article was inserted according to which the Council would act on CO₂ emissions from motor vehicles. Importantly, another new Article laid down conditions for national tax breaks. Such incentives should be limited to all cars meeting EC standards ahead of time, be non-discriminatory, and of a value "substantially lower than the actual cost"²⁰⁶ of the emission control equipment and its fitting to the vehicle. This clause was

in response to the British and French uneasiness about the German and Dutch incentive schemes. A number of statements to the Council minutes satisfied further requests by one or the other delegation. On the basis of the June 1989 agreement, the Small Car Directive could be formally adopted by the Council six weeks later, against the votes of Denmark and Greece.

The process leading up to the 1989 Small Car Directive shows the potential impact of the European Parliament under the cooperation procedure. On the other hand, it testifies to the need for the House to have the Commission on its side to amend a directive proposal. Therefore, what sticks out in this case at least as much as Parliament's success based on a credible threat to reject the directive is the Commission and the assembly going towards each other with the purpose of revising the common position. Both institutions, in turn, succeeded in overturning the common position only because the French, Italian and UK governments had become more amenable to stricter emission rules because of lessened industry pressure. Otherwise, the qualified majority to adopt the new standards would not have been achieved.

Summary

The Luxemburg Compromise in 1985 (enacted in 1988) and the Small Car Directive of 1989 brought the breakthrough for the three-way catalytic converter in the European Community. Only medium-sized cars now benefitted from lower standards, but the application of stringent requirements also to this category was already foreseen. It was the 1991 Consolidated Directive which closed the gap (see Chapter VII). The Luxemburg Compromise followed the pressure exercised by the policy entrepreneur Germany and difficult negotiations in the Council. By differentiating the norms between three classes of cars and providing for a further step in emission reduction for small cars, it reconciled the interests of Germany and the three other main car-manufacturing countries -although Denmark in the end blocked the directive. What was more, the German Government was left free to use fiscal incentives to promote the introduction of "clean vehicles."

The German (and Dutch) tax breaks, afterwards, changed the market environment for the European auto industry and forced it to adapt its product to more stringent requirements. This, in turn, diminished the opposition of most motor companies to further legislation. This process was too late to affect the first phase of the negotiations on the Small Car Directive. However, it released the governments in London, Paris and Rome from earlier constraints when it came to deciding about the
joint Parliament/Commission bid for US'83 standards in the spring of 1989. By setting higher standards for small cars than for medium-sized cars, the new directive reversed the differentiation logic of the Luxemburg Compromise and prepared the generalization of catalyst technology to the entire passenger car fleet. In addition, the Small Car Directive for the first time made EC vehicle emission standards mandatory in all member states, and thus marked the passage of Community legislation in this area from a free-trade orientation to a focus on environment protection. In sum, developments between 1983 and 1989 fundamentally changed the face of European car emission policy.
Chapter VII


European developments in the field of car emission control during the 1980s were characterized by a high degree of politicization. Differences between the economic and political interests of the member states on the question of tighter standards came to play in the Council of Ministers. As the German tax incentives prepared the ground and changed the interest calculus of the European motor industry, however, British, French and Italian resistance against standards equivalent to US'83 norms weakened towards the end of the decade. This as well as the new rule of qualified-majority voting in the Council eased the passage of the Small Car Directive in 1989.

The present chapter completes the empirical analysis in this thesis on EC car emission policy. In the early 1990s, less controversy surrounded this policy field than before, although the earlier lines of conflict persisted. First, the rule-making process leading up to the 1991 Consolidated Directive is analyzed which brought to a close the legislative developments started with the Luxemburg Compromise. This process is traced in depth which, in particular, yields an insight into the practice of Council negotiations under a system of qualified majority.

Then, developments since 1991 are briefly looked at. Most recently, the importance of the Commission as an independent actor sticks out. In a nutshell, the Commission has followed a new path by putting car emission standards into a wider policy context and working more directly with industry - and somewhat at the exclusion of the member states - in preparing its legislative proposal. In a third section, finally, the role of the Parliament as an increasingly powerful player in the European Community’s regulatory process is revisited. Incidentally, this chapter also provides further evidence for the discussion on EC policy networks and on the Commission in Chapter V.

The 1991 Consolidated Directive\textsuperscript{260} rounded off the body of Community car emission standards as it emerged during the 1980s. By aligning all standards on those agreed for small cars in 1989, by setting new standards for evaporative losses and particulate matter, and by solving a number of more technical issues still pending, it completed and consolidated the earlier legislation. Consequently, the negotiations on the Consolidated Directive in the Council went much smoother than those on the two previous directives. Nonetheless, political struggle was not absent. Even though the mandate for the new directive, as laid down by earlier decisions, was, for the most part, rather clear-cut and (seemingly) uncontroversial, during the talks new demands were tabled by individual member states. Also the European Parliament again pushed for major changes in the proposed directive, albeit to little avail. Thus, a technical problem-solving exercise gave way to a new round of political negotiations.

Below, a first part cursorily describes the preparatory work for the Consolidated Directive in the Motor Vehicle Emissions Group (MVEG), and some of the technical problems involved. Then, the drafting of the Commission proposal is focused on, including differences which arose between different Commission services. The main part of this section is devoted to a detailed analysis of the legislative process, with a special emphasis on the negotiations in the Council.

1. The mandate and preparatory work in the Motor Vehicle Emissions Group

The history of the Consolidated Directive goes back to 1986, and started with a mandate given by the Commission to its Motor Vehicle Emissions Group (MVEG). It will be recalled that this Group was set up by the Commission in 1985 in the context of the negotiations on the Luxemburg Compromise. Already at that point, however, it was understood that the MVEG would continue to advise the Commission on technical questions related to motor vehicle emissions beyond the immediate problems on that directive. The Consolidated Directive is part of this legislation, and, probably more than any other directive, was an outcome of MVEG work.

In a nutshell, the Consolidated Directive amends EC car emission regulations on five points. These are a new test cycle, uniform exhaust standards for all categories of passenger cars, the durability of

the catalytic converter, evaporative emissions, and tighter particulate limit values for Diesel cars. All of these items are rooted in earlier Community decisions on exhaust emission control.

1) To start with, the test cycle figured on the MVEG agenda for four years. Technically, a close link exists between exhaust gas limit values, and the method by which emissions are measured. The test cycle specifies how the vehicle is run on the chassis dynamometer in the laboratory when emissions are sampled. Each cycle, in turn, simulates certain in-use driving conditions.

The driving cycle used by the European Community had originally been laid down by the United Nations Economic Commission for Europe (UN-ECE) in 1967, and was based on driving patterns in urban traffic in Paris at the time. It had been taken over into Community legislation by the first EC car emission directive in 1970. The UN-ECE urban cycle simulated a trip of 4,052 m with an average speed of 19 km/h and a maximum speed of 50 km/h. In the 1980s, there was growing concern about the fact that the UN-ECE test cycle reflected only the urban operating mode, and did not include faster driving on roads and motorways. In January 1986, therefore, the Commission asked the MVEG to prepare a new test cycle including an extra-urban part. In 1987, the Luxemburg Compromise Directive specified that the Council would amend the existing cycle by an extra-urban driving sequence. The 1989 Small Car Directive obliged the Council to set new limit values for cars of 1.4 litres or more "on the basis of an improved European test procedure including an extra-urban driving sequence."

The MVEG worked on the new test cycle in 18 meetings from 1986 to 1989. Indeed, together with evaporative losses, the driving cycle was the issue which figured most often on the MVEG agenda. An extra-urban sequence was agreed on in 1987 which had a length of 6,955 m, an average speed of 62 km/h and a maximum speed of 120 km/h. Data on actual driving patterns not least came from the German real-life experiment with speed limits on motorways conducted in 1985 (see Chapter III). Subsequently, discussions focused on how to combine the new extra-urban cycle with the old urban cycle. On the basis of a major test programme involving 124 different passenger cars and light-duty commercial vehicles, the motor manufacturers favoured one single test cycle composed of, first, the extra-urban sequence, followed by the urban sequence (CCMC 1989). With the extra-urban sequence first, the catalytic converter warms up - and, hence, becomes effective - faster which makes it easier


to meet the emission limits. Exceptions were proposed for light-duty vehicles and certain big cars. These should continue to be tested only on the urban cycle. The European Environmental Bureau (EEB), by contrast, preferred two separate limit values, one for the urban and one for the extra-urban cycle.273

A related issue was a possible derogation for small cars with a weak engine in relation to their weight. The motor industry proposed that these cars not have to undergo a full test on the extra-urban cycle. This point was also pressed by the Italian delegation to the MVEG. (As a matter of fact, the proposal subsequently became known as the "Panda cycle", named after a small Fiat model.) The expert from the Istituto Motori of the Italian Consiglio Nazionale delle Ricerche proposed to limit the test on the extra-urban sequence to its "rural" part (as opposed to the motorway part), i.e. to a maximum speed of 90 km/h, for cars with a low power-to-weight ratio. This proposal would have benefitted two Fiat models, but also models of other European manufacturers. The argument was that very small vehicles are used mainly in cities and on roads, and much less than other cars on motorways. Behind this rationale was the concern that forcing small engines to accelerate to 120 km/h on the motorway sequence meant high emissions, and made meeting emission limits more difficult. In fact, otherwise, for very small cars it was possible to comply with these limits without an expensive three-way catalyst.274

2) Following from the definition of a new test cycle, furthermore, the existing limit values had to be transposed from the old (urban) test cycle into the new European test procedure (urban + extra-urban cycle). These limit values were those laid down in the Small Car Directive. This directive had set limit values for cars below 1.4 litres which were more stringent than the standards for cars above 2.0 litres in the Luxemburg Compromise (see Chapter VI). Therefore, in Article 5 of the Small Car Directive, the Council had committed itself to aligning the standards for all categories of passenger cars at the level of the new standards for small cars, and, at the same time, transpose these new uniform limit values into the new European test procedure. Technically speaking, this can be done by running a sample of new vehicles meeting the small-car standards first on the urban sequence and then on the urban + extra-urban cycle, and establishing the corresponding emission values.

271 The Commission, in its proposal for the new directive, in the end, provided for a single test cycle including first an urban and then an extra-urban sequence; see COM(89) 662 final - SYN 240, 2.2.1990, Annex I, points 5.3.1.2.1. - 5.3.1.2.3..

274 The Commission's draft directive later provided for a "Panda cycle" along the lines of the Italian request; see COM(89) 662 final - SYN 240, 2.2.1990, Annex III, point 2.3.1..
3) The third issue to be tackled was the durability of the emission control system. Catalytic converters over time lose some of their effectiveness, and standards were to be set to limit this deterioration. The technical annex to the Luxemburg Compromise Directive contained a fairly vague obligation on the vehicle manufacturer "to ensure that the emission of air-polluting gases is effectively limited throughout the normal life of the vehicle and under normal conditions of use." During the negotiations on the Luxemburg Compromise, the Council had asked the Commission to examine the possibility of a more precise quantitative durability requirement. Therefore, in January 1986, the Commission had given a mandate to the MVEG to work on the question of durability. Until the Group's final proposal on the matter in 1989, durability occupied the experts in 17 meetings. The durability issue acquired additional urgency when, in 1988, the Dutch Government notified the Commission of its intention to make provisions for enforcing a durability requirement on a national basis. This threatened to pre-empt envisaged EC rules.

4) The Consolidated Directive, fourthly, was to introduce standards on evaporative losses into Community regulations. Evaporative emissions consist of hydrocarbons which evaporate from the vehicle's fuel tank and fuel system. They are influenced by ambient temperature and the composition of fuels. Emissions also vary with vehicle operating conditions. On the control of evaporative losses, the auto and the oil industries are strongly opposed as solutions to the problem can be found both on the vehicle and on the fuel side. On the fuel side, where the oil industry has to adapt and bear the costs, specifications on fuel quality to reduce evaporation are possible. The oil industry lobbied heavily, and on the highest level to prevent such specifications. The car industry, by contrast, initially proposed to only set fuel quality standards, and focus on evaporative emissions in the fuel distribution system between refineries and petrol stations, but not tackle the vehicle side (CCMC 1988b: 1). On the vehicle side, where the motor industry bears the burden, a carbon canister is a device which stores fuel vapours and feeds them into the engine when running. There they are burnt together with the normal air/fuel mixture. Small and big carbon canisters are possible with different evaporative emission control potentials. While the oil industry favours a big, and more effective canister which reduces the need for a less evaporative fuel, the motor industry favours a small canister for safety and cost reasons.

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276 The Commission proposal, in the end, provided for three options of durability testing, including the US durability test, an accelerated European test and the use of deterioration factors; see COM(89) 662 final - SYN 240, 2.2.1990, Annex I, point 5.3.5., Annexes VII and VIII; see also the explanatory memorandum, pp. 5f.
Like for tailpipe emissions, standards for evaporative losses are inextricably linked to the measuring methodology. Both the test methods and the temperatures under which the tests are carried out are of importance. In its work, the MVEG could draw on two established test procedures, the Sealed Housing for Evaporative Emission Determination (SHED) procedure developed by the Environment Protection Agency in the USA, and a test proposed by the UN-ECE (see ibid.: 9-11). Discussions in the MVEG, which dealt with evaporative losses in 18 meetings between 1986 and 1989, evolved both around the test procedure and the actual requirements for controlling emissions.\textsuperscript{277}

Finally, the Consolidated Directive had to introduce a second stage of emission reduction for particulate emissions from Diesel engines. Such standards had first been laid down in 1988. That directive provided for a lowering of its limit values, with the Council deciding before the end of 1989.\textsuperscript{278} One of the recitals even mentioned specific target values. In addition, as for the emissions of other exhaust gases, the particulate standards had to be adapted to the new European test procedure.

Besides the substantive aspects, time was an important constraint. In the Small Car Directive, it was stipulated that the Council decide on the new directive before the end of 1990.\textsuperscript{279} Moreover, it had been agreed that its new standards would enter into force in July 1992 for new car models, and in January 1993 for all new cars. This put the legislative process under considerable time pressure, and, in fact, the Council missed its deadline by half a year.\textsuperscript{280} For industry, the time left between the enactment of new standards and their entry-into-force is, of course, important in view of the lead time needed to adapt to the new requirements. Worried about the slow progress of the directive, for instance, the CCMC car manufacturers' association, in September 1990, wrote to the Italian Environment Minister Ruffolo as the acting Council President to urge for an early approval of the directive. The approaching dates of implementation of the new standards represented a major factor in the negotiations.

The MVEG finished its work on the questions described above after more than three years of deliberations in April 1989. The experts recommended to the Commission to integrate corresponding

\textsuperscript{277} The Commission proposal later adapted the SHED test to European conditions and set a limit value requiring a small carbon canister; see COM(89) 662 final - SYN 240, 2.2.1990, Annex I, point 5.3.4., Annex VI; see also the explanatory memorandum, pp. 6f.


\textsuperscript{280} The Consolidated Directive was enacted on 26.6.1991.
regulations in a single directive which would consolidate the body of emission standards for passenger cars.

In closing, apart from explaining some of the technical issues involved in the negotiations on the Consolidated Directive, the discussion in this section illustrates the technical nature of European Community car emission regulation, and the challenge to the policy-makers who have to deal with its intricacies. A look into the 100 pages of technical annexes attached to the Consolidated Directive in the Community’s Official Journal is revealing of the detail involved in EC law. As suggested in Chapter I, to manage the technical complexity involved in its task to propose Community regulations, the Commission depends on external technical expertise. This, in turn, is a source of member states’ and industry influence over EC regulation from an early stage, for example through the experts in the MVEG.

In addition, the evolving nature of Community car emission policy has become clear. It is a recurrent phenomenon in this field that directives and related statements to the Council’s minutes formulate commitments for future legislation. The Consolidated Directive is a child of this process.

2. The drafting of the directive proposal by the Commission services

The run-up to the Commission proposal for the Consolidated Directive is an example of the political hurdles, besides the purely procedural ones, which a legislative draft has to overcome within the Commission. To be sure, the MVEG advises the Commission on the technical aspects of vehicle emission standards. At the same time, the Commission remains solely responsible for the actual drafting of a directive, and the MVEG does not present it with a ready text. It is from the working documents submitted by the individual experts, the minutes of MVEG meetings and their personal records of the Group’s deliberations that the Commission official(s) responsible have to work.281 When the new directive amends an existing one, moreover, it may build on the structure and details of these existing specifications. For the Consolidated Directive, in fact, the Directorate-General for the Internal Market and Industrial Affairs (DG III) as lead department resorted to outside help to draw up the technical annexes. Four experts from the member states met for six days to tackle the job of wording a considerable amount of new specifications, and integrating rules from earlier directives into

281 The minutes of MVEG meetings are of a general nature, and usually do not contain much technical information.
one set of norms. A final version of the draft directive proposal, in English, was ready in October 1989.

While the Commission legally is a unitary organization, a closer look at the drafting of many directives reveals its political nature and internal divisions (see Chapter V). Frictions often materialize in relation to technical details. However, certainly for technical harmonisation, the details, of course, not rarely reflect political preferences. In the inter-service consultations on the new emission directive, the Directorates-General for the Environment (DG XI), for Transport (DG VII) and for Energy (DG XVII) were involved by DG III. As the department most directly concerned, DG XI had received the draft proposal as finalized by DG III even before the formal round of inter-service consultations. Nonetheless, it was mainly between DG III and DG XI that frictions occurred on the proposed directive. These evolved around three questions.

1) Two key elements for the Consolidated Directive were a new European test cycle and the introduction of a durability requirement for the emission control equipment. In addition, the Directive was to align the standards for all car categories with the stringent standards imposed on small cars by the 1989 Small Car Directive. The new standards, thus, had to match US requirements. In this context, it was an apparently technical point which led to disagreement between DG III and DG XI, although it was, in fact, the stringency of limit values which was at stake.

More precisely, the discussions evolved around the question of whether a deterioration factor, taking account of the lessening effectiveness of the catalytic converter over its lifetime, should be included in the type-approval limit values for the new test cycle, or not. This question was linked to the comparability of EC limit values to US standards. DG III demanded the inclusion of a deterioration factor and, consequently, higher limit values. DG XI argued that an allowance for deterioration was inherent in the US standards to which the cars used for the test underlying the transposition from the old to the new test cycle had been designed in the first place. Hence, the inclusion of a deterioration factor was rejected by DG XI. In the background was, once more, the issue of comparability between American and European standards. The question of how these standards, i.e. the two test cycles on which they were based, related to each other could have been determined in another research programme, but time was short. Such a test programme, however, was carried out later, and, according to DG III, confirmed that the European test cycle is as difficult as the American one; see below.
should not bring tighter limit values than those in the 1989 Directive. DG XI, by contrast, feared that with the transposition a *de facto* weakening of standards would occur. In the end, it was DG XI which backed down, and the problem was solved at directors-general level. It was thought that further delays should be avoided, and that, with or without deterioration factor, the limit values envisaged required the three-way catalytic converter in any case.

2) A second point of contention was the question of whether the same or different limit values should be set for gaseous emissions from petrol and Diesel cars. Due to their different engine concept, Diesel cars emit less carbon monoxide (CO) and hydrocarbons (HC) than petrol cars. They are also less fuel-consuming, and, hence, emit less carbon dioxide (CO$_2$), important in the context of the greenhouse effect. On the other hand, Diesel cars emit particulate matter in addition to gaseous pollutants, and more nitrogen oxides (NO$_x$) than equivalent petrol cars. DG III originally proposed a single set of limit values for both petrol and Diesel cars. This meant that the combined HC+NO$_x$ limit had to be generous enough to remain feasible for Diesel engines. Its argument was that a differentiated treatment of Diesel cars, with a higher HC+NO$_x$ limit than for petrol cars, would make Diesel cars as particularly polluting. On the other hand, because of their lower CO$_2$ emissions, it was desirable to promote Diesel cars. DG XI, by contrast, advocated separate limit values for petrol and Diesel cars to fully exploit their respective emission reduction potential. DG III again won, and the Commission's proposal contained a single set of limit values.

3) Finally, differences between DG III on the one side, and DG XI and DG XVII (Energy) on the other existed on the minimum starting temperature for the measurement of evaporative emissions during the type-approval test. The higher the temperature, the more fuel evaporates and the more difficult it is to meet the standards. On the other hand, if higher temperatures are required by law, it becomes difficult to carry out the tests in winter. The oil industry was opposed to standards for evaporative emissions in general as it feared that, in the longer run, these might lead to standards on fuel quality. Thus, DG XI and DG XVII, for different reasons, proposed to set the minimum temperature at 26°C, while DG III wanted 23°C. The Commission proposal, in the end, contained a minimum starting temperature of 23°C.

These three points of disagreement between DG III and DG XI were of a rather minor importance. On the whole, the Consolidated Directive did not cause significant problems between the two directorates-general. Nevertheless, the evidence in this section illustrates the general discussion in

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281 see COM(89) 662 final - SYN 240, 2.2.1990, Annex VI, Figure VI/2.
Chapter V about the nature of the Commission bureaucracy, where different Commission departments are sometimes pitched against each other, and represent different points of view. Arguably, in many cases, these differences reflect different political interests and, not least, the influence of outside pressures. Besides, different approaches to a problem, different priorities and, even, differences in personal opinions can be at the origin of frictions between the services. Moreover, while the "real" issues at stake are, of course, well-known to the participants, the discussions around them evolve from technical details, and are often couched in engineers’ language.

3. The negotiations in the Council and the role of the European Parliament

a) Setting the scene

The Commission adopted its proposal for the Consolidated Directive in December 1989, and, then, transmitted it to the Council. The Council, in turn, sent it to the European Parliament and the Economic and Social Committee. This started the Community’s formal legislative process involving these four Community institutions and the member states. In the following, the legislative process around the Consolidated Directive will be mapped out in chronological order. The analysis will be limited to the most important steps and issues along the way.

As all technical harmonisation proposals since the Single Act, and before the entry-into-force of the Treaty on European Union, the Consolidated Directive came under the cooperation procedure (see Chapter VI). First, this meant that the Council had to wait for the opinion of the European Parliament before it could formally pronounce itself in a common position. At the same time, for the reasons explained in the first section of this chapter, an early adoption of the directive was important. Therefore, both the Commission and the Council several times urged the House to speed up its deliberations with a view to a parliamentary opinion as soon as possible.

The obligation to wait for the Parliament, however, does not prevent the Council from starting to discuss the proposed directive. The Council has three different working levels: the working parties (here: the Ad hoc Group on Motor Vehicle Emissions) composed of the technical experts of the Commission and the member states, the Committee of Permanent Representatives (COREPER) at

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ambassadorial level, and the ministers themselves.\footnote{285} It is at the working party level that talks begin. Indeed, the Ad hoc Group on Motor Vehicle Emissions met to discuss the Commission's proposal even before it had formally been transmitted to the Council. It dealt with the proposal in a first series of three meetings until the summer of 1990. These meetings, and a session of COREPER served to separate the political from the less critical problems, and for the member states to build up their position.

The circle of officials in the Ad hoc Group on Motor Vehicle Emissions is, for all practical purposes, identical with the group of government experts in the Motor Vehicle Emissions Group (MVEG). The Commission is represented by the official responsible in DG III. Hence, all delegations around the table are familiar with the problems involved, and with the positions taken by their counterparts during MVEG work. What is new for the national delegations is the Commission's solutions drawn from MVEG discussions, as contained in its formal proposal. In addition, in a Council working party, problems are no longer dealt with in technical terms with evidence to support conclusions. Rather, the delegations report political positions, and explore how these can be reconciled in a policy package. Like at the political level in the Council, discussions in the working party have a diplomatic flavour which is reflected most clearly in the different kinds of "reservations" expressed by a member state or the Commission. These "reserve" the position of a delegation on some specific question, indicating both opposition and flexibility, and often simply the need for more time to check the implications of one or another solution in contact with other experts and/or industry back home.

In the first Ad hoc Group meeting on the Consolidated Directive, the delegations had not yet had time to fully examine the complex proposal. Nonetheless, four problem areas were identified which would need to be considered by the ministers themselves. Firstly, the limit values as such were put on this list.\footnote{286} More precisely, the Commission proposal for a second-stage particulate standard for Diesel cars was criticized as not severe enough by Germany, Denmark and Greece. Germany, Denmark and the Netherlands, moreover, called for separate CO and HC limit values in the urban part of the test cycle when the catalytic converter is cold and not yet fully operational. Germany also wanted a separate \textit{NO}$_x$ value in the entire cycle instead of the combined \textit{HC+NO}$_x$ limit in earlier directives. These separate limit values meant a \textit{de facto} tightening of standards. Italy, by contrast, proposed to prolong the more lenient treatment for direct-injection Diesel engines provided for under the

\footnotesize{\textsuperscript{285} see generally on the Council e.g. Nugent (1994: 123-152).}

\footnotesize{\textsuperscript{286} COM(89) 662 final - SYN 240, 2.2.1990, Annex I, points 5.3.1.4. and 7.1.1.1..}
Luxemburg Compromise. These engines were a relatively recent technology, with the advantage of better fuel economy, but with (yet) worse emission performance.

Secondly, the future of the Annex III A became a problem. The Luxemburg Compromise Directive had attached to it an Annex III A to allow cars to be type-approved on the basis of the US Federal Test Procedure. At the same time, it had stipulated that the Council decide on repealing the Annex III A as soon as the new European test cycle was in place. The maintenance or not of Annex III A, of course, was important in the light of international harmonisation efforts, with an abolition bringing a loosening of the link between European and US regulations. The Commission proposed the repealing of Annex III A with a transitional period of two (new models) respectively three (all new cars) years. France and the Netherlands demanded its immediate repeal, while Germany and Britain wanted to see Annex III A to be retained.

The third problem area related to fiscal incentives. Such incentives had been instrumental in "greening" the European car market in the 1980s (see Chapter III), and the Small Car Directive of 1989 had established conditions for national tax incentive schemes for "clean cars" to avoid that those schemes lead to new market barriers between the member states. Besides the Federal Republic which had pioneered tax rebates for the introduction of catalytic converters, until the spring of 1990, the Netherlands, Belgium, Denmark, Greece and Luxemburg had put into place their own comparable schemes. In its proposal for the Consolidated Directive, the Commission had taken over the tax article of the Small Car Directive as it stood. Now, however, France expressed dissatisfaction with how other member states had devised their fiscal incentives, and demanded a more restrictive Community framework. In fact, also the Commission was concerned about the form of various national tax rebate systems, and had taken steps towards Germany, Denmark, Greece and the Netherlands by requesting

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290 COM(89) 662 final - SYN 240, 2.2.1990, Annex I, point 8.2.

291 Council Directive 89/458/EEC of 18.7.1989, OJ No. L 226, 3.8.1989, p. 1, Article 3. Briefly, tax incentives had to apply both to cars produced domestically and to imported cars; they had to refer to future Community standards, as opposed to, for example, United States requirements; they had to cease as soon as these EC standards became mandatory; and they had to be "of a value, for each type of vehicle, substantially lower than the actual cost of the equipment fitted to meet the values set and of its fitting on the vehicle."

291 COM(89) 662 final - SYN 240, 2.2.1990, Article 3.
more information and reminding them of their obligations.

Finally, problems related to total harmonisation,252 as proposed by the Commission, were identified by the Ad hoc Group as meriting consideration by the ministers. Germany called this principle into question because it hindered member states to align their emission control requirements with those of other countries outside the EC, or set in other international fora, such as the United Nations Economic Commission for Europe (UN-ECE) or the Stockholm Club (see Chapter II). Behind this argument, probably, was Bonn’s concern to remain free to set more-stringent requirements than those of the Community if needed. The UK, for its part, pointed out that total harmonisation prevented national authorities from granting exemptions for prototype vehicles and vehicles built in small series. Moreover, both countries were concerned that total harmonisation excluded the possibility to recognize equivalent standards in other countries, and thus erected barriers to trade between the Community and third countries. Indeed, one of the provisions which had been of key importance in the agreement between the German Federal Government and its domestic car companies for the early introduction of catalytic converters (see Chapter III), and which had found its way into the Luxemburg Compromise in the form of the Annex III A, had been that cars type-approved to US requirements were considered to conform with the new EC standards.

These four problem areas identified as politically sensitive by the Ad hoc Group, indeed, were at the centre of subsequent negotiations in the Council. Later, further issues were put on the agenda by individual member states. In the working party’s first meeting, however, the delegations had put forward their initial reactions, the Commission had maintained its proposal, and the Ad hoc Group had distinguished those problems which it might solve itself from the other more difficult ones.

The Ad hoc Group’s results were presented in a report for a COREPER session in March 1990. As in the working party, while generally welcoming the Commission proposal, most Permanent Representatives kept a scrutiny reservation as their governments had not yet fully studied the draft. At the same time, all delegations called for a rapid decision. Only Germany, Denmark and Greece voiced more substantial criticism of the Commission’s proposal, while all member states reiterated the concerns expressed before. Lines of disagreement became clearer as different countries aligned themselves with demands made by other delegations. Denmark supported Germany in its call for a separate NO\textsubscript{x} limit value, and Britain and Germany in pleading for the maintaining of Annex III A;

\footnote{Total harmonisation means the mandatory application of EC standards in all member states, as opposed to optional harmonisation; see Chapter II.}
Spain and Portugal joined Italy on a special provision for direct-injection Diesel engines, as well as the French and Dutch call for an immediate repealing of Annex III A. Moreover, a number of other problems were tabled in the COREPER meeting. Germany pressed the Commission to speed up its work on new emission standards for light-duty vehicles, and called into question the exemption to be granted, according to the Commission proposal, for very small cars ("Panda cycle"); Germany and Greece complained that the durability test was not stringent enough; several delegations underlined their interest in acting on carbon dioxide (CO₂) emissions to combat the greenhouse effect while Spain kept a reservation on this proposition. The Commission, for its part, defended its proposal.

Although the Presidency had hesitated to have the ministers discuss the draft directive at this early stage, on 22.3.1990, the Environment Council proceeded to a preliminary examination of the Commission’s proposal. No tangible results emerged. The Commission outlined its proposal, and insisted that decisions should keep in line with earlier directives, thus implicitly rejecting some of the demands already expressed by member states. In a tour de table on the four areas identified as sensitive by the Ad hoc Group, the member states reiterated and, partly, amended their positions. Thus, Germany presented a memorandum calling for Commission proposals on noise and emissions from trucks, and was supported on this point by the UK; Greece brought up the issue of in-service tests on emissions. Both proposals, of course, went beyond the scope of the Consolidated Directive but are examples of how member states use the Council as a channel to push their own policy priorities onto the Community agenda. On the whole, however, the tenets of the Commission proposal were welcomed by a majority of the ministers, and only Germany and Denmark voiced more substantial misgivings. In his final statement, the Commissioner announced proposals on emissions and noise from lorries as well as on CO₂ from cars over the months to come. In the absence of an opinion from the European Parliament, no decisions could be taken, and the matter was referred back to the technical level.

Over the following two months, the Ad hoc Group on Motor Vehicle Emissions, as the Council’s working party responsible, met for a second and third time to examine the Consolidated Directive. In these meetings, the entire draft was reviewed by the officials. While the points expressed earlier were largely repeated or stated more precisely, again, more requests and reservations were put forward by individual delegates. Thus, for example, while keeping a general reservation on the entire range of limit values, Germany focused its concern on the conformity-of-production value for particulates. Naturally, with their demand that member states should remain free to set more stringent limit values than those fixed by the directive, the German and Danish delegates provoked objections from their
colleagues. In a similar vein, Greece requested the possibility to set tighter local standards in Athens if air pollution should require this. Germany newly proposed a provision that vehicles must meet the limit values at all speeds ("lambda = 1 requirement").

France, for its part, insisted on the importance of clearly delimiting member states' freedom to set fiscal incentives, and tabled a concrete wording for a corresponding article. This proposal was subsequently endorsed by Italy and Spain. The French delegation also recalled its wish to have Annex III A repealed as soon as possible. Especially, Annex III A should not be extended to small cars, not even for a transitional period. Italy came to support the French position, while Germany, Denmark and Britain continued to call for the maintenance of Annex III A. The Commission stated that the question of total harmonisation versus acceptance of equivalent non-EC standards, such as US standards under Annex III A, had to be resolved on a more general level, and in the context of foreign trade policy. The British delegation suggested a concrete wording for its request to exempt prototypes and small-series vehicles from Community standards, and to allow for type-approval of cars to equivalent non-EC standards. This proposition, though, did not meet with interest from other governments. France and the UK promised to consider the Italian demand for an exemption for direct-injection Diesel engines. Other, more technical changes were also demanded mainly by the German, British, Dutch and Danish delegations. In sum, the agenda broadened. The German and British, moreover, corrected a number of linguistic points in their respective language versions of the proposal.

At the same time, member states modified positions taken earlier and solutions on some points were approached. Thus, the Netherlands moved towards the Commission's position on the Annex III A. Germany and Britain, on the other hand, dropped their opposition to a repealing of Annex III A if the possibility of a recognition of standards in other countries or by other international bodies equivalent to EC norms was provided for. The German call for a Commission proposal on light-duty vehicles was satisfied with a declaration to the Council minutes, by which the Council noted the Commission's intention to make a corresponding proposal before the end of the year. After the German, Danish,

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293 A "lambda = 1 requirement" means that the air/fuel mixture has to remain at its stoichiometric point ("lambda = 1") under all operating conditions (e.g. cold start, full acceleration). Only at this point is the three-way catalytic converter fully effective.

294 The possibility to have a car model type-approved on the basis of Annex III A had so far been limited to vehicles with 1.4 litres or more engine capacity; see Council Directive 88/76/EEC, 3.12.1987, OJ No. L 36, 9.2.1988, p. 1, Annex I, point 8.3.1.. The Commission proposed to drop this restriction; see COM(89) 662 final - SYN 240, 2.2.1990, Annex 1, point 8.2..
Greek and Dutch delegations had raised objections with regard to the provisions on durability testing in the first meeting, they showed flexibility in the second meeting by outlining a compromise solution. Annexes II to X of the proposed directive were agreed, although with reservations on the part of Denmark and the Federal Republic.

By way of summary, in a first round of meetings of the Ad hoc Group, the COREPER and the ministers themselves, the complexity of the task confronting the Council became clear. Even though the officials in the working party were familiar with the subject of their discussions from their earlier involvement in the MVEG, some time had to be devoted in the national capitals and in the Ad hoc Group to exploring the details of the Commission's proposal. This was reflected in numerous scrutiny reservations kept by the individual delegations. In parallel, the member states entered their positions on individual points where they differed from the Commission's draft. After one member state introduced a demand, it often would find support from other delegations. The Commission, for its part, explained and defended its proposal. The tangible outcome of working party discussions was a report distinguishing the more technical problems which might be solved at a lower level from the more sensitive and political items. These were passed up to COREPER and the ministers themselves. As the European Parliament's opinion had to be waited for, these two levels, for the time being, limited themselves to registering the member states' positions. At the level of officials, meanwhile, the first open question was done away with through a statement to the Council minutes, and delegations showed flexibility on further issues. In a nutshell, in the initial round of meetings, no actual negotiations took place but the scene was set as the delegations defined their positions.

On a more general point, the observation of Council work underlines the importance of the Commission's directive proposal not only from a political but also from a (seemingly trivial) practical point of view. With its draft directive, the Commission provided a starting point for the discussions. By submitting a concretely worded legislative draft, it structured the deliberations, and, thus, helped them to take off. In comparison to open negotiations, for example in an international forum, the existence, at the outset, of a coherent proposal comprising solutions to all technical details, even if they are not acceptable to all parties, is a considerable advantage. This is all the more true as the Commission tries to anticipate member states' positions, and to make a proposal which takes account of their interests.
b) **The Commission’s position**

Meanwhile, the Commission services evaluated the proceedings in the Council. So far, the Commission had taken note of the requests made, and had explained the arguments which had shaped its proposal. Both tactical considerations and the concern about the coherence of emission control regulations guided DG III's review in May 1990.

In terms of Council arithmetics, the situation looked fairly comfortable. On the whole, the Commission proposal had been well received. It is true that especially the "green" member states - Germany, the Netherlands, Denmark and Greece - demanded a number of changes. However, the Consolidated Directive could be enacted by a qualified majority, and, hence, Germany, Denmark and Greece by themselves could not block its passage. A Dutch "no" would be needed to do so as well. The Netherlands, though, which had pressed environmental demands on other occasions, was this time more guarded. What was more, all delegations, had shown themselves cooperative which reflected the absence of acute domestic political pressures.

With this in mind, DG III looked at the substance of the points raised. Regarding member states' calls for more stringent standards, the nature of the Consolidated Directive was underlined. According to previous agreements, its purpose was a purely technical one of transposing existing limit values on a new test cycle, and of aligning the standards for all car categories with those set for small cars in 1989. Under this commitment, so the argument, no further tightening of standards was foreseen. To the contrary, as the stability of standards over a certain period of time is crucial for industry planning, another strengthening of requirements, less than one year after the Small Car Directive, would only impair the credibility of Community regulation, besides hurting the manufacturers. On a political level, moreover, again opening the question of stringency of standards carried the danger of renewed contentions. Hence, related requests made by Germany, Denmark, Greece and the Netherlands were opposed. By contrast, a lowering of the proposed second-stage limit value for particulates was envisaged. This option, though, should be kept for a later time, and with a view to making concessions to the expected opinion from Parliament.

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The different requests for national scope to decide on standards,\textsuperscript{296} of course, went against the principle of total harmonisation just adopted in the Small Car Directive. More generally, they ran against the completion of the internal market. Therefore, they, too, were rejected. Some of them, in any case, would rather have to be addressed in another regulatory framework (special air pollution problem in Athens, treatment of prototypes and small-series vehicles), while the recognition of non-EC standards was linked to trade policy.

Also on the other propositions made in the Council, DG III upheld the Commission proposal. As these requests had not received any larger support, and alternative solutions to those in the Commission’s proposal did not seem reasonable, DG III saw no need for modifications. Only in relation to an exemption for direct-injection Diesel engines was flexibility advised, while surprise was voiced that this point had not been raised in the MVEG before.

On the whole, in May 1990, the Commission was confident to have its proposal enacted without major changes. Its response to member states’ demands was based on what it saw as the purpose of the directive, and on the quest for coherence of Community policy. In particular, as to the difficult question of limit values, reference was made to the Small Car Directive, not even one year old, which had fixed these values after a laborious process. Not re-opening this discussion was a major Commission concern.

c) Waiting for the European Parliament

What, in the spring of 1990, caused worries to both the Commission and the Council was the timetable for further progress. The European Parliament’s opinion would not be available until the fall, and, before then, the Council could not act. In view of the early entry-into-force of the standards to be laid down in the Consolidated Directive, and of the Council’s commitment to decide on this directive before the end of 1990,\textsuperscript{297} an early decision was important to both the authorities and industry.

Against this background, the COREPER dealt with the draft directive for a second time in May 1990, preparing an Environment Council in June. While most delegations, in the absence of any new

\textsuperscript{296} i.e. adoption of standards set by other international bodies or countries (e.g. Annex III A), special clause for Athens, provisions for prototypes and vehicles built in small series.

elements, saw little sense in putting the file on the Council’s agenda. France and Italy pressed for another discussion by the ministers. This would emphasize the importance of the directive, and perhaps some progress could nonetheless be made. The Commission, by contrast, warned that the Council should not give the impression of going ahead without the European Parliament’s opinion.

In the Environment Council on 7.6.1990, indeed, the debate on the Consolidated Directive did not yield new aspects. The delegations repeated their known positions. On the request of the German minister, the Commission announced that it would soon present the results of the study comparing the new European with the US test cycle. The Council unanimously agreed to ask the European Parliament to use its urgency procedure on the proposed directive. 298

While the Commission and the Council waited for Parliament’s opinion, the Economic and Social Committee (ESC) delivered its in July 1990. 299 A draft report had been prepared by the Study Group on Emissions from Motor Vehicles of the Committee’s Section for Industry, Commerce, Crafts and Services. Discussions in the Group had focused mainly on the durability of catalysts and the need for in-service emission testing, on the limit values for particulates, on evaporative emissions and on the future of Annex III A. A Member of the Committee who had called in the European Environmental Bureau (EEB) as an expert had tabled proposals for a separate NO, limit value, for separate CO and HC values on the urban test cycle, as well as for the abolishment of the “Panda cycle.” The Commission had rejected these suggestions in the Committee. The three proposals, of course, echoed those made by Germany, Denmark, the Netherlands and Greece in the Council. In the ESC’s final opinion, they were mentioned but no specific recommendation was made. A Committee Member linked to the oil industry, for his part, emphasized the importance of fuel quality in reducing emissions. His point equally found its way into the ESC opinion. 300

The Committee’s opinion, in the end, made a number of general comments reflecting the discussions in the Study Group, and partly going beyond the scope of the Consolidated Directive. On a few, more marginal points, specific recommendations were made, including on the deadline for the transposition of the future directive into national law, and the proposal to set a deadline for a Council decision on

298 see European Parliament, Rules of Procedure (July 1989), Rule 75.


300 see point 1.6.3. of the opinion.
CO₂ emissions from cars. On the whole, the ESC opinion did not make an impact on the treatment of the directive in the Council.

d) The European Parliament’s first reading

The European Parliament does most of its work in its committees, before a final legislative resolution is adopted in the plenary. Accordingly, the House’s first signal on the Consolidated Directive came in the form of the report by the Parliament’s Committee on the Environment, Public Health and Consumer Protection in June 1990. As for earlier reports on car emissions, the Committee had appointed the German Socialist Member Kurt Vittinghoff as rapporteur. The Committee on Economic and Monetary Affairs and Industrial Policy, and the Committee on Transport and Tourism were asked for their opinion.

It is not necessary here to describe all the 28 amendments to the Commission’s draft directive proposed by the Environment Committee to the plenary. Briefly, they referred both to the recitals of the directive and its Articles and technical annexes, and can be summarized under four headings. A number of amendments, in various ways, aimed at the tightening of the emission limit values. This included, for example, generally lower limit values than those proposed by the Commission for 1993, and their further reduction in 1995; separate limit values for HC and NOₓ; the deletion of the accelerated 30,000 km durability test option; and the abolition of separate (less stringent) limit values for conformity-of-production testing. On the other hand, the possibility of temporary derogations was foreseen for car manufacturers to comply with limit values. Secondly, the Committee proposed to keep the Annex III A, contrary to the Commission’s proposal to repeal it after a transitional period. A third group of changes dealt with a variety of technical issues, such as a provision that vehicles must comply with the limit values under all driving conditions ("lambda = 1 requirement"), the abolition of the special "Panda cycle" for small cars, and the extension of the scope of the directive to certain light commercial vehicles. Finally, a number of additional provisions were suggested mostly in the form of recitals which, in fact, had no direct link with the directive under discussion, such as on a

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302 see generally on the European Parliament e.g. Jacobs and Corbett (1990).

uniform limit value on CO₂ emissions, on speed limits, on in-service emission testing and on fuel quality. Several of these amendments, of course, were similar to requests made earlier by certain member states in the Council. The report including these amendments had been adopted by the Committee with 23 votes to five with one abstention.

The list of amendments proposed by the Environment Committee was supplemented by five amendments from the Economic Affairs Committee which equally aimed at strengthening the provisions of the directive. In particular, the regular revision of standards in two-year intervals was suggested, as well as more latitude for member states’ fiscal incentives and additional measures to reduce air pollution. Interestingly, the Economic Affairs Committee did not contradict the Environment Committee as one might have expected. This may be partly due to the fact that its draftswoman was from the Green Group. The opinion of the Transport Committee was short, and approved the Commission proposal without amendments.

The Commission services immediately analyzed the Environment Committee’s wishes, and rejected most of them, except the one on a stricter particulate standard which it had identified as a possible concession to the House some weeks before (see above). Complementing the arguments which had guided the review of Council discussions in May, a number of grounds determined the Commission’s attitude. In particular, the significant strengthening of limit values demanded by the Environment Committee in correlation with the maintenance of Annex III A, that is the possibility for type-approval according to the US regulations, was seen as dangerous. In this case, it was argued, European standards would be significantly more severe than US requirements, and the car manufacturers would massively opt for type-approval on the basis of the latter (i.e. of Annex III A). This would reduce the effectiveness of the new EC norms, and surrender the European auto industry to (unpredictable) regulatory developments across the Atlantic - at a time, precisely, when European standards had caught up with American ones and total EC harmonisation on all safety and environmental aspects of cars was within reach (see Chapter II). Moreover, as far as limit values were concerned, the purpose of the directive as a transposition exercise was recalled, and that the House had implicitly endorsed this concept in its positive vote on the Small Car Directive. As to the amendments going beyond the scope of the directive proposal, while the Commission partly shared their motives, they should be dealt with in another context. In addition, a number of incoherences between different amendments was noted. In sum, the officials concluded, apart from a possible concession on the particulate standard, the Commission should insist on its proposal in the Parliament’s plenary session in September.
The parliamentary demands were noted also in the national capitals, and the French Government was disconcerted by the idea that the Commission might bow to the House's ideas. During the summer, it sent a note to the Commission insisting on the three principles which it believed had to underlie the new directive: its limitation to the mere transposition of existing limit values, the uniformity of European standards and the clear separation of EC standards from those in other countries. Some details were also mentioned. A copy of this note was sent to the Permanent Representations of the other member states. In September, the French Environment Minister wrote personally to the Environment Commissioner. Meanwhile, in a meeting with MEP Vittinghoff, DG XI representatives sounded out possible compromises between the Commission and Parliament. It appeared that, while Vittinghoff would try to get his amendments adopted by the House in the first reading, there was scope for changes in the House's opinion at a later stage.

The Environment Committee's report, with the opinions of the Economic Affairs and Transport Committees attached to it, was on the agenda of the European Parliament's plenary session in September 1990. After the Environment Committee's rapporteur and the draftswoman of the Economic Affairs Committee's opinion had introduced the debate, speakers from different political groups took the floor and, partly, opposed the amendments suggested by the Environment Committee. Environment Commissioner Carlo Ripa di Meana defended the Commission's directive proposal. The actual voting took place, with less than half of the MEPs present, in the House's Wednesday evening voting time. Nearly all amendments proposed both by the Environment Committee and the Economic Affairs Committee were adopted by Parliament and integrated into a single catalogue of changes. On some amendments, split votes on different parts were held, and the European Democratic Alliance had requested a roll call vote. In these votes, mainly British and French conservatives (organized in the European Democratic Alliance), French liberals (in the Liberal, Democratic and Reformist Group), and, on one point, some (mainly Spanish and French) Socialists rejected the Environment Committee's amendment proposals. They were overruled by a large majority. At the end, the plenary adopted Parliament's legislative resolution which approved the Commission's draft directive subject to Parliament's amendments and called on the Commission and the Council to take

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305 For the Article 4 committing the Council to take measures to limit CO2 emissions, a new formula was adopted which was less stringent than the one originally proposed by the Environment Committee; see amendments nos. 32 and 35, OJ No. C 260, 15.10.1990, p. 96.

306 on the possibility for a temporary derogation for car manufacturers, incentives for the scrappage of old cars, the limit values and their further reduction in a second stage, and the durability test for emission control equipment.
account of them.

The Commission presented its amended proposal in October 1990.\textsuperscript{307} This amended proposal embraced five substantive parliamentary amendments: It lowered the limit values for particulates, albeit not as far as the House had wished;\textsuperscript{308} it limited the option of the "Panda cycle" until July 1994;\textsuperscript{309} it removed the option of an accelerated durability test for the emission-control equipment;\textsuperscript{310} it limited the application of special (less stringent) limit values for conformity-of-production testing until the end of 1994;\textsuperscript{311} and it tightened the wording of the clause on the lambda coefficient.\textsuperscript{312} Several other parliamentary amendments proposing new legal provisions were taken over in a less binding form as recitals. On two of the amendments adopted (on the "Panda cycle" and the durability test), the Commission services (DG III) had initially given a negative opinion but were apparently overruled in order to make a further concession to Parliament. On the whole, however, the Commission's amended proposal clearly fell far short of Parliament's wishes. On the other hand, they were more than cosmetic and did strengthen the environmental effectiveness of the proposed measure.

e) Towards a common position in the Council

The opinion of the European Parliament and the subsequent amendment of the Commission proposal cleared the way for more substantial negotiations in the Council. Although the Commission had not yet formally sent its revised draft directive, the Council's Ad hoc Group on Motor Vehicle Emissions discussed the new proposal in October 1990. In fact, however, as the Commission had accepted only few parliamentary amendments, the Council agenda remained largely unaffected by the opinion of the House.


\textsuperscript{308} see COM(90) 493 final - SYN 240, 19.10.1990, OJ No C 281, 9.11.1990, pp. 10f, new points 5.3.1.4. and 7.1.1.1..

\textsuperscript{309} ibid., p. 10, new paragraph after Article 2(3).

\textsuperscript{310} ibid., pp. 10f, new points 5.3.5.1., deletion of Annex VII.

\textsuperscript{311} ibid., p. 11, new point 8.4..

\textsuperscript{312} ibid., p. 10, new point 5.1.1.
An exception was the question of durability testing. More precisely, the Commission, originally, had proposed to give manufacturers the choice between an 80,000 km and an accelerated 30,000 km durability test for their emission-control equipment.\textsuperscript{313} It had argued that, while the 80,000 km test corresponded to American requirements, due to its special characteristics, the 30,000 km test was not less demanding; it was, though, less costly for industry. The European Parliament, however, had rejected the accelerated procedure.\textsuperscript{314} Although DG III, initially, had not wanted to comply with Parliament's wish, the Commission, in the end, had done so, and had removed the accelerated option from its proposal.\textsuperscript{315} In the Ad hoc Group, the deletion of the accelerated test drew vivid criticism from several delegations. A compromise was finally thrashed out in the form of a draft new article which was subsequently submitted to the COREPER. In this new article, which became part of the Consolidated Directive,\textsuperscript{316} it was agreed that the Commission would study the problem to confirm the validity of the accelerated test cycle. Should its revision be necessary, it would be decided on under the simplified adaptation-to-technical-progress procedure. While Germany and Denmark, like the European Parliament, had been critical of the 30,000 km test, they agreed to consider this compromise proposal. In a word, the Ad hoc Group did not accept Parliament's demand but agreed to leave the question open for further inquiry.

Otherwise, the European Parliament's opinion did not arouse new discussions in the Ad hoc Group. The new recitals for the directive did not meet with objections. One of them, on a commitment to legislate on regular in-service emission testing, was complemented by a statement to the Council minutes, although some delegations reserved their positions.\textsuperscript{317} The delegations also generally accepted the new wording on the lambda coefficient ("\( \text{lambda} = 1 \) requirement") which had been proposed by the Commission in its amended draft directive,\textsuperscript{318} in response to an, albeit more strictly worded amendment by the House.\textsuperscript{319}

\textsuperscript{313} COM(89) 662 final - SYN 240, 2.2.1990, Annex I, point 5.3.5.1.1., Annex VII; see also the explanatory memorandum, pp. 5f.

\textsuperscript{314} see amendments nos. 3, 22, 26 and 27; OJ No. C 260, 15.10.1990, pp. 93-100.


\textsuperscript{317} In the final text of the Consolidated Directive, this recital, however, does not appear.


\textsuperscript{319} see amendment no. 15; OJ No. C 260, 15.10.1990, p. 97.
By contrast, deliberations in the working party again focused on issues raised by some member states. While many positions expressed earlier were reiterated, both new elements were introduced, and progress made on a number of problems. Most important was the extension of earlier requests as far as the limit values were concerned. On the basis of the Commission's study comparing the new European and the US test cycles, Germany, with the support of Denmark, suggested a slight lowering of the limit values proposed by the Commission for conformity-of-production. The other delegations did not approve this proposal but agreed to study it further. The Commission's new particulate limits, in response to the demand of the European Parliament, gave rise to several scrutiny reservations, while Germany and Denmark wanted to go lower. Relatedly, the Danish delegate called for a periodical revision of emission standards to adapt them to technological progress. Denmark, in this regard, could refer to the corresponding call by the European Parliament\textsuperscript{320} which, of course, had not been adopted by the Commission. Both Germany and the Netherlands voiced their sympathy for the Danish request while the other delegations, including the Commission, insisted on the need for stability. The Commission, in fact, had proposed to fix the standards for five years to provide industry with the legal stability needed for its necessary efforts.\textsuperscript{321} As will be seen, the question of the stability of standards became a crucial one as the negotiations went on.

On another point, after the last Council meeting in June 1990, Germany had responded with a counter-proposal to the French initiative to more clearly delimit the framework for national tax incentive schemes in favour of "clean cars." The background were plans in that country to introduce environmental parameters for the calculation of a vehicle's annual circulation tax. Indeed, as will be remembered (see Chapter III), the German tax incentives for low-polluting cars were given in the form of rebates in annual circulation taxes, and it had been intended for years to levy this tax on the basis of environmental criteria. To maintain its freedom in this respect, Bonn now wanted a clause that such schemes were not subject to the Community's framework for tax incentives. As the British delegation supported this proposition, and Italy and Spain had shown some interest in the earlier French proposal, delegations were now clearly divided over the tax issue.

Moreover, on demands made earlier by individual member states, progress was made towards their solution. Germany signalled it could accept the "Panda cycle", proposed by the Commission, and pushed by Italy, if the eligibility for this exemption was more restricted. Already before, to comply

\textsuperscript{320} see amendment no. 29; OJ No. C 260, 15.10.1990, p. 95.

\textsuperscript{321} COM(89) 662 final - SYN 240, 2.2.1990, explanatory memorandum, p. 9.
with the wishes of Parliament, the Commission had proposed to limit the "Panda cycle" clause until July 1994.\textsuperscript{322} Italy, for its part, could accept both the German and the Commission's new propositions in this regard. The Italian Government also specified its wish for an exemption for direct-injection Diesel engines, which the other countries said they would consider.

In sum, the October 1990 sitting of the Ad hoc Group reflected persistent differences between the member states on a number of problems. While the new issues raised by the opinion of the European Parliament - mainly particulate standards, durability testing and restriction of the "Panda cycle" - had either not particularly affected the discussions or could be tackled, and progress was made on other problems as well, important questions had still to be answered. Now, it was up to the political level to press ahead with the talks.

First, a COREPER session followed the Ad hoc Group meeting but made little progress. Britain, supported by Denmark, suggested a clause allowing for type-approval to US standards, which, in particular, dealt with the UK's concern about small-series vehicles. The solutions found in the Ad hoc Group earlier were passed on to the ministers' attention. Otherwise, reservations by individual countries were confirmed and positions reiterated. On the question of limit values, Denmark, Germany, Greece, and, to a lesser extent, the Netherlands found themselves opposed to the other delegations, notably France, Italy, Britain and Spain. While the former demanded stricter standards than those proposed by the Commission, and an early review of these standards to adapt them to technical progress, the latter, and the Commission, insisted on the need for stability, and a five-year standstill period. Thus, the splits familiar from earlier directives had re-emerged (see Chapter VI).

In the meantime, the Commission kept up the tenets of its proposal. At the same time, it thought about new solutions to member states' demands. Thus, in order to comply with the Greek concern about the air pollution in Athens, the Commission services (DG III) suggested the possibility of extended tax incentives. This could be laid down in the form of an amendment to Article 3 of the proposed directive, to the effect that, subject to approval by the Commission, special incentives for a quick renewal of the car fleet might be granted. Concessions were advised on Annex III A, to win a French approval of the Commission's formula, and on an exemption for direct-injection Diesel engines, requested by Italy. The solution found in the Ad hoc Group on the durability test was agreed to. Generally speaking, the more the negotiations progress towards tangible solutions, the clearer becomes the

Commission's pivotal position. Unless there is unanimity in the Council, it has to approve all changes to the draft directive.

The Environment Council met on 29.10.1990 with the declared will to make progress. As usual, a tour de table initiated the item on the agenda. The ministers repeated the points important to their countries, and discussed at lower levels before. Strengthening an earlier reservation, Britain voiced concern about the Commission's new limits for particulate emissions, and introduced the question of Diesel fuel quality as a condition for their attainment. The call for an early Commission proposal on fuel quality was shared by Germany and France, and the Commission promised to make a proposal.

While the ministers went on in their agenda, an ad hoc group of officials met to thrash out solutions. Various problems were settled. Agreement was reached on the repealing of Annex III A, on a temporary exemption for direct-injection Diesel engines, and on the "Panda cycle." Solutions found in the Council's formal Ad hoc Group were finalized and confirmed, including on the accelerated durability test and the "lambda = 1 requirement." The French delegation, supported by the Germans and the Dutch, suggested a new article obliging the Council to decide, before the end of 1991, on the introduction of low-sulphur Diesel fuel as from 1992. While Germany, the Netherlands and Luxemburg agreed, most of the other delegations reserved their position, especially on the latter date. On a British suggestion, low-sulphur Diesel fuel would be allowed for testing purposes already under the present directive. This latter provision made agreement easier on the lower particulate limits. France also was ready to drop its request for a stricter framework for fiscal incentives, under the condition that the directive include a provision on CO₂ emissions from cars.

On the difficult issue of limit values and their stability, however, no progress was made. A proposed statement to the Council minutes, introduced by the Commission as a possible compromise, and committing it to presenting, before the end of 1994, a report on further reductions, was rejected by Germany, Denmark, the Netherlands and Greece. By contrast, Germany and Denmark, recalling the opinion of the European Parliament, presented concrete values for an immediate second stage of emission reduction in 1995/96.

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323 This proposal was later adopted; see Council Directive 91/441/EEC of 26.6.1991, OJ No. L 242, 30.8.1991, p. 1, Annex VIII, point 2, note 6. The use of low-sulphur fuel during type-approval and conformity-of-production tests, of course, facilitates the compliance with particulate standards. Thus, it compromises the environmental effectiveness of the lower particulate limits, as long as low-sulphur fuel is not used in real life.

The *ad hoc* group's results were presented to the ministers late in the evening, where they were, for the most part, confirmed. Under the pressure of their political masters to come to conclusions, the officials had succeeded in considerably narrowing the problem agenda. In a nutshell, the open questions now related to a reference on the quality of Diesel fuel, the framework for fiscal incentives, a provision on CO₂ emissions as proposed by France, the British and Danish proposal on a reference to international standards, and, of course, the question of limit values and their stability. Greece still called for a special Athens clause, Denmark wanted the maintenance of Annex III A, and the Netherlands supported Germany on its amendment to the article on fiscal incentives relating to annual road taxes.

However, it was around the limit values that actual negotiations evolved. Again, Germany, Greece, Denmark and the Netherlands insisted on tighter standards in the Consolidated Directive, and wanted a second stage of emission reductions to be stipulated at the same time. The German minister recalled the European Parliament's corresponding demand. The Netherlands and Germany also argued that a second stage was needed as a reference point for tax incentives.³²⁵ To solve the deadlock, both the British and the Dutch delegations presented compromise proposals which, in fact, were nearly identical. Both draft articles provided for the Council to decide on a further tightening of standards before the end of 1992, and for the new standards to enter into force two or three years later. This went beyond the formula proposed by the Commission in the *ad hoc* meeting of officials few hours earlier. The Dutch initiative was noteworthy in that it signalled this member state's readiness to compromise, and thereby allow for a qualified majority. While the Commission approved the proposals, the Presidency did not press the issue, and the opportunity for a common position lapsed.

f) The common position

While the October 1990 Council had left several issues open, it had shown that the new emission standards and their stability had become the key problem in the negotiations. What had been planned as a mere technical exercise - transposing the existing standards to the new European test cycle and aligning them on the level of the new small-car standards - had given rise to political disagreements. In fact, if no solution was found, there was a danger that a blocking minority of four member states (Germany, Denmark, Greece and the Netherlands) might prevent the passage of the directive. At the

³²⁵ A multiplicity of implicit standards set nationally as criteria for tax incentives seriously fragment the market. Hence, tax rebates should refer to uniform future Community requirements.
same time, all member states wanted an early decision.

The position of the Netherlands was particularly important. This country was especially interested in reference standards for new tax incentives. Indeed, as already for the Luxemburg Compromise, tax incentives as an alternative to standards had to be considered as a compromise solution. The 1989 Small Car Directive had dealt with the issue in a defensive way, by defining conditions for tax rebate schemes in order to limit their impact on the internal market.\textsuperscript{326} Soon afterwards, though, it had become clear that the schemes actually put into place by some member states were not always compatible with the Directive's requirements. France had made this problem one of its central matters of concern for the Consolidated Directive, albeit there was little the Community could do.

Against this background, ideas were developed within the Commission on a potential new framework for tax incentives. The Commission's internal market directorate-general (DG III), in November 1990, proposed to use a new tax incentive formula to un-block the situation in the Council. More precisely, the department proposed a more positive approach to fiscal incentives. First, it was suggested, the condition that the tax rebate must be "substantially lower" than the cost of the emission control equipment\textsuperscript{327} might be deleted. More importantly in view of the ongoing negotiations, fiscal incentives should be allowed to refer to the limit values to be proposed by the Commission, before the end of 1992, for a further emission reduction. Under the 1989 provision, by comparison, only standards decided on by the Council could be the reference point for tax rebates.\textsuperscript{328} While this proposal, certainly, would not have pleased the French Government, it went some way to meeting the Dutch request to have a continuous Community base to its future tax scheme. Germany, Denmark and Greece, arguably, would also have supported the proposal. After talks with the Italian Council Presidency and the Council Secretariat, however, which both objected to the new concept, the Commission decided to not present it to the Council at this point, and the new plan was aborted. Nevertheless, the new concept reflected a remarkable reversal from previous DG III orthodoxy as it would have relaxed the Community restrictions on national fiscal incentives.

After a two-months break, the negotiations in the Council on the future Consolidated Directive were resumed in December 1990. Preparing the ministerial meeting, the COREPER focused on the more


technical questions still open, and left the problems of standards and tax incentives to the ministers. The unresolved technical issues were reviewed, but little tangible progress was made. However, satisfying a British request, the Commission withdrew its reservation on allowing small-series vehicles to be type-approved to American standards or the (equivalent) "Master Document" of the "Stockholm Club." Greece announced flexibility on its demand for a special Athens clause if the Community framework for tax incentives became less strict.

The Environment Council on 20/21 December 1990 started with the presentation, by the Presidency, of two concretely worded compromise proposals on the revision of standards at a later stage and fiscal incentives. It was around these two questions that discussions developed. Both proposals had been communicated to the Commission beforehand. In fact, they were hardly new but ensued from the Council's proceedings in October.

The first proposal took up the earlier German suggestion for a new clause on fiscal incentives. This clause had specified that Article 3 of the Small Car Directive on a Community framework for tax incentives did not prevent the member states from taking noxious and other emissions into account in the calculation of their taxes on motor vehicles. The Presidency's proposal, which was supported by the Commission, limited this provision to the calculation of annual circulation taxes. The difference concerns purchase taxes which were included in the German but excluded from the Presidency's proposal. In practice, the German wording would have all but foiled the provisions of Article 3 of the Small Car Directive. By contrast, the Presidency's wording made an exemption from this article for the specific case of annual circulation taxes, while leaving other fiscal instruments, such as purchase taxes or direct tax rebates, under the (restrictive) rules of Article 3.

The second Presidency proposition in principle followed the British and Dutch compromise proposals at the October Council on the stability of the new standards. However, it was less ambitious on the timetable. Thus, the Presidency suggested a new article according to which the Commission would make a proposal on a further tightening of these standards before the end of 1992; these new standards would apply, at the earliest, from January 1996; and they would serve as the reference point for tax  

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incentives after the adoption of a new directive. Again, this proposal was agreed to by the Commission although it shortened to three years the standstill period originally foreseen by the Commission (five years), and supported by all member states except Germany, Denmark, Greece and the Netherlands. The Presidency’s formula also went significantly beyond the compromise proposal that the Commission itself had made at the Council meeting in October 1990. On the other hand, the Presidency went some way to meeting the German and Danish demand of a second step of emission reduction in 1995/96. While similar on the date, however, the proposal did not specify the new limit values as the German and Danish delegations had wanted. In sum, it was a real halfway compromise proposal.

The two Presidency proposals met with different reactions from the member states. While the Netherlands, Greece, and, at first, Britain wanted to include all kinds of taxes under the exemption from Article 3 of the Small Car Directive, France was vigorously opposed to the new clause. The other countries, including Germany, supported the Presidency. Indeed, for France, the Presidency’s proposal and the general direction of related discussions was totally against what this country had made a prime concern for negotiations in the first place, i.e. the further restriction of national tax incentives. Its minister warned that the provisions proposed impinged on the internal market. To the Bonn government, by contrast, the Presidency’s formula covered its current plans to revise annual circulation taxes. As Greece and the Netherlands pressed their demand for a wider exemption from Article 3, the Presidency came to the French minister’s help by stressing its proposal to exclude purchase taxes from the new clause. Britain then changed its position and followed the Presidency. Most important, however, was that the new article on the stability of standards was not opposed by any delegation. Only Denmark called for the earlier dates for a revision of the standards originally proposed by Britain and the Netherlands.

A session break allowed for backstage work, and, afterwards, a concretely worded solution had been found. It consisted in what, in the end, became Article 4 of the Consolidated Directive. According to this article, the Commission would make a proposal on a second stage of emission reduction before the end of 1992; the Council would decide before the end of 1993; the new limit values would apply, at the earliest, from January 1996 for type-approval; and they would serve as the reference point for tax incentives after the adoption of the new (1993) directive. This proposal differed from the one presented by the Presidency at the beginning of the meeting only by setting a date for the Council decision. Concerning the tax incentives, Article 3 of the Small Car Directive remained as it was in the Consolidated Directive. However, a statement to Article 3 by the Council and the Commission was
made to the Council minutes. This statement followed the Presidency’s suggestion by saying that Article 3 did not prevent the member states from including emissions into the calculation of motor vehicle circulation taxes. The more far-reaching Greek and Dutch wishes were taken into account in separate statements by the Commission to the Council minutes on how the Commission would go about in evaluating the tax incentives to be given under Article 3 in these two countries. The statement on the Dutch case, in reality, meant that the common Commission/Council statement on tax incentives did not apply to the Netherlands, that is did not prevent the Netherlands from putting into place incentives in the form of purchase taxes. In sum, with a minor modification, the Presidency had succeeded in rallying the Council behind its compromise suggestion.

Although the Netherlands criticized that the new compromise provided no reference-standards for tax incentives during the year 1993, and Denmark wanted the second stage of emission reduction from January 1996 to immediately apply also to all new cars, instead of only to type-approvals, there were no serious objections to the formula found during the session break. Taking advantage of this situation, and before any delegation might change its mind, the President asked whether any country was opposed to the compromise established. Noting that none was, he declared a common position adopted by unanimity. The negotiations had thus been successfully concluded. Indeed, with a minor exception, it was the directive in the form of this common position which was finally enacted half a year later. The common position was formalized by the Agriculture Council on 4.3.1991 after a written version had been agreed by all member states and the Commission. Subsequently, it was transmitted by the Council to the European Parliament for the second reading.

Somewhat unexpectedly, Denmark, at the end of the discussions at the decisive December 1990 Council, took the occasion to re-align itself with the Community on car exhaust standards by announcing its recognition of the new Consolidated Directive as equivalent to US regulations. Therefore, it would accept cars type-approved to EC requirements. In 1984, Denmark had decided to apply American standards in the form of the "Master Document" of the "Stock-

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331 In a first phase, tax incentives could be given to cars meeting in advance the 1992 standards under the Consolidated Directive. As the second stage of emission reduction would be decided on only in 1993, between the end of 1992 and this new directive there were no reference standards for tax rebates.

332 For the time being, though, the agreement reached was an informal one in the absence of a worked-out written text. Some bickering on technical details as well as contradictions in the common position further delayed the finalization of the text in early 1991.

holm Group." This decision was implemented as from October 1990. The announcement at the December 1990 Council warded off Commission infringement proceedings against Denmark because of this non-compliance with EC law.

In sum, in the light of the list of contentious questions at the beginning, the December 1990 Council meeting went remarkably smoothly. The Presidency, after sounding out the Commission, and, perhaps, some member states, had restricted the discussion by presenting proposals on the stability of norms and fiscal incentives. Since the last Council meeting, these had emerged as the key issues, but ones on which a compromise could be found. Importantly, the ministers accepted this limitation of the scope of discussions. In particular, the group of "green" countries - Germany, the Netherlands, Greece and Denmark - did not repeat its concrete demands concerning limit values. France, by contrast, found itself isolated on fiscal incentives. During the break, final wordings were hammered out behind the scene. Subsequently, these were pushed through by the President. In the end, the common position was a real compromise to which all parties had, more or less voluntarily, contributed. Different delegations had given up on, mainly, more stringent limit values, a clear commitment for a second stage of emission reduction, a longer standstill period, and a more restrictive framework for tax incentives.

g) The European Parliament's second reading

The Council formally transmitted its common position to the European Parliament in March 1991 for the House's second reading. The Parliament subsequently asked for an extension of its three-months delay for deciding on the common position which was agreed to by the Council.

Together with the common position, the Council sent Parliament an explanation of the reasons which had guided its decision. In this document, the Council emphasized the parliamentary amendments

Danmark based its policy on Article 100a(4) EEC which allows member states to apply more stringent standards than those laid down by the Community for, among other things, environmental reasons, and under certain conditions.

The other, more detailed questions related to proposals on limit values introduced by Germany, the Netherlands, Greece and Denmark since the start of negotiations, and which had never been resolved; the proposed clause on future legislation on fuel quality; and the Greek request concerning special provisions for Athens.

Article 189c (g) EEC (earlier Article 149(2)(g) EEC).

Article 189c (b) EEC (earlier Article 149(2)(b) EEC).
which it had taken account of in one way or another. Briefly, these included the lowered particulate limits; the "lambda = 1 requirement"; a provision for a revision of the new standards; commitments for further actions going beyond the scope of the Consolidated Directive, mainly in the form of recitals; the partial maintenance of the US test procedure (Annex III A); the limitation in time of the "Panda cycle" exemption; and the deletion, for the time being, of the accelerated durability test. Albeit these represented substantive modifications of the original directive proposal, they fell short of the House's demands. In addition, none of Parliament's amendments had been adopted as it was. The Commission, of course, had been the important filter for Parliament's amendments. By contrast, on the provision for a second stage of emission reduction and the maintenance of Annex III A, individual member states' requests had coincided with parliamentary demands, and had been taken on board in the common position.

The open question, in the spring of 1991, was to what extent the European Parliament would insist on its amendments from the first reading. In the light of the House's role on the Small Car Directive two years earlier, it could be expected that the assembly might again take a strong position, and even reject the agreement reached in the Council. Indeed, the Environment Committee's rapporteur on the directive, Kurt Vittinghoff, while welcoming the amendments adopted after the first reading, in his initial reaction, voiced dissatisfaction with the common position. To the Commission, the stance that Parliament would take in the second reading was a cause for concern.

Against this background, a new initiative was considered by the Commission was. In a way, this initiative followed the first one on a new framework for tax incentives in November 1990 (see above). It is not clear what the relationship was between both proposals. While the first one, apparently, came from inside DG III, the second attempt, in February/March 1991, originated at the political level in the cabinets. Indeed, the German Commissioner responsible for DG III, Commission Vice-President Martin Bangemann, had become concerned about the revision of emission standards in short intervals which made life difficult for the auto industry. He called for more stability in the regulations.

A somewhat opposed impetus came from Environment Commissioner Carlo Ripa di Meana. It rooted in the observation that contradictions developed between a number of objectives and developments. These included the slowness of the Community's policy-making process; the more rapid progress in technology on the one hand, and the need to take advantage of these to protect the environment on the other; and the apparent difficulty to control national tax incentive schemes under the Community's
present legal arrangements,\textsuperscript{338} and the threat that this posed to the internal market. These tensions, indeed, had not least been in the background of discussions in the Council in the run-up to the common position on the Consolidated Directive. Conclusions, were drawn, albeit vaguely, in a note by Ripa di Meana to his colleagues in February 1991.\textsuperscript{339} This note suggested a new Community framework for tax incentives, with these being based on standards tighter than those set by the directive. Clearly, it was not the stability of standards over time which guided the Commissioner's argument.

It was presumably Ripa di Meana's note that spurred discussions about a "new approach" at the highest Commission level. These, it may be assumed, were initially characterized by the differing concerns voiced by Ripa di Meana and Bangemann. The outcome of the Commission's deliberations was a note by Ripa di Meana in agreement with Bangemann and Commission President Jacques Delors.\textsuperscript{340} It satisfied both the concern for a more ambitious environmental policy, and the industrial need for stable norms. At the same time, it represented an attempt to strengthen the Commission's role. More precisely, the "new approach" foresaw two sets of exhaust limit values. The first set was the mandatory limit values laid down in the directive ("first-step limit values"). The second set were limit values which could be assumed to be attainable in the light of the most advanced technological possibilities ("target limit values"). Both sets would serve as the basis for fiscal incentives within a strict Community framework, to be defined along the lines of the existing Article 3 of the Small Car Directive. Importantly, while the target limit values would be decided on by the Council, the first-step limit values would be set by the Commission. This latter provision, in a way, marked a return to the adaptation-to-technological-progress procedure abandoned with the 1983 car emission directive (see Chapter II). It conferred new powers on the Commission. The new orientation, hence, would have significantly changed the decision mechanisms of EC car emission policy.

The "new approach" was immediately considered by the Commission services with a view to its potential application to the Consolidated Directive. Politically, it was seen as a possibility for the Commission to accommodate the European Parliament's wish for a second stage of emission reduction to be laid down immediately. More precisely, DG III envisaged to keep the limit values set in the common position as the first-step values, and take as the target values for 1996/97 either the limits

\begin{itemize}
\item \textsuperscript{338} i.e. Article 3 of the Small Car and the new Consolidated Directives.
\item \textsuperscript{339} SEC(91) 415, 28.2.1991.
\item \textsuperscript{340} SEC(91) 577/2, 25.3.1991.
\end{itemize}

278
demanded by Parliament, or those proposed by Germany during the negotiations, or the new US'94 standards adapted to the European test cycle. In a meeting with Parliament's rapporteur Vittinghoff, in April 1991, DG III explained the Commission's new concept. While Vittinghoff was favourable, he nonetheless wanted to reintroduce the amendments made to the legislative proposal in the first reading but not retained in the common position. By contrast, in a special session of the Motor Vehicle Emissions Group (MVEG) in May 1991, concern was voiced about the time it would take to agree on new target limit values which are ambitious enough but nevertheless attainable. Priority was given by all government experts to an early enactment of the Consolidated Directive.

The European Parliament's Environment Committee delivered its recommendation on the Council's common position in May 1991. This recommendation included three amendments proposed by the Economic Affairs Committee, and was approved by the Environment Committee with fifteen against four votes. The report, firstly, re-tabled several amendments that the House had made in the first reading, and which had not, or only partially, been taken into account in the common position. These referred, in particular, to the permanent maintenance of the US test option (Annex III A); the deletion of the accelerated 30,000 km durability test for emission reduction equipment; the setting of differentiated \( \text{CO}_2 \) limit values; the extension of the scope of the directive to certain light commercial vehicles; more freedom for member states to give fiscal incentives; the abolition of separate (more lenient) limit values for conformity-of-production testing; as well as generally lower limit values for 1992/93, and their further reduction in 1995/96. Besides, two recitals were proposed again. The Environment Committee insisted that these demands be met by the Commission and the Council. On the other hand, on the quality of fuel and the question of roadworthiness testing, the Committee accepted a less binding formula. While it had originally wanted to include corresponding provisions as articles in the directive, it contented itself with two new recitals. Through this, the Committee recognized that these problems were outside the scope of the directive, and had to be dealt with separately. Finally, the Committee re-introduced some minor formulations and changes. In essence, with its recommendation for the second reading, the Environment Committee proposed to uphold the House's legislative opinion in the first reading.

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341 European Parliament, Session Documents, Doc A3-149/91, 29.5.1991, PE 150.271/fin..

342 The common position had provided for further examination of this issue.

343 The Commission had initially accommodated Parliament's related demand in the first reading by limiting these limit values until the end of 1994. The common position, however, had not followed this line, but, instead, had set a lower conformity-of-production limit value than originally proposed by the Commission for particulates; see COM(89) 662 final - SYN 240, 2.2.1990, Annex I, point 7.1.1.1. (= 0,24 g/km); Council Directive 91/441/EEC of 26.6.1991, OJ No. L 242, 30.8.1991, p. 1, Annex I, point 7.1.1.1. (= 0,18 g/km).
Against this background, it was unclear what would happen if the Commission decided to modify its directive proposal in line with the "new approach." Politically, the situation was tricky. On the one hand, a modified proposal by the Commission in line with the "new approach" might avert a possible rejection of the common position by the European Parliament by accommodating at least one of its key demands. This rejection could only be overruled, and the common position confirmed, by a unanimous vote in the Council. Of course, the common position had, indeed, been approved unanimously in December 1990. It was doubtful, though, that unanimity could be reached again after a "no" by the Parliament. One of the "green" member states might well prefer to follow the House. On the other hand, if the Commission changed its proposal as adopted in the common position, this might give rise to new discussions in the Council. Indeed, there might not be a qualified majority for the new Commission proposal, especially within the three-months period required by the Treaty.\(^{344}\)

In view of its political implications, the cabinets and the Commissioners became directly involved in the decision about the line to take in the run-up to the plenary session of the House in June 1991. There was no question that most parliamentary amendments, as proposed by the Environment Committee, would be rejected by the Commission also in the second reading. In addition, DG III proposed that, if the "new approach" was going to be applied, the US'94 standards adapted to the European test cycle should serve as the new target values. They were immediately available and technically sound.

To prepare a decision by the Commission college, the matter was discussed between the cabinets. The deliberations were determined by both policy-related and tactical reasoning. All cabinets said they agreed with the purpose of applying the "new approach" to the Consolidated Directive both as far as the necessary signal to the Parliament, and as far as industry’s need for regulatory predictability was concerned. However, differences arose on the practical application of the concept. In particular, some cabinets demanded that the target limit values should not be laid down immediately, but at a later stage, and after further examination. The proposal to again link Community legislation to US standards by way of the target values was criticized, as well as the \textit{ad hoc} nature of the new initiative. Concern was voiced that a modification of the Commission’s directive proposal would re-open the negotiations in the Council, and imperil the early adoption of the directive. In order to accomodate the Parliament without resorting to the "new approach", it was suggested to bring forward the Commission’s obligation to propose a second stage of emission reduction by one year to the end of 1991.

\(^{344}\) Article 189c (f) EEC (earlier Article 149(2)(f) EEC).
By contrast, the cabinets Bangemann and Ripa di Meana defended the "new approach", and pointed to the danger of the common position being rejected by the European Parliament. They highlighted the advantages of the "new approach" for industry, and that the target values could be revised at a later stage. At the end of the meeting, four general and three scrutiny reservations were made by different cabinets, including the President's, on the proposal to amend the Commission's draft directive along the lines of the "new approach." The decision was referred to the Commission college.

The Commission dealt with the issue on 5.6.1991. Environment Commissioner Ripa di Meana, supported by Vice-President Bangemann, argued the case for applying the "new approach" in the Consolidated Directive because of its merits, and the need to accommodate the European Parliament. One Commissioner opposed the plan and suggested to advance the deadline for the Commission's proposal on a further emission reduction to the end of 1991. Three others spoke out for Bangemann's argument that it would be strange if the Commission did not apply the "new approach" at the first possible occasion. In the end, the Commission resolved to offer the European Parliament an amendment of its directive proposal in line with its "new approach" to emission control, and to accept those parliamentary amendments which corresponded to this approach. All other amendments, except three minor ones on the directive's recitals, would be rejected.

Unexpectedly, the Commission's concerns proved unfounded in the end, when the Consolidated Directive was dealt with in the European Parliament's part-session in June 1991.45 When it came to the voting on Wednesday afternoon, a lack of attendance cut the ground from under Parliament's feet. Only three minor amendments were adopted with the absolute majority of Parliament's component members, as required by the Treaty.346 Most of the other amendments proposed were voted with a large majority of MEPs present, but not with the majority of the House's component members. Thus, the common position had to be regarded as adopted. In a last attempt to rescue the case, rapporteur Vittinghoff called on Mr Bangemann, who represented the Commission, to nonetheless amend the draft directive in line with its "new approach", and according to the offers made to Vittinghoff by the Commission earlier. Bangemann, however, refused, and explained that amendments not actually voted by the House but incorporated in the Commission's proposal had no chance in the Council. Like in the first reading, the European Democratic Alliance again had requested a roll call vote on a number of amendments, on which the Environment Committee's proposals were


346 Article 189c (c) EEC (earlier Article 149(2)(c) EEC).
rejected by conservatives and liberals mainly from Britain and France, as well as some Spanish and French Socialists and Communists.\textsuperscript{347} They were overruled, though, by a large majority. The national and party lines were less clear than on the roll call votes in the first reading (see above).

In sum, after Parliament’s success on the Small Car Directive two years before, in June 1991, the House’s "green" majority on car emissions failed to exploit a political offer by the Commission and, possibly, change the Consolidated Directive in an important provision. Before, not least to prevent a rejection of the common position in the House, the Commission had adopted a "new approach" to emission control. It remained an episode after Parliament’s vote which underlined the initiative’s political purpose.

h) The enactment of the Consolidated Directive

The day after the European Parliament’s vote on the Consolidated Directive, the Environment Council met on 13/14 June 1991. To take account of one parliamentary amendment, the Commission had slightly modified one of the recitals in its proposal.\textsuperscript{348} Otherwise, the draft directive corresponded to the Council’s common position of December 1990.

Although there remained little actually to negotiate, a discussion developed in the Council nonetheless. The Commission invited the ministers to provisionally adopt the directive in line with the common position and its minor amendment, even though it had not yet formally transmitted the modified draft. The German minister, supported by his Dutch colleague, expressed regret that the Commission had not taken into account more of Parliament’s amendments even if they had not found the necessary majority, and that it had not applied its "new approach." The Commission and the Belgian and French ministers, by contrast, refused to take on board parliamentary amendments not actually voted, insisting on the pertinent legislative procedures. In this context, the Commission recalled its commitment under the common position to make proposals for a further tightening of standards before the end of 1992. Denmark received an assurance by the Commission that it would soon propose legislation on emissions from light-duty vehicles.

\textsuperscript{347} These roll call votes were more numerous than in the first reading and related to the maintenance of Annex III A; the limit values and their reduction in a second stage; CO\textsubscript{2} limit values; and the abolition of separate conformity-of-production standards.

\textsuperscript{348} This modification entered the phrase "taking into account the requirements of environmental compatibility" into the sixteenth recital of the Consolidated Directive.
In the end, the Presidency concluded that the December 1990 common position, modified by a small Parliament/Commission amendment, was unanimously confirmed. It was the Agriculture Council of 26.6.1991 which, without further discussions, formalized this decision. The Consolidated Directive had thus been enacted.

4. Summary and conclusions

The above analysis on the process leading up to the Consolidated Directive provides further insight into European Community regulatory policy-making. First, in a brief account of some of the technical issues involved, the nature of much of Community regulation and the potential for frictions between different departments within the Commission were illustrated. Mainly, however, through a detailed examination especially of the proceedings in the Council, this section sheds light on the mechanisms of intergovernmental decision-making in Community regulation, and on the role of the Commission and the European Parliament.

In the broader context of this thesis, the present section, first of all, confirms the description given by other students of EC politics - quoted in the introductory chapter - on the new style of Community negotiations on regulatory issues since the Single Act. As suggested, for example, by Helen Wallace (1989; 1991), today, the wholesome pressure of the qualified-majority voting rule and a readiness to compromise dominate the behaviour of the national delegations at the Council table. This was clearly visible in the developments recounted above. The question beyond is, naturally, what this means for the outcome of Community policy-making, in particular from a policy entrepreneur’s point of view. Indeed, probably the most striking observation in this section was that despite the largely technical mandate for the Consolidated Directive the well-known lines between Germany (plus Denmark and the Netherlands) on the one side, and Britain, France and Italy on the other re-emerged in the course of the negotiations on the new directive. Although, in the end, unanimity was reached, initially, clearly different interests opposed each other, and the policy entrepreneur Germany tried to use the opportunity to achieve another tightening of standards. In short, the question has to be asked of how an outcome was achieved at last to which all member states could agree, including the policy entrepreneur.
a) The process of Council negotiations

To start with, the close look into the Council proceedings on the Consolidated Directive in this section allows us to better understand the mechanisms of Community negotiations. In short, the negotiation process was shaped by its compartmentalization along the future directive’s individual provisions, the increasing focus on a limited number of key problems while other less important items were being solved, a readiness on the part of the member states to compromise, as well as the pivotal position of the Commission. These features, it is argued here, were contingent on the substance of negotiations and the qualified-majority rule.

Looking first at the substance of the talks, the reader presumably felt choked by the plethora of issues detailed in the account above. The Consolidated Directive was admittedly somewhat special in its wealth of clauses, as it amended EC car emission law on five different points. However, most pieces of technical Community legislation, while regulating one area, do so on various aspects, and are thus a collection of numerous individual specifications. Each may give rise to different demands. At the same time, even though the coherence of any directive, both internally and with other legislation, must be preserved, various solutions are possible to each clause, in response to member states’ requests, and with the Commission’s approval.149

Secondly, the fact that the issues to be tackled in the Consolidated Directive did not affect the core interests of any member state was important. It is true that some of the provisions to be decided were of significant economic importance for the motor industry. Moreover, the pressure by the "green" member states for another strengthening of standards caused a certain politicization of the negotiations, despite their largely technical mandate. Overall, however, the strong divergence of interests concerning new car emission norms in the 1980s did not repeat itself. Differing interests were also balanced by the general interest to arrive at an early enactment of the directive. In short, a multiplicity of clauses raised differing concerns by different delegations in the Council, and some further demands were tabled, but none of those touched on major political stakes. After all, the breakthrough for the catalytic converter had been made already with the 1985 Luxemburg Compromise and the 1989 Small Car Directive.

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149 It should be recalled that the Commission has to accept any change to the draft directive, unless the Council acts unanimously; see Chapter VI.
The substance of the negotiations, in turn, influenced the negotiating process. As shown above, in an initial phase, the contentious items were identified in the Council working party and the COREPER as delegations voiced their demands. A directive's individual clauses become relevant in the Council only to the extent that they affect the interests of one or more member states. Only these clauses become a matter of discussion. Conversely, not every member state is equally interested in every provision. Indeed, in the proceedings on the Consolidated Directive, Portugal, Luxemburg, Belgium and Ireland hardly participated in the talks at all. From the list of items identified in the Council working party, the more political problems were set apart for discussion by the ministers themselves. In the meantime, some of the technical problems were solved at the level of officials, on an item-by-item basis. Only towards the end, at the ministerial level, three issues - the stringency of standards, their stability and fiscal incentives - remained, and were tied together in a final compromise. A number of demands by member states were tacitly dropped as they did not receive enough support. Thus, the Council proceeded by eliminating most of the contentious items at lower working levels, and leaving only a limited number for ministerial decision.

Importantly, no linkage between the Consolidated Directive and other negotiations in the Council was made. What is more, little overt trading of claims happened even within the negotiations on the Consolidated Directive between different provisions. In most cases, the agreements actually reached tackle individual problems separately. It is true that, behind the scenes, alliances may be formed between different governments based on the mutual support for their respective requests. Reportedly, such coordination between member states does occur. Moreover, of course, in the end, the overall evaluation by each government of the negotiation outcome must be based on the sum of the outcomes on the various details. Nonetheless, a continuous log-rolling mode of bargaining involving the trading between different issues does not emerge from the analysis above.

In a nutshell, the Council process as it comes out from this case study is characterized by its compartmentalized nature where the different provisions are dealt with in (relative) separation from each other; by a gradual narrowing-down of the substance of the talks to the most difficult questions; and by the flexibility of the delegations to give in on individual issues of less importance in the course of the proceedings. This picture contrasts with the description of permanent blockages, log-rolling and political drama associated with Community negotiations in much of the literature (see Chapter I). The

380 On one occasion, France said it would drop its request for stricter conditions imposed on national tax incentives if the directive included a provision on CO2 emissions. On another, Greece signalled its readiness to compromise on its demand for an exemption for Athens, if it was allowed to give higher tax rebates. This, in the end, was the solution adopted on the Greek demand.
daily practice of Council work is smoother than such labels suggest.

A key ingredient to the new style of Council negotiations made possible by the increased flexibility of member states, of course, is the system of qualified-majority voting. Indeed, as Helen Wallace (1989; 1991) has argued, more than the actual use of a vote, the effect of the possibility of a vote on the behaviour of delegations is important. Her observation that, under this system, satisficing rather than optimizing strategies prevail is to the point. The qualified-majority system makes each delegation more willing to accept a second-best outcome instead of an (unlikely) first-best solution. The analysis of the negotiations on the Consolidated Directive yields a number of examples of situations in which member states were forced to compromise as they could not invoke their veto.

Schematically, member states can find themselves in one of three situations in terms of Council arithmetics when voicing a demand for a change in the Commission's directive proposal. First, a member state may be isolated or with insufficient support from other delegations for there to exist a blocking minority. This delegation then has to rely on the Commission to take account of its concern in the directive proposal, and will be pressed to suggest a palatable solution to save its case. Otherwise, its request will simply go under. Often, however, the final solution will only partly accommodate the member state's original demand.

Consider, for example, the fate of Britain's request - motivated by the structure of its motor industry with its small producers of specialized cars, besides the big manufacturers - to allow for exemptions from Community standards for prototype vehicles and vehicles built in small series. This demand was backed up by the UK delegation with a concretely worded proposal. In the Council, though, it did not meet with support from other member states. By contrast, Denmark and Germany were in line with Britain in calling for the retention of the possibility for type-approval to US requirements ("Annex III A"), while France wanted a repealing of Annex III A as soon as possible. The Commission initially rejected any departure from total harmonisation. In the end, however, the Commission conceded the retention of Annex III A for small-series vehicles. For the UK, this was a partial success in that small-series vehicles now did not have to be type-approved both to EC regulations and, for export to the US, to American standards; rather, type-approval to American standards would be recognized in Europe. On the other hand, concerning the option for laxer standards (e.g. for prototype vehicles or oldtimers, or for exports to low-standard countries), Britain had to content itself with a statement to the Council minutes foreseeing a solution in the future.
Secondly, beyond being isolated, a member state may face resistance to its request from other delegations. In the negotiations described above, this happened to France with its solitary call for a tighter restriction on national tax incentives. The French Government lost out, and even had to accept a certain weakening of the Community framework for tax incentives by statements to the Council minutes. At least, it warded off some far-reaching changes demanded by Germany, Britain, the Netherlands and Greece. If a member state can rally support for its demand from other delegations, there is a chance that the Commission strikes a balance between the opposed camps in the Council, and at least partly takes on board the member state’s request by changing its proposal. Generally, when there are opposed demands from different member states, the Presidency is called on as a broker, and the Commission as the master of its proposal is again in a pivotal position.

Only where a member state is part of a blocking minority (or more) in the Council can it expect to be accommodated in the final result. Its prospects rise when there are no opposed interest by other member states, and when the blocking minority can credibly threaten to vote against the directive. In the interest of having the directive adopted, the Commission is then likely to adapt its proposal. When the Council is divided, the challenge is to devise a compromise which, without necessarily satisfying all member states, wins the support of a sufficient number of them. The key to a breakthrough is to rally one or more of the opposed delegations behind a modified Commission proposal without alienating other governments.

In the Consolidated Directive, a situation of this type was behind the main final compromise. Indeed, a potential blocking minority of the "green" member states (Germany, Denmark, the Netherlands and Greece) wanted higher standards in the directive itself and/or an early second step of emission reduction. Some other countries were clearly opposed. At the same time, the Netherlands’ main concern were new reference standards for national tax incentives while Greece was preoccupied with the special air quality problems of Athens. In addition, all member states had expressed their wish for a rapid enactment of the new directive. In sum, the blocking minority was not an unmovable one. The solution consisted in a provision for an earlier revision of the new standards than originally foreseen by the Commission as well as in statements to the Council minutes to satisfy the Netherlands and Greece. In essence, the blocking minority was thus partly split, partly accommodated within an overall compromise. Even though a blocking minority existed, hence, due to the varying basic interests of its members and the overall commitment to a solution it could be dissolved.
The discussion above is certainly schematical. Each situation has its own patterns in terms of the importance of the issue at stake, its relation to other elements in the discussions, the exact alignments between the member states, etc. Nonetheless, the analysis shows the ramifications of the qualified-majority rule for the member states. Indeed, with many of its concerns, a member state will be in a minority position and unable to impose its will. This constellation leads each delegation to consider compromises from the outset rather than being intransigent with a veto possibility in hand. In sum, the qualified-majority rule inexorably pushes the delegations to a flexible and constructive line (Schmitt von Sydow 1988: 98).

Finally, the strong position of the Commission must be noted, based on the Treaty requirement for the Commission to approve all modifications of its draft directive, unless supported by all member states (see also Chapter VI). In many instances, in fact, the Commission is the judge over member states' demands. It makes its decisions in the light of its own policy goals and of the objective to have the directive adopted. While the Commission may not be willing to cede on the tenets of its proposal, it is usually open to changes to adapt it to the course of Council negotiations and to Parliament's wishes. By complying with a member state's request without disaffecting others, the Commission can promote the progress of negotiations.

In the negotiations on the Consolidated Directive, in any case, the objective of arriving at an agreement on the directive overrode other Commission concerns in only few instances. The most significant one was the Commission's acceptance of an earlier revision of the standards than it had originally foreseen. On the other hand, the Commission warded off the more far-reaching demands by some member states and the European Parliament for tighter standards in the present directive and the fixing of a second stage of emission reduction. The Commission equally agreed to a derogation from total harmonisation for small-series vehicles. At the same time, the change in its proposal to bring forward the rescission of Annex III A and to not extend the provisions of this annex to small cars, while in response to French, Dutch and Spanish requests, concurred with the Commission's general objective of total harmonisation.

In relation to the European Parliament, the Commission accepted a number of more technical amendments which strengthened the directive provisions but did not affect any critical points. One of those, a lower limit value for particulates, had been foreseen as a potential concession even in advance of Parliament's vote. The "new approach" to standard-setting, while originally devised to satisfy Parliament, would have extended the Commission's own powers. On the whole, with the possible
exception of the reduced stability of the new standards, the Commission’s proposal to a quite considerable extent became the basis of the Consolidated Directive.

b) The outcome of Council negotiations

Besides getting the Commission to make a legislative proposal, the Council negotiations are the critical phase from a policy entrepreneur’s perspective. Here, the potential resistances from other countries have to be overcome, and compromises cannot be avoided. How the opposed interests of the policy entrepreneur Germany and its partners were reconciled in the case of the Luxemburg Compromise and of the Small Car Directive was analyzed in Chapter VI. In Chapter VIII, an overall assessment of the conditions for policy entrepreneur’s in Community regulation at all stages of the policy process, including the Council, will be given. The remainder of this section, therefore, is limited to a review of the solutions found to meet different member states’ demands in the negotiations on the Consolidated Directive. Integrated into the provisions of the directive, they reflect the ways in which Community law balances different national interests.

Broadly speaking, for the purpose of this analysis, defensive and positive national demands can be distinguished in relation to a Commission legislative proposal. Both kinds of demands were voiced in the talks on the Consolidated Directive. Defensive proposals were made, firstly, to gain exemptions for industry. Thus, the derogations requested by Italy for direct-injection Diesel engines, and in the form of the "Panda cycle" were motivated by the special needs of Fiat. The special clause on prototypes and small-series cars, pushed by the UK, were inspired by the needs of the British manufacturers of such vehicles. Other defensive proposals were rooted in government policies themselves. They aimed at avoiding total harmonisation and preserving member states’ scope to adopt standards on a national basis (retention of Annex III A, acceptance of equivalent non-EC standards, Athens clause). Adapting new EC regulation to special national interests, and limiting the encroachment of Community policy on national sovereignty are the objectives of defensive demands.

Positive demands, on the other hand, aim at the thrust and priorities of a future directive. In our case, this applied, firstly, to the stringency of standards. A group of "green" member states (in relation to auto emissions), composed of Germany, Denmark, the Netherlands and Greece, requested tighter limit values, more difficult durability test conditions, a clause requiring a constant air/fuel mixture under all operating modes ("lambda = 1 requirement") and further legislation (e.g. on light-duty vehicles).
In a different vein, France wanted a revision of the clause on fiscal incentives to constrain other member states in their efforts to promote "clean cars", at the expense, possibly, of distortions in the internal market. Influencing the general orientation of Community law is the intention of a positive proposal. Incidentally, while a policy entrepreneur usually puts forward positive proposals to shape Community policy, on occasion he will resort to defensive demands if his positive ones do not go through. Scope for tax incentives is the case in point in the history of EC car emission control.

An examination of the outcome of the negotiations on the Consolidated Directive reveals the different kinds of solutions found on contentious questions and in response to special member states' requests. Defensive interests, first, were partly taken care of in derogation clauses. This was the case for the direct-injection Diesel engine which received a temporary derogation from the new standards under the Consolidated Directive.\(^{351}\) Similarly, the "Panda cycle" - pushed by Italy, proposed and re-proposed in a more limited version by the Commission, and called into question by Germany - is, in fact, an exemption clause.\(^{352}\) A third derogation, requested by the UK, benefitted small-car constructors. In deviation from the principle of total harmonisation, they were allowed to have their cars type-approved to US standards.\(^{353}\) Generally speaking, derogations are based on the acceptance by member states and the Commission that one or more member states have special interests on a specific issue which justify an exemption. Normally, these are on minor points, and often they are limited in time. At the expense of the wholeness of Community law, derogations facilitate its enactment. Under qualified-majority rule, when a single member state cannot block a directive's passage, an exemption granted to one member state is based on the flexibility of its partners and the Commission, and on the unspoken knowledge of each government that it may have to rely on a similar concession at another occasion.

Secondly, statements to the Council minutes are used to accommodate both defensive and positive member states' demands. While, in some cases, they complement the act in question with elements of an overall compromise going beyond the scope of the act as such, in others they qualify the directive's provisions. By doing so, they ease a final approval by the member states. In the present


\(^{352}\) Council Directive 91/441/EEC of 26.6.1991, OJ No. L 242, 30.8.1991, p. 1, Annex III, point 2.3.1.. As a compromise, on the other hand, Italy accepted the temporary character of the "Panda cycle", and its further limitation as to the category of cars to which it applied. This only underscored the nature of the clause as a derogation.

case, a handful of statements were made to the Council minutes. Those which added to the overall compromise included a commitment for the Council to legislate on in-service emission testing, qualified by a Danish, German and British statement as to the legal implications; a Commission commitment to make proposals on emissions from light-duty vehicles, in response to German, Danish and Dutch requests; and, to allay British concerns, an agreement to deal with prototypes and vehicles constructed in small series within the future directive on a common EEC type-approval. Of a different nature was the statement by the Commission on future Dutch tax incentives, which allowed that country to introduce environmental incentives in the form of purchase taxes.

Most of the cited statements to the Council minutes, in fact, reflect a third type of solution, i.e. the postponement of decisions to further legislation, or the reference of a problem back to the experts. The latter was done, for the Consolidated Directive, concerning durability testing. It will be recalled that the Commission had proposed two alternative test procedures to check the durability of emission control equipment. In response to the European Parliament’s opinion, however, it had deleted the accelerated 30,000 km test from its draft directive. This had met with opposition in the Council. Finally, the solution consisted in Article 6 of the new directive which provided for the Commission to decide on the validity of the accelerated cycle after more technical work. The possibility to postpone the solution of a problem to a later stage by making a corresponding commitment part of the present decision is an important way out in a system of ongoing regulation. As will be highlighted below, it was a cornerstone in the final compromise on the Consolidated Directive. Indeed, the reference to future legislation has been a feature of EC car emission control policy for some time, including specific commitments, such as on dates, or even a rough indication of future standards themselves. The on-going nature of the Community’s regulatory process, in which the accommodation of demands can be postponed into the future is thus helpful for the attainment of compromises at present.

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A fourth category of solutions, of course, are the real compromises. An example was the result on the Annex III A which provided for the possibility of cars being type-approved to US standards. Originally, the Commission had proposed the rescission of this Annex after a transitional period until June 1994 for type-approval, and until December 1995 for new registrations.\textsuperscript{358} Before, however, Annex III A would extend also to small cars below 1.4 litres, which had not been the case so far. By contrast, France, supported by the Netherlands and Spain, demanded an immediate repealing of Annex III A. France, in particular, rejected the extension of the provision to small cars.\textsuperscript{359} On the other side, Germany, Britain and Denmark initially wanted to maintain the Annex. Whilst Germany did not pursue this point, Britain later proposed a more limited formula.\textsuperscript{360} Only Denmark, and, indeed, the European Parliament,\textsuperscript{361} in the end, called for a general option for type-approval to US standards. Against this background, the Commission found itself between the French on the one hand, and the Danish and Parliament’s demands on the other, with two other countries supporting France, and the remaining ones being neutral. The Commission solved the situation by partly meeting the French wishes. It agreed to a shorter transition period, and dropped the clause extending Annex III A to small cars. The corresponding clause was enacted by the Council.\textsuperscript{362}

A compromise of sorts was the solution to the German and the European Parliament’s request to introduce a clause requiring a constant air/fuel mixture under all operating modes ("\(\text{lambda} = 1\) requirement").\textsuperscript{363} In response to Parliament’s demand, the Commission had amended its proposal.\textsuperscript{364} The new clause was agreed to in the Council.\textsuperscript{365} \textit{Prima facie}, this sequence looks like the Parliament successfully using its powers. In reality, however, the new provision in the

\textsuperscript{358} COM(89) 662 final - SYN 240, 2.2.1990, Annex I, point 8.2.

\textsuperscript{359} The reason for the French attitude may have been that an application of Annex III A to small cars might have facilitated the import of small Japanese cars, produced and/or sold in the United States, to the Common Market.

\textsuperscript{360} Essentially, Britain limited its request to the case of vehicles built in small series; see above.

\textsuperscript{361} see amendment no. 12; OJ No. C 260, 15.10.1990, p. 96.


\textsuperscript{363} see amendment no. 15; OJ No. C 260, 15.10.1990, p. 97.


directive is vaguely formulated, and variations in the air/fuel mixture (and a consequent reduction in
the effectiveness of the catalytic converter) are allowed under certain conditions. Thus, while the clause
does represent an additional requirement for engine design, it is not as stringent as wanted by the
House and Germany.\textsuperscript{366} The example of the "\(\lambda = 1\) requirement" shows that there are bad
compromises as well. This is the case when problems are fudged, technically unsound provisions made
or the burden is shifted to third parties not represented at the table.

The central compromise, however, which allowed for the passage of the Consolidated Directive, dealt
with the three questions of limit values, the stability of standards and fiscal incentives. These issues
had been at the core of the Luxemburg Compromise and the Small Car Directive as well. In fact, they
did not correspond to the original, essentially technical mandate of the Consolidated Directive but
reflected its unexpected politicization. The demand for tighter limit values in various forms had been
introduced by the "green" member states right from the beginning of the negotiations, and then
continued to be on the agenda. The stability of standards became an issue when the
European Parliament, in its first reading, proposed a clause on the Commission to, every two years,
amend the standards in line with technical progress. For the first such review, the House itself
specified the set of new (second-stage) limit values.\textsuperscript{367} The Commission, by contrast, had provided
for a five-year standstill period in its original proposal.\textsuperscript{368} Thirdly, the fiscal incentives were brought
on the table originally by France, with the demand for a tightening of corresponding Community
provisions. Later, they were discussed in a rather different vein, with Germany, Britain, the
Netherlands and Greece calling for a less restrictive Community framework. At the same time, as
already in the Luxemburg Compromise, fiscal incentives were a certain alternative to tighter standards.

In the final compromise of the common position, which was later enacted, all sides had to give up on
their demands. France did not succeed in making the Community framework for national tax incentives
more stringent. At least, it largely warded off its loosening. The French concern about \(\text{CO}_2\) emissions,

\textsuperscript{366} In the inter-service consultations within the Commission, before the amendment of the Commission
proposal after Parliament's opinion, DG XI's services had supported a more stringent formulation. The German
Federal Ministry of the Environment later tried to persuade the German car manufacturers into a more precise
voluntary commitment on "\(\lambda = 1\)" , but failed.

\textsuperscript{367} see amendments nos. 21 and 29; OJ No. C 260, 15.10.1990, pp. 95, 99.

\textsuperscript{368} The original directive proposal had not contained any revision clause. However, the explanatory
memorandum had mentioned the need "to give the proposed European standards a validity of at least 5 years
in order to assure the stability of the legal framework which industry needs to carry out the necessary technical
and economic efforts in satisfactory conditions." see COM(89) 662 final - SYN 240, 2.2.1990, explanatory
memorandum, p. 9.
shared by the European Parliament, by contrast, was at least partly reflected in the directive. The "green" member states had to accept that none of their proposals for lower limit values was retained. While the Commission, in its "new approach", had offered to specify limit values for a second stage of emission reduction immediately, the European Parliament had let the Commission down on this point in the second reading. Thus, the "green" member states had to content themselves with a general provision that the Council would decide on a further revision of standards, to be applied from 1996, two-and-a-half years later. Essentially, they were referred back to tax incentives as a national solution to emission control. It is true that the "green" member states together could have blocked the directive over the issue of limit values. However, the need to pass the directive in view of the imminent application of its standards was, arguably, an important motive for them to not press their case any further. Indeed, the real breakthrough in EC emission control, with the mandatory application of catalytic converters had been achieved, and any further tightening of this or that limit value or other clause would only have represented an incremental step. This would not justify a delaying of the new standards. In addition, the main concern of the Greek Government, relating to air pollution in Athens, had been taken care of by a special clause in the Council minutes which allowed for strong tax incentives in Greece. A corresponding assurance had been given to the Netherlands. In a word, the "green" member states let themselves be satisfied with the general provision of a further step in emission reduction in 1996.

The overall picture that emerges from the analysis in this section is one of problem-solving and compromise. The term "problem-solving" has to be well defined. In this context, it is not meant to imply that the solutions finally laid down in Community legislation are necessarily rational in terms of any objective criteria (e.g. cost-effectiveness), or meet general political objectives (e.g. high standards of environmental protection or consumer safety, the functioning of the internal market). Rather, problem-solving here is the thrashing-out of solutions in one way or another to the satisfaction of (a majority of) the member states and the Commission. Different instruments have been identified of how this is done, including derogation clauses, the postponement of decisions and the reference to further legislation, statements to the Council minutes and actual compromises. The important point is that the problems are done away with, and that the solutions remain within the scope of the directive, as opposed to package deals involving policy decisions in different sectors. In this limited sense, problem-solving characterizes the negotiations on the Consolidated Directive better than the alternative.

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styles of Community negotiations mentioned in Chapter I.

Finally, it is argued here that these conclusions do apply to Community regulatory politics more widely. Generally speaking, a problem-solving style is contingent on three conditions: the absence of acute political pressures, the discipline of the qualified-majority system, and the common understanding by all parties that solutions have to be found. In so far as these conditions indeed are given in most cases of Community regulation today, problem-solving negotiations are common in this area. This sheds a more benign light on intergovernmental Community politics than earlier studies.

B. A new approach: Developments since 1991

As far as exhaust emission standards were concerned, the 1991 Consolidated Directive marked the end of the development initiated by the West German Government eight years before when it decided to introduce the three-way catalytic converter. By aligning the European Community emission standards for all categories of passenger cars with the stringent requirements set for small cars in 1989, it imposed the application of the three-way catalyst also on all medium-size cars some types of which had been able to meet the limit values set in 1985 without this device.

During those years, though, time had not stood still, neither as far as the problems nor as far as the potential for further improvements are concerned. On the environmental side, growth in traffic is eating up part of the emission reductions achieved at the level of the individual vehicle, and serious air pollution problems are likely to persist in some, if not many European cities. Besides the "conventional" air pollutants controlled under present car emission regulations - carbon monoxide (CO), hydrocarbons (HC), nitrogen oxides (NOₓ), particulates (for Diesel engines) and evaporative volatile organic compounds (VOC) -, other exhaust gas elements such as nitrous oxide (N₂O), benzene or formaldehyde have become the focus of attention. In the United States, still in many respects the leader in this field, based on the Clean Air Act Amendments of 1990, additional measures were taken against air pollution from road vehicles. Of course, work on emission control has continued also in Europe in terms of research and technological development. If the three-way catalyst continues to be best available technology, its performance can be increased, and other, complementary measures are available. It was against this background that a further stage of emission reduction was
at the centre of negotiations on the Consolidated Directive, and that this directive provided for another lowering of limit values in 1996 to be decided by the Council before the end of 1993. In this section, therefore, developments since 1991 are treated, albeit in a cursory fashion. They are interesting particularly in that they represent an attempt by the Commission to put itself more firmly at the centre of policy-making on car emission control.

To begin with, it is useful to consider the technological and economic starting position. First, the potential and limits of the three-way catalyst with electronic fuel injection have to be properly understood. Such systems are able to reduce CO, HC and NOx emissions in the order of 80 to 90 per cent as compared to emission levels in the early 1970s. Yet they do not eliminate these exhaust gases completely, and further improvements are possible. This is particularly true when real-life conditions are looked at. Indeed, Community emission limits in the first place apply to measurements taken during the type-approval of a vehicle and for a specific test cycle. The actual emissions of the vehicle on the road, however, are in general different from, and, as has been shown in tests, often considerably higher than those measured on the test bench. From this, two consequences can be drawn. One is to make the test cycle more representative of real-life operations of the vehicle and, relatedly, make emission limits embrace more actual driving conditions. The supplementing under the Consolidated Directive of the European test procedure by an extra-urban part, in addition to the existing urban cycle, was one step in this direction. Even the new test cycle and the associated limit values, however, do not adequately cover the high emissions at a cold start of the car with a rich air/fuel mixture and the catalyst not yet warmed up to be effective. The problem of cold-start emissions and potential technical solutions has become one new area of work.

The second consequence relates to inspection and maintenance of the vehicle. The Consolidated Directive for the first time introduced a durability requirement for the catalytic converter, and Community roadworthiness legislation provides for the regular checking of emissions from in-use cars from 1994 (for cars without a three-way catalytic converter), 1996 (for Diesel cars) and 1997 (for cars with a three-way catalyst) respectively. Nonetheless, a strengthening of inspection and maintenance programmes for in-service vehicles supported by new technical solutions on the vehicle side (especially on-board diagnostics) could substantially ameliorate the "cleanliness" of cars on the road. Finally, and apart from the question of in-service emissions, the emission performance of the


engine and the effectiveness of the three-way catalyst as such can be improved through a refinement of current technology.

A second field of potential emission reduction is fuel quality. Indeed, the emissions of a motor vehicle and the (especially longer-term) effectiveness of catalytic converters do not only depend on vehicle technology but also on the composition and related characteristics of the fuel used. Different Community directives have already set fuel quality standards concerning lead and benzene, but further specifications are thought to be desirable. Better fuels would not least be advantageous as they would allow dealing with special air quality problems on a local basis through local distribution. Moreover, they might offer more rapid solutions than new vehicle technologies which only slowly penetrate the entire car fleet. The potential of a so-called "reformulated" petrol is thus a new focus in emission control. This, of course, means that the oil industry becomes involved and has to bear part of the cost for environmental improvements. In addition, joint research is needed between the auto and the oil industries to match increasingly sophisticated solutions on both the vehicle and the fuel side.

Lastly, the costs of new technical solutions are given higher attention not only by the industries concerned but also by policy-makers. Its cost-effectiveness should be an important criterion for the choice of any measures. As the three-way catalytic converter eliminates the (regulated) air pollutants from exhaust gases in the order of 80 to 90 per cent, any further cuts represent only relatively marginal overall improvements. Thus, the marginal benefits of pollution-control investment on the vehicle side diminishes. This makes the question both of objective air quality needs, and of different technical and non-technical means to achieve betterments more acute. As to the technical means, the new focus on inspection and maintenance and on fuel quality is one upshot of the new situation. Industry, naturally, again raises the issue of what is really necessary in environmental terms, and who should bear the costs.

It is against this background of continuing (and changing) environmental concerns, technical considerations and ensuing policy implications that recent developments in European Community car emission control have to be seen. In a nutshell, since 1991, the Commission has sought to collaborate

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closely, and somewhat at the exclusion of the member states, with the European car and oil industries in what has become known as the Auto-Oil Programme. It is not clear what originally motivated the Commission to embark on this path. However, in November 1991, the Commission wrote to the European associations of the motor and oil companies, ACEA and EUROPIA (European Petroleum Industry Association) respectively, inviting them to start discussions on cost-effective ways to further reduce pollutant emissions from motor vehicles. More precisely, the Commission asked for the industries’ input with a view to the legislative proposal which it had to make, before the end of 1992, on further emission reductions. Arguably, the origin of the letter in the energy directorate-general (DG XVII), with DGs III and XI being associated, reflected the intention to strongly draw on the petroleum industry in emission control efforts through a stronger emphasis on fuel quality.

Both ACEA and EUROPIA responded favourably to the Commission’s call. Importantly, though, while the Commission’s initiative had been inspired in the first place by immediate legislative concerns, the industry proposed to enter into discussions also on a longer-term perspective. In this context, the two associations called on the Commission to clearly define air quality targets. These should be based on an assessment and modelling of air pollution problems. Hence, the industry side challenged the Commission to put future legislative proposals on a scientific basis in terms of environmental needs. In fact, these requests to some extent coincided with new policy orientations in the Commission itself. As discussed above, in the run-up to the European Parliament’s second reading of the Consolidated Directive, the Commission had proposed a "new approach" to car emission control. One rationale of this approach had been to ensure a higher predictability of regulatory developments for industry by identifying future limit values in the longer term. Although the new approach had in the end not been applied to the Consolidated Directive as Parliament had failed to endorse it with a sufficient majority, the concern to spare industry from revisions of regulations in short intervals has remained a key concern of the Commission’s industrial policy department. On the environmental policy side, moreover, the Commission has put a new emphasis on ambient quality standards as the basis of air pollution policy instead of best available technology as the sole policy guideline (see Héritier et al. 1994: 194 - 336). This new departure was reflected in the Commission’s Fifth Environmental Action Programme published in 1992,375 the 1993 proposal for a directive on integrated pollution prevention and control for stationary sources,376 and in the 1994 proposal for


During 1992, discussions between the motor and oil industries and in the Motor Vehicle Emissions Group (MVEG) focused initially on proposals for the 1996/1997 stage of emission reductions foreseen in the Consolidated Directive. The draft directive on these standards was adopted by the Commission in December 1992.\(^{378}\) In particular, the Commission proposed new limit values for CO, HC, NO\(_x\), and particulates for both petrol and Diesel cars applicable to new vehicle types in 1996 and to all new cars in 1997. In a major departure from earlier legislation, the emission standards proposed were different for petrol and Diesel engines in order to exploit the respective potential of both engine types for lower emissions. In addition, the Commission suggested to abolish separate (less stringent) limit values for conformity-of-production testing as demanded by the European Parliament already for the Consolidated Directive. In relation to the long-standing problem of tax incentives, the Commission wanted to tighten the existing rules. Accordingly, while under the old clause as first introduced by the 1989 Small Car Directive and retained by the Consolidated Directive the Commission had to "be informed of any plans to introduce or amend the tax incentives (...) in sufficient time to allow it to submit comments",\(^ {379}\) now the Commission "must give its consent before such incentives are put into effect."\(^ {380}\)

Most importantly in the present context, however, Article 4 of the draft proposal provided for a further measure against air pollution based on an assessment of both strengthened limit values and other action, as well as on an evaluation of costs and benefits. This measure for the year 2000 and beyond was to be proposed by the Commission before the end of June 1994 for adoption by the Council by the end of 1995. It would take into account air quality criteria, further improvements on the vehicle side including new propulsion systems such as electric vehicles, complementary measures regarding fuel quality and inspection and maintenance, as well as the potential of fiscal incentives, traffic management and better urban public transport. In proposing to formulate future car emission legislation in the context of an encompassing strategy to reduce air pollution from road traffic, the Commission drew on what it saw as the outcome of a two-day European Symposium "Auto Emissions 2000" which

\(^{377}\) COM(94) 109 final, 4.7.1994.

\(^{378}\) COM(92) 572 final - SYN 448, 23.12.1992, OJ No. C 56, 26.2.1993, p. 34; see also the explanatory memorandum to this proposal.


it had held in September 1992 (European Commission 1993b). This event had involved the Commission, the European Parliament, experts from member states governments, the United States and independent institutions, the motor and oil industries as well as environmental groups in a series of panel discussions. In fact, the 1992 conference marked the start of the Commission’s new global approach to vehicle emissions.

The Commission’s 1992 directive proposal, including the outline for the new strategy, was adopted by the Council and the European Parliament under the new codecision procedure in March 1994. The new directive follows the Commission’s draft in all points of substance apart from the clause on tax incentives. Here, the member states refused to give the Commission a veto right over their tax incentive schemes. The timetable for decisions for the new measure applicable in the year 2000 was extended by six months to allow for the input of results from the new Auto-Oil Programme.

Work on this programme with a view to measures to be taken in the year 2000 started in the fall of 1992. In initial meetings in a working group between the Commission services and the motor and oil industries, the differences in outlook came to the fore. The Commission, and especially DG XI which took the lead, expressed its interest in rapid progress keeping in mind the legislative proposals to be made in 1994, including a possible framework directive on fuel quality. Work should draw largely on research that had already been carried out in the United States on reformulated gasoline, and complement this research where necessary because of the particular situation in Europe. DG XI also stressed that available data on air quality already justified further emission reductions. By contrast, ACEA and EUROPIA pressed for an in-depth data gathering, testing and research programme which would take at least two years to complete. They pointed to substantial differences between the European and the American situation which made it hard to transfer US results to the Community. The development of scientifically based air quality standards was urged, as well as the monitoring of the effect of the 1996 emission standards on air quality. This clearly did not correspond to the

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383 This is the case, for example, with regard to Diesel engines which are important in Europe but not in the United States.
Commission's timetable. Later it was agreed that the joint efforts to be undertaken would focus on the short and medium term (i.e. measures to be implemented by the year 2000) drawing on work done already, and that results should become available in 1994. The industry stressed its understanding that the Commission would wait for these results before making its proposal for emission limits in the year 2000. While the motor and petroleum industries would jointly study the relationship between fuel quality, vehicle technology and emissions, the Commission would be responsible for air quality issues.

Based on this agreement, the Auto-Oil Programme was launched with a clear schedule and work programme. Three tripartite sub-groups were established by the Commission, ACEA and EUROP1A in early 1993 to deal with individual aspects.3 8 4 Between themselves, the two industries started a joint European Programme on Emissions, Fuels and Engine Technologies (EPEFE) to carry out research and testing to determine the impact of fuel parameter changes on emissions. The Commission, for its part gave studies on air quality modelling and inspection and maintenance. The centrepiece is a study on the cost-effectiveness of different technical (vehicle technology, fuel quality, inspection and maintenance) and non-technical (public transport, fiscal instruments, etc.) measures to solve air quality problems. All activities have been closely linked and coordinated by a joint tripartite working group chaired by the Commission (DG XI).

By way of summary, after the 1994 Directive on new emission standards for 1996/1997 had been prepared in the old way with support from the MVEG, the Auto-Oil Programme marks a new departure by the Commission. On a conceptual level, this approach is characterized by the effort to assess the potential of different measures, including especially fuel quality, for achieving air quality improvements, and to evaluate the different options in terms of their cost-effectiveness. The Commission newly emphasizes ambient quality as a guideline for pollution control. Bringing the motor and oil industries together in the evaluation of technical solutions has become a necessity in view of the nature of the problems to be tackled.

In political terms, the Commission has to some extent marginalized the member states in the preparation of new legislation on car exhausts and fuel quality, as compared to the procedure through the MVEG. It is true that the MVEG continues its work, and is consulted on the Auto-Oil Programme by the Commission. Nevertheless, it is no longer the central forum for the gathering and assessment

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3 8 4 These sub-groups dealt with the collection and evaluation of existing data as a basis for further research, air quality and a future system for guaranteeing fuel quality. In early 1994, another sub-group on cost-effectiveness analysis was created.
of data. Equally, environmental and consumer organizations are not involved. Thus, the Commission has certainly affirmed its position in the Community's regulatory system, at least at the preparatory stage of the process. On the other hand, it has foregone the opportunity to receive technical input from different sides and pre-negotiate its proposals in the MVEG.

Finally, the Auto-Oil Programme has entailed changes within the Commission services. While it has necessitated close cooperation between the different directorates-general (mainly DGs III, XI and XVII), DG XI has seen its position strengthened in the framework of the new arrangement. Although a DG XI bid to be formally recognized as the lead department on motor vehicle emissions was not successful, the environment-DG now coordinates important parts of the Programme. Whether this will change the balance between the different directorates-general concerned in the longer run remains to be seen.

C. The European Parliament: Weak or strong?

In the introduction to Chapter VI, the increase in the powers of the European Parliament through the Single Act and the Maastricht Treaty was underlined as a significant change in the Community's legislative system. The description which follows of Parliament's impact on the Small Car Directive in 1989 gave testimony to its potential political leverage. On other occasions, by contrast, internal failures have riddled the House's performance - including its role in EC car emission policy since 1989. Starting out from this evidence, the present section briefly deals with the capabilities of the European Parliament in daily Community policy-making, and points to sources of weakness in this regard. This discussion ends the empirical part of this thesis.

The central legal clause relevant to this analysis is the quorum for Parliament's second and third readings of draft legislation. This condition was attached to the new powers given to Parliament in the Single Act and the Maastricht Treaty. Accordingly, the House can validly propose amendments to or reject the Council's common position under the cooperation and co-decision procedures only by an absolute majority of its component members. This legal constraint is aggravated by the twofold division of the Strasbourg assembly along both party and national lines. The empirical evidence

gathered for this study draws attention to the fact that the *quorum*, a lack of attendance during voting sessions and the internal divisions of Parliament together can be a serious impediment to the effectiveness of the House in the Community process.

1. The Parliament's role in European Community car emission policy

To start with, consider the case material from the recent history of EC car emission control. At a first glance, Parliament's record in this area is marked by its success on the Small Car Directive (see Chapter VI). At the time, the House, in coordination with the Commission, pushed through a significant tightening of the directive. In the literature, the events in the spring of 1989 have often been cited as indicative of Parliament’s strength (e.g. Judge 1992: 201f; for a general model see Tsebelis 1994). Against the background of subsequent developments, though, a generalization from this example does not seem justified. Failure through national and party divisions and a lack of attendance followed the forcefulness of 1989.

For the Consolidated Directive, first, the story has been told in this chapter above. Briefly, in the first reading in September 1990, nearly all of the proposed amendments for more severe regulations were adopted by the House.\(^{386}\) Of course, in the first reading, no *quorum* had to be met. On some amendments, indeed, national influences emerged. In related roll call votes, mainly British and French conservatives, French liberals and, on one item, some (mainly Spanish and French) Socialists voted against the Environment Committee’s amendment proposals.

In the second reading, in June 1991, similar defections could be observed.\(^{387}\) Again, a large majority outvoted the opponents of the amendments in a number of roll call votes. In view of the *quorum*, however, this time, the majorities did not suffice. In the end, a lack of plenary attendance and the defections together prevented a majority of Parliament’s component members to support the amendments (except for three minor amendments). In fact, the defectors successfully undercut the House. With the exception of one amendment, all the amendments proposed would have gone through with the needed majority had it not been for the negative votes.

\(^{386}\) see OJ No. C 260, 15.10.1990, pp. 49, 77f, 93-102, 117-122.

Importantly, in these votes, national divisions were more important than party group loyalty in a
number of cases. In September 1990, all French MEPs in the Liberal, Democratic and Reformist
Group (LDR) voted against the large majority of their colleagues from other countries on three
amendments. On four occasions, the two Danish members of the European Democratic
Alliance (EDA) did not join the British majority in this group in voting against the amendments.
Similarly, in the second reading some months later, while the French members of the European
People’s Party (EPP) voted against several amendment proposals, most of their colleagues from other
countries voted for. Otherwise, though, in June 1991, the picture was more diffuse than in the first
reading. Overall, party group discipline was not at its highest in the European Parliament’s votes on
the Consolidated Directive. Some clear national patterns emerged.

National influences were noticeable also in the first parliamentary reading of what became the 1994 car
emission directive. The amendments proposed by the Environment Committee and its rapporteur
Vittinghoff essentially aimed at strengthening the standards, laying down a second stage of emission
reduction, providing wider scope for tax incentives and including further measures against air pollution
and CO₂ emissions from road traffic. In the October 1993 part-session, Parliament adopted all of
these amendments in the first reading. Like in the two readings of the Consolidated Directive,
however, mainly French conservatives (from the EDA and the EPP) and liberals (from the LDR) voted
against key amendments in roll call votes.

While on the earlier occasions, defections by individual MEPs and some national influences had
affected the vote, Parliament’s vote on new emission standards in March 1994 was much clearer
along party lines. Indeed, as the Council’s common position had not taken on board the House’s
amendments of the first reading, the Environment Committee had re-tabled most of them for the
second round. In the event, none of the amendments was adopted as the Socialists and the
European People’s Party (EPP) were, unusually, divided. (Thus, the House practically reversed
its vote in the first reading!) Not only were some amendments not supported by the required majority
of Parliament’s component members. Others were even voted down by an EPP and EDA majority. The
pattern was brought out in a number of roll call votes. There (with one exception), the Greens, the
Rainbow Group, some EPP Members and the majority of Socialists voted for the amendments; the

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388 see European Parliament, Session Documents, Doc. A3-0307/93, 18.10.1993, PE 205.994/fin.;

389 European Parliament, Session Documents, Doc A3-0101/94, 22.2.1994, PE 207.650/fin..

390 see OJ No. C 1, 28.3.1994, pp. 40, 84f, 180-186; see also European Report, 12.3.1994.
liberals (LDR) were split; and the conservative wing of the House (EPP, EDA), the neo-fascist European Right (DR) and a sizeable minority of (mainly Spanish) Socialists voted against. In short, with the exception of some Socialists and the liberals, clear left-right party lines cut the assembly. The Council's common position was hence approved as it was, and became law as Directive 94/12/EEC.

To summarize, the evidence presented here shows defections by individual MEPs, voting by national groups of Members as well as party group divisions in recent votes on European car emission directives. The national and party dimensions cross-cut each other. While they are not always entirely sharp, patterns are still apparent. In the case of a left-right alignment, of course, the situation in national parliaments is approached. In these and the other cases, however, internal divisions, together with a lack of attendance weakened the House's capacity to support amendments with the necessary quorum majority. Indeed, since the 1989 Directive, the European Parliament has not succeeded in making itself felt in EC policy on car emissions.

2. Internal divisions, lack of attendance and the quorum requirement: Some thoughts about the structural weakness of the European Parliament

Even though an inquiry into the patterns of four parliamentary votes cannot corroborate any broad explanation of the European Parliament's weight in the Community's legislative process, it can serve to call attention to certain pertinent factors and their possible effects. In a nutshell, following from the evidence above, a weakness of the Parliament resides in the Treaty requirement of a quorum to validly propose amendments to draft legislation, in conjunction with a frequent lack of attendance at decisive votes, and internal divisions along both party and national lines. These special circumstances, it is argued here, make the House vulnerable to lobbying pressures. The national divisions, of course, are another consequence of polycentrism in the Community.

It has been, rightly, claimed that MEPs are often advocates of high standards in EC regulation (Jacobs and Corbett 1990: 185). The Environment Committee, for example, is known for its "zeal, some might say zealotry" (Judge 1992: 209) in its field of concern. It has developed a strong pro-environment stance across party lines. This assessment is certainly borne out in the case of car emission policy. Here, the Committee and its rapporteur, German Socialist MEP Vittinghoff, have consistently proposed

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An analysis of the Committee's voting behaviour between 1984 and 1989 showed a high degree of consensus, party lines being of little weight (Arp 1992: 55f).
amendments to the plenary aimed at tightening the Commission's draft directive and the Council's common positions. As shown above, however, these fell through in the second readings of both the 1991 and the 1994 car emission directives.

What makes Parliament fail on occasions in carrying through amendments proposed by its rapporteurs and committees is sometimes, quite simply, a lack of attendance at voting time. For amendments to be put on the Commission's and Council's agendas in the second reading (both cooperation and co-decision procedures), they have to be supported by 314 of 626 Members. In the aftermath of the Single Act, to be sure, Parliament took measures to ensure that these majorities were reached, and its new leverage could be exploited. In particular, votes on second readings were concentrated on the Wednesday afternoon of each part-session. This should facilitate a high presence of parliamentarians. As a closer look reveals, however, this measure has not altogether been successful. Indeed, for instance, between below 300 and around 360 Members only participated in the roll call votes on the Wednesday afternoons of the first seven part-sessions in 1993, at the time, 260 votes was the quorum. A lack of attendance, in turn, can make a few dozen Members voting against or abstaining enough to topple a proposed amendment - as the second reading on the Consolidated Directive dramatically showed.

Attaining the quorum, moreover, requires cross-party cooperation in the European Parliament. The Strasbourg assembly has traditionally been dominated by two big party groups, with the remainder of Members organized in a number of smaller factions. Since the 1994 elections and the accession of Austria, Finland and Sweden to the European Union, the Socialists have 221 seats followed by the European People's Party with 173. The next biggest group is the Liberal Democratic and Reformist Group with 52 seats. With six further political groups, the division of the European Parliament along party lines is considerable. To gather a majority of component members of 314 out of 626 votes, the coordination between parties is imperative (cf Jacobs and Corbett 1990: 82f). In practice, the Socialists and the European People's Party as the two largest groups in the assembly have regularly tried to define a common position in legislative votes.

At the same time, the party groups in the European Parliament themselves are not that cohesive. In fact, in addition to party lines, the European Parliament is split along national lines which undermine

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392 These numbers are based on the lists for the roll call votes between January and July 1993 in the Official Journal.

party loyalty (see Jacobs and Corbett 1990: 79-82). The national delegations, i.e. usually from the same national party, often form caucuses within the political groups in the House, and have their own officers and staff. They play a role in the distribution of posts and money within the groups. National delegations, naturally, bring with them their own cultural and ideological orientations, and differences in policy traditions, public concerns and political styles. The importance of national groups in the European Parliament is, indeed, recognized by Parliament’s rules of procedure. These call for "an overall fair representation of Member States and political views" in the election of Parliament’s officers.394 De facto, the distribution of posts in the European Parliament apart from the President is a matter of negotiation between the political groups (see ibid.: 86-88, 96-99). Nationality is an additional criterion in that process. Like the EC arena as a whole, also its assembly is shaped by the polycentric nature of the Community.

Importantly, this constellation - the quorum, attendance problems and the national factor - affects the European Parliament’s work in a fundamental way. Especially, its vulnerability to sectoral and national lobbying is increased. After the second reading on the 1994 Directive, the Environment Committee’s chairman Ken Collins bemoaned the pressure of interest groups which had distorted the debate.395 Generally speaking, the lobbying of the European Parliament has grown concurrently with the assembly’s bigger powers since the Single Act (e.g. Bas 1989; Petite 1989: 101f). In the late 1980s, for instance, the Committee of Common Market Automobile Constructors (CCMC) employed a special parliamentary affairs official. The Parliament, for its part, started to think about an internal regulation on lobbying.396 Both national and European associations, big companies and even foreign countries try to influence MEPs.

Unsurprisingly, national lobbies in the first place target their national parliamentarians, which explains diverging national votes overruling party loyalty. In the votes looked at above, the en bloc defections of French and British MEPs are intriguing. Incidentally, also some member states’ governments brief "their" MEPs. The German Government, for instance, sends information notes to German Members of Parliament summarizing the content of legislative proposals, and pointing to problems from its point

394 see European Parliament, Rules of Procedure (June 1994), Rule 13. An equivalent provision applies to the proposal to be submitted by the Conference of Presidents to the assembly for the election of committees; see Rule 137.


396 see Parlement européen (Direction de la presse), "Vers une réglementation du Euro-lobbying" (Cahier spécial N° 4 Rev 2), Septembre 1993.
of view. Corresponding briefings are received by French MEPs. Alain Terrenoire (1994: 92), indeed, charges that the German Members coordinate their positions both within and across political groups on issues important to their country and "often succeed to have texts adopted which correspond largely to what their government and the representatives of the economic interests of their country wish." According to the same view, the Dutch MEPs are "in symbiosis with the big industrial concerns of the Netherlands." (ibid.) In conjunction with the claim that the French Members often neglect the economic interests of their country (ibid.: 93), Terrenoire’s assessment is clearly one-sided. It nonetheless reflects the, at the same time, exaggerated and actual importance of the national dimension in the House.

Where sectoral or national pressures succeed in persuading a group of MEPs from one or more member states to vote against the proposals of the responsible committee and the majority, and attendance is bad, this may defeat parliamentary amendments in second readings. Interest meddling can thus undermine Parliament’s position in the legislative process. Indeed, it is of little relevance whether such lobbying represents national sectorial interests or is a Europe-wide effort targeted at a national group of MEPs or a parliamentary party. The outcome is the same. On the one hand, the hurdle for lobbyists is lowered as already a limited number of Members suffices to impede the House from reaching the quorum. On the other hand, Parliament’s effectiveness is reduced. In addition, a degree of uncertainty is injected into its legislative behaviour due to the unpredictability of individual defections and of the level of attendance at voting times. As long as the valid proposal of an amendment to the Commission and the Council depends on the quorum, and attendance levels remain as they are, the impact of the House will be subject to variation, despite its new formal political powers. Finally, if amendments aiming at a high level of environmental, consumer and workers protection can be easily brought down by targeted industry pressure, Parliament might lose its role in enhancing EC regulation.

The second-reading vote on the 1994 Directive points to a further constraint. In March 1994, a surprising left-right split divided the European Parliament in its opinion on new emission standards, and many amendments proposed by the Environment Committee were outrightly voted down by the House’s conservative wing. In fact, a replacement of the artificial christian-democrat/Socialist voting alliance (see above) by a clearer division along traditional political lines, could be welcome to make the European Parliament more of a "normal" assembly. It would promote policy debate, and might make the House’s proceedings more appealing to the general public. At the same time, it could weaken the Parliament in the Community system, as the attainment of the quorum would be made more
difficult. A cooperative mode within the Strasburg assembly is the *sine qua non* for its political leverage.

In a nutshell, the *quorum* required by the Treaty for amendments in second legislative readings and the assembly’s internal divisions combine to undercut the European Parliament. If Parliament can put pressure on the Commission and the Council only by votes with broad majorities, and these majorities are not easily built, the likeliness of the House making a difference is reduced. This is particularly true when sectoral or national pressures on parliamentary votes are mounting, as would seem to be a corollary to a formally more powerful assembly. While the factors described in this section are not inevitable and relevant in all votes, they are at least a serious possibility weighing on the European Parliament’s performance.
these were again on the Community agenda. Not only by its call for stringent requirements at the political level in the EC but also by its independent policy at home, Germany exercised pressure on the industry and the other member states, and brought about a change in the normal course of events. Even though Denmark blocked the formal enactment of the Luxemburg Compromise with its veto for two years, the three-way catalyst had achieved its breakthrough in the late 1980s.

Also developments after 1985 saw a group of "green" member states - Denmark, Germany, Greece and the Netherlands - pushing for higher standards, while the Commission now was more inclined to propose them as well. Events around the Small Car Directive of 1989 were determined by the reduced opposition against the introduction of catalytic converters on the part of industry and the British, French and Italian governments, pressure from the "environmentalist" member-states, an active brokering role by the Commission as well as successful leverage exercised by the European Parliament under the cooperation procedure. The new directive extended the standards requiring the use of three-way catalytic converters to small cars. This left only the class of medium-size cars without this device.

After the legislative process during the 1980s had not been short of drama, European car emission policy entered a calmer period later on. The Consolidated Directive of 1991 imposed the catalytic converter also on medium-size vehicles and tackled a number of more technical issues. Despite its largely technical mandate, though, Denmark, Germany, Greece and the Netherlands again aimed at another step of emission reduction. While the agreement achieved did not take on board their request, it contained an earlier date for a further lowering of emission limits than had originally been proposed by the Commission. A more far-reaching amendment of its original proposal offered by the Commission to the European Parliament was not enacted when the Parliament failed to muster sufficient support for the amendment when voting in the second reading. The hitherto last revision of standards was decided by the Council in 1994, and largely followed the Commission's draft.

The regulatory process so far had been determined strongly by the member states not only in the Council but also before the Commission proposal through the Motor Vehicle Emissions Group (MVEG). Since 1991, the Commission has assumed a more independent role of its own in policy preparation. With the Auto-Oil Programme, it started cooperation with the European motor and petroleum industries to define regulatory needs and technical possibilities for standards applicable in the year 2000. This exercise largely evolves outside the MVEG and somewhat at the exclusion of the member states. While the results of this programme will be the basis of a future Commission directive
proposal and thus again the subject of a Council (and Parliament) vote under the new co-decision procedure, under the new arrangement, the Commission has clearly moved more to the centre-stage. This is particularly significant in view of the weight of its proposals under the qualified-majority rule.

On the whole, EC car emission policy since 1983 has been characterized by the leading role of one member state (the "policy entrepreneur"), divisions along national lines, and the increased importance of the Community as an independent actor.

2. Multiple actors and arenas: The member states and the European Community

At the latest since the completion of the internal market and the accompanying emergence of a common legislative framework, most notably for product standards, regulation in the European Community and its member states can no longer be looked at separately. What has emerged is a single European regulatory system based on multiple sources of policy inception and expertise and the mutual cross-fertilization of its component parts. In the following, the various dimensions of this system will be discussed. The empirical reference point is the case study above.

a) The member states as agenda-setters

The first major empirical part of this thesis (Chapters III and IV) focused on developments in the member states to explain the domestic bases of European car emission policy. While one country - in this case Germany - took the lead as a policy entrepreneur, the other car-manufacturing member states initially resisted a tightening of standards. Indeed, a better illustration for the importance of the member states in EC policy-making than the story told in this thesis is hard to imagine.

Briefly, Germany acted on the basis of domestic environmental concerns and an initial deal struck, in 1983, with the German auto industry (see Chapter III). A cornerstone of the agreement was that a European solution had to be sought. Thus, the German Government turned to Brussels, and the domestic German agenda imposed itself on the EC agenda. Also after the 1985 Luxemburg Compromise which marked the end of this first phase of entrepreneurial politics, Germany, the Netherlands, Denmark and Greece have been pushing for more stringent regulation (see Chapters VI and VII).
By contrast, Britain, France and Italy responded in a defensive way to the German drive in terms of their own domestic politics (see Chapter IV). Essentially, these were shaped by the relative absence of environmental concerns and the interests of their respective car manufacturers. The car makers were motivated by their technological starting position - and, for some of them, by their work on the lean-burn engine -, the cost implications of any new requirements, and the readiness of their domestic markets to absorb those costs. Over time, their resistance against tight limit values lessened, particularly as the German tax incentives pulled them along.

A cursory reading of these events, especially from a German angle, would probably focus on the EC law-making procedures. It might criticize the delay caused to the realization of the German intention to introduce the catalytic converter by the resistance from other countries. The question of Community decision-making will be addressed below. At this stage, what is intriguing is the obvious contradiction between the above account and the textbook version of agenda-setting in the Community. According to the textbook, it is the Commission's annual legislative programme, in conjunction with the Commission's monopoly to propose legislation, which defines the Community's policy schedule. In the Maastricht Treaty, furthermore, the European Parliament has been given the right to request the Commission to make a proposal.\footnote{new Article 138b EEC.} In car emission policy in the mid-1980s, by contrast, it was a member state which took the lead.

The point here is that the member states' significance for EC regulation starts with their role in agenda-setting. In this regard, the interconnectedness of the Community agenda with the national agendas is a central element of polycentrism. The agenda-setting function of the member states, furthermore, is here to stay. What has to be explained is, first, the link between the national and the supranational agendas. It is forged by the legal context.

More precisely, the legal framework for regulation in the European Union has greatly reduced the scope for member states to act on their own. This is especially so since the major changes effected by the "1992 Programme." Originally, national regulation was substantial. Every year, the authorities, semi-public and private organizations in all member states issued numerous new rules and standards (Pelkmans and Vollebergh 1986: 21). The Commission had to be notified of them under the
Community’s standstill and notification procedure. This was to enable the Commission to propose a harmonised measure, and to prevent new barriers to trade. In practice, though, for example in environmental policy, these notifications came usually too late for the Community to preempt national measures, albeit sometimes they led to a Commission proposal (Rehbinder and Stewart 1985: 259). In the case of car emission standards, of course, the political and economic implications of Germany taking measures unilaterally were simply too big to make this a viable option (see Chapters II and III). Otherwise, the Community worked on the basis of a harmonisation programme laid down to deal with existing market barriers.

Importantly, while it was a factor before the advent of the internal market, we should expect the link between the regulatory dynamics in the member states and at EC level to persist - if not grow stronger. Under the Treaty and the existing body of Community regulation, the possibilities for separate standard-setting activities in the member states have become few as competences now lie with the Community. Where national policy concerns can no longer be met at the member state level under the Treaty and existing EC law, in turn, this concern has to be dealt with in Brussels. At the same time, the completion of the internal market reduces the need for further Community initiatives, at least at the pace associated with the "1992 Programme." The Commission’s attention now focuses more on the consolidation and management of the internal market (European Commission 1994b). In other words, somewhat ironically, the transfer of regulatory competences to the Community after 1992 could mean increased - but certainly not less - demands by the member states on the EC agenda.

While the legal framework ensures that regulatory initiatives from the member states will end up on the Community agenda, at least two reasons suggest that the member states remain crucial as sources of such initiatives. First, inasmuch as policy-making is influenced by public opinion, political campaigning and issue cycles, it is the member states which are the main arenas (e.g. Dehousse et al 1992: 19). Despite the importance of the Community in rule-making in all areas, the nation state is still more relevant for the organization of political life. The framing of issues and electoral politics, which may give rise to regulatory demands, is primarily a matter of political life at the national level. Conversely, the absence of a truly European general public, discourse and identity, due to boundaries created by culture and language, is the major impediment to the European Union moving to a stage of full statehood. As Sbragia (1992) observed, this territorial dimension of its political life

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distinguishes the Union from most familiar models of federalism. It underpins the continuing importance of the national governments in any project for a federal Europe. One aspect is the fact that the member states’ authorities remain the first addressees of political demands.

Secondly, the national governments have not abandoned their own policy ambitions. Even more, they also hold part of the needed technical capabilities to carry them through. Indeed, the national policy networks of specialized government bodies, industry organizations, research institutes, parliamentarians and other experts in a policy area have not disappeared, even if most regulatory powers have been transferred to the Community. However, while these networks originally determined national policy, they are now interconnected into wider European policy networks (Héritier 1993). National or sub-national agencies or administrations in the member states monitor scientific and technological developments, the effectiveness of measures in place and the state of the environment, or safety, or consumer protection. Relatedly, they are the source of new solutions and policy initiatives.

Consider, for illustrative purposes, the case of German environment policy (see also Chapter III). The German Federal Ministry of the Environment is supported, as far as scientific and technical questions are concerned, by the Umweltbundesamt and the Federal Research Institute for Nature Conservation and Landscape Ecology; in addition, it draws on the advice by a Council of Environmental Experts and the Advisory Board for Nature Conservation and Landscape Protection. In 1993, the Umweltbundesamt alone had around 850 staff (of which 436 with an academic training), and gave 61 new research contracts with a total funding of 34.9 mio DM (UBA 1994: 7, 25). In the area of vehicle emission control, today, four of the regional Technische Überwachungsvereine (TÜV) are well-equipped to carry out technical studies. In addition, sixteen Länder each have their own monitoring networks and research activities. In short, the environmental policy community in the Federal Republic each year generates a substantial amount of knowledge, identifies new problems and thinks about solutions. Insofar as it is the Community which is competent to act, German initiatives in Brussels are likely to result.

In a nutshell, the regulators in the member states remain prominent in determining the EC’s agenda. They dispose of the resources in terms of staff and expertise needed to develop initiatives, and are directly exposed to popular concerns. At the same time, the relevant decision-making powers have

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390 The ministry’s responsibility for nuclear energy is not considered here.

401 TÜV Nordrhein-Westfalen, TÜV Rheinland, TÜV Süd-West, TÜV Bayern.
been transferred to Brussels.

While it is, naturally, difficult to measure the extent of the national influence over the Community agenda, different sources concur in underlining its significance. Thus, the French *Conseil d'État* (1993: 20/fn 17) suggests that of the 500 latest Commission proposals (regulations and directives) only 6 per cent were of truly European origin. The remainder originated, directly or indirectly, in the member states or the Council. A Commission official told Héritier *et al.* (1994: 178/fn. 1) that 90 per cent of the proposals discussed on industrial emissions came from the member states. The Commission itself reported that, in 1992, 362 notifications by the national authorities under the Community's standstill and notification rules (see above) induced the Commission to consider making 19 legislative proposals (European Commission 1994b: 54). In sum, the triggering effect of national proposals for EC legislation is considerable. Unsurprisingly, EC lobbyists bemoan the unpredictability of the EC agenda where "national agendas and solutions can quite quickly become Euro-agendas and solutions." (Mazey and Richardson 1993c: 116)

Clearly, in all this, the Commission (and the European Parliament) remains a pivotal actor. While a government or the Council can urge the Commission to make a proposal, there is no way to force the Commission's hand.401 This is true, first, for putting an issue on the Commission's agenda. Although it has been called upon to do so in the 1989 Small Car and the 1991 Consolidated Directives, and repeatedly by individual member states and the Council, for example, the Commission has failed so far to propose a measure to reduce CO₂ emissions from cars. Moreover, putting an issue on the agenda is one thing; the thrust and the details of the Commission's draft directive are another. This is highlighted by Héritier *et al.* (1994) in their study on European Community policy on (mainly) air pollution from industrial sources. In short, two paradigm changes have occurred in the Commission's approach to air pollution control over the last fifteen years. Initially the Commission's emphasis lay on a strategy of ambient air quality, where legislation sets limit values for pollutant concentrations in the atmosphere. Under German pressure, it switched to an emission-based approach oriented on best available technology in the middle of the 1980s (Large Combustion Plant Directive). While this coincided with the philosophy of environmental policy in the Federal Republic (see also Chapter III), it imposed significant adaptation costs on the United Kingdom with its informal style of air pollution control based more on ambient quality targets (see also Chapter IV). More recently, the Commission returned to its earlier air quality approach (assorted by a new emphasis on the information of the

401 Article 175 EEC provides for legal action against the Commission only if it fails to act "in infringement of this Treaty."
public) as the guideline for its proposals - much to the dislike of Germany. In sum, while both Germany and Britain have a strong interest in air pollution control, at different points in time, they strongly disagreed with the content of the Commission's related proposals. In this context, Héritier et al. (1994) point to the "regulatory competition" between different member states to influence Community policy.

The importance of the Commission notwithstanding, EC policy studies which neglect the member states in agenda-setting to focus exclusively on the Commission as a generator of policy initiatives would fail to capture the full picture. This is true, first, for a legalistic analysis based only on the Treaty and on the Commission's monopoly on proposing legislation. Similarly, an approach based on analyzing the Community with concepts derived from comparative politics should not lose sight of the member state dimension (e.g. Peters 1994).

Returning to the case of car emissions, in fact, the progress of European policy could not be adequately explained without the reference to German pressure. It is true that the European Parliament had an impact in 1989 on the Small Car Directive. In addition, an incremental tightening of requirements on vehicle emissions along the lines of earlier regulation would probably have taken place also without a German entrepreneurial role. However, the major difference between the state of EC car emission control in 1983 and ten years later could not be accounted for without due consideration of German policy. More specifically, the Commission cannot be credited for having played a leading part in proposing rapid progress towards the introduction of catalytic converters for most of the 1980s. Rather, it tended to steer a middle course between the opposed demands of different member states. Only in recent years has it been more in the driving seat. In essence, at least initially, the history of European car emission policy was written by the member states and not the Community institutions.

Today, EC law has profoundly penetrated national legal systems. The French Conseil d'État has calculated that one out of six legal provisions to be obeyed by a Frenchman were of Community origin; in 1991, more than one out of two new pieces of legislation added to the French statute books were determined directly or indirectly by EC law (Conseil d'État 1993: 16f). On the other hand, the member states play a primary role in determining the EC's legislative agenda. The point is that while there is now a single Community regulatory system, this system is not centralized but polycentric. The national arena remains crucial for the emergence of new policy concerns and for the regulatory debate; national policy networks continue to operate.
The member states as independent actors

Although their membership in the European Union reduces the Community countries' scope for national regulation, it does not bind their hands totally. Independent policies in the member states and other policy-relevant developments can have an impact on Community regulation outside the formal political channels. While these influences are difficult to pin down, they are nevertheless a potentially weighty further aspect of the role of the member states in the EC system.

In this respect, the case of the German tax incentives for "clean cars" is suggestive (see Chapter III). They are a showcase example for how independent policies on a member state basis can affect the EC policy process. Indeed, they were at least equally important as German pressure through formal channels at the EC level and bilaterally with other governments. After 1985, the German tax scheme forced all car manufacturers interested in the market across the Rhine to adapt to higher emission standards to maintain their sales. Due to the size of this market, this was a strong pull factor for the entire European motor industry. In turn, it lessened its resistance to the mandatory enforcement of severe standards for all cars when they were on the agenda for the Small Car Directive in 1989. Without the German tax incentives, the history of EC car emission policy would most certainly have been different.

Were the German tax incentives an idiosyncratic occurrence, or can the influence of independent member state policies on European regulation be assumed to be a more general factor? In principle, the assumption that policies in one country radiate to another is plausible against the background of "informal integration." It "consists of those intense patterns of interaction which develop without the impetus of deliberate political decisions, following the dynamics of markets, technology, communications networks, and social change." (W. Wallace 1990: 9)

Informal integration, of course, is facilitated by formal integration involving changes in formal rules, i.e. the achievement of the "four freedoms" (free movement of persons, of goods, of services and of capital) of the Treaty, and, more generally, the development towards a unified Europe.

There are different transmission channels for influences besides the formal Community procedures, yet with a potential impact on EC policy development. The fiscal incentives by Germany worked through the market. By changing the buyers' calculus in a substantial segment of the EC car market, they changed the business environment of the European industry and facilitated product innovation. This, in turn, affected the response by the industry and governments to (proposed) new standards.
Generally speaking, the idea that market forces impact on the political and legal framework is not novel. Analyses of deregulation policies in the telecommunications sector, for instance, have regularly identified technological innovations as a major factor (e.g. Blankart and Knieps 1989). The need to regulate the motor vehicle at a regional or even global scale has been explained in Chapter II. On a macro-level, that "negative integration", i.e. the abolition of obstacles to free trade, requires the establishment of a common policy framework ("positive integration") to reap the full benefits of this process has been a tenet in writings on European integration (see e.g. Pinder 1968; Majone 1989; Molle 1990: 27-29). By contrast, how the integration of markets and transnational economic activities might be a major channel through which developments in one country affect public policy in another has apparently not been explored so far.

The market acts through cross-border economic exchanges. The development of networks of economic agents "as organizational settings for transnational economic activities" (Bressand and Nicolaïdis 1990: 28) further facilitates communication across (former) boundaries. The influences which are thus transmitted may arise from cultural factors, which determine consumer preferences. "Green consumerism" and "green business ethics" are likely to have cross-border effects. Influences may also arise from national public policies - witness the case of the German tax incentives. Other policy instruments are voluntary agreements with industry or consumer information programmes. They remain open to Community member states even under their Treaty obligations but can shape the market outlook. Cultural factors and policy development, of course, are often closely linked. German motorists in the 1980s were moved not only by tax advantages but by (state-supported) environmentalist attitudes as well. Know-how in factory safety design acquired under customer demands or national standards in one country may be transferred to plants elsewhere by the internationally operating engineering company. In sum, the point is that economic relations between different member states can cause adjustments with other (foreign) actors which modify their starting positions in relation to Community policy proposals. A general discussion and further empirical exploration of this phenomenon is not within the scope of this study. The account in this thesis, however, sensitizes us to the possibility that independent policies and market developments in one EC country affect Community policy-making via adaptations induced elsewhere.

A second way in which policies in one country can influence policy in another is through lesson-drawing by decision-makers (see Rose 1993) and the exchange of new ideas. By drawing on experiences in the past or in other places, policy-makers may find solutions to problems which they face here and now.
"A lesson is a detailed cause-and-effect description of a set of actions that government can consider in the light of experience elsewhere, including a prospective evaluation of whether what is done elsewhere could someday become effective here." (ibid.: 27)

In a permeable international policy community, ideas and information are traded between different governments through the exchange of documents, conferences and personal contacts. Individual countries become identified as models in this or the other field from which lessons can be learned.

That lessons and new ideas are passed on cross-nationally is particularly relevant to the area of regulation, and to a closely integrated group of countries like the European Union. Policy ideas and policy deliberation are important when policy is concerned (ideally) with increasing the efficiency of markets and improving societal welfare by the reduction of economic externalities or compensating for information failures (Majone 1993). This is the case with social regulation. How to set up a system to protect consumers from fraudulent business behaviour; or how to control the use of genetically modified organisms - these questions are best answered on the basis of rational argument and scientific evidence. While some of the answers will be contingent on the cultural, legal or institutional circumstances in a country, a look across the fence is certainly helpful. Thus, learning from the forerunners Sweden and the United States was a factor in the worldwide development of data protection rules (e.g. Bennett 1990, quoted in Rose 1993: 8). American anti-trust laws served as a model for German and EC cartel legislation (Majone 1991: 85-89). Canadian environmental regulation, finally, has often emulated the policies of the United States through an either elite-driven or activist-driven process as Canadians observed US developments (see Hoberg 1991). Canadian regulatory science strongly depends on imports from its Southern neighbour.

It would be hard to believe that similar cross-national influences are not at work between the EU countries. Western Europe is covered by dense networks of information and exchange at all levels and in all sectors, so that the barriers to communication are low once the language problem is solved. Despite all their differences, European countries also have substantial commonalities in terms of their economic systems, culture, legal traditions etc.. Interactions are specially close at the EC political level. Wolfgang Wessels (1990: 233) has calculated that, in 1985, over 15,000 government officials participated in Commission expert groups alone. National experiences and new ideas are swapped during or on the margins of such meetings.

Despite the general objective of economic integration and legal harmonisation, incidentally, the Treaty leaves room for individual member states acting as seedbeds for policy change, even at the cost of restrictions to trade. Thus, Article 100a (4) EEC provides for national provisions even after
Community harmonisation on major grounds related to, *inter alia*, the protection of public health, the environment or workplace safety, as long as these provisions are not arbitrary or a disguised trade barrier. Similarly, Article 130t EEC says that more stringent standards can be introduced by member states over and above EC environmental law. The Court of Justice, in a number of landmark rulings (e.g. the "Danish bottle case") in the past has developed the doctrine that environmental protection needs can justify certain national measures even though they constitute barriers to trade (see Koppen 1993: 138-141). Indeed, the ambitious Danish deposit-and-return system challenged in the "Danish bottle case" and the German packaging waste scheme introducing the "green dot" might well be other examples where national action has prodded the Community into new legislation.

In conclusion, the concept of polycentrism highlights the importance of member states not only as defenders of domestic interests but as arenas for policy inception, and as independent actors. These functions are ramifications of the fact that the member states remain loci of politics and government - and arenas for streams of problems, policies and political events (Kingdon 1984). These fifteen arenas and centres of political decision-making, together with the Community institutions, make for the polycentric nature of the European Union. For EC regulatory policy-making, this means that the range of sources from which new initiatives can emerge is larger than in a national setting. In addition, cross-national influences are promoted by informal integration. Overall, this increases the dynamics of EC regulation, and, potentially at least, its capacity to innovate.

c) Member states as policy entrepreneurs at European Community level

In the previous two sections, the question was addressed of why the member states remain prominent in European Community regulation. In this section, we examine how member states pursue their objectives at the EC level and how the differing interests of member states are reconciled in Community agreements. Clearly, the policy formulation and the decision-making stages are critical to policy entrepreneurs. While a policy entrepreneur - at least if it is a member state - may find it easy to put a regulatory issue on the agenda, influencing the Commission’s proposal and obtaining an acceptable result in the Council is another matter.

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402 Incidentally, this provision was put into the Single Act by the European Council itself; see Ehlermann (1987: 389).
Moreover, what is it that makes the EC policy entrepreneur? After all, this concept comes from studies of national policy-making, and has not so far been used to describe the role of governments in a supranational or international setting - see Kingdon's (1984) and Wilson's (1974; 1980) definitions quoted in Chapter I. Thus, the German political process leading to the initiative for more stringent car emission standards in 1983/84 can be nicely explained in terms of Kingdon's model. The Federal Government linked the problem (forest dieback), the policy (the introduction of the catalytic converter) and the political (growing environmentalist sentiments) streams in its country in a window of opportunity (the prospect of unleaded petrol, a conditional accommodation of the government's wishes by part of the industry) (see Chapter III). However, the involvement of the member states in the Community policy process has little to do with the mobilization of public opinion or the "softening-up" (Kingdon 1984) of a policy community to new ideas. The propagation of ideas, to be sure, is important also in European policy networks (see above). When it comes to decisions, though, ideas are largely eclipsed by member states' interests.

In the case especially of social regulation, it is argued here, two levels are of concern to the would-be EC policy entrepreneur. The concurrent action on both levels increases his prospects, and distinguishes the "member state-entrepreneur" from a member state urging its demands. As technical information is a key factor in much of social regulation, and as the Commission's draft directive pre-shapes the outcome of the policy process, first, the active involvement of a member state at the preparatory stage of legislation is important. Second, as the enactment of regulation takes place in the formal legislative process of the Community, a member state must use its political clout to press its cause.

Consider first what has been said about the Commission's Motor Vehicle Emissions Group (MVEG) (see Chapter V). At least until the newer developments under the Auto-Oil Programme, the MVEG was the Commission's main forum for consultation in the preparation of car emission directives, and at the centre of the EC policy network in this area. The MVEG, it was suggested, fulfils two functions. First, it provides the Commission with the necessary technical input for its draft directives. Second, it has the political function of being a pre-negotiation forum at a technical level preceding the formal Council phase. The technical and the political aspects are closely intertwined.

As the Commission takes the results of MVEG work as the basis for its proposals, influencing those is crucial. The strong involvement of Germany and the Netherlands in the MVEG has to be seen against this background. It is true that this case study has measured the input from different sides into the MVEG only in terms of the number of documents presented, and not in terms of their content.
Nonetheless, it would be astonishing if the German and Dutch contributions to the discussions did not emphasize what is possible in technical terms in the field of emission control, and thus corroborate the political call for strict regulations. All the information fed into the MVEG, in turn, enters the Commission's deliberations and may influence the content of its proposals. Generally speaking, in an area where politics is mediated through technical rules, no policy entrepreneur could allow itself to be absent when these rules are first devised. This is especially true when the Commission's proposal incorporating those rules can be changed only with difficulty in the Council. In fact, had it only pressed its case through the formal political channels, Germany would have arguably been less effective in influencing Community policy on car emissions than it proved to be.

At the same time, the fact that, on the one hand, the Commission draws strongly on experts from the member states before presenting its directive proposal, and that, on the other hand, this proposal has a considerable weight in the EC law-making process is an opportunity for smaller member states. Below, the second criterion for successful entrepreneurship in the Community regulatory context is political influence. The importance of technical input to the Commission's drafting of legislation qualifies the significance of sheer political clout. The Netherlands is the prime example. As a smaller country, its political weight in the Council is limited. However, by contributing to the discussions in the MVEG, the Dutch Government could pursue its objective of high environmental standards in another way. More generally, the Netherlands is very active in European and international environmental policy (see OECD 1995: 173-198). It has been said that, at a conceptual level, the Community's fifth environmental action programme was influenced by Dutch environmental policy. By comparison, as they mustered less technical expertise, Denmark and Greece had only a limited influence at the policy formulation stage in the MVEG, although they urged for stringent regulations in the Council.

The observations in this thesis on the participation of national experts in the preparation of directives partly confirm and partly disconfirm Eichener's (1992) account. His description that "[I]n the committees, there is little intergovernmental bargaining, but frequent transnational cooperation" (ibid.: 54) is not borne out in the case of the Motor Vehicle Emissions Group. Although cross-national collaboration between experts in a purely technical spirit does occur, on many major issues the lines between different national delegations (and the motor industry) are apparent. Technocratic copinage, hence, does not transcend political boundaries, as might be assumed under a "domestic politics approach." As Eichener writes, though, the technical advisory committees of the Commission are arenas for policy entrepreneurs. They may be individual officials who even circumvent their own
government (ibid.: 54). In the present case, they were the German (and the Dutch) delegations. What matters is the interest in the subject and the technical resources available at home (ibid.: 51f). In any case, at the policy formulation stage, expertise and involvement count more than political power which opens a chance also for smaller member states to innovate Community policy. Both individual experts and member states may act as policy entrepreneurs.

The second playing field for policy entrepreneurs is the formal political one. It is on this level - with the Commission, in the Council - that the member state pressing its concern is likely to encounter resistance. In a union of countries with different agendas, regulatory systems and economic interests, such as the Community, agreement over new policy is naturally difficult.

This has been the German experience in the field of vehicle emission control (see Chapters VI and VII). In 1984/85, the Bonn government pressed the Commission to propose new stringent standards, and its minister responsible solicited support for the German position in visits to London, Paris and Rome. In the Council, Germany reiterated and specified its calls for strict regulations. With financial support from Bonn, the European Environmental Bureau (EEB) organized a seminar on the challenge of the "clean car" in 1987 (see Chapter V). In the case of the Consolidated Directive, although this directive was of a technical nature, Germany and its allies again presented a full set of political demands. In letters to German Members of the European Parliament, the Federal Government regularly made its views known on the current Commission proposals. In a nutshell, continuing political efforts were deployed by Germany through different channels.

Kingdon (1984) has coined the term "softening-up" to describe a policy entrepreneur's persistent endeavour to change the agenda and promote his policy ideas. In EC regulation, "softening-up" could be used to describe a member state's (or the Commission's) effort to overcome resistance to its proposals by pressure through formal and informal channels at all stages of the regulatory process. In the case of a member state, rather than waiting for a Commission proposal to express its demands, a member state turned policy entrepreneur actively pushes for a Commission proposal, seeks allies and promotes its policy through concrete proposals and technical input. Incidentally, even by violating Community law and provoking a Community response, a member state may carry forward its policy cause. Naturally, the more powerful the member state, the more likely it is that it will impose its will. While the Netherlands was influential both in the Motor Vehicle Emissions Group (MVEG) and in the Council in the field of car emission control, it would arguably not have been able to force the issue on the Community agenda as did Germany in the mid-1980s.
At the same time, the multiple resistances inherent in the decentralized Community system do not allow the policy entrepreneur an early success. Thus, while EC car emission policy between 1983 and 1994 is marked by considerable progress, its speed did not correspond to German expectations. While European Community agenda-setting and policy formulation benefit from the polycentric nature of the EC system - is its decision-making stage, therefore, a major drawback?

Undoubtedly, sweeping changes, in line with a policy entrepreneur’s desires, are unlikely to happen in European Community regulation. Earlier analyses of Community policy-making have emphasized the blockages in the Council and the incremental nature of EC policy-making (see Chapter I). Continuous softening-up is required. On the other hand, progress has been made in the area of car emission control, as reported in this thesis. Moreover, the rule of qualified-majority voting has facilitated decisions in the Council. Importantly, the system should not only be viewed from the perspective of the policy entrepreneur. Also the angle of the other member states should be seen which, after all, will be equally affected by any Community measure. Hence, rather than giving a straightforward answer, it seems more useful to consider the ways in which progress can be achieved especially under the qualified-majority rule.

The analysis of the negotiations on the 1985 Luxemburg Compromise, the 1989 Small Car Directive and the 1991 Consolidated Directive (see Chapters VI and VII) has described both the process of negotiations and their results. The detailed conclusions will not be repeated here. What is important is how the negotiation outcome in some way reconciled the interests of the policy entrepreneur and those of other member states. Broadly speaking, four types of such outcomes can be identified:

1. **National latitude:** In the case of EC car emission regulation, since 1985, the most fundamental way to agreement has been a certain renationalization of policy. It takes the form of the possibility for member states to give tax incentives for "clean cars" within a Community framework. In the Luxemburg Compromise, this clause compensated Germany for its failure (except for large cars) to have the three-way catalytic converter introduced on a mandatory basis within a short delay. In the negotiations on the Consolidated Directive, the question of whether the Community conditions for tax incentives should be tightened or made more flexible was one of the key points in the discussions by the ministers. Again, an agreement on tax incentives paved the way to the adoption of the directive. The provision that tax rebates can be given by the national authorities to promote the introduction into the market of cars which comply with Community requirements in advance has become a cornerstone
of EC car emission law. In essence, this provision allows the member states to phase in EC standards ahead of their legal entry-into-force on a voluntary basis.

Generally speaking, a clause on national measures going beyond Community standards, or bringing forward their application, by means of instruments which do not constitute unnecessary barriers to trade, is an important possibility to facilitate agreements in EC negotiations. It leaves scope for independent action by member states aiming, for instance, at a higher level of protection within the Treaty framework. Besides tax incentives, voluntary agreements are another form of national measures to pursue regulatory objectives on an independent basis.

"From the perspective of effective environmental regulation, these 'escape' devices are not necessarily bad because they often favor innovating states." (Rehbinder and Stewart 1985: 255)

Indeed, they may allow for another seedbed of policy inception.

2. Derogation clauses: Derogation clauses lay down exceptions from general Community rules for certain cases. These clauses may be limited in time. They allow to set a higher standard generally while satisfying special interests of individual member states. Illustrative examples were found in the Consolidated Directive (see Chapter VII).

3. Compromises: Each agreement on a directive represents a compromise in a general sense, including all four of the solutions discussed here. In a more limited meaning of the term, compromises find a middle ground between opposed demands. "Splitting-the-difference" is one example. Yet, compromises can also be innovative, like the differentiation of standards according to car categories under the Luxemburg Compromise. In any case, compromises represent a new situation above the status quo.

4. Commitments to further steps: Of great importance for policy entrepreneurs, finally, are commitments to further measures at a later stage. These commitments ensure an on-going process of regulation. Standards which cannot be achieved in the present directive will be a few years later. In addition, commitments may refer to other legislation outside the immediate realm of the present directive. EC car emission legislation over the past ten years is a history of commitments for further steps.

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Other types of outcomes which facilitate agreement while marking progress could be procedural instead of substantive solutions, and the granting of options between different measures (Rehbinder and Stewart 1985: 255).

From a policy entrepreneur’s point of view, certainly, negotiation outcomes according to these types look disappointing as they do not usually conform to their original ideas. Indeed, in the Netherlands, Germany and the Scandinavian countries, Community environmental policy, for example, tends to be seen as slack, and as preventing more ambitious national efforts (e.g. Fransen 1988; Petersen 1993). On the other hand, the country with the highest standard in any given area should not be seen as the only yardstick for assessing EC regulation. It is true that a policy entrepreneur might be more successful on a national basis without Community constraints. At the same time, from a low-standard member state’s perspective, a new EC law may strengthen or even for the first time introduce regulatory requirements. In the Mediterranean member states, for instance, the development of environmental policies has happened to some extent under the influence of EC legislation (e.g. Liberatore and Lewanski 1990: 39; LaSpina and Sciortino 1993). Therefore, the "non-Europe" option should be considered on a regional Western European level.

In addition, only in-depth sectoral studies can yield clear assessments of the outcome of the EC policy process. In relation to the case of car emission control, Holzinger (1994: 376f), at the end of her detailed analysis leaves open the question whether more might have been achieved outside the Community framework. She mentions the argument that Germany, the Netherlands, Denmark and Greece might have enforced US-equivalent standards three to five years in advance of their real entry-into-force under Community rules. Together with their application in Austria, Sweden and Switzerland, this would have pushed the European motor industry to rapidly introduce the catalytic converter. Even in the other EC countries, the catalyst would have been marketed as a sales argument and to exploit economies of scale. In the end, hypothetically, this could have led to an earlier breakthrough of the catalytic converter in Western Europe than actually brought about by Community policy (ibid.).

That this would have occurred, though, is highly unlikely in particular as far as the early introduction of catalytic converters in other than the four "green" member states is concerned. Catalyst cars are noticeably more expensive than non-catalyst cars (see Chapter IV) and would have been difficult to sell in the absence of regulation or fiscal inducements in any country, unless with extremely strong popular air quality concerns. Economies of scale would only partly have balanced this cost
disadvantage. In fact, the experience in the late 1980s and early 1990s showed that the same car models were offered with and without the catalytic converter in different European markets, instead of in one version only. In sum, without the European Community, best available car emission technology would not have been introduced in Western Europe so early.

It could be objected that the success of EC car emission policy was due to the independent action by (especially) one member state rather than a real common measure. Indeed, the German tax incentives prepared the European motor industry for higher legislated standards, and thus facilitated the political decision-making process. It should no be forgotten, however, that already in the 1985 Luxemburg Compromise exhaust limit values were fixed which required the three-way catalyst at least for all large cars. The agreement also stipulated a further strengthening of the standards for small cars two years later. What would have happened without the incentive-induced "greening" of the market remains speculation. Nevertheless, it is not unreasonable to assume that even by way of negotiations alone the three-way catalyst would have become mandatory also for small and medium-sized cars in the mid-1990s under the political pressure of Germany and other member states and the European Parliament. Moreover, that the actions of individual member states are important is a tenet of the concept of polycentrism.

In another case - Community legislation on health and safety at work -, EC policy has even more clearly led to an upgrading of standards (see Eichener 1992). By adopting a comprehensive approach to workplace safety (including organizational aspects in addition to equipment) and a broader concept of human well-being than traditional requirements,

"the European Community definitely adopted the highest health and safety at work level which is to be found among the 12 Member States. Besides the EFTA Member States, in the EC only Denmark and the Netherlands have introduced similar approaches [before] (...).

It is of particular significance that the EC regulation is on a level higher than that of the large industrialized Member States, including Germany (...)." (ibid.: 6; italics in the original)

When assessing the role of individual EC member states and individual policy cases, furthermore, a differentiated viewpoint should be taken. Rash generalizations must be avoided about "forerunners" and "laggards." Taking EC environmental policy as the example, a divide between some "green" countries (especially Germany, Denmark and the Netherlands, and now also Sweden and Finland) and the others is sometimes suggested (e.g. Hagland 1991; Sbragia 1993: 344f). The present thesis contributes to this (unfortunate) picture. A first caveat is that there are different approaches to protecting the environment. Indeed, although the national styles in pollution control and land-use
planning vary between the United States and Britain, with American policies ostensibly "tougher", there is not necessarily a discrepancy between both countries in the level of environmental quality achieved (Vogel 1986). Similarly, cleavages between Britain and Germany in Community environment policy are partly due to different regulatory philosophies (Héritier et al. 1994). In addition, regional differences in terms of environmental problems, due to such factors as geography, population or nature's carrying capacity must not be forgotten.

What is more, the ranking in the environmental policy performance of different member states is not the same across all sectors. While the Federal Republic is arguably the leader in the stringency of its measures to reduce air pollution,

"without the EC many environmental regulations such as an ambitious directive on drinking water quality would not have been introduced even in Germany." (von Weizsäcker 1990: 51; quoted in Sbragia 1993: 345)

Similarly,

"[M]ost EC environmental directives set standards exceeding those of the Dutch. In seventy-eight EC directives the standards were more specified or restricted than in the corresponding Dutch legislation of that time." (van Maasacker and Arentsen 1990: 76; quoted in Sbragia 1993: 345)

Hence, while there is a certain divide in the Community between more and less advanced countries in terms of environmental regulation, even the more advanced member states have sometimes benefitted from EC policy. Correspondingly, in the Council, the positions are not always clear-cut. While Greece has supported stringent vehicle emission standards because of the special situation in Athens, Germany has consistently refused speed limits on its motorways which would contribute to air pollution and CO₂ emission reduction. Depending on specific environmental concerns, the adaptation costs associated with the proposed directive, economic interests or the strength of one or the other lobby, the member states pursue different objectives at different occasions, and seek an outcome most in line with their conditions (Rehbinder and Stewart 1985: 262f). In many cases, and especially for the countries on the Southern and Western rim of the Community, the outcome of this process implies a strengthening of environmental requirements (Sbragia 1993: 345).

By way of conclusion, the Community process poses multiple hurdles for a policy entrepreneur and usually stretches his staying power, technical resources and ability to compromise. The resistances inherent in opposed national interests, of course, are the reverse of the multiplicity of sources of regulatory change in the shape of different national policy arenas, policy networks and loci of expertise, identified as advantages of polycentrism. Nonetheless, progress is achievable. This is true, in particular, when the situation of all member states under the "non-Europe" option is taken into account. While the policy entrepreneur may not achieve his objective as soon as he might on a national
basis, when he succeeds, his policy applies Community-wide.

d) The European Community institutions

The discussion so far has highlighted the role of the member states in terms of policy initiative and formulation, and in acting at the European Community level. However, the concept of polycentrism does certainly not downplay the importance of the Community institutions. As pointed out in the introductory chapter, it is through the initiatives taken by the Commission (and more indirectly the Court of Justice) that the regulatory landscape in Europe has been fundamentally changed in the run-up to the completion of the internal market. The fact that this development was made possible only on the basis of a broad agreement by the member states (Moravcsik 1991; Cameron 1992) does not reduce the Community's role. Beyond "1992", as before, the Community is likely to play an active driving role in Community regulation. In brief, the Community institutions form part of the polycentric Community system in that they are a political arena and political actors in their own right. In addition, especially the Commission itself benefits from the polycentric structure of the Community which reduces the potential for agency capture.

To start with the second aspect, it is argued here that the multitude of actors involved in Community regulation are a check on the danger of agency capture (see Chapter I). Whether, for example, the European chemical or automobile industries hold sway over EC regulation is, of course, an empirical question. Industry influence in Brussels has been observed for the consumer electronics (Cawson 1992) and the pharmaceutical industries (Greenwood and Ronit 1992). As regards car emission policy, albeit individual motor manufacturers strongly influenced the positions of their respective national governments in the EC policy process (see Chapter IV), the industry in the end could not block new stringent Community standards. More generally, the polycentric design of the Community mitigates the possibility of agency capture as a one-to-one relationship between the regulatory authority and the regulated sector does not exist. Only such a one-to-one correspondence, however, allows the regulator to consider the interests of the regulated sector at the exclusion of the interests of other stakeholders (Bernstein 1955: 92f).

Consider first the European interest group system. As has been suggested in Chapter V, the growth of Euro-lobbying is indicative of the increased political relevance of the Community institutions. Conversely, Euro-groups are an important factor in the emergence of a separate Community arena.
comparable to a domestic political stage. At the same time, national differences between their members - a corollary of the Community's polycentric nature - make the aggregation of interests difficult for such groupings. The empirical evidence on the European motor industry as well as the literature on Euro-groups more generally confirm this judgement (see Chapter V). The European motor lobby is powerful, but it is not necessarily unified, as became apparent through the 1980s. It is true that the foundation of the Association of European Automobile Constructors (ACEA) reflects an effort on the part of the industry to be more effective. Its joint participation in the Auto-Oil Programme could be seen as a fruit of these efforts. On the other hand, the opening of separate company representations in Brussels by the big car makers gives another message. Whether these companies will speak with one voice on a specific issue, hence, will depend on the issue and the related company interests, and thus be an *ad hoc* decision. Be it with technical information which contradicts the data by other companies or with a diverging political demand, a company may choose to break ranks with its competitors. While also business at the national level encounters problems of interest aggregation, these are likely to be compounded at European level by cross-national differences. Only where such differences do not arise or can be overcome, becomes a strong leverage by industry over its European regulators a possibility. In short, the multiple cleavages within interest groups at Community level work against the possibility of agency capture.

On the regulator's side, secondly, the European regulatory authority itself is anything but a unitary actor but composed of independent participants in a formal law-making process. In the Council, the member states are an essential part of the game, and their different policy interests often determine the scene. Capturing the Council as a collective decision-making organ would be difficult. Before the advent of qualified-majority voting, the leverage over one government could at least block a directive. Today, hypothetically, controlling the Council would require the capture of at least a number of member states governments, plus the Commission. Therefore, while the delegations at the Council table can be expected to speak for the interests of their regulated sectors at home, on an EC-wide basis the Council is protected by the multiple interests represented within it.

This polycentric constellation also shields the Commission from agency capture. The Commission's part clearly is pivotal as it alone drafts legislation, and is in a strong position to defend it in the Council, especially under a system of qualified-majority voting. This makes it a target for strong lobbying and, in principle, a candidate for capture. Indeed, individual sectors have "their" department in the Commission, be it the units responsible for motor vehicles, transport equipment or pharmaceuticals within the Directorate-General for Industry (DG III), the directorates for land, sea and
air transport in the Directorate-General for Transport (DG VII), or DG VI for agriculture. Importantly, though, the Commission's interest in the passage of its proposals sensitizes it to the likely response in the Council and the European Parliament. Any too industry-friendly proposal might well draw criticism from the other Community institutions. This concern, in turn, counteracts interest group pressure.

Moreover, the member states are usually involved in the preparation of regulation as well. In the Commission's Motor Vehicle Emissions Group (MVEG), both the auto industry and national experts are represented, and provide technical input. As explained in Chapter I, one reason for agency capture is the advance of industry over its regulators as far as technical expertise is concerned. In principle, this advance persists in EC car emission policy. However, it is qualified by the input from different sides in the MVEG. Therefore, as it writes its proposals, the Commission officials need not rely on the advice of the industry alone. The British experience with the lean-burn engine, by comparison, emphasizes the problem of restricted expert communities (see Chapter V).

The foregoing reasoning is admittedly abstract, and may over-emphasize institutional factors. It is also not meant to downplay the extent and successes of Euro-lobbying (see e.g. Bettinger 1989). Interest group pressure on the Commission, the Parliament or in a national capital can be effective in changing the outcome of the policy process. Again, my argument is that the situation at EC level has to be compared with the situation at national level. Thus, the main features of the clientelism/capture version in Frans van Waarden's (1992) typology of policy networks are a single interest group with a representational monopoly, possibly the involvement of the competent parliamentary committee and informal interactions closed to outside actors. Implicitly, the administrative agency is conceptualized as a unified body. The monopoly of representation

"will make the state agency more dependent on the interest organization, because it does not have the possibility of playing-off interest groups against one another, and it might not have any alternatives for satisfying its needs, for example for information." (ibid.: 43)

By comparison, European interest groups tend to be weakened by national divisions, and the regulatory agency in the case of the Community is not unitary. Furthermore, regulation is decided in a formal process involving the Commission, fifteen member states and the European Parliament. More than in national regulation, this opens up rule-making to checks and balances. In short, the probability of

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404 The Parliament is, of course, not involved when regulation is decided under a committee procedure, for example with the adaptation of a directive to technical progress; see also Chapter II. Its participation in such committees is a major institutional claim by the assembly.
European agency capture is at least reduced by the absence of the one-to-one correspondence between regulators and regulatees normally found in a national context. The polycentric nature of the Community system and the formality of its regulatory process limit the potential leverage of any single interest over policy content.

The position of the Community institutions is influenced by the EC's polycentric character. At the same time, the Community contributes to this set-up. Indeed, the Community institutions themselves are actors and an arena in their own right, independently from the member states. The Community is also special in that it is the locus of decision-taking where the national arenas and networks are interconnected, and their policy concerns are decided on. It is the contribution of the "domestic politics approach" that it draws our attention to political processes in the Community arena, and to the possibility to analyze them with concepts derived from the study of national policy-making (see Chapter I).

Two aspects are of particular relevance in this context. First, the Commission, the European Parliament and the Court of Justice are invested with their own decision-making powers and resources. This provides them with autonomous influence over policy. Secondly, the interactions between the Community institutions, and the world of Euro-groups, think-tanks and journalists around them generate their own dynamics and impacts on the political process. Thus, while above the implications of the variety of national centres for Community policy-making were discussed, in the remainder of this section the focus is on how the Community itself adds to polycentrism.

To start with, the Commission clearly is at the centre of Community policy-making. Its tasks within the Community system can be summarized as being the guardian of the Treaties, the Community's executive arm, and the initiator of Community policies. Generally speaking, by defining strategic goals and new common policies - witness the 1985 White Paper on the completion of the internal market -, by drafting legislation, and by managing technical consultations during the preparation of proposals and their processing by the Council, the Commission's input is indispensable both for day-to-day rule-making and the long-term Community development (cf. Ludlow 1991: 96-104). Without the Commission, the Council and the European Parliament cannot act. Under the Community's legislative procedures, moreover, the Commission's proposals carry substantial weight (see Chapter VI). Unless the member states are unanimous, or when the European Parliament and the Council agree in the final stages of the co-decision procedure, no provision can be passed against the

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405 Article 155 EEC; see also Noël (1988: 13-22).
Commission's will. Conversely, the Commission's draft directive forms the basis for discussions, and to a considerable extent pre-shapes the final act. The Commission's pivotal part was documented in this thesis especially for the 1989 Small Car and the 1991 Consolidated Directives (see Chapters VI and VII).

Due to its special position, whatever the Commission decides will strongly affect the outcome of the Community regulatory process. Its influence starts with its agenda-setting function. Formally, it is embodied in the Commission's annual legislative programme. While each Council Presidency sets its own priorities, without a Commission proposal the Council and Parliament cannot legislate. For example, while both the German and the French presidencies in 1994/95 indicated CO₂ emissions from cars as a priority for the Environment Council, in the absence of a Commission proposal, asking the Commission to speed up its work was all the Council could do. By contrast, with its proposal for a framework directive on air quality, the Commission has launched a revision of existing EC legislation in this field and a new strategy of pollution control - to the liking of Britain and France, and less welcomed by Germany (Héritier et al. 1994: 328-334). Both the timing and the content of directive proposals are determined in the work by the Commission services and the decisions by the College.

Against this background, the politics within the Commission are one explanatory factor for EC regulation. In Chapters V and VI, the potential for internal disagreement between different Commission departments and at the level of Commissioners was pointed out. It was concluded that a relatively high degree of independence of the Commission services from political guidance by the College on some issues coincides with strong political interferences on other occasions. The impact of individual officials on policy formulation appears to be substantial. Although the collegiality principle is its organizational keystone, indeed,

"[T]he Commission retains many characteristics of diffuseness, in which individual Commissioners or directorates general (and other services) can still operate with a significant degree of autonomy (...). The Commission also remains very pluralist in its culture, operating in different styles and with different practices depending on the tasks pursued and established traditions in different sectors of work." (H. Wallace 1991: 28)

In addition, it should come as no surprise that different parts of the Commission represent different political interests as well, besides their specific technical contributions to policy-making. Which department is the lead service, which internal and external resources are drawn on in the preparation of a proposal, and who is the director-general or Commissioner responsible - these questions do matter. In the technology policy field, for example, John Peterson (1991: 285) observed "significant rivalry" between DG XII (Science, Research and Development) and DG XIII (Telecommunications, Information Industries) "which must temper any suggestion that the Commission's view (...) is
Although the Commission will usually involve the member states before making a proposal, furthermore, nothing can force it to do so. Indeed, in the field of vehicle emission control, where the consultation of the member states was firmly established, the Auto-Oil Programme has (at least temporarily) broken with this rule (see Chapter VII). Although only a more detailed analysis of developments since 1991 could shed light on the exact origins of this new departure, the available evidence suggests that this programme in its present form emerged in the interaction between the Commission and the two industries involved. Not only does the Auto-Oil Programme highlight the Commission's latitude as an independent actor. It is also indicative of the potential autonomy of the Community arena as a locus of policy inception and formulation.

In the introductory chapter, finally, the potential function of the Commission as a policy entrepreneur was mentioned. Due to its prominent position in the legislative process, the Commission as policy entrepreneur will find it easier to hurry along its proposals than a member state in a similar role. Eichener (1992: 53-57) suggests a natural propensity of the Commission to act as a policy entrepreneur. On the basis of the evidence presented, this study arrives at more guarded conclusions. To what extent the Commission will make use of its entrepreneurial potential, it is proposed here, depends on idiosyncratic factors. Personalities are obviously important. On the level of "high politics", Commission President Jacques Delors played a powerful role in orchestrating the programme for the completion of the internal market (Grant 1994: 61-76). At a more mundane scale, Environment Commissioner Ripa di Meana was instrumental in engineering the Commission-Parliament coup for tighter standards for small cars in 1989 (see Chapter VI). Generally, though, the responsibility of the Commission's industry directorate-general for car emission policy and the initially weak position of the environment directorate-general were not conducive to a policy-entrepreneurial move by the Commission in this area. Again, albeit the Commission is well placed to act as a policy entrepreneur, internal Commission politics are crucial. This qualification notwithstanding, the Commission is one, if not the single major actor in the Community regulatory system at all stages of the policy process.

In the wake of the Single Act and the Maastricht Treaty, secondly, the European Parliament can no longer be neglected in an analysis of EC legislation. Under the cooperation and the co-decision procedures, the assembly has become substantially more able to impose its will (see Chapter VI). At the same time, Chapter VII has pointed to examples of parliamentary failure, and the question has been
raised of possible structural factors which might limit the House's effectiveness in the policy process. Indeed, its internal divisions along both party and national lines in conjunction with the high attendance threshold for valid votes in the second reading make the House vulnerable to outside pressures.

Admittedly, the empirical evidence about the effectiveness of the European Parliament is sketchy, and observers' opinions on this subject differ (see Judge et al. 1994, with further references). Generally speaking, though, there can be little doubt "that the EP will be more influential in some policy areas than others and will be more influential even within the same policy area at some times rather than others." (Judge et al. 1994: 31) Environmental, safety and consumer protection standards have certainly met with special interest in the House, in search for a possibility to increase its standing (Jacobs and Corbett 1990: 185; Judge et al. 1994). In particular the Environment Committee has been credited as having exercised some influence on various occasions over Community policy (Judge 1992; Judge and Earnshaw 1994). The case of the Small Car Directive is regularly cited as an example. Moreover, of course, different channels of influence can be distinguished. Besides the formal involvement of Parliament during the legislative process, MEPs may put pressure on the Commission informally and lay out its opinion in own-initiative reports. In turn, it has been reported, the Commission sometimes sounds out Parliament before proposing legislation (Judge 1992: 191-193).

In addition, the possible significance of the European Parliament as a source of policy initiatives should be noted. It is true that the Parliament is not empowered formally to start legislative proceedings, although it has not refrained from calling for new Community action in the past. In the Maastricht Treaty, however, the Parliament has been given the right to request the Commission to submit a legislative proposal. The Commission, for its part, has excluded any automatic response to such a call but said that it would "be a very important political signal which the Commission will undoubtedly take into account." (quoted from Westlake 1994: 96f) Every year, moreover, the debate and vote in the House on the Commission's legislative programme will give Parliament an opportunity to make its views known even if not binding on the other institutions. In sum, despite the persistent limitations on the European Parliament's influence, the House has to be reckoned with as a potentially important actor in the Community process.

406 Article 138b EEC.

407 see also European Parliament, Rules of Procedure (June 1994), Rule 49.
The third potentially important actor among the Community institutions, lastly, is the Court of Justice. Of course, the Court is not a policy actor in the normal sense. It is not directly involved in policy-making. Nonetheless, Court rulings have strongly influenced Community policies especially by extending EC competences, deciding critical policy issues and establishing new basic legal rules. The landmark "Cassis de Dijon" decision in 1979 opened the way to the doctrine of mutual recognition of national technical requirements according to which "[A]ny product lawfully produced and marketed in one Member State must, in principle, be admitted to the market of any other Member State." (European Commission 1980: 2) At the same time, the Court has affirmed the position of environment protection as a Community objective which may overrule other Community objectives, such as free trade (see Koppen 1993). In short, Court judgements have at various points in time significantly shaped the general policy context and led to new policy departures.

Finally, the interactions between the Commission, the European Parliament and the Court, and between them and the policy circles around them generate their own dynamics. Indeed, the "Brussels scene" of interest groups, specialized media, policy institutes, regional representations, law firms, consultants and even the member states' Permanent Representations has gradually become a separate policy arena, in addition to the member states' networks and arenas. European policy networks, albeit looser and more fragmented than their national counterparts, are the context of policy formulation (Héritier 1993).

The relevance of inter-institutional relationships results from the intricacies of the Community's legislative process. It concerns mainly the Commission/Parliament relations. Under the cooperation and the co-decision procedures, there is substantial scope for coordinated actions between the Commission and the House, as the events around the Small Car Directive in the spring of 1989 nicely illustrated (see Chapter VI). As the Commission has a gate-keeping function for parliamentary amendments to draft legislation at certain stages, and as Parliament can, on the other hand, validly reject a new directive, there is a need for collaboration between the two institutions (see Fitzmaurice 1988). As pointed out already, this involves informal contacts at an early stage of legislation and initiatives taken by (individual Members of) Parliament. It may also include strategic connections between individual sectors in the Commission and the House (Judge 1992: 199f). In fact, the Commission may lobby Parliament as the Parliament may prod the Commission. Sessions of parliamentary committees or the plenary are a platform for the Commission to voice its ideas (Ludlow 1991: 116). The relationship between the two institutions is thus one of mutual dependence and

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48 Ludlow (1991: 115) also mentions the importance of the Commission/Council Secretariat tandem especially in legislative programming.
potential alliance at the same time, and impacts on policy output.

The analysis of the Auto-Oil Programme in Chapter VII, furthermore, illustrates the potential for policy being shaped in direct interactions between the Community institutions (here: the Commission) and private actors (here: the European motor and oil industries). The burgeoning literature on Community lobbying (e.g. Mazey and Richardson 1993b) underscores the importance of this phenomenon. The processes observed, though, are not unidirectional, and sometimes quite unexpected. Thus, as Judge and Earnshaw (1994: 268f) write, for example, not only are MEPs badgered by organized interests, but concurrently the policy concerns of MEPs are inserted into the relevant private and public policy circles. The United Kingdom Permanent Representation "uses the press as a means of increasing the pressure on negotiators in London as well as in Brussels" (Spence 1993: 66), and tries to lobby the Commission on its proposals at an early stage (ibid.: 66f). Complex webs between public and private players ranging from *ad hoc* and single personal exchanges to stable policy communities make the "Brussels scene" in many aspects alike a national policy arena.

The one attribute which the Union's *de facto* capital lacks as compared to the capitals of the member states is a European public opinion. Although there are European news media - the most venerable being *Agence Europe* - and a host of specialized bulletins, a fully-fledged public discourse has not emerged (see above). This deficiency is to some degree balanced by the intensive interactions between specialists in sectoral European policy networks (Héritier 1993: 437). Also the European Parliament provides a broader forum for discussions. However, regulation-related public concerns continue to be articulated at the national level, and this situation is likely to persist. The EC institutions form a theatre with few spectators and amateur players. Nevertheless, they are actors and an arena in their own right.

3. **Polycentrism as an analytical concept**

The main conclusions from this thesis are summarized in the concept of polycentrism. A first explanation of this concept was given at the end of Chapter I. The present chapter has highlighted the different dimensions with reference to the case study and some complementary literature. Polycentrism, it is argued, captures a number of features of the European Community regulatory system better than alternative research approaches. More specifically, it avoids the "blind spots" left, each in its way, by the "domestic politics approach" and a liberal intergovernmentalist theory on Community
policy-making (see Chapter I). It does so, in essence, by looking at all stages of the policy process, and stressing the variety of ways in which political influences can work in the EC process.

Turning first to the "domestic politics approach", the quotation marks around the term indicate the loose relations between the contributions under this heading. An academic "school" does not (yet) exist. As explained in Chapter I, the common theme is that EC policy-making is best analyzed with concepts from the study of comparative politics (e.g. Héritier 1993; Mazey and Richardson 1993a; Peters 1992; 1994; Sbragia 1992). Among the keywords are interest groups, bureaucratic politics and policy networks. The focus is on Brussels and not on the member states, and on the stages of agenda-setting and policy formulation instead of negotiations in the Council. The achievement of the "domestic politics approach" is that it goes beyond an explanation of EC policy-making in legalistic terms and opens our perspective to the intricacies of the entire policy process. The usefulness of doing so is underlined in this dissertation.

My point is that although the Brussels stage is at the centre of EC policy-making, we should not forget about national influences. To be sure, no researcher in the "domestic politics" mould would deny the relevance of the member states in the Council. The concept of polycentrism, however, suggests that the potential importance of the member states should be explicitly stressed in all phases of the policy process. Indeed, if one result has clearly come out of this study it is that a member state acted as a policy entrepreneur - through formal political channels, by providing expertise and through independent national actions. It was argued that this, most likely, is not an exceptional event (see above). The persistent importance of national political arenas and actors is a seedbed for political initiatives and influence. Conversely, the member states governments defend domestic interests not only in the Council.

Relatedly, the hypothesis derived from a "domestic politics approach" that functional and professional influences transcend political boundaries in Commission expert committees was not confirmed in the present study (see Chapter V). Instead, national lines have always dominated already the preparatory stage of Community legislation in the field of vehicle emission control. Moreover, they have split the European auto industry, and created divisions in European Parliament votes (see Chapter VII). Hence, it must be concluded, while a separate European Community arena exists, it is affected by member states differences. European policy networks are more heterogeneous than their national models (Héritier 1993: 437).
More generally, the analysis of the Brussels arena with concepts derived from comparative politics will benefit from an explicit recognition of the member states factor even in "domestic" Community politics. The variety of ways in which the member states make themselves felt in EC regulation, even outside the Council, should be fully appreciated. Of course, national influences may or may not come to play depending on the case. Often, however, a focus on European actors and the EC arena alone will not allow to account for the full dynamics of Community agenda-setting and policy formulation. By contrast, the idea that the EC arena is the node which links multiple national actors and arenas is at the heart of the concept of polycentrism. This node, in turn, in itself reflects this multiplicity.

Again, this thesis does not refute a "domestic politics approach" - also because it is more of a research programme than a fully-fledged theory. In a way, its contours may have been overdrawn here for argument's sake. At the least, though, the approach presupposes the existence of a separate "domestic" EC arena. This claim is shared by the concept of polycentrism. The caveat here, however, is that the EC arena is special, and only part of the wider Community system. Pushing too far with a domestic explanation of EC affairs would be a mistake. By explicitly providing for the concurrent importance of the Community and national arenas, and the actors in both of them, and by emphasizing their interlinkage, polycentrism takes better account of the particular reality of EC regulation.

Also with respect to the "liberal intergovernmentalist approach" (Moravcsik 1993) to Community affairs, the concept of polycentrism remedies shortcomings rather than refuting the argument. To be sure, Moravcsik's approach is a refined version of an intergovernmentalist model (see Chapter I). His account of changing national preferences, and of the pooling of sovereignty and the delegation of powers to Community institutions goes beyond a cruder intergovernmentalist theory. In fact, one is led to wonder how much intergovernmentalism is left after the weight of common institutions acknowledged in his article.

The empirical evidence in this thesis, of course, illustrates Moravcsik's (fairly obvious) assumption that state interests in Community negotiations are defined on the basis of domestic societal and political interests and preferences. In addition, the extent to which member states are limited in pursuing their interests in EC negotiations is shown. Resistance of other member states, the strong position of the Commission and the possibility of a vote impinge on national powers. National delegations in the Council are forced to compromise. In sum, the pooling of sovereignty through qualified-majority voting and the delegation of powers to supranational institutions (ibid.: 509) are very real.
The concept of polycentrism is nevertheless in line with the significance assigned to the member states by a liberal intergovernmentalist approach. At the same time, it takes on board a number of features not captured by this theory. First, a full appraisal of the member states in EC affairs should encompass their function as agenda-setters and as contributors of expertise. Indeed, the Council is not the only forum for the representation of interests by the member states. As was argued above, for example, a member state-entrepreneur has to pursue its objectives at different levels, both at the policy-formulation and the decision stage. Especially in regulatory policy-making, capabilities other than sheer political clout are important.

More generally, the variety of official governmental and non-governmental national bridgeheads in the Community arena must be appreciated. Besides working towards the Council, the Permanent Representations may lobby the Commission or the European Parliament. Non-governmental actors, such as interest groups, consultants or law firms may promote national interests or views. Many cleavages within "Euro-groups" follow national lines (see Chapter V). In 1983, the German car manufacturers promised their government to speak up for more stringent emission standards within their European industry association. Indeed, conceiving the governments and their interactions in the Council as the only channel for national pressure is a simplification. Polycentrism, by contrast, emphasizes the different planes of member states influence.

On the other hand, processes arising from informal integration and impacting on the member states are little reflected in an intergovernmentalist approach. It is true that Moravcsik (1993: 483) notes the possibility of the identity and preferences of domestic actors being affected by transnational contacts. These can in turn change a government's position. In reality, the member states can less and less escape from influences due to informal integration, which are, for their part, facilitated by the existence of the Community and enhanced interactions between its members. Hence, beyond restricting national sovereignty (see above), the EC exposes the member states to further cross-border effects. Although mentioning them, the intergovernmentalist approach neglects that processes below the official political level are an integral part of the Community system. As suggested earlier in this chapter, these informal cross-national forces can be an important factor especially in the field of regulation. To summarize, the concept of polycentrism addresses several weak points in the liberal intergovernmentalist approach by looking more closely at all stages of the policy process and taking account more explicitly of the Brussels arena.
The concept of polycentrism is not a new theory of Community affairs. What it provides is a general account of the EC regulatory system. In fact, it offers a framework in which the multiple interactions between the national and the supranational level, as well as between different member states can be suitably analyzed. It opens the perspective on different potential factors which may come to play in the policy process. By contrast, by restricting their focus on the EC arena, respectively the Council stage of the policy process, the "domestic politics approach" and the liberal intergovernmentalist model are in danger of missing out such relevant forces. In this context, of course, polycentrism emphasizes certain facets of the EC system - related to the continuing importance of the member states - which may be borne out more in one case than in another. However, a number of institutional and political reasons have been given which underpin the claim that these features are (possibly) significant, and here to stay. Empirical research has to find out the relative importance of the Community institutions and national actors/arenas in a particular case.

In particular, instead of the member states loosing their part in regulating Europe after "1992", the ties between Community regulation and national policies have been strengthened. Because the completion of the internal market has severely reduced the scope for national policies, member states' agendas and ambitions have to be dealt with in Brussels. Indeed, polycentrism reflects the merging of the member states and the Community into a single but differentiated political system. At the preparatory stage of legislation - particularly relevant for social regulation and in view of the weight of the Commission's draft directive - they are often closely involved. Government-nominated experts staff Commission advisory committees. Later on, in the Council, the member states collectively have the final say over Community policy (under the co-decision procedure together with the European Parliament). Even under the qualified-majority rule, each government can be a powerful player. Differences in national priorities, regulatory styles and political and economic interests, in turn, shape the Community arena.

Finally, through informal integration, the member states are interconnected between each other. Underneath the formal Brussels level, but potentially significant for Community policy-making, transnational influences come to play. This is all the more relevant as the member states' remaining separateness allows for autonomous developments. Subsequently, these may radiate to other countries. In a nutshell, it is the persistent relevance of the member states as arenas and actors, together with the growing importance of the Community institutions themselves which makes polycentrism a hallmark of EC regulation.
4. Polycentrism: Some further advantages, and some thoughts about institutional design

If polycentrism characterizes the EC regulatory system - is it a welcome feature? One theme of this thesis has been the contention that Community regulation is, at least potentially, better than national policy. It was argued that the polycentric nature of the European Community increases the chances of a policy entrepreneur to enter the stage. Innovation is hence more likely. In addition, the danger of agency capture is reduced in the case of EC regulation by the multiple checking mechanisms inherent in the system. On the level of expertise, the Commission’s judgement when preparing proposals can draw on several sources, and is less exposed to the informational lead of the regulated industry. In this section, the case for viewing polycentrism as a positive thing is further expanded. It is proposed to make use of its advantages to devise effective European regulatory institutions for the “post-1992” system.

To begin with, the multitude of sources of scientific and technical expertise on which Community regulators can draw is not only a check against agency capture. More generally, it should nurture our confidence in the knowledge basis of Community policies. Where, as in many areas of social regulation, discretion has to be exercised based on scientific and technical judgement, the range and quality of sources of expertise is a condition for sound decisions. Peer review is crucial to deliberations in all areas of science. Against this backdrop, the larger number of experts involved in EC proceedings can be expected to promote the professionalism in Community regulation.

Consider the case of drug regulation (see Kaufer 1989; 1990). Assuring the quality, safety and efficacy of new drugs before they are released for sale requires substantial research and testing by the industry, and a high level of discretion on the part of the regulators. Test results are presented to the authorities which then have to approve further testing on humans or the placing onto the market of the new pharmaceutical. In any event, a residual risk remains as various uncertainties affect the different stages of the testing process. In this context, procedural requirements and institutional design are vital. Drawing on the experience of the US Food and Drug Administration (FDA) and the British model of a Committee on the Safety of Medicines (CSM) to propose a European system, Erich Kaufer (1989: 29f) opts for a hybrid design. Accordingly, a European Committee on the Safety of Medicines (ECSM) composed of experts from around Europe would receive administrative support from a European Drug Agency (EDA); the Licensing Authority would be independent from the ECSM but essentially rely on its opinions. Among the advantages of this solution, Kaufer cites the higher degree of independence of committee members as compared to agency staff, their nomination on the basis of professional
eminence and the opportunity to discuss difficult questions in an informal environment (ibid.). In short, instead of a single regulatory agency, a committee solution is advocated which draws on experts coming from the competent member states bodies. The aspect of peer review is at the heart of this argument.

It is true that the system proposed is probably the only politically acceptable solution. The member states would resist a wholesale transfer of their powers to a European Drug Agency. Nonetheless, the material advantages of the committee solution are underlined by Kaufer as well. Actually, the new system of European drug control - involving the Committee for Proprietary Medicinal Products, the European Agency for the Evaluation of Medicinal Products and the Commission as licensing authority - follows Kaufer's proposals. In sum, to the extent that certain evaluations are inaccessible to the layman knowledge, an enlarged expert community and verifiable proceedings constitute the best guarantee for good decisions.

Importantly, the participation of national bodies in Community regulation also enhances the legitimacy of the regulatory output. Renaud Dehousse et al. (1992: 27) mention the EC's Scientific Committee for Food as a highly reputable committee which "confirms that acceptance of Commission decisions is in fact furthered by the quality of the Community's expertise." Parliamentary control, the transparency of proceedings and public participation may not be strong points of the Community system. The "democratic deficit" is a frequently heard criticism of EC policy-making. As Giandomenico Majone (1994: 29f) points out, though, there are different sources of regulatory legitimacy. Democratic control through an elected assembly; procedural requirements and the transparency of proceedings; judicial review; public participation; and professionalism are mentioned. Arguably, in areas where democratic control is little meaningful as the parameters of decisions are outside a layman's (and parliamentarian's) knowledge, procedures, peer review and the multiplicity of sources of expertise are the best protection. In that sense, polycentrism and the ensuing wider expert involvement enhances the legitimacy of Community policies. At least at the very technical level, this advantage of Community regulation arguably outweighs the "democratic deficit."

While polycentrism was originally borne out in the commitology system, it now pervades many European regulatory arrangements also in other forms. The system of medicines control has just been mentioned. Be it in the regulation of food where member states bodies assist the Commission on all

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345

scientific aspects, or in the case of the European Environment Agency as the node of a network of public and private organizations in the individual countries - their network character is a key feature also of other areas of EC regulation.

What is more, the asset of multiple centres of expertise in the European Union should be cultivated. In thinking about the future of European regulatory agencies, for example, Dehousse et al. (1992: 51) rightly conclude that "the ambition of these bodies should be to supplement and assist action taken by the Member States" (italics in the original) rather than taking over regulatory responsibilities from national authorities entirely. The model is for a European agency to support a network structure, and not to replace it.

One aspect is the participation of national experts in Community policy-making. Its value in terms of reduced agency capture, an improved informational basis and enhanced legitimacy for the output of regulation has already been mentioned. In some cases, the involvement of national experts is indispensable to take account of cultural differences such as medical habits (Kaufer 1990: 158). The possibility to assign specific (e.g. research) tasks to a member of a European network is another benefit. A job can be "contracted out" to a national institute working for the committee or agency. More generally, the competition between experts should further professional excellence.

Conversely, a network system can support the building-up of regulatory capacities in the member states. The exchange of staff, information and experience can serve to promote the resources of national organizations entrusted with regulatory tasks (cf. Dehousse et al. 1992: 51). This appears particularly important in view of related discrepancies between the member states. A "regulatory development programme" is relevant, first, to ensuring the implementation of Community regulation on the ground. An implementation gap in the Mediterranean countries for Community environmental standards, for example, due, inter alia, to scarce technical resources, is generally acknowledged (Liberatore 1992; LaSpina and Sciortino 1993). In the longer term, capacity-building would also enhance the possibility of member states to actively contribute to EC policy formulation. This would increase the resources of the Community as a whole. Today, indeed, a lack of expertise impairs some countries in EC technical committees (Eichener 1992: 51f). In a nutshell, building on the potential of polycentrism is a sensible strategy for designing the Community's regulatory system.


Conclusion

*Prima facie*, the completion of the internal market under the umbrella of a harmonised European Community legislative framework would appear to suggest the emergence of a centralized regulatory state. Competences have been transferred to the Community, national rules have been replaced by common policies, the scope for the member states to act has been severely limited. Even without returning to Mrs Thatcher's nightmare of a European super-state, "1992" would seem to signal the transition to a uniform Brussels-centred system for a large part of regulatory policies, and the demise of the member states as regulatory authorities.

Polycentrism challenges this impression. Instead of centralization, a system has developed in which multiple national and supranational actors and arenas are closely linked to each other while maintaining their separate identities. The reality is that re-regulation at the Community level goes along with the persistent importance of the member states for policy-making. The new system does not annihilate the past structures but incorporates the national and the supranational levels into a new differentiated whole. National institutions survive as a framework for political identity, debate and organization, and as actors in the domestic and the EC policy process. The European Community has clearly established itself as the main locus of common decision-making, and as an additional political arena. Both levels are linked at all stages of the regulatory process, through policy initiatives, the generation of ideas and the provision of expertise, and the involvement of the member states under the Community's legislative procedures. Informal integration makes for further dynamics. The concept of polycentrism depicts this new setting.

What is more, polycentrism holds promise. It multiplies the potential sources of policy change and creates a wider basis for ideas and expertise. A polycentric European regulatory system does not amount to a "brave new world." However, it is preferable to any likely alternative and the "non-Europe" option.
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