# Max Weber Programme 

Academic Careers Observatory

## Survey on Research Funding for the Social Sciences in Europe

Max Weber Programme<br>Academic Careers Observatory<br>\&<br>European Economic Association<br>European Sociological Association<br>European Consortium for Political Research

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European Economic Association
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## Executive Summary

From mid-2010 through early 2011, the Academic Careers Observatory (ACO) of the Max Weber Programme (MWP) carried out three separate surveys of economists, sociologists and political scientists, the majority of whom held university positions. These individuals were invited to answer an on-line questionnaire regarding research funding in the social sciences in Europe. Each distinct survey was respectively carried out in partnership with the European Economic Association (EEA), the European Sociological Association (ESA), and the European Consortium for Political Research (ECPR).

Overall, we received 3,802 valid responses from among the 19,944 invitations sent: 2,384 economists, 766 sociologists and 652 political scientists. The total response rate is 19.1 per cent.

This survey is divided into two parts. Part I analyses the sociology of each profession, gathering personal information and assessing the respondent's current working position. Part II focuses on the research funding experience of the respondents, revealing both the specifics of the respondent's research funding, as well as their subjective perceptions of the funding application and fruition processes.

Both parts of the survey show remarkable consistency in the responses of economists, sociologists and political scientists; differences are small and confined to specific areas. Much more relevant is the variation across European Research Area (ERA) countries, which share distinct academic traditions, irrespective of the discipline of the respondent.

The first part of the survey confirms a number of facts about the academic profession. Persisting ageing and the gender divide are relatively big problems in academia, the former affects sociology the most, the latter, economics. Considering that the gender divide increases with advancement in the profession (if 48 per cent of PhD students are women, only 18 per cent are full professors), we note that academia may be affected by 'ambivalent sexism', which penalizes women the higher the position.

As for the respondents' profession, the vast majority ( 85 per cent) hold an academic position. Economists have the most varied careers, as nearly 6 per cent work for Central Banks. Almost 80 per cent of respondents work in universities; research institutes come in second with nearly 12 per cent. Anglo-Saxon countries have a higher share of university workers, whereas research institutes are popular in Continental countries, especially in France.

Finally, there is considerable national variation in terms of research internationalization, in line with the differences between academic traditions present in the European Research Area. 60 per cent of all respondents report being well connected to the international research community. Researchers working in countries that have an AngloSaxon academic tradition (UK, the Netherlands, Switzerland etc.) have the highest levels of international integration, closely followed by those working in Scandinavian countries. Researchers in Turkey and Central and Eastern Europe report the lowest integration and openness. France and other Continental countries fall in between, but heterogeneity in responses is marked. Full professors are better connected than others, and assistant professors the least.

The second part unveils largely unexplored perceptions of research funding opportunities within the ERA. Both national and supranational financing sources display several problems. Despite the heterogeneity on how different national research funding agencies are managed, there is widespread distrust in the evaluation process. Professional evaluators being a scarce resource, national institutions should internationalize their evaluation procedures. The recent experience of national agencies creating synergies through the European Research Council's evaluation procedures is worth pursuing.

The main funding source is national, although the balance between National Public and Own Institutional funding is fairly heterogeneous across countries. The sum of both sources is close to 60 per cent in Belgium, Italy and Spain, climbing to 80 per cent in Nordic countries. In Scandinavian countries and in Germany there is a wealth of National Private funding institutions, which provide over 10 per cent of all financing. Some countries - possibly as a response to the low transparency and availability of national grants - rely more than others on research funding at the European level. On average, EU funds represent 11 per cent of the whole budget. In Italy and Turkey the share is closer to 18 per cent. Finally, countries where local authorities have greater autonomy have developed extensive Regional Public research funding. In Belgium, regional funds cover more than 18 per cent of total research financing; in Spain 13 per cent.

The highest levels of average annual funding come from the ERC. National Public Grants and the Framework Programme (not ERC) come next. Over 60 per cent of ERC funds reported go to political science, while the other two sources show no relevant differences among the three disciplines. Out of all the professions, full professors in the fields of political science and economics receive the most funding from National Public research grants (especially in Anglo-Saxon countries, Belgium and Germany), the ERC, and the Framework Programme (not ERC).

The majority of respondents from all three grant sources report the grant application process to be unnecessarily long or long but reasonable. In terms of factors influencing the decision to apply for a grant, the total size of the grant is the primary consideration. The primary reasons for not applying for a grant are: low success probability (Framework Programme and especially the ERC); the lack of confidence in the evaluation procedure (for National Public research grants in most countries); too high procedural and logistic costs (again ERC and the Framework Programme in general).

With respect to the flexibility of usage of the available funds, the respondents deem that the Framework Programme (not ERC) has the least flexible structure, whereas grants from the ERC and from national institutions score more or less equally. The stability and predictability of calls and grants is fairly good and consistent across the three financing sources. Only with respect to the Framework Programme, less than half of respondents consider them as stable and predictable. Finally, the time spent on applications is unacceptably long for the Framework Programme (not ERC), as reported by roughly twice as many people than for either the ERC or National Public research grants.

The majority of countries are dissatisfied with the ERC and the Framework Programme. With respect to both, Nordic and UK scholars have a more negative opinion than researchers from other countries, such as Italy, Spain or Belgium. Regarding the ERC, low success rates seems a major explanation. Switzerland and Portugal show full satisfaction with National Public research agencies, followed by Germany, Spain and
other countries with the main exception of Italy, where the majority of respondents are dissatisfied. Dissatisfaction is surprisingly high in the UK, Sweden and the Netherlands.

Overall, there might be an inverse relation between satisfaction at national and European levels, hence, the ERC and FP should take this into account. Major efforts are needed to simplify application and reporting procedures. Given the low success rates, the evaluation of applications should be of the highest standard and transparency.

Looking at satisfaction by discipline, economists are relatively more satisfied with all funding sources than either sociologists or political scientists. Satisfaction with National Public research grants (for economists) is mainly explained by the stability of calls, short application time and the suitability of the schemes. Satisfaction conditional on success is lowest for the Framework Programme (not ERC). In particular, there is dissatisfaction even among respondents with high success rates.

Ultimately, economists, sociologists, and political scientists agree on the most desirable features of research funding: flexibility, adequate funding, competent and transparent evaluation and the simplification of the application process. However, flexibility and accountability generate a trade-off: agencies should, hence, develop reliable record keeping of researchers to improve the allocation of research financing.

So, in spite of the advances by many funding agencies, there is ample room to improve their efficiency, in terms of flexibility - especially for the ERC and Framework Programme (not ERC) - and of competent evaluation, as the mistrust in the selection procedures is a major concern with the majority of National and Regional research funding agencies.

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## Introduction

The Survey on Research Funding for the Social Sciences in Europe is the first of its kind, targeted at European researchers from three social science disciplines - economics, sociology and political sciences.

The scholars were asked to fill in a semi-structured questionnaire, consisting of both open-ended and closed questions. Such a design was chosen in order to allow the respondents a degree of freedom to explain their thoughts. At the same time, the use of a standardized questionnaire allowed the comparison and analysis of responses from a considerable number of individuals belonging to different fields of study that are usually difficult to compare. A pre-testing of the questionnaire was carried out before sending the survey to the three samples.

Even though the response rate was not exceptional, 19.1 per cent over the whole sample, this is artificially brought down by political scientists (see Note 1 for an explanation). The selection bias of the 3,802 respondents has not been eliminated: a large share of these actively apply for research funding. Hence, the survey's results must be viewed in context. We are convinced that the sample's size and the consistency of answers provide a clear, if preliminary, picture of the users' perception of research funding opportunities across the European Research Area.

The Report is structured in four sections. The first section provides the details of the sample and of the selection criteria (the Appendix contains methodological and other details). The second analyses the sociology of the profession in economics, sociology and the political sciences, providing both overall results, and findings broken down by discipline. The third section traces the largely unexplored perceptions of research funding opportunities within the European Research Council. It both seeks to answer the question, 'who gets what and how much?', as well as delving deeper into the subjective perception and recommendations of the funds' users. The fourth section concludes.

## The sample

As already noted above, this report is based on the responses of economists, sociologists and political scientists, who were invited to participate in three distinct surveys - one for each profession. Hence, the sample is the combination of three different sub-samples. Figure 1, below, shows the sample details: number of invitations, valid responses and response rates.

The MWP-ACO, together with the European Economic Association, carried out the survey among economists, who were invited to answer the on-line questionnaire between 21 June and 15 July 2010. The sample of economists is the combination of two subsamples:
i) RePEc (Repository of Papers in Economics) European economists: top 12.5 per cent and the top 25 per cent of every European country 3,802 researchers;
ii) members of the European Economic Association - 2,443 researchers.

Hence, the overlap between the two sub-samples is 582 researchers, who are both members of the EEA and are ranked in RePEc according to the criteria above. We received 2,384 valid responses from among the 5,416 people invited.

The MWP-ACO, together with the European Sociological Association, carried out the survey among sociologists, who were invited to answer the on-line questionnaire between 21 June and 15 July 2010. The sample of sociologists is the combination of two subsamples:
i) authors in the Top 10 journals in sociology, according to the ISI Web of Knowledge (see Appendix 1 for details) - 656 researchers;
ii) members of the European Sociological Association - 1,543 researchers.

Hence, the overlap between the two sub-samples is 19 researchers, who are both members of the ESA and have published in the Top 10 journals in sociology. We received 766 valid responses from among the 2,180 people invited.

The MWP-ACO, together with the European Consortium for Political Research, carried out the survey among political scientists, who were invited to answer the on-line questionnaire between 30 November 2010, and 7 February 2011. The sample of political scientists is the combination of two sub-samples:
i) authors in the Top 10 journals in the political sciences, according to the ISI Web of Knowledge (see Appendix 1 for details) - 630 researchers;
ii) members of the European Consortium for Political Research 11,929 researchers. ${ }^{1}$

Hence, the overlap between the two sub-samples is 211 researchers, who are both members of the ECPR and have published in the Top 10 journals in the political sciences. We received 652 valid responses from among 12,348 people invited.

Overall, we received 3,802 valid responses from among the 19,944 invitations sent.

[^0]Figure 1 - Sample and response rates


## The sociology of the profession

Part I of the three surveys the MWP-ACO submitted to economists, sociologists and political scientists, dealt with the sociology of their profession. This part consisted of 12 questions and was accessible to all respondents, whether they stated in the preliminary question that they had experience in filing applications for research funding in the European Research Area, or not.

The first batch of questions was strictly related to personal information, such as the respondent's age, gender, nationality, country of residence, position, when the PhD defence took place (if at all) and whether they were members of the relative organization, in association with which the survey had been carried out (EEA, ESA or ECPR).

The second batch of questions was instead aimed at assessing the characteristics of the respondent's current working position. In particular, we asked respondents to specify the type of employer (university, Central Bank etc.), to characterize the working environment in terms of research orientation, to provide a breakdown of the working time spent on various activities (teaching, researching etc.) and to describe the type of work activity that the respondent was mostly involved in (empirical, theoretical, and so on).

This unique survey provides us with a thorough sociological picture of economists, sociologists and political scientists in Europe, highlighting some of the most pressing problems to be addressed. In particular, four main findings emerge from the responses:
i) the persistence of the 'gender scissors problem', especially in economics;
ii) aging throughout the academic career, relatively more acute in sociology;
iii) the preponderance of university positions, in political science in particular;
iv) marked national heterogeneity in terms of internationalization.

Finally, the allocation of time shows how research is a dominant activity, without a gender gap, but with declining intensity throughout the profession, except at the end.

## Experience with funding

Figure 2 illustrates to what extent respondents have experience with funding applications with respect to the discipline of specialization.

Roughly 57 per cent of all respondents ( 54.5 per cent from ERA countries and 2.5 per cent from abroad) declared they have experience in applying for research funding in the European Research Area. Understandably, the proportion of those residing in ERA countries with some experience in funding is higher than that of those residing outside the ERA.

As for the three subsamples, 74.1 per cent of political scientists, 71.7 per cent of sociologists and 47.5 per cent of economists have at least once applied for Research funding in Europe. ${ }^{2}$

Figure 2 - Experience of researchers (all respondents)


[^1]
## Nationality and residence

Germany and Italy were the countries having most nationals among the respondents: 577 and 563 respectively. The UK joined Germany and Italy in reporting over 450 residents each. The UK and Switzerland stand out as having significantly more residents than nationals. Slightly more than 25 per cent of all researchers in the survey are internationally mobile: they reside in a country of which they are not nationals.

The 3,802 respondents were nationals of 70 countries and residents in 53 countries spread around the five continents. However, as can be noted from Table 1, the 24 countries that recorded more than 30 respondents each (both with respect to nationality and to residence) coincide.

Belgium, France, Germany, Italy, the Netherlands, Portugal, Spain, Sweden and the United Kingdom all register more than a hundred nationals and residents, as opposed to smaller states (United States and Russia are the exceptions). Switzerland has more than a hundred residents among the respondents.

For a different number of reasons, some countries have more residents than nationals participating in the survey: Belgium, Denmark, France, Ireland, the Netherlands, Norway, Spain, Sweden, Switzerland and the UK. In the United Kingdom and Switzerland the number of residents almost doubles the number of nationals, reflecting the international openness of their academic environments. The opposite happens in countries such as Austria, Greece, Italy, Poland, Romania and Turkey, where the ratio of nationals to residents ranges between 84 per cent in Italy to as low as 58 per cent in Greece.

Table 1 - Respondents by nationality and country of residence

|  | AT | BE | CH | CZ | DE | DK | ES | FI | FR | GR | HU | IL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nationality | 85 | 122 | 68 | 33 | 577 | 62 | 268 | 83 | 255 | 86 | 39 | 34 |
| Residence | 70 | 137 | 118 | 31 | 557 | 72 | 297 | 78 | 280 | 50 | 37 | 30 |
| o/w \% of nationals | 71.4 | 63.5 | 43.2 | 77.4 | 75.4 | 62.5 | 76.4 | 87.2 | 68.9 | 98.0 | 83.8 | 93.3 |
| o/w \% of foreigners | 28.6 | 36.5 | 56.8 | 22.6 | 24.6 | 37.5 | 23.6 | 12.8 | 31.1 | 2.0 | 16.2 | 6.7 |
|  | IR | IT | NL | NO | PL | PT | RO | RU | SE | TK | UK | US |
| Nationality | 36 | 563 | 145 | 68 | 74 | 130 | 86 | 81 | 125 | 91 | 296 | 87 |
| Residence | 49 | 471 | 187 | 70 | 51 | 111 | 65 | 49 | 139 | 71 | 525 | 83 |
| o/w \% of nationals | 51.0 | 90.7 | 59.9 | 84.3 | 100 | 92.8 | 100 | 98.0 | 77.0 | 95.8 | 51.2 | 45.8 |
| o/w \% of foreigners | 49.0 | 9.3 | 40.1 | 15.7 | 0.0 | 7.2 | 0.0 | 2.0 | 23.0 | 4.2 | 48.8 | 54.2 |

Slightly more than 25 per cent of all researchers in the sample are internationally mobile, i.e. they reside in a country of which they are not nationals (the two rows under Residence show, respectively, the percentage of nationals and foreigners residing in a particular country). Even though international openness and competitiveness are
fundamental characteristics of favoured destination countries, scholars also move across Member States due to cultural, geographical or linguistic affinities. For example, of the 157 Germans residing outside of Germany, the largest share (35) moved to Switzerland, followed by the UK (29) and the Netherlands (19).

## The grouping of countries

In order to group the researchers of different, mainly smaller countries into meaningful geographical units, we rely (and test against survey evidence) on past ACO research on the demand side of the academic job market in the European Research Area.

Marimon, Lietaert and Grigolo find strong evidence supporting the existence of at least four academic career models within Europe: the Anglo-Saxon, the Continental, the Scandinavian and a transition model in Central and Eastern Europe (CEE). ${ }^{3}$

Of the four models, the Anglo-Saxon offers relatively transparent recruitment procedures and is open to non-national scholars. This model attracts foreign scholars and produces an internationally recognized scientific output and contrasts the Continental model which is still dominant in the ERA and, partially, the relatively dynamic Scandinavian one. Bearing in mind that there are exceptions to this general rule (Germany and Spain have recently undergone a gradual opening of their academic markets), the limited openness to international and dynamic competition does not foster a meritocratic system where individuals are assessed on their performance. Finally, the transition model has gradually embraced more dynamism and competitiveness in order to stop the brain drain to the West. Even though best practice seems to be spreading within the ERA, the predominant situation seems more of a dual ERA market where 'openness and competitiveness' only affect limited institutions and countries.

The surveys in the three social science disciplines provide evidence that the international openness and integration of research are tightly connected to the attitudes towards funding opportunities of researchers in a particular country. Hence, the ACO proposes the following groupings of countries to aggregate the results of the three surveys according to the different academic traditions, see Table 2, as we expect that the availability, flexibility and accessibility to research funding should be highest in Anglo-Saxon countries, followed at a distance by Scandinavian, Continental and transition countries.

Table 2 - The grouping of countries by academic tradition

|  | Central and |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CEE |  |  | Anglo-Saxon |  | Continental |
| BG | Bulgaria | UK | United Kingdom | BE | Belgium |
| CZ | Czech Republic |  |  | FR | France |
| EE |  |  | Other Anglo-Saxon | DE | Germany |
| HR | Croatia | CH | Switzerland | ES | Spain |
| HU | Hungary | IR | Ireland | IT | Italy |

[^2](continued)

| LT | Lithuania |  | IL | Israel |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| LV | Latvia |  | NL | Netherlands |  | Other Continental |  |
| PL | Poland |  |  |  |  | AT | Austria |
| RO | Romania |  |  | Scandinavian |  | CY | Cyprus |
| RU | Russia |  | DK | Denmark |  | GR | Greece |
| SI | Slovenia |  | FI | Finland |  | LX | Luxembourg |
| SK | Slovakia |  | IC | Iceland |  | PT | Portugal |
| SRB | Serbia |  | NO | Norway |  |  |  |
|  |  |  | SE | Sweden |  | TK | Turkey |

## Profession of respondents

The vast majority ( 85 per cent) of those surveyed hold an academic position, with $\mathbf{P h D}$ students and full professors representing the highest shares. Economists had the most varied careers, with 5.7 per cent working for Central Banks. 78 per cent of respondents work in universities, with Research Institutes coming in second with nearly 12 per cent. The UK and the Other Anglo-Saxons show a higher share of university workers, and Research Institutes are more popular in France and the Continentals.

As shown in Table 3, the vast majority of respondents hold an academic position, in sociology and in the political sciences almost 90 per cent. The two categories that represent the highest shares of respondents are PhD students (605) and full professors $(1,100)$. Among economists, more than one third of the whole sample is represented by full professors.

Table 3 - Profession of respondents by discipline

| Profession | Economics |  | Sociology |  | Political Science |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PhD | 309 | 13.0\% | 148 | 19.3\% | 148 | 22.7\% | 605 | 15.9\% |
| Post-doc | 155 | 6.5\% | 56 | 7.3\% | 66 | 10.1\% | 277 | 7.3\% |
| Researcher (in university) | 30 | 1.3\% | 97 | 12.7\% | 34 | 5.2\% | 161 | 4.2\% |
| Assistant Professor | 190 | 8.0\% | 60 | 7.8\% | 65 | 10.0\% | 315 | 8.3\% |
| - Tenured | 152 | 6.4\% | 36 | 4.7\% | 50 | 7.7\% | 238 | 6.3\% |
| Associate Professor | 236 | 9.9\% | 77 | 10.1\% | 51 | 7.8\% | 364 | 9.6\% |
| - Tenured | 113 | 4.7\% | 53 | 6.9\% | 36 | 5.5\% | 202 | 5.3\% |
| Full Professor | 815 | 34.2\% | 150 | 19.6\% | 135 | 20.7\% | 1100 | 28.9\% |
| Other | 384 | 16,1\% | 89 | 11,6\% | 67 | 10,3\% | 540 | 14,2\% |
| Total | 2384 | 100.0\% | 766 | 100.0\% | 652 | 100.0\% | 3802 | 100.0\% |

The category Other mainly contains those respondents who do not hold an academic position. Among these, researchers outside academia, especially in economics, are the most numerous group.

As for the type of employer, 78.4 per cent of all respondents work in universities, ranging between 76.2 per cent in economics and 83.1 per cent in the political sciences. Economists probably have the most varied careers after their graduation, and often work for Central Banks ( 5.7 per cent of the total). A similar share of economists and sociologists, respectively 12.3 and 12.5 per cent, work in private research institutes (see Table 4 for details).

Table 4 - Employer type by discipline

| Profession | Economics |  | Sociology |  | Political <br> Science |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| University | 1816 | $76.2 \%$ | 621 | $81.1 \%$ | 542 | $83.1 \%$ | 2979 | $78.4 \%$ |
| Research | 293 | $12.3 \%$ | 96 | $12.5 \%$ | 63 | $9.7 \%$ | 452 | $11.9 \%$ |
| Institute | 59 | $2.5 \%$ | 13 | $1.7 \%$ | 18 | $2.8 \%$ | 90 | $2.4 \%$ |
| Government | 136 | $5.7 \%$ | 1 | $0.1 \%$ | 1 | $0.2 \%$ | 138 | $3.6 \%$ |
| Central Bank | 28 | $1.2 \%$ | 21 | $2.7 \%$ | 15 | $2.3 \%$ | 64 | $1.7 \%$ |
| Other | 35 | $1.5 \%$ | 4 | $0.5 \%$ | 6 | $0.9 \%$ | 45 | $1.2 \%$ |
| International | $35 \%$ |  |  |  |  |  |  |  |
| Org (incl EU) | 17 | $0.7 \%$ | 10 | $1.3 \%$ | 7 | $1.1 \%$ | 34 | $0.9 \%$ |
| Private sector | 17 | $100.0 \%$ | 766 | $100.0 \%$ | 652 | $100.0 \%$ | 3802 | $100.0 \%$ |
| Total | 2384 | 10 |  |  |  |  |  |  |

Finally, Figure 3 shows that there is some heterogeneity between countries. Whereas the countries falling under the Anglo-Saxon academic tradition have higher shares of researchers working in universities (this holds also for Turkey, but is the result of a smaller sample), research institutes are much more popular in Continental Europe, especially in France. ${ }^{4}$

[^3]Figure 3 - Research environment by time of graduation, all respondents


## Gender and age profile

The survey shows a gender imbalance, or 'gender scissors problem': 67 per cent of respondents are men, 33 per cent women. PhD students displayed the greatest equality with 48 per cent women, and full professors the least with only 18 per cent women. The average age of all respondents is 41.6 , ranging from 29.9 for PhD Students to 51.4 for full professors.

Not unexpectedly, the academic profession still displays the 'gender scissors problem'. As shown in Figure 4, there is a great imbalance between the number of female and male scholars. In total, only one third of all respondents was female, recording higher shares for PhD students and steadily declining over the academic career. The largest drop happens at the level of full professor (perhaps a sign of ambivalent sexism), where only 18 per cent of the category are women.

The results are, however, slightly biased due to the greater sub-sample of economist respondents, where the 'gender scissors problem' is most acute. Economics has a much smaller share of female researchers than the other two disciplines: 24 per cent of the total vis-à-vis 38 per cent in political sciences and a very high 57 per cent in sociology. Notwithstanding, the number of female full professors is far below the average in all three disciplines: 21 per cent in the political sciences, 37 per cent in sociology and just 13 per cent in economics. ${ }^{5}$

[^4]Figure 4 - Gender profile by academic profession, all respondents


As for the age profile of the respondents, there is a problem of ageing throughout the academic career, as shown in Figure 5. The average age of the whole sample is 41.6, ranging from 29.9 for PhD students up to 51.4 for full professors. ${ }^{6}$

Figure 5 - Age profile by academic profession, all respondents


The ageing of the body of researchers, as shown in Figure 51 in Appendix 3, seems to be most acute in sociology and least acute in economics, with political science somewhere in between. In fact, while a PhD student in economics is 28.8 years old on average, a doctoral candidate in sociology is 32.0 . A similar discrepancy can be noticed at all stages

[^5]of an academic career, eventually growing larger in absolute terms. Such a trend culminates with the position of full professor, where an economist is 50.2 on average and a sociologist as much as 55.8.

## Positions and graduation

As Figure 6 neatly shows, there are few surprises with respect to the graduation year of the respondents. The vast majority of PhD students have not yet defended their theses and the majority of post-docs did so less than five years ago. At the other end of the career, full professors, in more than 90 per cent of cases, defended their PhDs at least 10 years ago. ${ }^{7}$

Figure 6 - Years from graduation by professional profile, all respondents


Even though the possibility of a doctoral thesis being dispensed with is of course becoming increasingly rare, out of the 3,262 respondents who have an academic position, 139 have not completed or are not required to complete a PhD .

[^6]60 per cent of all respondents reported being well connected to the international research community. Researchers from the UK and the other Anglo-Saxons had the highest levels of international integration, and those from Turkey and the CEEs had the lowest. France and the Continentals fell in between. Full professors were better connected than the other professions, and assistant professors were the least.

In order to assess the openness and internationalization of the research carried out by the three surveys' respondents, we asked them to describe their working environment and gave four different reply options: i) research oriented and well integrated into the international research community; ii) research and integration depending on an individual researcher's effort; iii) some individual research but not very well integrated; iv) at most sporadic research.

Figures 7, 8, 9 and 10 show how research openness varies with respect to a respondent's discipline, country of residence, position and years from graduation.

With respect to the professional profile, more than 60 per cent of all respondents describe their research environment as fairly well integrated. However, there are significant differences by discipline. In economics, almost two thirds of all respondents claim that research is connected to international channels. This cannot be said for sociology, where this percentage falls almost to 45 per cent. In general, sociologists are also the most dissatisfied, as sporadic and non-integrated research has been reported by more than 17 per cent of all respondents.

Figure 7 - Research environment by discipline, all respondents


With respect to the country of residence, Figure 8 shows extreme heterogeneity among the four academic models in the European Research Area. ${ }^{8}$ The United Kingdom, other Anglo-Saxon countries, as well as the five Scandinavians have similar, and consistently better integrated, research. Continental countries, such as Germany, Spain and France, follow at a distance. In this academic tradition, Italy scores lowest, confirming the not very internationalized character of its universities. Finally, Turkey and the transition countries score lowest - a clear indicator that there is still some way to go until their academic environments can be comparable with the West.

Figure 8 - Research environment by country of residence, all respondents


Figure 9 illustrates that there are also significant differences in the research environment with respect to the academic position held by the respondents. ${ }^{9}$ Full professors and postdocs occupy the highest two places, possibly because, by virtue of their positions, they have access to better research facilities. Full professors assess their research as being well integrated in the international environment, consistently across the three disciplines. As for post-docs, this is true only for economics and political science. Assistant professors in all disciplines report the highest percentage of not well-integrated research (either depending on individual effort) or just sporadic research.

[^7]Figure 9 - Research environment by professional profile, all respondents


Finally, Figure 10 indicates that the satisfaction with the internationalization of the research environment increases with the years from graduation. ${ }^{10}$

Figure 10 - Research environment by time of graduation, all respondents


[^8]
## Working time

On average, slightly less than 50 per cent of the working time of all respondents was dedicated to research. Another 25 per cent was spent teaching. PhD students and researchers were the professions with the most time spent researching, whereas those at the professorial level had a higher proportion of teaching and administrative work. In terms of age, older respondents (age $>65$ ) joined the younger groups (age 22-37) in spending the most time researching, while those in mid-to-late career (age 38-58) spent the most time with teaching and administrative work.

In order to identify the activities performed by researchers in the three disciplines, the survey asked respondents to provide a breakdown of their working time by type of activity, including research, teaching and supervision, administrative tasks, fund-raising and time spent in consulting activities.

Figure 11 shows that research is the dominant activity, and that women allocate slightly more time to it than do men. ${ }^{11}$ On average, somewhat less than 50 per cent of working time is devoted to research.

Figure 11 - Working time by gender, all respondents


There is a clear trend as one's career advances, cutting across all disciplines: the intensity of research decreases throughout the profession and with age, to recover at the end of the career.

As Figure 12 neatly shows, career advancement in academia roughly coincides with less time spent on research activities. ${ }^{12}$ Those holding pure research positions spend between 66 per cent ( PhD students) and 54 per cent (university researchers) of their time researching and less than 20 per cent teaching. The picture changes at professorial level. Professors spend one third of their time teaching and some 40 per cent researching. Administrative tasks represent less than a tenth of the total working time only for PhD students and post-docs, climbing to almost one fifth for full professors. Roughly 5 per cent of working time is devoted to fund-raising at almost any professional level.

[^9]Figure 12 - Working time by professional profile, all respondents


Figure 13 - Working time by age profile, all respondents


A similar picture is discernible with respect to the age structure, as shown in Figure 13. ${ }^{13}$ In mid- to late-career (age 38-58), the time devoted to teaching approaches 30 per cent and, most importantly, administrative work takes up to one fifth of the working time. This radically changes after 65 , at the end of the career, when more time becomes available to resume research activities; and administrative tasks represent less than 10 per cent of total working time.

## Sources of funding

The two largest sources of funding reported in any country come from an individual's own institution (circa 30 per cent of total) and from national public foundations (circa 40 per cent of total), and representing between $60-80$ per cent of the total funding for each individual country. The Scandinavian countries, followed by Germany, showed the highest levels of national private institutional financing (roughly 12 per cent and 10 per cent respectively). EU funds make up a larger portion of the funding for researchers in Italy ( 18 per cent) and Turkey ( 17 per cent), and the same can be said for regional funds in Belgium ( 18 per cent) and Spain ( 13 per cent).

As Figure 14 neatly shows, the two major sources of funding in any ERA country are research funds provided by an individual's own institution (university, research institution) as well as by national public foundations (national research councils, ministries for innovation, for science and technology and similar). ${ }^{14}$ In fact, own institutions provide roughly 30 per cent of all available funds, while national grants represent another 40 per cent of all funding.

Figure 14 - Sources of budget funding


[^10]There is, however, some national heterogeneity. The two sources combined represent 60 per cent of the total research budget in Italy and Spain, climbing up to 80 per cent in Scandinavian countries. In the latter, there is also a wealth of national private institutions, which provide more than 12 per cent of all sources of financing, followed by Germany (slightly less than 10 per cent).

Researchers in some countries - possibly as a response to the low quality, transparency and availability of national and institutional grants - rely more than others on the research funding opportunities offered at the European level. On average, EU funds (European Research Council and Framework Programme combined) represent slightly more than 11 per cent of the whole budget. In Italy and Turkey the share is higher: 18 and 17 per cent, respectively.

Some countries have developed extensive regional public research funding: in Belgium, regional funds cover more than 18 per cent of total research financing; in Spain 13 per cent.

## National and regional funding

The survey asked the respondents to name the three research funding agencies the candidate most recently applied to. Figure 15 shows the most popular national and international private or public institutions with a cut-off number of applications at 5. ${ }^{15}$

Not unexpectedly, European-based programmes are the most popular. In total, the respondents applied 363 times to the various Framework Programmes (FP 5, 6 and 7), 134 times to the European Research Council (ERC) and 36 times to the European Science Foundation (ESF). Unfortunately the respondents did not differentiate among sub-programmes of the two agencies, e.g. between ERC's Starting and Advanced Grants.

Among national research funding agencies, larger countries account for the greater share of applications. The Economic and Social Research Council (ESRC), based in Britain, received 140 applications and the German Research Foundation (DFG), 90. Italy, the Netherlands and Spain come next. The Italian Ministry for Education, Universities and Research (MIUR) received 77 applications, evenly split between PRIN and FIRB programmes. The Spanish Ministry for Science and Innovation (MICINN), which manages highly successful programmes, such as Juan de la Cierva and Ramón y Cajal proves to be very popular as well, totalling 74 applications, followed by the Netherlands Organization for Scientific Research (NWO). The Swiss National Science Foundation (SNSF), the French National Research Agency (ANR) and the Danish Agency for Science, Technology and Innovation (FI) follow closely.

[^11]Figure 15 - Most popular national public and private funding agencies


As for regional financing, Table 5 shows that 177 respondents clearly indicated the region where they applied for funding. 9 of these applied to interregional funds (Nordic, Caucasian etc). The table confirms that regional funds are mainly available in a few selected countries. Spain has the lion's share ( 38 per cent of all respondents, applying to Andalusia, Catalonia, the Basque Country, Madrid and others), followed by Italy (evenly spread between Lombardy, Piedmont, Campania, Emilia-Romagna, Sardinia, Tuscany), Belgium (Wallonia, Flanders and Brussels), France (Île-de-France, Aquitaine) and Germany (mainly in Bavaria and North Rhine-Westphalia). These countries devolve relative fiscal (and political) autonomy to their constituent regions; hence, more widespread regional funding opportunities are a natural development.

Table 5 - Applications to regional funds

|  | AT | BE | DE | ES | FR | GR | IT | NL |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Applicants | 5 | 18 | 15 | 67 | 16 | 1 | 33 | 1 |
| Percentage | $2.8 \%$ | $10.2 \%$ | $8.5 \%$ | $37.9 \%$ | $9.0 \%$ | $0.6 \%$ | $18.6 \%$ | $0.6 \%$ |
|  |  |  |  |  |  |  |  |  |
|  | PL | PT | RO | SE | UK | Intreg | Total |  |
| Applicants | 1 | 1 | 2 | 1 | 7 | 9 | 177 |  |
| Percentage | $0.6 \%$ | $0.6 \%$ | $1.1 \%$ | $0.6 \%$ | $4.0 \%$ | $5.2 \%$ | $100.0 \%$ |  |

## Research funding

Part II of the three surveys focuses on the research funding experience of the respondents. This part consisted of 25 questions divided into two sections.

The first section comprises questions regarding the specifics of the respondent's research funding. Questions include: the country in which the respondent applied: the numerical and percentage breakdown of the various funding sources of the research budget (own institution's funding, public and private national as well as research grants, various European level grants, prizes and consultancy); and the duration, flexibility and names of the grants applied for.

The second section contains questions asking for the subjective perception of the respondent regarding various aspects of funds and the funding application process, such as the subjective length of the application, the stability of the grants, the dependence of funding on the evaluation process, and the suitability of available grants for specific research objectives.

This second part of the survey provides valuable insight into the prevalence and effectiveness of various national and European public and private funds in the fields of political science, economics and sociology. Some of the main findings include:
i) the predominance of public funds from national and European sources in providing research financing across all disciplines;
ii) a marked national heterogeneity concerning the availability of and satisfaction with national funding sources;
iii) the comparative difficulty in allocating grants from the various Framework Programmes;
iv) the unnecessarily long public and European-level research grant application procedures, particularly those for the Framework Programmes.

## Research grants size distribution per year (all sources)

The highest levels of average annual funding come from the ERC, National Research Grants (public), and EC Framework Programme (not ERC). Over 60 per cent of ERC funds reported go to political science, while funds from National Research Grants (public) and EC Framework Programme (not ERC) show no relevant differences among the three disciplines.

Concerning the reported funding size distribution per year, the source of major income in terms of research grants obtained does not differ in political science and economics. In fact, in these two samples the National Research Grants (public), the ERC, and the EC Framework Programme (not ERC) represent the sources from which respondents get the highest average amount of grants per year.

Instead, in sociology, the amounts earned through Regional Research Grants are an average 70,560 Euros per year. At the same time, these respondents obtain only 20,000 Euros from the ERC. In regard to the EC Framework Programme (not ERC) and the National Research Grants (public), there is no significant variation among the three disciplines. (Figure 16).

Figure 16 - Amounts of funding by discipline


## National Research Grants (public) and Research Funds from Own Institution

The countries from which respondents receive the most National Research Grants (public) are Belgium, the UK and Other Anglo-Saxon Countries. The least funding comes from Italy. The countries whose respondents reported the most research funds from own institutions are Belgium and France. The least come from Italy and Other Continental.

Looking at the three samples as a whole and at the average grant amounts per country, in the Research Funds from Own Institutions and in the National Research Grants (public), Belgium declares the highest amount from these two grant sources (Figure 17). As for National Research Grants (public), the lowest amounts are earned in Italy, and for Research Funds from Own Institutions, in Other Continental countries, averaging 11,802 Euros and 5,126 Euros per year, respectively.

The yearly average income from National Research Grants (private) in Belgium is greatly influenced by the sociology sample, as shown in Figure 17. Nonetheless, this country reports a relatively high average income per year in all samples, also when looking at the Research Funds from Own Institutions.

Figure 17 - Own institution's and national public grants by discipline and country


## National Research Grants, ERC and EC Frameworle Programme (not ERC)

Countries with the highest levels of average income from ERC are CEE, Scandinavian countries and the UK. For the EC Framework Programmes (not ERC), the highest levels of average income go to Anglo-Saxon countries, Turkey, the UK, and Belgium. The countries with the lowest average amount of research grants per year are Italy, Spain and Other Continental. However, analysing the three samples separately, Spain is not fully included in the group of countries with the lowest declared grants. The countries with an average income lower than 100,000 Euros are in fact: Italy, France, and Other Continental.

In the National Research Grants (public) and in the EC Framework Programme (not ERC) we do not find relevant differences in the general average income of economists, sociologists and political scientists. On the other hand, as mentioned above, for the ERC, sociology shows an average total amount of only 20,257 Euros (Figures 16 and 18). However, looking at the samples as a whole, National Research Grants (public), ERC and the EC Framework Programme (not ERC) remain the sources from which respondents obtain the highest average amount per year, and for this reason the further analysis will focus on these three sources.

Figure 18 - Grant sources by discipline


Ranking the countries according to the average income earned, a few countries (groups of countries) never make it to the top five positions: Italy, Spain, and Other Continental. These countries obtain the lowest average amount of research grants per year. Conversely, the UK, Anglo-Saxon countries and Belgium are always present among the top five, for all the three grant sources mentioned above (Table 6).

Table 6 - Grant sources by country

|  | National Research Grants <br> (public) |  | ERC |  | EC Framework Programme <br> (not ERC) |  |
| ---: | :--- | ---: | :--- | ---: | :--- | ---: |
| $\mathbf{1}$ | Belgium | $\mathbf{2 8 1 , 9 8 9}$ | CEE | 726,100 | Other Anglo-Saxon | $\mathbf{2 0 0 , 3 5 3}$ |
| $\mathbf{2}$ | Other Anglo-Saxon | $\mathbf{1 3 7 , 3 1 2}$ | Scandinavian | 173,333 | Turkey | 195,000 |
| $\mathbf{3}$ | UK | $\mathbf{1 3 5 , 6 0 3}$ | UK | $\mathbf{1 3 1 , 1 7 2}$ | UK | $\mathbf{9 9 , 0 2 7}$ |
| 4 | Germany | 84,662 | Belgium | $\mathbf{1 1 0 , 0 0 0}$ | Belgium | $\mathbf{9 2 , 0 0 0}$ |
| 5 | Scandinavian | 80,818 | Other Anglo-Saxon | $\mathbf{8 2 , 0 0 0}$ | France | 80,278 |
| 6 | Turkey | 44,750 | Spain | 61,230 | Italy | 59,965 |
| 7 | CEE | 26,720 | France | 53,533 | Spain | 54,174 |
| 8 | France | 24,680 | Italy | 33,230 | Scandinavian | 34,923 |
| 9 | Other Continental | 22,810 | Other Continental | 11,667 | Germany | 32,882 |
| 10 | Spain | 17,186 | Germany | 9,240 | Other Continental | 29,500 |
| 11 | Italy | 11,802 | Turkey | 6,000 | CEE | 24,568 |

Breaking down the analysis by discipline shows that Spain does not always score low. In fact, the countries with an average income lower than 100,000 Euros are consistently Italy, France, and Other Continental; see Table 7.

Table 7 — Grant sources by country and disciplines

|  | National Research Grants (public) |  |  | ERC |  |  | EC Framework Programme (not ERC) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Eco | Soc | Pols | Eco | Soc | Pols | Eco | Soc | Pols |
| Scandinavian | 59,731 | 102,199 | 81,365 | 173,333 |  |  | 36,500 | 43,833 | 28,000 |
| UK | 168,437 | 120,901 | 41,827 | 213,750 | 8,333 | 150,275 | 131,257 | 81,567 | 69,620 |
| Other <br> Anglo- <br> Saxon | 247,952 | 56,208 | 87,000 | 47,500 | 32,500 | 250,000 | 253,250 | 247,500 | 78,000 |
| Spain | 14,776 | 19,136 | 25,807 | 41,538 |  | 140,000 | 36,941 | 300,000 | 63,600 |
| Italy | 8,954 | 17,135 | 15,518 | 34,757 | 8,500 | 72,000 | 62,996 | 31,128 | 96,667 |
| Germany | 35,676 | 53,471 | 194,639 | 11,400 | 10,000 | 2,000 | 30,380 | 28,333 | 39,422 |
| France | 21,956 | 49,500 | 36,000 | 53,533 |  |  | 80,278 |  |  |
| Other <br> Continent. | 20,790 | 19,614 | 35,950 | 11,667 |  |  | 30,125 | 34,375 | 5,000 |
| Belgium | 238,753 | 1,025,735 | 72,250 | 110,000 | . | . | 36,250 | 285,000 | 51,250 |
| CEE | 30,392 | 19,245 | 44,106 | 4,000,000 | 2,650 | 346,000 | 23,227 | 29,773 | 6,000 |
| Turkey | 7,000 | 15,000 | 150,000 | 6,000 | 6,000 | . |  | . | 195,000 |
| Total | 72,735 | 68,907 | 74,222 | 186,360 | 20,257 | 438,819 | 69,199 | 72,608 | 58,378 |

Furthermore, in sociology and political sciences, France seems to have no research grants coming from either the ERC or the EC Framework Programme (not ERC); Other Continental countries, Scandinavian countries and Belgium from the ERC alone. Spanish sociologists and Turkish political scientists do not report receiving any research grants from the ERC; Turkish sociologists and economists do not report any funding from the EC Framework Programme (not ERC).

## Profession, countries and grants

Out of all the professions, full professors in the fields of political science and economics receive the most funding from the National Research Grants (public), ERC, and EC Framework Programme (not ERC).
Full professors from the UK, Germany, Belgium and Other Anglo-Saxon countries are the most successful at getting National Research Grants (public). Full professors in CEE, Scandinavia, Spain and the UK received the most from ERC, and full professors from the UK, Italy and Other Anglo-Saxon countries get most funding from EC Framework Programme (not ERC).
In the fields of the political sciences, associate professors (tenured) from the UK and Other Anglo-Saxon, and assistant professors (tenured) from CEE, receive the most from the ERC. Researchers (not in university) in the field of economics, from Other AngloSaxon countries, receive the most from National Research Grants (public). Post-docs in the field of sociology, from Other Anglo-Saxon and Spain, receive the most from the EC Framework Programme (not ERC).

Considering the two variables 'profession' and 'average amount of grants', full professors - in economics and in the political sciences - were the most successful in obtaining funding from the National Research Grants (public), the ERC and the EC Framework Programme (not ERC).

Researchers (outside academia) in economics seem to be successful at obtaining National Research Grants (public), as are associate professors (tenured) in sociology. Moreover, the latter receive a consistent level of grants from the EC Framework Programme (not ERC). Tenured Assistant and Associate Professors in political science are more successful with the ERC.

Table 8 - Grant sources by profession profile

| Profession | National Grants <br> (public) | ERC | EC Framework <br> Programme <br> (not ERC) |
| :--- | ---: | ---: | ---: |
| Full Professor | 109,358 | 406,990 | 101,832 |
| Associate Professor (tenured) | 57,282 | 133,000 | 55,543 |
| Associate Professor | 34,672 | 61,833 | 44,593 |
| Assistant Professor (tenured) | 30,088 | 69,164 | 28,625 |
| Assistant Professor | 14,752 | 21,033 | 6,962 |
| Researcher (in university) | 69,070 | 5,517 | 27,200 |
| Researcher (not in university) | 106,193 |  | 47,441 |
| Post-doc | 33,757 | 40,000 | 89,447 |
| PhD | 23,449 | 17,200 | 32,143 |

The professions for which we have a consistent number of cases but for which we also notice the lowest income declared are PhD students in economics and political sciences, as well as assistant professors in all three disciplines; see Tables 8 and 9 .

Table 9 - Grant sources by profession profile and discipline

|  | Economics |  |  |  | Sociology |  |  | Political science |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
|  | National <br> Grants <br> (public) | ERC | EC FP | National <br> Grants <br> (public) | ERC | EC FP <br> (not <br> ERC) | National <br> Grants <br> (public) | ERC | EC <br> FP |  |
| FP | 102,410 | 372,280 | 110,142 | 87,400 | 5,200 | 77,046 | 168,264 | $1,270,000$ | 93,429 |  |
| AscPT | 24,707 | 82,000 | 23,273 | 112,087 | 12,000 | 104,786 | 19,722 | 207,333 | 57,600 |  |
| AscP | 22,154 | 76,500 | 44,412 | 62,676 | 32,500 | 48,750 | 32,899 |  | 41,886 |  |
| APT | 17,576 | 32,537 | 22,800 | 50,680 | 4,000 | 15,000 | 35,255 | 346,000 | 50,000 |  |
| AP | 6,372 | 5,060 | 5,650 | 9,192 | 54,000 | 12,000 | 30,969 | 2,000 | 10,000 |  |
| Res | 38,000 |  | 30,500 | 93,226 | 8,000 | 13,000 | 31,460 | 550 | 48,750 |  |
| ResNo | 176,519 |  | 59,350 | 33,611 | . | 44,167 | 62,692 | . | 20,125 |  |
| PostD | 20,600 | 75,000 | 30,050 | 49,966 | 5,000 | 139,290 | 25,720 | . | 7,000 |  |
| PhD | 6,793 | 17,200 | 20,067 | 35,716 |  | 67,400 | 24,400 |  | 15,000 |  |

Figure 19 - National Research Grants (public) - more than an average amount of 100,000 Euros per year - by country and profession profile


Figure 20 - National Research Grants (public) - below an average amount of 100,000 Euros per year - by country and profession profile


Concerning the National Research Grants (Public), in the UK, Belgium, Germany, Scandinavian and Other Anglo-Saxon Countries respondents receive an average amount of grants per year of more than 100,000 Euros. For the profession of full professor the data shown in Tables 8 and 9 , for this source of grants, have been influenced mostly by respondents residing in the UK, Other Anglo-Saxon countries, Germany, and Belgium, as shown in Figure 19. Other respondents receiving the most from this source of grants are assistant professors and associate professors (tenured) in Belgium, associate professors in Scandinavian countries, researchers in Scandinavian countries, the UK and Germany, and researchers (not attached to a university) in Other Anglo-Saxon countries.

Figure 20 shows instead the results for those professions earning less than 100,000 Euros from National Research Grants (Public). Italy is here particularly poorly endowed. Due to few responses, Turkey scores artificially low.

For the ERC, the UK, Belgium, Spain, CEE, Other Anglo-Saxon and Scandinavian countries have the highest levels of average income per year from this source of grants, with a prevalence of full professors in Scandinavian countries, the UK, Spain and CEE, of assistant professors (tenured) in Scandinavian countries and CEE, of associate professors (tenured) in the UK and Other Anglo-Saxon, and of associate professors in Belgium (Figure 21).

Figure 21 - ERC grants - more than an average amount of 100,000 Euros per year by country and profession profile


Figure 22 - ERC grants - below an average amount of 100,000 Euros per year by country and profession profile


Figure 23 - EC Framework Programme (not ERC) - more than an average amount of 100,000 Euros per year - by country and profession profile


Figure 22 shows instead the results for those professions earning less than 100,000 Euros from the ERC. It appears clearly here that being a researcher (both in academia and outside) or a post-doc reduces the chances of getting substantial ERC grants basically to zero.

For the EC Framework Programme (not ERC), excluding Germany, Other Continental and Scandinavian countries, all the other countries reach an average amount of more than 100,000 Euro per year. In particular, full professors in the UK, Other Anglo-Saxon countries and Italy; associate professors in the Other Anglo-Saxon; associate professors (tenured) in Belgium and Turkey; researchers (not attached to a university) in France; PhD (s) in CEE and post-docs in Other Anglo-Saxon and Spain (Figure 23).

Figure 24 shows instead the results for those professions earning less than 100,000 Euros from the EC Framework Programme (not ERC). The most disadvantaged professions are only partially consistent with the previous ERC figures: researchers (outside academia) and post-docs do relatively well; researchers in university score poorly, as do non-tenured assistant professors.

Figure 24 - EC Framework Programme (not ERC) - below an average amount of 100.000 Euros per year - by countries and profession profile


## The allocation of research funds

Overall, grants from the EC Framework Programme (not ERC) are considered the most difficult to allocate or have a fixed usage. Specifically, respondents from Belgium, Scandinavia, Germany and Other Anglo-Saxon countries reported the most difficulty. Respondents from CEE, Spain, the UK and Germany reported the most difficulty with the National Research Grants (public), and the UK, Spain, Germany and Other Continental countries have the most difficulty with the ERC.

The grants from the EC Framework Programme (not ERC) are considered the most difficult to allocate by 37.5 per cent of the respondents and with a fixed usage by 42.3 per cent, as shown in Figure 25.

Figure 25 - Grant sources by funding flexibility


A small percentage of respondents consider a free usage of the National Research Grants (public) possible, as illustrated in Figure 26. Germany and Spain are the countries in which the modality 'free usage' has the lowest percentage, with 1.5 per cent and 2.4 per cent respectively. More than 50 per cent of respondents state that it is difficult to allocate these funds freely and see the necessity of a fixed usage. The countries in which the free usage seems to be more consistent are Scandinavian, Other Anglo-Saxon, France and Belgium.

Figure 26 - Flexibility in National Research Grants (public) allocation by country of residence


In the UK, Spain, Germany, and Other Continental more than 70 per cent of respondents find the ERC grants characterised by their fixed usage and by the difficulty of free allocation (Figure 27).

Figure 27 - Flexibility in the allocation of ERC funds by country of residence


In the EC Framework Programme (not ERC) the fixed usage and the difficulty to allocate the grants freely increase in all countries, but especially in the UK, Germany, Belgium, and Other Continental. An exception is represented by Turkey, where 50 per cent of respondents state the possibility of a free usage of these grants (Figure 28).

Figure 28 - Flexibility in the allocation of EC Framework Programme (not ERC) funds by country of residence


## Grants' application process and influencing factors

The majority of respondents from all three grant sources report the grant application process to be unnecessarily long or long but reasonable. In terms of factors influencing the decision to apply for a grant, the total size of the grant is the primary consideration. The primary reasons for NOT applying for a grant are: low success probability of application, and the lack of confidence in the evaluation procedure for the National Research Grants (public); and low success probability of application, and the too high procedural and logistic costs for the ERC and the EC Framework Programme (not ERC).
The ERC is the source of grants with the lowest application success rate. With the ERC the majority of the countries are unsatisfied with the exception of Other Anglo-Saxon, Spain, Italy, Belgium, and Turkey. Germany shows full satisfaction in the National Research Grants (public), followed by Spain and all the other countries except for Italy, where the majority of respondents are unsatisfied. In the EC Framework Programme (not ERC) Scandinavian and the UK are more negative than the other countries, although satisfaction for this scheme seems higher for residents in countries with low satisfaction for their agencies (e.g. Italy).

The majority of respondents considers the calls and the grants from the three sources stable and predictable (Figure 29). However, the National Research Grants (public) are perceived as the most stable ( 56.1 per cent), followed by the ERC ( 51 per cent) and the EC Framework programme (not ERC) (45.4 per cent).

Figure 29 - Grant sources by research funding stability


In Figure 30, Italy shows a different perception for the National Research Grants (public) with 45 per cent of respondents stating that the nature of available grants changes frequently. At the other extreme there is Spain, whose researchers are very satisfied with what is publicly on offer in their country.

Figure 30 - Stability in National Research Grants (public) by country


As for the ERC, Figure 31 shows that only slightly more than half of German and French respondents deem it as reasonably stable and predictable.

Figure 31 - Stability in ERC grants by country of residence


Finally, Figure 32 shows the perceptions on the stability of EC Framework Programmes (not ERC). Whereas in Spain and Italy, these sources of funding are perceived as very stable and predictable, this is not the case for Scandinavian, Anglo-Saxon and most other Continental countries, which express some criticism of the Framework Programme's predictability.

Figure 32 - Stability in EC Framework Programme (not ERC) grants by country of residence


Concerning the average time spent on grant applications, in the National Research Grants (public) 24.4 per cent of respondents consider the time spent on application appropriate (Figures 33).

Figure 33 - Grant sources by average time spent on application


The answer 'unnecessarily long' collects more than 20 percentage points in all the three grant sources, with a peak of 47.1 per cent in the EC Framework Programme (not ERC), where Belgium is the most critical (Figure 34).

Figure 34 - Average time spent in applying for EC Framework Programme (not ERC) grants by country of residence


The total size of grants seems to be the predominant factor driving the interested party in applying to one source of grants rather than another, as shown in Figure 35.

Figure 35 - Grant sources by main reason for application


Figure 36 - Grant sources by reasons NOT to apply


Figure 37 - Reasons NOT to apply for National Research Grants (public) by country


This figure changes when looking at the factor influencing the decision NOT to apply to a specific grant source. The low success probability of application ( 27.3 per cent), and the lack of confidence in the evaluation procedure ( 24 per cent) are motivations NOT to apply for the National Research Grants (public). In the ERC and the EC Framework Programme (not ERC) we find the primary motivations are low success probability of application and the too high procedural and logistic costs; see Figure 36.

The lack of confidence stated by the respondents for the National Research Grants (public) deserves an in-depth analysis. Looking at the countries in which this lack of confidence is consistent, Italy is in the first position ( 37.8 per cent), followed by CEE ( 30.8 per cent) and all the other countries with percentages that never fall below 10 , except in the case of Turkey; see Figure 37.

As far as the perception of management of the national agencies is analysed, in Italy 1.8 per cent of respondents consider the national agencies well managed, while 79.8 per cent choose the modality Not well managed. Calls are often published late, programmes get terminated too often.' On the other hand, 18.4 per cent consider these agencies well managed but not sufficiently endowed. Only Germany and Turkey show a high level of satisfaction related to these entities with 43.9 per cent and 57.1 per cent respectively, followed by Scandinavian countries ( 22.6 per cent) where, however, 6 per cent of respondents have a negative view of the management of national agencies. In the UK, 81 per cent perceive the national agencies as well managed but not sufficiently endowed, while 13.4 per cent state that they are completely satisfied, while only 5.6 per cent have a negative view; see Figure 38.

Figure 38 - National funding organization management by country


Figure 39 - Satisfaction with National Research Grants (public) by country


Figure 40 - Satisfaction with ERC grants by country


This attitude is confirmed when asking about the satisfaction with granting schemes; see Figures 39, 40 and 41.

Germany shows full satisfaction with 41.8 per cent for the National Research Grants (public), followed by Spain ( 33.3 per cent) and all the other countries except Italy, where 72.3 per cent of respondents chose the modality Not satisfied.' It should be stressed that in the UK (51.9 per cent) and Other Anglo-Saxon ( 50.5 per cent) the respondents are divided into two opposite sides.

With the ERC the majority of the countries analysed in the survey are dissatisfied with the exception of Other Anglo-Saxon, which shows a marked ambivalence with 50 per cent satisfied, and Spain, Italy, Belgium, and Turkey, where the satisfaction with the ERC is even more prevalent.

With the EC Framework Programme (not ERC) Scandinavian countries and the UK are more negative than the other countries, although satisfaction in this scheme seems higher for residents in countries with a low satisfaction in their own agencies (e.g. in Italy).

Figure 41 - Satisfaction with EC Framework Programme (not ERC) by country


Taking the three schemes together and showing satisfaction by discipline (Figure 42), it can be noted that economists are relatively more satisfied than both sociologists and political scientists. The only exception to this rule is political scientists, who are relatively happier with the ERC.

Figure 42 - Satisfaction with funding by discipline


Looking at the satisfaction with granting schemes conditional on the success of applications, the satisfaction in the ERC is substantially higher among successful candidates (see Figure 43).

Figure 43 - Satisfaction with grant schemes by application success


Broken down by country, National Research Grants (public) data, however, shows that dissatisfaction was also higher among relatively successful applicants (e.g. in the UK or Spain, see Figure 44).

Figure 44 - Satisfaction with National Research Grants (public) by application success


The satisfaction with the ERC conditional on the success of applications shows great heterogeneity across countries. In general, however, Figure 45 demonstrates that those dissatisfied with the scheme certainly have lower success rates than in the other programmes studied.

Figure 45 - Satisfaction with ERC grants by application success


Finally, Figure 46, on the satisfaction with the EC Framework Programme (not ERC). This lies somewhere in-between National Research Grants (public), where dissatisfaction can be high even for successful candidates, and the ERC, where the situation is the opposite.

Figure 46 - Satisfaction with EC Framework Programme (not ERC) grants by application success


Applying to the ERC has by far the lowest success rate, compared to both the National Research Grants (public) and the EC Framework Programme (not ERC). As shown in Figure 47 , among those who applied, 23 per cent were successful in obtaining a grant from the ERC, which is a relatively high figure if compared to overall ERC figures.

Figure 47 - Grant sources by application success rate
(average percentage - up to $100 \%$ )


Excluding Turkey, where very few respondents replied to this question, the most successful country in applying for National Research Grants (public) seems to be Spain with an average success rate of 88 per cent ( 116 respondents). For the ERC - that is the source of grants from which respondents reach the lowest application success rate -

Belgium (37 per cent) is the most successful. In the EC Framework Programme (not ERC) Other Continental countries show a success rate of 68 per cent; see Figure 48.

Figure 48 - Application success (average percentage - up to $100 \%$ ) rate by country


## Evaluation

The scholars from all three disciplines were asked to rank the 10 most desirable and often missing elements in European research funding, as shown in Table 10.

Table 10 - The most desirable, often missing, elements in European research funding

|  |  | Economics | Sociology | Political <br> Sciences |
| :--- | :--- | :---: | :---: | :---: |
| 1 | Flexibility | 1 | 1 | 1 |
| 2 | Competent and transparent evaluation | 2 | 4 | 3 |
| 3 | Simplification of application and procedures | 3 | 3 | 4 |
| 4 | Adequate funding | 4 | 2 | 2 |
| 5 | Stability and regularity of calls and funding | 5 | 8 | 9 |
| 6 | Teaching buyouts and salary complements | 6 | 7 | 5 |
| 7 | Open topics | 7 | 9 | 8 |
| 8 | Accent on excellence | 8 | 10 | 10 |
| 9 | Grants for all stages of the career, specially for <br> young researchers | 9 | 6 | 6 |
| 10 | Support of innovative ideas | 10 | 5 | 7 |

Clearly, what is striking about the results is that they are extremely consistent for economics, sociology and the political sciences. The four elements that scholars from all three disciplines consider as the most desirable for research funding at any level are:

- flexibility of the research funding arrangement;
- competent and transparent evaluation of the funding application;
- simplification of the application process and less bureaucratized selection and evaluation procedures;
- adequate levels of funding.

At the very top of the ten most desirable, often missing, elements in European Research Funding they also agree: 'Trust the researcher: flexibility!'

The respondents were also asked to write additional comments on the state of research funding in the European Research Area. Many concerned the four desired elements above.

With respect to overall funding flexibility, the complaints refer to at least four distinct dimensions. First, the management of the funds should be delegated to the researcher. Second, the allocation of the funds should be less bound by predetermined rules and budgetary objectives. Third, and very much stressed, the choice of the research strategy often has to be mainstream and it requires excessively large research networks and interdisciplinary teams. Innovative ideas, basic research and smaller teams are frequently disadvantaged. Evaluation of relevance should be results oriented and, hence, carried out ex post. Finally, the possibility to hire additional collaborators, such as research assistants or external experts, seems to be very limited.

An important area against which complaints are channelled is the relative obscurity of selection procedures. Many scholars question the independence of the selection committees, decry the excessive politicization in the choice of research topics and note that there are local and national preferences limiting the scope of research. Preference awarded to trendy or fashionable research topics as opposed to basic research is often seen as a negative selection practice. National research funding is often perceived to be influenced by local academic politics, which creates barriers to entry for heterodox projects.

Excessive red tape and the costs associated with the selection procedure, especially at the EU level and in a number of Member States, seem also a major concern for the respondents. For example, a full professor in economics candidly states that: 'The reporting and audit requirements for EU grants have taken on such proportions that I am no longer interested in this source of funding.' With respect to the application process for research grants offered by the Framework Programme, a senior economist suggests it 'should be totally dismantled and rebuilt'. Excessively large projects that require extremely lengthy application procedures as well as the very demanding reporting requirements discourage rather than spur application for EU funds.

Interestingly, most comments dealing with the adequacy of funding do not concern the lack of endowments, apart from in specific national contexts, where cuts have been particularly deep (e.g. in Italy) and where competitive research funding is by and large unavailable (e.g. in Central, Eastern and South-eastern Europe). On the contrary, most scholars lament the lack of smaller, personalized grants, which do not require enormous (and hence fictitious) consortia or inordinately large research teams.

## The cuts abead

Given the severe repercussions of the 2007-2009 global financial crisis on general government budgets, we expected that the cuts introduced by a vast majority of Member States would have affected research funding as well. Hence, we asked the survey respondents to assess whether they expect funding cuts in national or regional research in economics, sociology and the political sciences.

Table 11 - Evaluation of the budget cuts to research funding by discipline

|  | Economics | Sociology | Political <br> Sciences |
| :--- | :---: | :---: | :---: |
| Yes, and it is likely to affect my <br> funding possibilities | $66.8 \%$ | $71.0 \%$ | $72.9 \%$ |
| Yes, but it is unlikely to affect my <br> funding possibilities | $13.8 \%$ | $7.8 \%$ | $8.2 \%$ |
| No | $10.2 \%$ | $8.1 \%$ | $11.3 \%$ |
| Don't know | $9.3 \%$ | $13.0 \%$ | $7.6 \%$ |

The general outlook is fairly pessimistic. Out of 1,259 total respondents to this question, the vast majority ( 897 , that is 69.3 per cent) responded that there will be cuts and that these will in all likelihood affect their own funding possibilities. 142 respondents, i.e. 11.0 per cent, were slightly more optimistic and answered that despite likely cuts, their own funding opportunities will not be affected. Only 9.4 per cent of all respondents (122) expressed the belief that there will be no cuts at all.

Table 2 shows a breakdown of respondents by discipline: 659 in economics, 345 in sociology and 291 in the political sciences. The political sciences recorded at the same time the largest share of researchers believing that the cuts ahead will affect their own funding opportunities ( 72.9 per cent) as well as the largest share of those who do not foresee any incoming austerity ( 11.3 per cent). Even though economists are more optimistic (24.0 per cent affirm that their funding possibilities will not be thwarted), more than two thirds of them fear that the budget squeeze will negatively affect them.

## Conclusions

Between 2010 and 2011, the Academic Careers Observatory, in collaboration with the European Economic Association, the European Sociological Association, and the European Consortium for Political Research carried out the Survey on Research Funding for the Social Sciences in Europe, targeted at European researchers from economics, sociology and the political sciences.

The semi-structured questionnaire produced a valuable database, providing a clear, if preliminary, picture of both the sociology of the academic profession in Europe and the users' perception of research funding opportunities across the European Research Area. Being aware that selection bias has not been eliminated, results have to be taken cum grano salis, however, the sample is relatively large and the consistency of answers noteworthy.

In general, there is a clear consistency in the responses from economists, sociologists and political scientists. Variation across the European Research Area is instead substantial, an obvious consequence of the different academic traditions that each country has developed.

The first part of the survey highlighted some of the problems and salient characteristics of the different academic professions, such as ageing, especially in sociology, and the gender scissors problem, present mostly in economics. Research internationalization varies significantly across the ERA. Scandinavian and Anglo-Saxon countries have internationalized and open faculties. The Mediterranean countries and Eastern Europe compare badly even with the less open Continental countries.

The second part of the study revealed the users' view of regional, national and supranational financing schemes across the European Research Area. These seem to be riddled with several problems. In spite of the different management and administration practices of national research funding agencies, researchers distrust the evaluation process, which is perceived as opaque, politically biased and targeting only specific (interdisciplinary, modish, excessively big) projects. Hence, a rethinking of national selection strategies should enter the agenda. A reasonable solution may be the internationalization of evaluation procedures. The strategy pursued by a number of national agencies, creating synergies through the European Research Council's evaluation procedures, seems to be going in the right direction.

As for supranational, European-level funding agencies, the satisfaction of scholars ranks low for both the Framework Programme and, surprisingly, for the European Research Council. The success rates for applying, especially to the ERC are extremely low, hence, the evaluators should exercise extreme care in selecting scholars solely based on merit. A problem highlighted for both the ERC and the FP are the cumbersome procedures and high logistical costs, which discourage even submitting an application. Perceived satisfaction varies a great deal according to the country of residence. There might be an inverse relation between satisfaction at national and European levels. As a consequence, European-level institutions should take this into account. Moreover, application and reporting procedures should be simplified, while retaining a rigorous structure.

Finally, scholars agree on the most desirable, and often missing elements of research funding, such as adequate funding, competent and transparent evaluation and the simplification of the application process. Flexibility, and its various aspects (the possibility to hire staff, freely use funds etc.), ranks first for everybody: economists,
political scientists and sociologists. However, flexibility and accountability are the two sides of the same coin. Agencies should develop reliable record keeping of researchers' performance to promote a sensible allocation of funds and prevent the misuse of money.

Appendix 1. Selection criteria for researchers in Sociology and in the Political Sciences Due to the unavailability of a centralized database containing the rankings of individual researchers in the social sciences, apart from in economics, the ACO used the most uniform possible selection criteria to derive a list of the most successful social science researchers in the fields of sociology and the political sciences.

The selection of names and locations was created as follows:
i) we used as a database the Journal Citation Reports (JCR) Social Sciences Edition 2008 (the most recent), provided through the ISI Web of Knowledge managed by Thompson Reuters;
ii) given the vast number of subject categories available to browse the journals inserted into the JCR, we had to limit ourselves to well-specified subfields:
a. Sociology;
b. Political Science.
iii) for each of the subfields we selected the top 10 journals sorted by the latest 5Year Impact Factor (see Table 12 and 13, below, for a complete list);
iv) for each of the journals we selected all (and exclusively) the articles published between the first issue of 2005 and the latest available issue of 2010 (date of access 8 April 2010);
v) from the list of articles we selected all the authors whose current affiliation is at an higher education or research institution within the European Research Area;
vi) the lists have been complemented by the missing data, i.e. e-mail addresses.

Table 12 - The 10 top journals for Political Science

| Abbreviated <br> Journal Title | ISSN | $\{2008\}$ <br> Total <br> Cites | Impact <br> Factor | 5-Year <br> Impact <br> Factor | Imme- <br> diacy <br> Index | $\{2008\}$ <br> Articles | Cited <br> Half- <br> Life | Eigen- <br> factor <br> Score | Article <br> Influence <br> Score |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| AM POLIT SCI <br> REV | $0003-0554$ | 6205 | 1.725 | 4.197 | 0.6 | 35 | $>10.0$ | 0.02 | 3.776 |
| AM J POLIT SCI | $0092-5853$ | 4416 | 2.397 | $\mathbf{3 . 3 6 3}$ | 0.322 | 59 | $>10.0$ | 0.01972 | 3.079 |
| POLIT ANAL | $1047-1987$ | 644 | 4.78 | $\mathbf{3 . 2 8 3}$ | 0.263 | 19 | 5 | 0.00709 | 2.831 |
| EUR J POLIT <br> RES | $0304-4130$ | 1760 | 2.514 | 2.734 | 0.239 | 71 | 6.6 | 0.01037 | 1.637 |
| PUBLIC OPIN <br> QUART | $0033-362 \mathrm{X}$ | 2565 | 1.972 | 2.606 | 0.262 | 42 | $>10.0$ | 0.00482 | 1.36 |
| ANNU REV <br> POLIT SCI | $1094-2939$ | 572 | 1.846 | $\mathbf{2 . 4 1 4}$ | 0.36 | 25 | 6.7 | 0.00408 | 1.858 |
| EUR UNION <br> POLIT | $1465-1165$ | 419 | 2.064 | $\mathbf{2 . 3 7 8}$ | 0.435 | 23 | 4.5 | 0.00303 | 1.231 |
| POLIT GEOGR | $0962-6298$ | 1032 | 2.295 | 2.375 | 0.25 | 40 | 6.7 | 0.00453 | 1.064 |
| J CONFLICT <br> RESOLUT | $0022-0027$ | 1718 | 1.769 | $\mathbf{2 . 0 9 3}$ | 0.658 | 38 | $>10.0$ | 0.00683 | 1.597 |
| POLIT PSYCHOL | $0162-895 \mathrm{X}$ | 864 | 1.478 | 2.073 | 0.139 | 36 | 7.1 | 0.00494 | 1.245 |

Table 13 - The 10 top journals for Sociology

| Abbreviated <br> Journal Title | ISSN | $\{2008\}$ <br> Total <br> Cites | Impact <br> Factor | 5-Year <br> Impact <br> Factor | Imme- <br> diacy <br> Index | $\{2008\}$ <br> Articles | Cited <br> Half- <br> Life | Eigen- <br> factor <br> Score | Article <br> Influence <br> Score |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| AM SOCIOL REV | $0003-1224$ | 9349 | 3.762 | $\mathbf{5 . 2 8 5}$ | 0.364 | 44 | $>10.0$ | 0.01732 | 3.906 |
| AM J SOCIOL | $0002-9602$ | 8629 | 2.808 | $\mathbf{5 . 0 4 6}$ | 0.444 | 45 | $>10.0$ | 0.01481 | 3.819 |
| ANNU REV <br> SOCIOL | $0360-0572$ | 3665 | 2.273 | 4.954 | 0.364 | 22 | $>10.0$ | 0.00806 | 3.368 |
| SOC NETWORKS | $0378-8733$ | 1276 | 2.068 | 2.929 | 0.276 | 29 | $>10.0$ | 0.00318 | 1.269 |
| SOCIOL <br> HEALTH ILL | $0141-9889$ | 1757 | 1.845 | 2.899 | 0.485 | 66 | 8 | 0.00502 | 0.998 |
| J MARRIAGE <br> FAM | $0022-2445$ | 6096 | 1.639 | $\mathbf{2 . 8 4 8}$ | 0.133 | 98 | $>10.0$ | 0.01262 | 1.375 |
| SOCIOL <br> METHOD RES | $0049-1241$ | 1162 | 1.368 | $\mathbf{2 . 7 7 6}$ | 0.7 | 20 | $>10.0$ | 0.00381 | 2.021 |
| SOCIOL <br> METHODOL | $0081-1750$ | 1226 | 2.087 | 2.691 | 0 | 15 | $>10.0$ | 0.00257 | 2.107 |
| SOC PROBL | $0037-7791$ | 1832 | 2.059 | 2.677 | 0.154 | 26 | $>10.0$ | 0.00509 | 1.727 |
| SOCIOL EDUC | $0038-0407$ | 1414 | 1.594 | 2.265 | 0.188 | 16 | $>10.0$ | 0.00269 | 1.46 |

Appendix 2. List of agencies providing research funding, to which the respondents have recently applied

Table 14 - Research funding agencies

| Code | Country | Name |
| :---: | :---: | :---: |
| 3IE | International | International Initiative for Impact Evaluation |
| ACRP | Austria | Austrian Climate Research Programme |
| AERES | France | Agence d'évaluation de la recherche et de l'enseignement supérieur |
| AF | Finland | Academy of Finland |
| AHRC | UK | Arts and Humanities Research Council |
| AIRD | France | Agence inter-établissements de recherche pour le développement |
| Alliance Prog. | USA | Columbia University Alliance Program |
| Anglo-German Foundation | Germany, UK | Anglo-German Foundation - Deutsch-Britische Stiftung |
| ANR | France | Agence Nationale de la Recherche |
| ARRS | Slovenia | Slovenian Research Agency |
| AXA | France | AXA Research Fund |
| Bartelsmann | Germany | Bartelsmann Stiftung |
| BBVA | Spain | BBVA Fundation |
| BDE | Spain | Banco d'Espana |
| BELSPO | Belgium | Belgian Federal Science Policy Office |
| BIT | Italy | Banca d'Italia |
| BMBF | Germany | Federal Ministry of Education and Research |
| BMW | Germany | BMW Foundation |
| Bosch | Germany | Robert Bosch Foundation |
| BritAc | UK | British Academy |
| BSF | Sweden | Baltic Sea Foundation |
| Carlsberg | Denmark | Carlsberg Foundation |
| Carnegie | UK | Carnegie UK Trust |
| CCA | Italy | Collegio Carlo Alberto |
| CDC | France | Caisse de Depots |
| CEPR | UK | Centre for Economic Policy and Research |
| CIS | Spain | Centro de Investigaciones Sociologicas |
| CNB | Czech <br> Republic | Czech National Bank |
| CNRS | France | French National Center for Scientific Research |
| COST | EU | COST - European Cooperation in Science and Technology |
| DAAD | Germany | German Academic Exchange Service |
| DFG | Germany | Deutsche Forschungsgemeinschaft (German Research Foundation) |
| DFID | UK | UK Department for International Development |
| DG | Denmark | Danish National Research Foundation |
| DSF | Germany | Deutsche Stiftung Friedensforschung |
| ECPR | UK | European Consortium for Political Research |
| Egide | France | Égide |


| EIB | EU | European Investment Bank |
| :---: | :---: | :---: |
| EPSRC | UK | Engineering and Physical Sciences Research Council |
| ERC | EU | European Research Council |
| ESF | EU | European Science Foundation |
| ESPON | EU | European Observation Network, Territorial Development and Cohesion |
| ESRC | UK | Economic and Social Research Council |
| ETF | Estonia | Estonian Science Foundation |
| EU (Asia Link) | EU | EU Asia-Link Programme |
| EUREKA | EU | EUREKA |
| Europlace | France | Paris Europlace |
| FAS | Sweden | Swedish Council for Working Life and Social Research |
| FBF | France | Fondation Banque de France |
| FCT | Portugal | Portuguese Ministry of Science and Technology |
| FECYT | Spain | Spanish National Science Foundation |
| FES | Germany | Friedrich-Ebert Stiftung |
| FI | Denmark | Danish Agency for Science, Technology and Innovation |
| FLE | Italy | Fondazione Luigi Einaudi |
| FNRLux | Luxembourg | Fonds National de la Recherche |
| FNRS | Belgium | Belgian National Fund for Scientific Research (Wallonia/Brussels) |
| FP (unspecified) | EU | Framework Programme (unspecified) |
| FP5 | EU | $5^{\text {th }}$ Framework Programme |
| FP6 | EU | 6 ${ }^{\text {th }}$ Framework Programme |
| FP7 | EU | $7^{\text {th }}$ Framework Programme |
| FRB | USA | Federal Reserve Bank |
| Fulbright | US | Fulbright Commission |
| FWF | Austria | Austrian Science Fund |
| FWO | Belgium | Belgian National Fund for Scientific Research (Flanders) |
| GACR | Czech <br> Republic | Czech Science Foundation |
| GDN | International | Global Development Network |
| Gulbenkian Foundation | Portugal | Fundação Calouste Gulbenkian |
| Handelsbanken | Sweden | Handelsbanken Foundation |
| Hans-Bockler | Germany | Hans-Böckler Stiftung |
| HAS | Hungary | Hungarian Academy of Sciences |
| HFSP | International | Human Frontier Science Program |
| HM | Estonia | Estonian Ministry of Education and Research |
| Hypo Tirol | Austria | Hypo Tirol Bank |
| IEF | Spain | Instituto de Estudios Fiscales |
| IFAD | International | International Fund for Agricultural Development |
| IMF | USA | International Monetary Fund |
| Interreg | EU | Various Interreg initiatives |
| IRCHSS | Ireland | Irish Research Council for the Humanities and Social Sciences |


| ISF | Israel | Israel Science Foundation |
| :---: | :---: | :---: |
| ISI | Germany | Fraunhofer Institute for Systems and Innovation Research |
| JRF | UK | Joseph Rowntree Foundation |
| Juan March | Spain | Juan March Foundation |
| KNAW | Netherlands | Royal Netherlands Academy of Arts and Sciences |
| Kone | Finland | Kone Foundation |
| Leibniz | Germany | Leibniz Gemeinschaft |
| Leventis | Lichtenstein | A.G. Leventis Foundation |
| Leverhulme | UK | The Leverhulme Trust |
| LLP (JM) | EU | EU Lifelong Learning Programme (Jean Monnet programme) |
| Mapfre | Spain | Fundación Mapfre |
| Marshall | US | Marshall Fund |
| MEC (renamed MICINN) | Spain | Spanish Ministry of Education |
| Meltzer | Norway | Meltzer Foundation |
| MICINN | Spain | Spanish Ministry of Science and Innovation |
| MIUR | Italy | Ministero dell'Istruzione, dell'Università e della Ricerca |
| MPG | Germany | Max Planck Gesellschaft |
| MWP | EU | Max Weber Programme |
| NB | Norway | Norges Bank |
| NBB | Belgium | National Bank of Belgium |
| NBER | USA | National Bureau for Economic Research |
| NERC | UK | Natural Environment Research Council |
| Netspar | Netherlands | Network for Studies on Pensions, Aging and Retirement |
| NIHR | UK | National Institute for Health Research |
| Nordeafonden | Denmark | Nordea-fonden |
| Nordic Research Council | Denm,ark, <br> Norway, <br> Sweden | NORENSE |
| NORFACE | International | New Opportunities for Research Funding Agency Co-operation in Europe |
| NSF | USA | US National Science Foundation |
| Nuffield | UK | Nuffield Foundation |
| NOW | Netherlands | The Netherlands Organisation for Scientific Research |
| OECD | France | Organisation for Economic Cooperation and Development |
| OeNB | Austria | Austrian National Bank |
| ORA | FR-NL | Open Research Area |
| OTKA | Hungary | Hungarian Scientific Research Fund |
| Ramon Areces | Spain | Fundacion Ramón Areces |
| RCN | Norway | Research Council of Norway |
| RCUK | UK | Research Councils UK |
| RES | UK | Royal Economic Society |
| RGNF | India | Rajiv Gandhi National Fellowship |
| RJ | Sweden | Bank of Sweden Tercententary Foundation (Riksbankens Jubileumsfond) |


| RPF | Cyprus | Cyprus Research Promotion Foundation |
| :--- | :--- | :--- |
| Rustaveli | Georgia | Shota Rustaveli National Science Foundation |
| SIDA | Sweden | Swedish International Development Agency |
| SNIS | Switzerland | Swiss Network for International Studies |
| SNSF | Switzerland | Swiss National Science Foundation |
| SSHRC | Canada | Canadian Social Sciences and Humanities Research Council |
| SSRC | USA | Social Science Research Council |
| Thales | UK | Thales Group |
| Thyssen | Germany | Fritz Thyssen Foundation |
| TUBITAK | Turkey | Scientific and Technological Research Council of Turkey |
| USAID | USA | United States Agency for International Development |
| USIP | USA | United States Institute for Peace |
| Volkswagen | Germany | Volkswagen Foundation |
| VR | Sweden | Swedish Research Council |
| VRWB | Belgium | Flemish Science Policy Council |
| WB | USA | World Bank |
| Windsor | UK-PT | Treaty of Windsor Anglo-Portuguese Joint Research Programme |
| WWTF | Austria | Vienna Science and Technology Fund |
| YJF | Finland | Yrjö Jahnsson Foundation |

Appendix 3. Selected graphs separated by discipline

Figure 49 - Occupational profile by country of residence (all disciplines)


Figure 50 - Gender profile by academic profession (all disciplines)


Figure 51 - Age profile by academic profession (all disciplines)


Figure 52 - Years from graduation by professional profile (all disciplines)


Figure 53 - Research environment by country of residence (all disciplines)


Figure 54 - Research environment by professional profile (all disciplines)


Figure 55 - Research environment on graduation year (all disciplines)


Figure 56 - Working time and gender (all disciplines)


Figure 57 - Working time by professional profile (all disciplines)


Figure 58 - Working time by age profile (all disciplines)


Figure 59 - Sources of budget funding (all disciplines)


## Appendix 4. Selected indicators on individual national research funding agencies

In order to provide a more accurate assessment of the public agencies financing National Research Grants, we asked the respondents to name the three research funding agencies the candidate most recently applied to, as shown in Figure 15 and in Appendix 2.

Here we selected the agencies with at least 20 applications (plus Sweden), that is:

| ANR | France | National Research Agency |
| :--- | :--- | :--- |
| DFG | Germany | German Research Foundation |
| ESRC | UK | Economic and Social Research Council |
| FI | Denmark | Danish Agency for Science, Technology and Innovation |
| FCT | Portugal | Portuguese Ministry of Science and Technology |
| MICINN | Spain | Spanish Ministry of Science and Innovation |
| MIUR | Italy | Italian Ministry for Education, Universities and Research |
| NOW | Netherlands | The Netherlands Organisation for Scientific Research |
| RCN | Norway | Research Council of Norway |
| SNSF | Switzerland | Swiss National Science Foundation |
| VR | Sweden | Swedish Research Council |

Appendix 4 is divided into two distinct sections. The first one shows graphically and through short descriptions the most relevant indicators of satisfaction, stability and so on for the nine agencies above, in comparative terms. The second one provides a brief description of each agency (method of funding, available programmes in the SSH etc.) and, drawing on the survey's results, it highlights the institutions' main pros and cons. The descriptions of the agencies are based on four previous ACO reports and briefings and on the 2011 EEA-ACO report 'Research Funding for Economics in Europe'. ${ }^{16}$

[^12]Figure 60 - Frequency of applications to National Research Grants


Figure 61 - Applications to National Research Grants by nationality


Figure 62 - Success rate of applications to National Research Grants


Figure 63 - Reasons to apply for National Research Grants


Figure 64 - Overall satisfaction with National Research Grants


Figure 65 - Satisfaction with National Research Grants by application success


Figure 66 - Stability of National Research Grants


France - French National Research Agency
The publicly financed, independent National Research Agency (Agence Nationale de la Recherche, ANR) was created in 2005 and changed its status to an administrative public institution in 2007. The Agency's annual budget is slightly less than 1 billion Euros, 15 million of which go to the Social Sciences and Humanities. About 1,500 projects are funded every year, projects which last between two and four years.

In 2011, there were five main non-thematic programmes. The programmes 'Blanc' and 'Blanc international' are open, bottom-up, non-thematic call for proposals in all research fields. The 'Programme jeunes chercheuses et jeunes chercheurs' supports young researchers or lecturers with a permanent position in a French university or research organization, in all research fields. The 'Chaires d'excellence' offers visiting short (18-24 months) or long-term professorships, to both junior and senior academics. The 'Retour Post-Doctorants' is a programme for returning young researchers, including French PhD holders, currently in a foreign post-doctoral position. Thematic calls cover different aspects of the disciplines. Bilateral and quadrilateral calls are open in collaboration with Germany, the UK, the US, Argentina and Japan.

In general, the ANR testifies to France's efforts to modernize research funding and academia by introducing Anglo-Saxon academic features into a typical European Continental context, that is, characterized by heavy regulation and, at the same time, driven by informal, strongly inward-oriented agreements. A process of decentralization affects both the academic system and research funding. As a consequence, the National Research Agency was created and the Centre National de la Recherche Scientifique (CNRS) was restructured and divided into thematic institutes with the explicit tasks of research performance and research funding. Another noteworthy feature of the reform effort was the creation of an external Evaluation Agency for Research and Higher Education (AERES) to independently evaluate funded projects. Whether the appointments to the evaluating committee fully meet international competitiveness standards is, however, debatable.

The relatively closed nature of the French system (typically Continental) to external applicants is not entirely corroborated by this survey. Figure 61 shows that almost a third of all applicants to the ANR were not French nationals. In general, satisfaction is relatively high; almost two thirds of respondents positively assess the ANR. However, this may also be a consequence of the relatively high success rate ( 60 per cent). In fact, only a tiny fraction of applicants is entirely satisfied with the French national agency. Finally, the respondents to this survey rank the ANR grants as some of the least stable among the 11 National Public agencies considered in the Appendix, second only to the Italian MIUR. Figure 66 shows that one third of respondents think that the nature of French grants is either very unstable or changes (too) frequently. Interestingly - and despite a relatively low frequency in applications - low procedural costs are often mentioned as a reason for applying to the ANR.

## Germany - German Research Foundation

In Germany research funding is almost entirely publicly financed. Most of the financial means are provided by the federal ministries of Education and Research (BMBF), of Economics and Technology and the corresponding ministries of the federal states. These means are pooled in the budget of funding agencies, which allocate these funds independently. Of the three most relevant funding agencies for research, i.e. the Deutsche Forschungsgemeinschaft (German Research Foundation, DFG), the German Academic Exchange Service (DAAD) and the Alexander von Humboldt Foundation, the DFG is by far the largest, with a budget of 2.3 billion Euros.

Funding opportunities are project based and the allocation follows the bottom-up principle. The evaluation at the DFG is screened by the Head Office, which sends it to anonymous reviewers (mostly senior German scholars). The Assessment Review Board, composed of 48 boards elected by the German research community for four years, judges the proposals, based on their quality and the anonymous reviews. DFG's Joint Committee finalizes the decision.

There is a long list of programmes and fellowships funded by the DFG. Among notable examples, Research Fellowships provide post-doctoral researchers with funding for a maximum two-year research period abroad. The Emmy Noether Programme provides funding for a junior research group of post-doctoral researchers for up to five years, and aims to attract highly skilled post-doctoral researchers to develop their professorial careers in Germany.

As for its broader involvement in German academia, the DFG administers the 'Excellence Initiative'. In the attempt to solve the chronic underfunding and declining research excellence of German universities, the 'Excellence Initiative', promotes top-level research, aims to improve the quality of German universities and to increase the attractiveness of Germany as a research location. The German federal and state governments began the Initiative in 2005, to run for a period of 6 years. It funds graduate schools, research clusters of excellence and institutional strategies of entire universities on a competitive basis across all disciplines.

The relatively closed nature of the German academic system - archetypically Continental - is testified by the low number of foreign applicants (circa 15 per cent), as shown in Figure 61. Notwithstanding, those who apply hold a positive opinion of the German
funding agency. Despite their high overall number, the reported success rate of the application for DFG funding is high, some 63 per cent (Figure 62). This is correlated with overall satisfaction, which is the third highest in the sample, as underlined by Figure 64. The suitability of the scheme's design is one important reason to apply to the DFG, only slightly inferior to the overall size of the grants, see Figure 63. The stability of the grants on offer and relative calls is also highly ranked (Figure 66).

## United Kingdom - Economic and Social Research Council

The Economic and Social Research Council (ESRC) is a non-departmental public body principally funded through the Department for Business, Innovation and Skills (BIS) and is committed to enabling UK social scientists to collaborate with the best researchers across the globe. The ESRC is based on principles of impact (academic, economic, societal and policy), world-standard quality of funding for research and training, independence from political, commercial or sectional interests.

The ESRC provides different funding schemes for researchers at different stages of their careers. Postdoctoral grants are available to researchers with no restriction based on nationality for a period of either 1 (full-time) or 2 (part-time) years. Applications from priority disciplines and 'discipline hopping' are encouraged. 10 fellowships of 2 years are available in macroeconomics. Two-year mid-career development fellowships are available for established researchers with 5-15 years experience of active research, with an emphasis on multidisciplinary research and specific career steps associated with the research in question. The ESRC Research Grants Scheme supports broad and possible multidisciplinary research with an international character of the highest quality involving talented researchers. A new opportunity is the International Training and Networking Opportunities programme, supporting mobility and exchange. Finally, the ESRC has bilateral agreements with research funding agencies in several countries, including Australia, Austria, Finland, France, Germany, Hong Kong, Iceland, Ireland, the Netherlands, South Africa and Sweden.

The UK is undoubtedly the most successful academic and research environment in Europe. However, the financial crisis has meant the imposition of heavy budget cuts, which may threaten this primacy. The effects on research funding are mixed. The budget of the Seven Research Councils under BIS responsibility will remain flat and ring-fenced between 2010-2015. This means that inflation may trigger a reduction in real terms of up to $10 \%$. Capital expenditures will be substantially cut, only marginally affecting the SSH. However, it is also plausible that the ESRC may be penalized (an educated guess would be cuts of $5-10 \%$ ) with respect to other Councils.

The absolute number of reported applications is highest for the ESRC (118). Additionally, Figure 61 fully corroborates the openness and international integration of UK academia; in fact, the share of foreign nationals applying for ESRC funding is higher than 50 per cent and second only to the Swiss SNSF. Among the reasons to apply, the ESRC scores roughly similarly to the DFG; the total size of the grant is second to the suitable design of the schemes on offer, as shown in Figure 63. The overall satisfaction with British grants is surprisingly low and less than 50 per cent of respondents are satisfied with them, as illustrated in Figure 64. This probably has to do with the low success rate; only 46 per cent of our respondents got a grant and the success rate of those dissatisfied is consistently lower, see Figure 65. Finally, some 70 per cent of respondents
find ESRC grants very or fairly stable, which is, however, in the lower half of this survey's ranking (Figure 66).

## Denmark - Danish Agency for Science, Technology and Innovation

The Forsknings- og Innovationsstyrelsen (Danish Agency for Science, Technology and Innovation, FI) is an agency under the Danish Ministry of Science, Technology and Innovation. It performs tasks relating to research and innovation policy and supervises the scientific research councils that allocate funds for independent research and that advise the political system. The Agency was established in response to a significant increase in public sector investments in R\&D, replacing the then Danish Research Agency from May 2006.

With respect to the funding of research projects in the Social Sciences and Humanities, the Danish Council for Independent Research funds specific research activities based on researchers' own initiatives. The Humanities Council has 12 members, the Social Sciences Council has 15, all appointed by the Ministry of Science, Technology and Innovation. The former publishes one call for applications per year, one annual main call for proposals (the Spring Call, which comprises five parallel calls from the individual research councils); the latter publishes two calls, including the Autumn Call, which focuses on postdoctoral grants. In 2011, the Council for Independent Research had a financial framework totalling approximately DKK 1.2 billion (161 million Euros). The Social Sciences' share of these totalled DKK 88 million ( 11.8 million Euros).

Additionally, the research career programme Sapere Aude (also managed by the Council) is aimed to develop the skills and competences of the best research talents, national as well as international. Sapere Aude consists of three steps: i) Step 1 - Postdoc; ii) Step 2 Starting Grant; iii) Step 3 - Advanced Grant (not launched in 2011). In 2011, the Council expects to award up to 45 grants across all scientific fields at Sapere Aude Step 1 and up to 35 grants at Step 2. A Sapere Aude Postdoc grant amounts to a maximum DKK 700 thousand (94,000 Euros).

All the postdoctoral programmes financed by the two Councils are open to researchers from abroad. Up to $20 \%$ of the applicants are non-Danish. The quality of the proposal and the academic qualifications of the researchers are the only criteria for evaluating applications.

Among the 11 National Research institutions surveyed, FI is only relatively open to foreigners (one third of applicants), in line with the other two Scandinavian agencies (VR and RCN), see Figure 61. Almost two thirds of respondents chose to apply to the Danish Agency for Science, Technology and Innovation due to the overall size of the research grant, see Figure 63. Even though the stability of FI grants is fairly highly ranked ( 90 per cent of respondents find it suitable, as shown in Figure 66), only half of the applicants are at least moderately satisfied with it (Figure 64). This may be a simple consequence of the low success rates of those dissatisfied (Figure 65); in fact, satisfaction and success rates have a marked positive correlation.

The Fundação para a Ciência e a Tecnologia (Foundation for Science and Technology, FCT) is the Portuguese government body responsible for financing and evaluating broader national research programmes. It operates under the Ministry for Education and Science, and was established in 1997 (the statues are from 2007).

FCT manages a series of policy instruments for science, technology and advanced training. The latter comprises a programme of PhDs (financing, since 2006, some 2000 new Fellowships per year) and post-doctoral Fellowships ( 500 per year). By 2010, over 7,000 Fellowships and 1,200 5 -year post-doctoral contracts were granted. The annual budget of these two programmes is 200 million Euros. Additionally, there are various joint programmes for professional qualifications stipulated between the Portuguese government and leading foreign academic institutions. The annual calls for PhD and post-doc positions are announced in national newspapers and on the FCT website. Applications are made online, either in English or in Portuguese. The reviewing panels are exclusively Portuguese. There is a clear scale of Host Institutions, which are ranked by international panels.

The FCT has achieved notable results, and the Portuguese international research statistics have steadily improved, especially in the SSH. Before 1974, the SSH were basically allocated no money in Portugal. By 2011, they represent $12 \%$ of the total science and technology budget.

From our survey, the Portuguese FCT emerges as a solid National Public research funding agency, which is, however, very inward looking. In fact, less than 5 per cent of FCT applicants in our sample were not Portuguese (Figure 61). More than half of the respondents declare that they apply to the FCT due to the total size of its grants, but definitely not for its low procedural and logistical costs (Figure 63). The overall satisfaction is fairly high; almost 80 per cent of respondents positively evaluate the institution, as illustrated in Figure 64. This is not too surprising as the respondents' overall success rate was fairly high at over 60 per cent. Finally, almost 95 per cent of the respondents regard FCT funding as very or fairly stable (Figure 66), quite an achievement for a country that did not fund the social sciences until 1975.

## Spain - Ministry of Science and Innovation

The Spanish research competences are split between the government, which has exclusive power for the general framework for R\&D policies, and the 17 regional systems that guarantee some of the funding. A National research plan is drafted every four years (the current, $6^{\text {th }}$ National R\&D Plan covers the period 2008-2011).

There is no Spanish research council: the Ministerio de Ciencia e Innovación (Ministry of Science and Innovation, MICINN) provides funds for public research, increasingly through competitive calls (institutional funding was $23 \%$ of all public funding by 2005). Even though Spanish research funding opportunities are organized in a centralized manner and without independent funding agencies, they appear to be open and accessible to foreign researchers. All proposals are refereed internationally through the National Evaluation and Foresight Agency.

The Ministry offers a number of research programmes. Two are worth mentioning as they are open to foreign researchers. The Ramón y Cajal (RyC) programme offers experienced researchers the opportunity to join, for up to five years, a Spanish institution to work on a research project of their choice. 231 positions were offered in 2010, with an annual budget of EUR 44.5 million. The Juan de la Cierva (JdC) programme offers research opportunities to young researchers within three years of obtaining their PhD to join a research group in the country for three years. This year there were 350 positions available, with an annual budget of EUR 35.3 million.

Even though the Continental legacies of limited openness and competition persist, Spain has achieved much in the past decade in terms of academic and research improvements. R\&D expenditures per-capita have grown $132 \%$ from 2000 to 2008 ; the number of researchers has increased $80 \%$ in the same period, almost a record in the EU. As in other countries, this trend has been interrupted by the crisis, but R\&D has remained a priority for national and regional governments.

With the vast range of postdoctoral funding, MICINN grants have become very popular among Spaniards and foreigners alike. In fact, more than one fourth of all applicants were non-Spanish, which is a much higher share of foreign applicants than either of the two Mediterranean countries (Portugal and Italy) represented in the sample, see Figure 61. Similarly to Portugal, researchers apply to MICINN for the generosity of its grants (Figure 63), and the success rate of the respondents to this survey is astoundingly high, almost 90 per cent, as shown in Figure 62. Hence, it is again not surprising that more than four fifths of respondents are fairly satisfied with the Ministry (Figure 64). Finally, the schemes offered by this Spanish institution are perceived as very stable: MICINN ranks fourth, after Sweden, Switzerland and Portugal (Figure 66).

## Italy - Ministry of Education, Universities and Research

In Italy, the Ministry of Education, Universities and Research (Ministero dell'strurione, Università e Ricerca, MIUR) is the main provider of public funding.

The Basic Research Investment Fund (Fondo di Investimento nella Ricerca di Base, FIRB) had an annual budget of 174 million Euros in 2002-2003 and supported basic research. The grants were small, and the programme is not currently in operation. The 'Rientro dei Cervelli', similar to the Marie Curie actions for junior and senior researchers, was launched in 2001 to facilitate the repatriation of Italian scholars who work abroad. It was open to researchers who held positions abroad and it granted full time contracts for four years, but no tenure followed. During 2001-2006, 593 grants were awarded, but the programme was discontinued in 2007. 'Futuro in Ricerca' is a programme similar to ERC for individual research funding targeted at young researchers. It supports basic research and it began in 2009 with a 50 million Euros budget. The grants range from EUR 0.3 million to EUR 2 million for four years.

In sum, Italy is unattractive for foreign and national researchers due to lack of funding, delays, irregular payments and lack of transparency in evaluation and selection. All these features exacerbate its European Continental character and inward orientation. Foreigners are often cut off, also due to lack of information available in English. Among the countries that are the object of this study, Italy has perhaps been the least successful in restructuring its academic and research funding systems.

The considerations above are corroborated by the respondents' assessment of the funding practices of the MIUR. The lack of openness is testified to in Figure 61: a minimal fraction of all applicants is not Italian. Moreover, the overall judgement is very negative: less than 25 per cent of respondents is satisfied with the MIUR (Figure 64). Worse even, the success rate of those who are satisfied is only slightly higher that that of those who are not (Figure 65). Additionally, Figure 66 neatly shows that the schemes run by MIUR are considered - by far - the least stable and predictable: almost 60 per cent of respondents perceive the nature of Italian grants to be changing (too) frequently and a tiny minority deem them outright unstable.

## The Netherlands - The Netherlands Organisation for Scientific Research

The Netherlands Organisation for Scientific Research (De Nederlandse Organisatie voor Wetenschappelije Onderzoek, NWO) provides indirect government funding to researchers of all nationalities under a number of programmes.

The Talent Schemes aim to attract academics from abroad in all disciplines working on any research topic. Among these the Money Follows Researcher (MFR) scheme is interesting in that it aims to guarantee the portability of the grant across research institutions that are members of the network. Other funding programmes target academics with different levels of experience. Rubicon targets young researchers in order to provide them with international experience. Veni, Vidi and Vici focus respectively on experienced postdocs, assistant/associate professors, and associate/(starting) full professors. Other NWO programmes are open to all scientists in Dutch universities and offer funds through both open and thematic calls. Specific schemes support exchanges and visiting opportunities, including bilateral programmes with Germany and Belgium, and also Japan, South Korea, Taiwan and China.

Broad-based committees assess proposals and researchers frequently complain about a lack of expertise and transparency. The NWO attempts to match the number of accepted proposals with the total number of applications in that field. There is strong bottom-up stimulation. Proposals are judged on two criteria with equal weight: the quality of the proposal and the quality of the candidate. Female researchers are still excessively underrepresented.

To sum up, in line with the Anglo-Saxon tradition, the Dutch research environment is lively and successful, churning out an important number of scientific publications per year. Significantly, Dutch university research is third in the world in terms of scientific impact. Nonetheless, there is still room for improvement. The Netherlands spends only $2 \%$ of GDP for R\&D; there is a net outflow of graduates and just $12 \%$ of all innovative companies state a university as a partner. Private investment is under par. Direct government funding and funding by third parties are less efficient than indirect government funding, channelled through NWO.

After the ESRC and the Swiss SNSF, the NWO is the most internationally open to foreign applicants: within this sample, exactly half of the respondents that applied to NWO were not Dutch (Figure 61). The overall size of the grants on offer is the most important factor for applying. More importantly the NWO has (after Sweden and Norway) the lowest share of applicants who think that the procedural and logistical costs of applying are low, as shown in Figure 63. The success rate of NWO applicants is the
lowest in the sample at 27 per cent (Figure 62). This negatively affects overall satisfaction, which is the lowest after Italy; and the perceptions on stability, the lowest after MIUR and the French ANR, see Figures 64 and 66.

## Norway - Research Council of Norway

The Research Council of Norway (Forskingsradet, RCN) is the main provider of research funding in Norway. The most important contributors to the budget of the RCN are the Ministry of Education and Research and the Ministry of Trade and Industry. In 2011, the Council's total budget amounts to NOK 7,250 million (circa 924 million Euros).

The funding schemes for $\mathrm{R} \& \mathrm{D}$ projects are divided into four main groups: i) research programmes - thematic and usually initiated by the RCN, they make up some 50 per cent of the overall budget; ii) independent projects - the Council's key funding instrument for researcher-initiated, non-thematic basic research. Allocations to independent projects make up in excess of 11 per cent of the Research Council's overall annual budget; iii) infrastructural and institutional measures, comprising: basic funding to research institutes receiving government funding; support to $\mathrm{R} \& \mathrm{D}$ groups the fall outside the framework for government funding; funding to Centres of Excellence and Centres for Researchbased Innovation; funding for scientific equipment, databases/collections. These make up slightly less than 25 per cent of the annual budget; iv) networking measures -5 per cent of the budget applies to national activities and meeting places (support for courses, conferences, awards, network agreements, collaborative measures and international networking measures).

The most important activity for individual researchers is the Independent Projects scheme (FRIPRO), which provides funding for independent projects in an open national competitive arena on the basis of scientific merit. Social Science (FRISAM) is one of the four fields of concern of the FRIPRO. Evaluation takes place in two steps. First, expert referee panels assess applications with scientific merit as the only assessment criterion. The panels comprise international experts with diverse scientific backgrounds. Norwegian referees are only used in exceptional cases. The panel discusses the proposal and may obtain written assessments from external experts. The panel prepares a written overall assessment, which forms the basis for the final decisions taken by the Expert Committees. These formulate the decision based on scientific merit, as well as on other criteria, such as gender equality and recruitment.

Since 50 per cent of RCN's overall budget is devoted to thematic research programmes, the main motivation of the respondents to apply for its funding is that the grants are specially targeted to their area of expertise (Figure 63). Three quarters of all applications to the RCN are submitted by Norwegian researchers, see Figure 61. Despite the secondlowest success rate among the respondents to the survey (less than 40 per cent, as indicated in Figure 62), the satisfaction with the RCN is proportionally higher than with schemes where success rates are lower-than-average (ESRC and NWO, see Figure 64). Finally, the perception over the stability of the grants provided by RCN is high but not exceptional: 80 per cent of respondents find the schemes stable and predictable, as shown in Figure 66.

The Swiss National Science Foundation (SNSF) is Switzerland's main provider of scientific research funding. The SNSF is a foundation under private law, an autonomous body promoting independent scientific research. The SNSF annually supports some 7,200 researchers. With its federal mandate, it supports basic research in all disciplines, and it invests in applied research in various scientific fields. The Foundation's annual budget is CHF 700 million (circa 613 million Euros).

The SNSF endorses the projects submitted by researchers through a wide range of funding schemes. With few exceptions, the researchers are free to choose the topic and scope of their research projects themselves. The SNSF supports junior researchers through grants and fellowships (career funding). Among thematic funding schemes, SNSF's 'Programmes' have pre-defined basic parameters. The National Research Programmes (NRPs) generate scientific knowledge aimed at solving Switzerland's most pressing problems. The Federal Council specifies the topics. Another key programme is aimed at establishing National Centres of Competence in Research (NCCRs), where long-term research projects in areas of strategic importance for Swiss science, economy and society are conducted. Finally, the SNSF supports several joint programmes designed to reinforce international collaboration.

As for the evaluation procedure, this consists of two steps. First, external reviewers assess applications. Subsequently, they are assessed and graded by members of the National Research Council based on the external reviews. The Council then issues a recommendation to an evaluation body, which discusses the applications and takes a provisional decision. Before endorsing the decision, the Presiding Board of the Council examines whether the application and budgetary procedures have been correctly applied.

The openness and internalization of Swiss research places the country in the AngloSaxon academic cluster. Switzerland ranks among the top ten countries worldwide for R\&D expenditures ( $2.9 \%$ of the GDP in 2006). Private companies fund three quarters of all R\&D in Switzerland, with the remainder coming from the public sector. Universities perform the most basic research, applied R\&D is the domain of the private sector. This leads to enviable results; Swiss scientists are not only the most productive in the world, with the highest number of scientific publications per researcher, their publications also have a strong impact (life sciences, agriculture, biology, environmental sciences, and clinical medicine measure the highest number of citations per publication worldwide).

Living up to expectations, the SNSF has the highest approval rate among all the schemes in the sample; over 90 per cent of respondents are very or mostly satisfied with its schemes, which is partly reflected in the high success rate of applicants, around 78 per cent, see Figures 62 and 64. The internalization of the Swiss academic environment is corroborated by Figure 61; the majority of respondents who applied to the SNSF are not Swiss, the highest share in this sample. The overwhelming reason to apply to the Foundation is that its grants are very well designed, as shown in Figure 63. Finally, the stability of the schemes on offer in Switzerland is perceived as very high: together with FCT it is second only to the Swedish Research Council, as illustrated in Figure 66.

In contrast to other Scandinavian countries, in Sweden there is a significant share of nongovernmental university education (generously subsidized by the state). If most of the funding is institutional, the public research councils are the second largest source of R\&D funding in the university system as a whole. Research councils disburse public funds but the difference here from other central government funding is that research council money is distributed according to the quality of the proposed research, on a competitive basis.

The Vetenskapsrådet (Swedish Research Council, VR) is an important source of research funding, as it receives $14 \%$ of total public funding. It mainly offers two types of grant: i) post-doctoral fellowships to enable researchers with Swedish doctorates (or equivalent European qualifications) to stay at foreign universities; and ii) post-doctoral positions in Sweden, to enable researchers with Swedish or non-Swedish doctorates (PhD or equivalent) to work at Swedish higher education institutions. Recent legislative changes diminished its position and universities are now responsible for the employment of their staff. Hence, since 2011, the Swedish Research Council will no longer be responsible for either Junior or Senior Researcher positions, and will retain authority only over postdoctoral researchers. As for the selection and evaluation procedures, these are undoubtedly onerous. Swedish researchers voice concerns about the excessive administrative burden of applying, and accounting for, research funding.

On the positive side, the Swedish R\&D budget is the highest in Europe, amounting to $3.7 \%$ of GDP. The crisis did not affect the budget and there are no cuts in sight.

The Swedish Research Council has the lowest number of applicants considered in our sample; hence, some of the results may be biased. Similarly to the Norwegian RCN, one of the main reasons to apply is that the grants are targeted to specific areas of research (Figure 63). Despite some very positive assessments - the stability of Swedish grants is perceived as the highest (Figure 66) - overall satisfaction is relatively low, less than 50 per cent and similar to the ESRC (Figure 64). This may be again explained by the relatively low (within this sample) success rate of the respondents ( 55 per cent, as shown in Figure 62). Circa one third of all applications to the Swedish Research Council are submitted by foreigners, which is in line with the other Nordic countries (Figure 61).


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[^0]:    ${ }^{1}$ The ECPR mailing list was used. This, however, contains many dead or unused accounts. Normally, between 2,000 and 3,000 recipients access the emails. Hence, the low 5.3 per cent response rate for political scientists is misleading.

[^1]:    ${ }^{2}$ The lower score for economists may be attributable to the initial question on experience. With respect to political scientists and sociologists we included a more precise definition of 'research funding', which encouraged more people to declare that they applied for funding, but not necessarily that they also obtained it.

[^2]:    ${ }^{3}$ Marimon, R., Lietaert, M. and Grigolo, M. 2009. Towards the 'Fifth Freedom': Increasing the Mobility of Researchers in the European Union. Higher Education in Europe 34 (1): 25-37.

[^3]:    ${ }^{4}$ For a breakdown by discipline, see Appendix 3, Figure 49.

[^4]:    ${ }^{5}$ For a breakdown by discipline, see Appendix 3, Figure 50.

[^5]:    ${ }^{6}$ For a breakdown by discipline, see Appendix 3, Figure 51.

[^6]:    ${ }^{7}$ For a breakdown by discipline, see Appendix 3, Figure 52.

[^7]:    ${ }^{8}$ For a breakdown by discipline, see Appendix 3, Figure 53.
    ${ }^{9}$ For a breakdown by discipline, see Appendix 3, Figure 54.

[^8]:    ${ }^{10}$ For a breakdown by discipline, see Appendix 3, Figure 55.

[^9]:    ${ }^{11}$ For a breakdown by discipline, see Appendix 3, Figure 56.
    ${ }^{12}$ For a breakdown by discipline, see Appendix 3, Figure 57.

[^10]:    ${ }^{13}$ For a breakdown by discipline, see Appendix 3, Figure 58.
    ${ }^{14}$ For a breakdown by discipline, see Appendix 3, Figure 59.

[^11]:    ${ }^{15}$ Often the respondents named a generic 'National public institution'. These have been excluded from the count. For a complete list and for an explanation of the acronyms, see Appendix 2, Table 14.

[^12]:    ${ }^{16}$ Mariathasan, M. and Marimon, R. 2011. Research Funding for Economics in Europe, Report of the European Economic Association Standing Committee on Research and the Academic Careers Observatory of the Max Weber Programme, European University Institute. Florence: Max Weber Programme - Academic Careers Observatory. MWP-ACO. 2008. Towards an Open and Competitive European Area for Research Careers: Some Basic Findings from the Max Weber Programme Academic Careers Observatory, Report 2008. Florence: Max Weber Programme Academic Careers Observatory.
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