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POLICY

BRIEF

**GLOB**ALSTAT

## *Evidence-Based Policy-Making: From Data To Decision-Making*

*EXECUTIVE TRAINING SEMINAR*

*GLOBAL GOVERNANCE PROGRAMME  
& SCHOOL OF TRANSNATIONAL  
GOVERNANCE*

*Gaby Umbach, Caterina Francesca Guidi and  
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In times of increasing populism and contestation in politics, reliable information plays a vital role in well-informed policy-making based on evidence and not only on emotions and values, let alone disinformation and fake news. The popular legitimacy of any political system therefore depends on its capacity to deliver good and targeted outcomes based on transparent evidence. These outcomes need to be rooted in reliable data in order to make political decisions understandable, assessable and sustainable.

Because of this demand for information and transparency of evidence, policy proposals, legislative acts and implementation arrangements are evaluated in the preparatory and scrutiny phases of policy-making against the backdrop of the factual evidence and statistical data that added to their development. Such evidence-based (or -informed) monitoring is recognised as a complex steering mode in itself that results from changing governance patterns due to supranationalisation, globalisation and the opening-up of the political process to wider groups of actors.



To the same extent to which the demand for independent sources of evidence and expertise in policy-making have rapidly grown over recent years, the landscape of information sources and the modes of injecting evidence into policy-making have also grown in a way that is an easily confusing for non-data scientists. As a result, evidence-based policy-making (EBPM) reflects a re-structuring of interactions between political actors of different institutional origins and at different political levels. It represents an influential policy-making pattern at the intersection of the politics and policy dimensions of multilevel political systems.

To contribute to a better understanding of different modes of and instruments for evidence-based policy-making, GlobalStat organised an Executive Training Seminar (ETS) on ‘*Evidence-based Policy-Making: From Data to Decision-making*’ together with the Global Governance Programme (GGP) of the Robert Schuman Centre and the EU’s School of Transnational Governance (STG). The seminar examined recent developments in EBPM, data science and policy evaluation, including various tools for impact assessment and foresight, the policy-oriented use of large data resources and data visualisation, and related them to transparency and legitimacy in EBPM. The purpose of the ETS was to support the development of innovative modes of providing evidence to policy-makers, including a critical assessment of the limitations of empirical and data-based evidence in defining new policies. Through presentations, case studies, and ‘hands on’ work, the seminar offered 31 participants – public officials and academics – from 23 different states an advanced understanding of the main issues and trends in contemporary EBPM.

**Ingo Linsenmann** (Executive Coordinator, Robert Schuman Centre for Advanced Studies) and **Fabrizio Tassinari** (Executive Coordinator, School of Transnational Governance) welcomed the ETS as the first training session on EBPM held by GlobalStat together with the GGP and the STG. As a project reaching beyond the traditional boundaries of the university community and beyond Europe, GlobalStat started its training activities to interlink the worlds of policy-makers and researchers and to offer learning opportunities across silos. With this initiative, the ETS not only represented the core aims and values of the RSC GGP but it also linked to the STG’s key objective of studying methods of transnational governance beyond the state involving different actor

groups, such as policy-makers, the business community and the non-governmental world. To support this objective will also be one of the main aims of the new STG InnoHub on public policy innovation and outcomes that GlobalStat director **Gaby Umbach** is currently setting up at the STG. In her introduction to the current ETS, Gaby Umbach underlined its overall aim of supporting the creation of a worldwide knowledge and practice community on EBPM. This objective is rooted in a strong demand from practitioners and academics to learn more about the details of and conditions for EBPM. As the first training session of its kind, the ETS adopted a broad perspective to inform on different elements of EBPM, such as knowledge generation, information and data selection, transparency, accountability and ownership, and its impact on both bureaucratic and democratic processes. The ETS therefore examined EBPM through five different lenses: (1) a conceptual lens: What does it mean?; (2) a procedural lens: How does it work?; (3) a systemic lens: Who does it affect?; (4) a content lens: What does it include?; and (5) a didactic lens: What does it require? Further deep dives into individual aspects of EBPM will follow in a specialised ETS series on EBPM which is to be developed by GlobalStat.

## Evidence-informed Policy-Making: Challenges for Policy-Makers and Scientists

The ETS was introduced with a keynote speech on the main challenges deriving from EBPM by **David Mair** (Head of the ‘Knowledge for Geographic Coordination’ unit, Directorate H ‘Knowledge Management,’ Joint Research Centre, European Commission) providing insight into the way the increasing demand for the use of evidence has changed the parameters of contemporary policy-making. With increasing policy complexity, policy-shapers and -makers face multiple and interconnected challenges that are neither simple nor straightforward. The influence of new modes of governance, especially in their participatory forms, add to this complexity by increasing the group of relevant actors in the political process. This increase in actors and complexity quite naturally influences the quantity and quality of information, and the evidence policy-makers need to process. Alongside this increased influx of evidence, emotions and values also become ever more visible variables in the political process. Consequently, policy-making increasingly



acknowledges their undeniable role in the development of public policy. Emotions and values (consciously or not) influence political choices and, particularly through social media, polarise and politicise the political debate through emotional interpretations of evidence. Emotions also affect information-processing strategies to cope with the perceived superabundance of information and to reduce complexity, sometimes resulting in 'evasive' or 'de-construction' approaches, such as active information avoidance and denial of factual evidence.

As public policy depends on various systemic and non-systemic variables, a contextualisation and embedding of policies and politics is essential for EBPM. As no natural law exists on how policies can best embrace evidence and knowledge, EBPM seems to be one of the most suitable ways of combining science and politics for political reasoning. At the same time, EBPM must acknowledge that it is not merely facts that inform decision-making. Emotions and beliefs are also essential influencers of political behaviour and preference-building. With the over-supply of information, these additional influencers have become powerful evidence contesters in politics. For policies to be resilient it is, however, of particular importance to strengthen the policy process in such a way as to balance alternative sources of information with reliable evidence. Knowledge communities of scientists and policy-makers are therefore useful fora in which to identify relevant knowledge, to pool expertise and to get different stakeholders involved in knowledge creation to improve policy-making.

The related community-building exercise needs to link different knowledge communities to broaden the information-base of policy-making. Consequently, in terms of academic disciplines, it cannot only be political science that influences the respective research agenda. To generate a paramount understanding of the interplay among *pathos*, *logos* and *ethos* in modern policy-making, disciplines like psychology, neurology, anthropology, sociology, linguistics, history and philosophy need to be involved too. Informed story-telling and targeted debunking of 'alternative facts' might be one option to advance in developing focussed approaches to creating consistent and comprehensive framing of policy issues to design evidence-based policy solutions that link to people's visions, perceptions and geographical provenance. For the future of EBPM, this also means 'bringing *ethics* back in' and using active-listening ability

to respond to the factual-emotional basis of politics in a more holistic manner that at the same time embraces 'knowing,' 'doing' and 'being.'

## The 'Evidence Turn' in Policy-Making

**Paul Cairney** (Professor of Politics and Public Policy, Department of History and Politics, University of Stirling) reflected on the 'governance' consequences of EBPM and particularly on political steering and knowledge sharing for policy innovation. Moreover, he discussed the value-laden process of identifying good evidence and reasons for evidence not having enough power to inform policy-making.

Offering explanative insights into EBPM, policy theory provides a wealth of knowledge about the role of evidence in policy-making systems. It supports understanding of the interplay among psychology and complex policy-making environments in situations of 'bounded rationality': policy-makers combine rational and irrational shortcuts to information-gathering to make 'good enough' decisions quickly. First, to develop rational shortcuts and minimise cognitive load, they reduce uncertainty by using syntheses of the evidence available to set goals and identify the best sources of information. Second, through irrational shortcuts, they use gut-level, habitual, emotional or belief-driven short cuts to reduce ambiguity and apply story-telling and problem-framing in specific ways. However, the quality of story-telling and evidence in politics not only depends on their factual and empirical roots in peer or systematic reviews. It also relies heavily on their social legitimacy. Evidence in politics is not just the result of a translation of knowledge from experts to politicians; it is the result of public deliberation on the evidence presented involving citizens and the wider public to generate a broad legitimacy of the decisions taken. Information avoidance and the above-mentioned 'evasive' approaches also need to be factored in just as 'minimalist' approaches to gathering thin evidence need to be. Additionally, and as David Mair also underlined, emotions play a strong role in informing and influencing political decisions. Emotional choices are not inherently wrong or negative. They play a central role in decision-making and in changing peoples' judgements, which themselves fundamentally involve emotions. Contrary to many types of factual evidence, they are developed in certain environments and are therefore to be regarded as



culturally and socially constructed concepts rather than evidence.

Individual policy-makers cannot control complex policy-making environments. Contemporary policy-making arenas include different and diverse actor groups at many levels of government and in different modes of governance that interact with and in various institutions and networks (each with their own informal and formal rules), respond to socio-economic conditions and events, and learn to engage with prevalent ideas or beliefs about the nature of policy problems. In the absence of a unique entry point into the policy cycle, EBPM departs from the traditional idea of a linear and staged political process that consists of an established sequence of phases. Understanding the institutions – that is, the rules and processes – of policy-making and building trust, knowing the actors and ideas involved, and embracing changing conditions, crises or events to create opportunities are therefore essential aspects of successful EBPM. The absence of a uniform access point to the policy cycle under conditions of changing contexts requires political actors to develop long-term strategies, form alliances, learn the rules and build trust. Diving deeply into story-telling being one of the techniques policy-makers and practitioners can pragmatically and effectively use to respond to the requirements of EBPM, the ETS participants engaged in story-telling about their professions, narrating their own expertise in speed presentations. Story-telling and active listening were the key aims of the exercise.

## Legitimacy and Accountability in Evidence-Based Policy-Making

Speaking about legitimacy in EBPM and its accountability, **Tracey Brown** (Director, Sense about Science) elaborated on the public interest in good policy-making, the transparency of evidence and the overall relevance of publishing the evidence that informs policies. Focusing on testable questions and on the optimal moment for injecting evidence into policy-making are key elements to foster understanding of the motivations for policy-making and consent or dissent to them.

As Sense about Science's 'Transparency of Evidence' report and its transparency of evidence framework and scoreboards establish, publishing the evidence behind policies is an essential condition for democratic policy-making. Co-created by think tanks and the British

government, the framework can serve as an example of the scrutiny processes regarding transparent decision-making under the conditions of EBPM. It serves as a monitoring and assessment tool for transparency and accountability in government decision-making processes. The related annual UK scoring exercise, inaugurated in 2015, regularly points to the practice of transparency of and access to evidence used for policy development. The ultimate aim of such monitoring exercises is to help citizens fully understand the basis and depth of public policies and to make evidence behind policies available in the critical moments in which citizens need it. In this perspective, EBPM is not merely perceived as an abstract government technique or tool; it offers the means and a moment for the development of joint understandings in 'evidence communities' to make public policies more resilient.

As information on policy preparation processes is often not public, such an ex-post evaluation sheds light on the transparency of choices during this particular phase of the political process and on the evidence selected therein to inform policies. The design of this transparency of evidence scrutiny process enables citizens to take part in a central evaluation exercise rendering government work more accountable to the public. Civil evidence literacy is increasing, while the invisibility of institutional knowledge, i.e. evidence, is decreasing. By verifying the 'accountability chain' of policy development, citizens can assess how easily they can identify the evidence that informed government policies. What the evidence says about the topic in question and whether the evidence represents an individual assessment or a collectively agreed one are central questions in this evaluation process. As a result, government departments receive scores according to the level of transparency of their information on the evidence that informed their policies. A common feature across the different departments of the British government in 2016 was the existence of evidence that informed policy development but a lack of communication of it to the public. To liberate the assessment process from the dangers of ideological debates, the assessment does not, however, deal with whether or not this evidence can be deemed valuable or reliable.

To get a better idea of this flagship initiative to monitor EBPM, the ETS participants analysed a directive launched by the UK Department of Transport applying





the ‘Transparency of Evidence’ framework and using the ‘[Transparency Score Table](#)’ to detect the evidence used and made accessible to the public.

## Creating and Using Meaningful Indicators of Evidence-based Policy-Making

Disaggregated data – that is, indicators used as proxies for different aspects of life and human interactions – are among the central knowledge units in EBPM. Consequently, data visualisation is a central tool to communicate these knowledge units in a way that increases the transparency and comprehension of evidence used. As such, both data and data visualisation are key elements of EBPM. Reflecting on these aspects, **Matthias Rumpf** (Organisation for Economic Co-operation and Development) and **Christian Dietrich** (European Union Institute for Security Studies) focussed on the ways data and evidence are developed and communicated to policy-makers and decision-takers.

Statistics are a constantly growing field of research and practice in which data generation and experimental data add much to the measurement and understanding of reality. However, data do not only measure reality. They also define the subjects of measurement through the provision of thematic frames and data narratives for the development of statistics. The ‘post-growth’ and the ‘human well-being’ debates are the most recent examples of this normative power of statistics. Following this logic, many areas can be identified in which new or additional statistical data and indicators offer further context and deeper insight into problems and challenges for policy-making. A good example of such data is the OECD’s Better Life initiative, which was used as a reference point for the creation of innovative new indicators to grasp developments in the area of human well-being.

Adding to the strong position of data in EBPM, data visualisation is one of the key tools to make data relevant and insert easily accessible ‘knowledge bites’ of evidence into the public debate. They help grasp complex concepts and new approaches more easily and quickly than a written text could ever do. As interactive and dynamic visualisations, they also facilitate step-by-step deep learning of complicated and interlinked pieces of evidence.

Different forms of data management and data visualisation strongly support data-driven story-telling. A thorough knowledge of data sources and the identification of data gaps are additionally important in creating and selecting meaningful and relevant data for EBPM. Moreover, for a comparative perspective to inform EBPM, the contextualisation of data and complementary data are essentially relevant in order not to get caught in the ‘pears-and-apples’ trap, e.g. factoring in social security services provided by the state and not just referring to tax levels when analysing the welfare state base and the performance of a country. In the same vein, subjective and objective data and international comparisons need to be taken into account to analyse all the facets of a potential political issue, such as crime victims vs. fear of crime.

To create data narratives with target groups in mind, data interpretation capacities are essential. Story-telling is therefore an essential skill and a certain level of data literacy is a precondition for the use of data as evidence in EBPM. Moreover, imagination and creativity help transmit key messages from data in intuitive ways through colours and graphic elements. Participants were able to themselves actively experiment with data narratives and data-driven story-telling during a ‘hands on’ session in which they also developed their own data visualisations.

## Impact Assessment and Strategic Foresight

Evidence-based policy-making extends to ex-ante policy development phases and ex-post scrutiny exercises. Impact assessments (IAs) and strategic foresight play a particular role here. **Erik Akse** (Impact Assessment Institute) reflected on these forms of policy evaluation, on prospective policy planning and on their impact on policy-makers and public officials. The use of evidence to determine policy responses, the structure and content of policy preparation processes, and the definition of budgetary requirements connected to policies were central elements discussed.

Taking the European Union (EU) as a reference point for a highly developed policy preparation and impact assessment system driven by the obligation to show the added value of EU interventions, procedural-cultural change has been witnessed since 2002, leading to new ways of collaborating and coordinating policy-making across



political levels and actor groups. As a result, decision-preparation and -making arenas reflect the requirements of consultative exchange on evidence more than they did before. IAs accompany the policy process in two ways: ex-ante IAs have become an obligatory tool in EU policy planning, gathering the best possible evidence to evaluate the potential impact of a policy in the planning stage; and ex-post IAs focus on evaluating the impact of policies in place. To determine policy responses and ensure uniform preparation, both instruments require intensive analysis of the evidence available concerning problem definitions, a comparison of policy options and objectives, the setting of targets, identification of actor groups affected and mutual learning, possible and actual societal impacts, and policy monitoring and evaluation. The evaluation of applied knowledge systems plays a particular role here in identifying potential biases in the underlying assumptions that inform IA. Consequently, IAs include: (1) problem definition ('assess what is going on and who is affected'); (2) objectives ('define the point on the horizon'); (3) policy options ('consider possibilities and alternatives'); (4) analysis of impacts ('ensure broad understanding of effects'); (5) comparison of options ('choose the most advantageous'); and (6) policy monitoring and evaluation ('define future success indicators'). Additionally, specific programmes for reviewing existing legislation focus on administrative burden reduction, increasing the efficiency of legislation, recasting, consolidating, reviewing requirements, and applying the 'evaluate first principle.' Consultations form an important part of interactions during all the stages of an IA. They involve stakeholders of all kinds (those directly affected; those implementing decisions; those interested) in targeted consultations and open online public consultations. Such consultation processes are particularly important as they offer new insights and information, communicate and make the work performed visible, increase the transparency of governance structures, result in feedback on ideas, and identify potential bottlenecks, concerns and other implementation challenges.

The ETS participants deepened their practical experience with IA in an exercise in which they informed the Council of General Secretaries of a country on the implications of introducing a programme for administrative burden reduction. Their report, it was assumed, would form the basis for a Government decision to determine a reduction

target and the timeframe within which it should be implemented.

## Capacity-building at the Science-Policy Interface

Considering the requirements resulting from EBPM, capacity-building to improve the identification of good evidence becomes a central concern of policy-makers and civil society. **Jonathan Breckon** (Director of Alliance for Useful Evidence) analysed the essential elements of this capacity-building for EBPM and strategic planning, focussing on silo linkages between politics and expertise, demand stimulus for the use of research evidence in politics in times of false information and fake news, and the core qualifications required to use evidence to prepare, make and assess public policies.

Good evidence should influence politics and inform policies. It is required to generate options or make a case, to commission services and products, to develop funding bids, to de-commission and stop political action, to align services with 'customer needs,' to develop a workforce, and to create effective campaigns and communications. To effectively develop and propose policies, an analysis of patterns, particularities and positions of the knowledge systems involved is indispensable to navigate through different forms of evidence (expert evidence; opinion-based evidence; ideological evidence; media evidence; internet evidence; lay evidence; street evidence; cabbies' evidence; research evidence). Evidence also serves to balance various forms of bias in decision-making, such as optimism bias, confirmation bias, hindsight bias, loss aversion, framing effects and meta-cognitive bias.

Following a definition by the British Department of Foreign and International Development (DFID), good evidence is recognised by its high quality in conceptual framing, transparency, appropriateness, cultural sensitivity, validity, reliability and cogency. The central standards of evidence of impact as developed by Nesta, a UK charity and global innovation foundation, are responding to the demands of change theory, measuring data collection quality, demonstrating causalities, synthesising evidence and systematically reviewing: "(1) You can describe what you do and why it matters logically, coherently and convincingly; (2) You capture data that shows positive change, but you cannot confirm you caused this; (3) You can demonstrate causality



using a control or comparison group; (4) You have one + independent replication evaluations that confirm these conclusions; (5) You have manuals, systems and procedures to ensure consistent replication.”

During the concluding training session of the ETS, the participants prepared for a face-to-face meeting with a government minister of education who is very interested in talking about potentially funding physical activity to improve educational attainment. To prepare for the meeting, the participants needed to review the evidence in this area in groups using so-called ‘Evidence Tasting forms.’ Each group gave a very short two-minute oral report back to the entire group on what they would say to their stakeholder. The key objectives of the exercise were to assess the quality of different information sources, to find counterfactual evidence, and to develop abilities to present evidence to stakeholders.

## **Executive Training on Evidence-based Policy-making – Why bother?**

Evidence-based policy-making is a complex and multi-dimensional feature of contemporary politics. Insight into political systems, governance techniques, democratic participation, knowledge management, data mining, statistical literacy and negotiation techniques are essential abilities policy-makers and stakeholders need to acquire and perfect in order to perform well in modern policy-making. While it is difficult to develop these abilities ‘on the job,’ moments of reflection and zooming out from daily practice help sharpen views and improve the skills required to understand the interconnected logics of EBPM. The first EBPM Executive Training Seminar conceived by GlobalStat offered a broad perspective on the field and provided a starting point for deep dive sessions that will support capacity-building on the various sub-aspects of EBPM.

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## Robert Schuman Centre for Advanced Studies

*The Robert Schuman Centre for Advanced Studies (RSCAS), created in 1992 and directed by Professor Brigid Laffan, aims to develop inter-disciplinary and comparative research on the major issues facing the process of European integration, European societies and Europe's place in 21<sup>st</sup> century global politics. The Centre is home to a large post-doctoral programme and hosts major research programmes, projects and data sets, in addition to a range of working groups and ad hoc initiatives. The research agenda is organised around a set of core themes and is continuously evolving, reflecting the changing agenda of European integration, the expanding membership of the European Union, developments in Europe's neighbourhood and the wider world.*

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