Session P2

How to serve parliament as a TA institute

Chair: Ira van Keulen (Rathenau Instituut)

Technology assessment (TA) usually takes place at the interplay between the parliament, government, science & technology, and society. TA institutes act as a 'knowledge broker' between these different spheres. In fact, many institutes are in fact parliamentary TA institutes with an explicit mission to support political decision making on issues of science, technology, and innovation at national level. Despite this common mission, there is a difference in the extent to which, in practice, a TA institute is actually providing services to parliament and is successful in doing so. This can depend on multiple factors such as the organizational embeddedness of the institute (in or outside parliament), the extend of the advisory support at parliament itself, the attitude of parliament and individual MPs towards evidence informed policy, the existence of a parliamentary strategy at the institute, the presence of a dedicated parliamentary liaison, etc.

This session is based on the assumption that TA institutes should strive for better support of parliament with their publications and other activities. Why? For one, our societies is increasingly technology and science driven, which calls for politicians to think and decide on how these technologies can serve public values in the best possible manner. Another reason is that, increasingly, parliaments want to be more self- supporting in their knowledge provision (and thus less dependent on governments to provide them with evidence). Lastly, public cry for more citizen participation in the process of political agenda setting and decision making, also on technological issues is on the rise. Nowadays, parliaments are also experimenting with ways to involve citizens in their parliamentary process. Many TA institutes have expertise and experience with citizen participation and can thus support parliaments in this matter.

Therefore, in this session we would like to exchange (best) practices between more experienced (TA) institutes and less experienced (TA) institutes that have the ambition to improve their visibility in parliament. This session is also meant to inspire its participants to think of new ways to serve parliament successfully and to discuss the challenges that institutes face while trying to serve members of parliaments.

The approach in this session will be a practical one. We will start with a plenary session with short presentations on the parliamentary strategy of two or three different TA institutes, including a short reflection on their most successful and least successful experiences in serving parliament. Secondly, in a group intervision setting, at different tables the participants will discuss different questions they have on how to serve parliament best with their knowledge on science, technology and innovation.

We call for parliamentary TA institutes – and maybe other organizations that work with and/or for parliament – to send in an abstract for a presentation (500 words), preferably based on one or more concrete cases, to illustrate the challenges and opportunities they have experienced in serving parliament with their TA work. Cases should be – if possible – connected to the theme of the conference 'Value-driven technologies'. We are also welcome other contributions such as specific questions (#howto) participants would like to share in a group intervision session (100 words). The session will end with a plenary feedback session.

Towards a Transatlantic Network for Technological Assessment: Comparing Legislative Advising and Policy Impacts in Europe and the United States

Authors: Adrien Abecassis, Bernhard Fischer-Appelt and Jack Loveridge (Harvard University Weatherhead Center for International Affairs)

From AI to biotech and beyond, evolving data-driven technologies pose profound new challenges for legislators tasked with framing policies aimed at effective governance and proactive regulation. In the United States, for instance, Facebook CEO Mark Zuckerberg's appearance before Congressional committees last year in the wake of the Cambridge Analytica scandal revealed a troubling gap between the routine business practices of tech firms and the knowledge base of lawmakers. The episode launched an on-going discussion concerning tech assessment in the United States and the feasibility of reestablishing the Congressional Office of Technological Assessment (OTA), founded at the height of the Cold War but dissolved in 1995. This paper examines the history and policy impact of the OTA in the American context and similarly evaluates the trajectory of tech assessment in Europe over the past two decades. We argue that legislative-focused TA on both sides of the Atlantic has been hindered by limited public engagement and outreach, a lack of input and information-sharing on the part of business, and inconsistent coordination between major research institutions and technologist forums. To effectively address the far-reaching societal implications of new data-driven tech and to reinforce a shared set of democratic values and ethical concerns, we suggest a reconfiguration of TA activities in the form of an international network. The envisioned network would engage a broad array of stakeholders and institutions in formulating practical policy advice, curating reliable and accessible TA content for legislators and citizens alike.

Controversy or Policy? The TA-SWISS Approach

Authors: Elisabeth Ehrensperger and Christina Tobler (TA-SWISS)

Whether TA institutions should merely provide politicians with information or make policy recommendations is widely discussed in the TA community. In their Nature article “Three secrets of survival in science advice” the authors argue that a TA institution must decide: Either it reports on controversies or it makes concrete policy recommendations – but not both. Only in this way can it maintain its reputation for independence and objectivity.

TA-SWISS, however, has a longstanding tradition of both tackling controversial topics (such as Genome Editing, Social Freezing or Artificial Intelligence) as well as formulating recommendations for policy makers, scientists and citizens. At the same time, the Swiss TA institute strives to be scientific, independent and impartial. How this balancing act succeeds will be presented in this presentation. On the one hand, the dilemma will be debated in a detailed discussion with the Steering Committee, and the results will be presented in this session. On the other hand, TA-SWISS's many years of proven practice will be outlined and discussed. The issue is put into the Swiss political context, at the same time drawing generally valid conclusions that could also help other TA institutions in other countries.

A co-designed research agenda for legislative science advice

Authors: Chris Tyler, Alessandro Allegra (University College London) and Karen Akerlof (George Mason University)

Background and rationale

Legislatures play important roles in national policy. Scientific and technological information underlies many of the critical challenges faced by legislators, like cybersecurity, climate change, energy security or agricultural sustainability. The structures that integrate scientific and technical expertise into legislatures vary internationally: they can be formal or informal, internal or external, permanent or ad hoc. Yet what and how information feeds into the work of legislatures – scrutiny, debate and law-making – remains poorly studied: largely atheoretical, focused on Western democracies and based in qualitative case studies that can be difficult to translate into practice.

To further an understanding of scientific advisory systems internationally, we asked academics, science advisers and policymakers across the globe to identify the most pressing research questions that will improve the practice of legislative science advice (LSA) and broaden its theoretical and empirical foundations.

Methods

The study consisted of three stages: research question collection, vetting and prioritisation. An online survey was first used to collect research questions from academics, science advisers and policymakers. In autumn 2018, 183 respondents in 53 nations submitted 254 questions. Then, at a workshop in Tokyo, 36 people from 17 nations vetted the initial research question list. Subsequently, 64 individuals from 31 countries ranked what information from the research questions they would be most interested in learning. Differences between experts in developed and developing countries, and roles in producing, providing and using LSA, were analysed using Q methodology.

Results

Two broad findings emerge from the study. First, experts generally agree that the state of understanding of LSA is deficient, especially for developing and lower-middle income nations. Second, many fundamental questions about the function and design of LSA systems remain unanswered.

The top five ranked priorities for LSA research are as follows:

1. Does legislative use of scientific evidence improve the outcome of social programs and policies?
2. Under which conditions does the use of scientific information change the framing of policy debates?
3. Under what conditions do legislators and staff seek out scientific information or use what is presented to them?
4. How do legislators and their staff assess the credibility of scientific information?
5. How do different communication channels affect informational trust and use?

Of the 254 submitted research questions, most addressed evidence use (63%) and communication (53%). Study participants were more focused on the institutional/policymaker side of the system, rather than that of scientists and information generation, or the brokers.

[Analyses underway] Using Q Methodology, we assess differences in the ranking of research interests, which may be used to explore how an international research agenda for LSA will need to accommodate national differences in LSA systems.

Significance

This collaborative project aims to spur new initiatives in LSA. Uniquely, we assessed experts' priorities for research in LSA from both developed and developing nations and from different roles within the science policy community – policymakers, science advisers and academics. Our findings should contribute to empirical, theoretical and applied advances in LSA.

A technology radar for Norwegian MPs

Author: Marianne Barland (Norwegian Board of Technology)

Technology has become an important part of policy making in several different areas. Whereas technology earlier would be addressed as a separate issue, it is now integral to almost all policy areas from healthcare and education, to security and transportation. This means that policy makers need a better understanding of how technology and society affect each other, and what their options are.

In 2015, a Tekno-group was established at the Norwegian Parliament, with the Norwegian Board of Technology functioning as the secretariat. The Tekno-group is a cross-party group, with a Board consisting of members from five different parties. Since 2018, the chair represents a government party, while the vice-chair represents the opposition.

The Tekno-group functions as a "technology-radar" – a forum where MPs can learn about new technology and explore how this relates to policy making. The Tekno-group meets approximately 4 times a year, each meeting addressing one topic. Topics are selected based on emerging interest among the MPs or suggestions from the NBT. Examples of topics include 5G, CRISPR, artificial intelligence, sharing economy, lifelong learning and technology and democracy.

The meetings usually consists of 2-3 presentations followed by a discussions among the MPs and invited experts and stakeholders. In addition, the Norwegian Board of Technology publishes a short brief on the given topic before each meeting.

The Tekno-group is now firmly established in the Parliament, providing meaningful input to the MPs and their work. The group has also started a series of open meeting around the country, inviting local expertise and the public to discuss the future of technology with MPs. For the NBT this group has become a new and important way of serving the Norwegian Parliament, and at the same time created room for small and flexible "project-sprints" covering a wide selection of topics.

Increasing agility and flexibility in parliamentary TA: Reflections on two terms as part of the German TAB

Authors: Tobias Jetzke and Stephan Richter (VDI/VDE Innovation + Technik GmbH)

Abstract: The VDI/VDE-IT has been part of the Office of Technology Assessment at the German Bundestag (TAB for short) since 2013. In 2018 the consortium was again selected to conduct the activities of the TAB for another five years. While the members of the consortium remained mostly the same, expectations from the Committee on Education, Research and Technology Assessment

within the German Bundestag changed. Within a changing political landscape, technology assessment too needs to change: New formats for publishing results, new ways of achieving results as well as implementing participatory formats to include the general public were among the suggestions made by members of the Committee[1]. The TAB itself is therefore changing: Adapting to new ways of conducting its projects but also communicating the results while facing the challenges of complying with parliamentary processes.

As part of the TAB, the VDI/VDE-IT is tasked with conducting a Horizon Scanning exercise: Identifying new topics for technology assessment and describing these topics in order to inform the Committee. Horizon Scanning as a process of early detection of so-called weak signals has been implemented in a number of organizations and in order to fulfill different goals. Parliamentary technology assessment benefits from Horizon Scanning in a number of ways: Short, well-researched descriptions of new topics support decision making for defining future TA-research areas. The descriptions are delivered in a timely manner in order to include trending topics that are rapidly developing. This separates these short profiles from longer TA-research projects. Our Horizon Scanning is designed as a flexible, agile process that is continuously improving based on feedback from other, similar processes.

With this paper we would like to draw from our experiences in developing, implementing and conducting Horizon Scanning exercises for both the TAB as well as the German Environmental Agency (UBA)[2]. While both processes differ with regards to their purpose and function, they also share similarities: The methods employed to discover new topics, to analyze information and to assess different weak signals and emerging issues are used in both processes and differ only in the details. In our paper we would like to highlight the similarities as well as the differences, reflect on the current need for Horizon Scanning in parliamentary TA and look forward to future developments that help improve decision-making regarding TA-relevant topics.

The paper is presented as an input in order to discuss the following questions (among others):

- What methodological improvements can help better identify weak signals and emerging issues that point to TA-relevant topics?
- In what ways can social-media-analysis help identifying new topics?
- In what ways can key findings be prepared and communicated?

[1] Available in German: Expectations from TA in the 19th German Bundestag. http://www.tab-beim-bundestag.de/de/pdf/publikationen/tab-brief/TAB-Brief-049.pdf
[2] Available in German: https://www.umweltbundesamt.de/horizon-scanning-trendanalyse