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CZECH PRESIDENCY PARTICIPATORY WORKSHOP ON FORESIGHT IN RESEARCH AND INNOVATION

INCLUSIVE FORESIGHT AND PUBLIC ENGAGEMENT

7 OCTOBER 2022

Organised by:

Technology Centre CAS

TECHNOLOGY CENTRE CAS

In collaboration with:

Czech Ministry of Education, Youth and Sports, European Commission

FINAL REPORT

PARTICIPANTS AND TECHNICAL DETAILS

The workshop was held online via zoom on the 7th October 2022. It was organised by the Technology Centre CAS and supported by the Czech Ministry of Education, Youth and Sports and the European Commission. There were 95 registered participants from 25 different member states and two associated countries (Norway, Iceland). Finally, around 85 participants attended the online workshop.

The profiles of participants were varied, from policy officers and foresight experts to wider representatives of ministries, funding agencies, policy think tanks, research centres and institutes: all very relevant and crucial actors for building and broadening the European foresight in research and innovation (R&I) community.

BACKGROUND

A series of international workshops on foresight in research and innovation was launched during the German Presidency (25 November 2020) and continued through the Portuguese Presidency (22 June 2021) and the Slovenian Presidency (10 December 2021). The aim of these workshops, organized in cooperation with the European Commission, is primarily to strengthen the role of foresight in European and national research and innovation policies and to create a well-working European platform for the exchange of experiences and information on the implementation of foresight in research and innovation.

The German Presidency workshop focused on the state of art of R&I related foresight activities on the national level. Whereas the Portuguese Presidency workshop deepened the analysis by identifying and analysing global uncertainties from the EU and the Member States perspective, identifying potential common topics for foresight activities. The aim of the Slovenian Presidency workshop was to progress to implementation focusing on strengthening Europe's R&I foresight community as a strong force in wider European strategic foresight and as a complement to the European Union "Ministries' of the Future" network.

The Czech Presidency workshop focused on the Inclusive foresight and public engagement, linked to a stronger involvement of citizens in structured discussions on the future direction of research, technological development and innovation. It had two major goals:

- To discuss topics, tools, and processes for increased public involvement in R&I policy-making; and
- To strengthen cooperation between foresight and technology assessment communities in Europe.

Over the last decade, processes of public engagement – in which members of diverse publics express their views, concerns and recommendations – have become increasingly common features of R&I policy. There are multiple rationales for public engagement in R&I policy. First, public engagement can broaden the knowledge base on which to make R&I policy decisions, enhancing the quality and relevance of the knowledge produced and helping to steer science and innovation toward socially desirable objectives. Second, engaging the public upfront on questions of controversial technology policy may stave off a public outcry and enhance trust between scientists and the lay public. Third, from the perspective of democratic governance, public engagement can enhance the meaningful participation of citizens in decisions that affect them deeply. But public engagement can also help improve the relations of science and society by building a more scientifically literate, supportive and engaged citizenry.

Public engagement in R&I policy often involves a wide range of instruments, from less deliberative forms of public communication (e.g. notice or surveys) to more dialogic mechanisms (e.g. constructive

technology assessments or citizens' juries). It is important to note that these tools are often employed together rather than in a stand-alone approach. Such efforts consider publics not as passive recipients of expert knowledge, but as actors shaping technologies and their trajectories (OECD STI Outlook, 2016).

The general development of society has always been deeply linked with technological development. New technologies tend to not only change the means and organization of production but also influence the way society's organized; thus, having an impact on dominant values in society. The effect of technology can be distinguished on both micro- and macro-levels. At a micro-level, new technologies affect the behaviour of users and social roles and relations that users build in relation to others. At a macro-level, technological products and systems stimulate the development of certain types of material infrastructure or social organization. Technology assessment and foresight both use a broad spectrum of approaches and methods involving citizens in science and technology and the related policies. The workshop consisted of a series of presentations, followed by two interactive workshop sessions occurring in parallel. The aim of the parallel sessions was to address (a) the role and ways to strengthen mutual learning processes and possible sharing of resources for strengthening the R&I foresight community and (b) possible foresight topics of common interest, which could address the needs of R&I policy across different European countries.

SUMMARY

Welcome speeches

Marek HAVRDA, Deputy Minister for European Affairs of the Czech Republic highlighted that Czech Presidency supports foresight activities, especially in relation to geopolitical situation (where crisis seems to be a new norm – economic, financial, covid, energy etc.). Foresight shall play a crucial role in dealing with our resilience, regulatory response and identification of social needs and challenges. Involvement of stakeholders and wider public seems to be a key to identify the opportunities, threats and societal anxieties when it comes to emerging technologies, research and innovation. He emphasized that strategic foresight and technology assessment methods seem to be an effective tool for this purpose.

Alexandr HOBZA, Head of Unit, Common R&I Strategy & Foresight Service, DG RTD**,** also stressed the importance of foresight on the EU level on referring, among other, to the work of his EC Unit. He emphasized that we need to find methods and ways how to transform the "black swans" into "grey rhinos". EC foresight activities include organization of foresight workshops and conferences as part of international research projects, such as the project on Mutual Learning Exercise on Foresight, introduced further by J. Wengel.

PART I: Public engagement in policy-making processes

Matthias WEBER, Austrian Institute of Technology **and Tanja SCHINDLER,** 4strat, had a common presentation on public engagement in foresight, namely on a project called *Foresight towards the 2nd Strategic Plan for Horizon Europe*. One of the key objectives of this project is to consult and engage stakeholders, Member States and public to identify the strategic frame, impacts and policy pathways for the HE 2nd Strategic Plan. This aim shall be implemented also via a new interface for online public engagement in EU foresight, integrated in a new www.futures4europe.eu platform. The project shall lead to research vision on important disruptions such as climate change, social confrontations or Humans and AI. Public engagement activities such as group discussions of experts, stakeholders as well

as online consultations of wider public are currently ongoing in specific thematic areas of the project, so called Deep dives which are defined as follows: The EU in a Volatile New World, The Hydrogen Economy, Climate Change and R&I: from Social Change to Geoengineering, The Emergence of Global Commons and Transhumanist revolutions for a long life.

Tore TENNØE, Norwegian Board of Technology (NBT), presented examples of effective use of public engagement activities within technology assessment (TA) projects. TA has been using more than 60 different participatory methods of public engagement in STI issues for more than 40 years. One of the so called "gold classics" of deliberation is consensus conference. This consists of a diversified group of 16 citizens who meet for 3 weekends and finally formulate their recommendations for policy makers – this method is very effective for the value questions of the society. He also mentioned a European project called *Citizens and Multi-Actor Consultation on H2020* (CIMULACT 2015-2018) using co-creation with citizens to formulate visions, from visions the stakeholders identified societal needs and values transformed to 48 research scenarios and policy options and research topics for the next programming period of H2020 and HE. Outcomes of this project were officially incorporated into the Work Programme of H2020 (2018-2020). In a project called *Assisted living* the NBT used a method of dialogue café aiming to include marginalized groups (elderly with early dementia) in the innovation process. Finally, the pandemic speeded up the debate whether the online way is the future of public engagement, as it is easier for gathering people, it is scalable, interactive, but maybe more demanding for the moderator and less engaging for the participants.

PART II: Towards effective involvement of society in R&I decision-making

Jürgen WENGEL, DG RTD presented the Mutual Learning Exercise on R&I Foresight (9/2022 – 10/2023, Horizon Europe Policy Support Facility 2021-2027). MLE started recently in Brussels and this introductory workshop will be followed by 4 more topics for MLE workshops: Institutionalizing FS capability and creating wide foresight communities in the R&I system; Citizen's engagement approaches and methods; Foresight, the twin transition and potential disruptions; and From foresight for smart specialization to engagement in EU framework programmes, missions and partnerships.

Marie DE LATTRE-GASQUET, CIRAD and Emmanuelle JANNÈS-OBER, INRAE, France, informed the workshop participants about "Trust between society and science: What developments in the coming decades?", i.e. about a foresight process undertaken by public research actors 2020-2022 by the PROSPER Network – a network of French public research foresight managers and actors. Even though the mutual trust between scientific community and society appears fundamental for better understanding of the world and preparing for major global challenges, there is still lack of integrity of some researchers and confusion of roles between scientists and experts. This leads PROSPER to questions about the future relationship of science and society and in particular, to questions on drivers of trust between science and society to horizon 2040.

PART III: Parallel sessions discussions

Parallel session 1: Challenges for R&I policy that need to be addressed through greater involvement of citizens

Moderator: **Ventseslav KOZAREV**

Rapporteur: **Lenka HEBÁKOVÁ**

Introduction to the topic:

Rapid and dynamic changes are currently affecting all aspects of human life. The dynamic forces accelerating these changes are profoundly reshaping socio-economic, political, technological and environmental systems and the links between them. The associated uncertainties can lead to social unrest and the polarisation of society and/or the growth of extremist groups. Involvement of citizens favours R&I policies by increasing public trust in policy makers and political institutions, making research and innovation more democratic and accountable, and improving societal utility of innovative products, technologies, and services to meet societal needs and expectations. Citizens can be engaged at different phases of the R&I policy processes, such as formulating future policy directions, consulting specific policy measures or even providing inputs to legislative proposals.

Guiding questions:

- In your opinion, what are the main challenges for R&I policy that need to be addressed through greater involvement of citizens?
- What is your experience with citizens´ engagement in foresight or TA processes aimed at identifying societal needs that might be addressed by R&I policy?
- What do you see as the main challenges or issues related to effective citizens´ engagement in R&I policy-making?

Discussions summary:

In general, discussants claimed that the use of public engagement for the policy making on research and innovation has improved and there is also a visibly larger impact on the R&I policy. Representatives from the public administration from different countries have expressed their interest in these processes as well. The main challenges of public engagement for the RDI policy are to measure of the public engagement impact – it raised the questions on impact assessment and its timing, methods, indicators etc. Participants suggested to replace a slightly elitist / closed approach of policy making by including minorities / marginalized groups in public engagement and also to find the right level of governance – from local to global acting. Key task of participatory foresight and technology assessment seem to be to constructively involve citizens (in the right phase, with the right questions and feedback, the right method, the right framing of the topic etc.). The key interest should be on making better impact (uptake of results, right timing for engagement), not on changing the citizens and their views and needs.

Participants also mentioned that public institutions show a lot of interest in the process of engaging citizens, but less so in the results. They suggested to move from triple to quadruple helix in public administration around Europe for RIS 3 / STI policies and to deal with the empowerment aspect of the public engagement. Participants advised to change the mind-set of policy makers and stakeholders - as they seem to be more interested in the process than in including the results in the policy making, to use the right communication and the right timing of public engagement within the policy process.

Recommendations have been formulated as follows:

I. More awareness of foresight and TA among policy makers, stakeholders, academia

II. Measuring the impact of PE – system

III. Institutionalise PE and forward-looking activities in the policy making process – in policy, as well as in research

Parallel session 2: How to involve marginalized groups in decision-making processes

Moderator: **Michal PAZOUR**

Rapporteur: **Tomáš RATINGER**

Introduction to the topic:

Today, many democracies struggle with fragilities caused by global challenges as well as internal non-liberal movements undermining established and accustomed processes and behaviours. Discontents with political elites and a feeling of not being able to participate and influence democratic processes stands as a crosscutting and highly complex challenge. Accordingly, the more we can understand and engage the structurally marginalized as well as the less spontaneously engaged members of society, the more we can (re-)build and increase trust in political institutions and, consequently, strengthen democracies. To structure engagement and dialogue with marginalized groups it is useful to understand different types of inequalities, including gender-divide, rich-poor divide, urban-rural divide, religious divide, educational divides, or digital divides. Involvement of marginalized groups shall respect culturally diverse national contexts and be adapted accordingly to these national or local contexts. Forward-looking activities and organizations dealing with foresight and/or technology assessment can play a significant role in addressing and engaging marginalized citizen groups. In research, technology and innovation policies, it is useful to include marginalized groups of citizens in discussions not only on the needs of society and the challenges for research and innovation, but also on concerns and risks arising from the rapid technological development, which can have an effect of widening divisions in society and reinforcing the exclusion of marginalized groups.

Guiding questions:

• What is your experience with involving marginalized groups of citizens in R&I policies at EU, national or regional levels?

• What methods can foresight and technology assessment apply to effectively engage marginalized groups of citizens into R&I policy-making processes?

• What do you see as the main challenges or issues related to effective engagement of marginalized groups in R&I policy-making?

Discussions summary:

Several positive cases of the marginalized group involvement in the decision-making were mentioned in the discussion: Particularly in the area of health, number of critical innovations come from the dialog with “fragile” groups. The lesson from this positive experience emphasizes the importance of adjusting the process to the capacities of such communities and a multilevel approach with deep collaboration with local representatives (leaders) of these groups / communities.

Climate assemblies established in a number of European countries (FR, DK, EI, UK, FI, DE, etc.) can be viewed as other examples of the involvement of a broad spectrum of citizens in the dialogues on big challenges and the role of science in them. Similarly, the recent attempt of president Macron to form the National Council for Reconstruction in France responded to the need to involve those who are affected by decisions in their formation processes.

On the other hand, some participants raised doubts that the engagement of citizens and the less of marginalized groups is welcome by scientists and policy makers in the area of R&I. The main reason rests in the difficulty to communicate complex issues with non-specialists. Policy makers usually do not want to take the risk that they are misunderstood and scientists undervalue the opinions of non-professionals.

To overcome it, more attention should be paid to the sources of mutual (public - scientists – policy makers) mistrust. It has a lot to do with social structures and the sources of social exclusion (particularly if we talk about marginalized groups).

Since technological innovations go hand by hand with social and institutional innovations, a broader conceptual framework is need. To address it foresight has to integrate a number of disciplines.

While there is a lot of experience with participation – also on scientific subjects – the current approaches to the dialog with stakeholders / interest groups and citizens are not fully satisfactory in general. It becomes obvious that education has to be integrated in the public engagement frameworks. One has to keep in mind that building trust and engagement of citizens is a long lasting and costly process.

Consulting citizens is a part of European democratic culture. The big challenge is how to engage people who stay aside our democratic culture – it is not matter just of foresight.

Parallel session 3: Policy mechanisms for implementing TA and foresight in decision-making processes

Moderator: **Jürgen WENGEL**

Rapporteur: **Poonam PANDEY**

Introduction to the topic:

The processes of public policy-making and implementation are complex and dynamic as several actors with different interests are involved. Foresight and technology assessment allow policy-makers to capitalise on the knowledge and expertise that rests outside government, using it to support decision making and opening up policy issues to greater public engagement. In this respect, foresight and technology assessment generate insights regarding the dynamics of change, future challenges and options, and communicate them to policymakers (inform the policy). Moreover, foresight and TA facilitate policy implementation by building a general awareness of the status quo and future challenges, and common visions among stakeholders. Finally, foresight and TA facilitate the participation of civil society in the policy-making process, and thereby improving its transparency and legitimacy. There are at least two basic groups of issues related to effective integration of foresight and TA in R&I policies. First, issues affecting the inclusion of insights generated by foresight and TA in the decision-making process, and second issues affecting their ability to be translated into action (i.e. their implementation). In this respect, it is still unclear what is the best institutional model for bringing together policy and futures expertise, as some consider it important to maintain foresight and TA experts separated from the policy community, while others see it as important for the two to be closely connected in order to ensure any insight developed is both of value and valued.

Guiding questions:

- What is your experience with integrating foresight and TA in R&I decision-making processes?
- What do you see as the main challenges and issues with the effective integration of foresight and TA activities in R&I policy-making?
- In your opinion, should the foresight and TA expertise (community) be separated from the policy-making community?

Discussions summary:

In relation to the question on participants' experience with integrating foresight and TA in R&I decision-making processes, many participants from prominent foresight and policy organizations from countries such as Sweden, Germany, UK, and EU shared their experiences. There was a general consensus among participants that Foresight and TA organizations have a good rapport with the respective policy making bodies interested in decision making for research and innovation. The foresight and TA organizations are regularly consulted by policy makers in situations of decision-making for the direction as well as funding of R&I. It was discussed that the role of Foresight and TA in policy making is getting more prominent specially in situations of crisis and uncertainty such as COVID-19, Russian aggression in Ukraine, energy security, financial waves and climate change.

Despite the good and still improving rapport between the foresight and TA and policy making institutions, the most discussed question of the session remained the challenges and issues with the effective integration of foresight and TA activities in R&I policy-making. The first challenge discussed was the role of standardization in impact assessment. Currently, there are different models that are followed by policy organizations in different countries that range from very subjective impact assessment to more objective ones. Some participants were in the favour of standardizing the impact assessment process of foresight and TA inputs in policy-making. The second challenge that impacts the foresight and TA community is the lack of ownership of results of TA and foresight within the policy community. The lack of ownership results in disappointment and eventually dis-interest in participants as well as the organizers of foresight and TA activities. Often foresight is asked for by the policy-makers but the there is a general ambivalence towards what the practical implications of the results are terms of long-term future. Third challenge that the participants talked about was with regard to the different understandings of expectations and goals of these activities within the TA and foresight community and the policy makers. Sometimes the implementation of a well-designed and well executed foresight exercise suffers in implementation because the attention of the policy maker shifts to some another urgent issue. Participants talked about a constant recalibration of expectation from these activities during the entire course could be a useful strategy to avoid disappointment.

With regard to the question of strategies and ways in which foresight and TA community could be better integrated into the policy-making domain many important points were raised. First point of importance was the need for self-reflection. The members from the foresight and TA community felt that people work in silos and often solutions are available within the community but people fail to see them. Thus, there is a need for more collaborative work within the community. Secondly, both the members of policy community as well as TA and foresight community felt that there are ways in which engagement between the two could be improved. The members of the policy community argued that they are constantly working towards moving goals and early integration of topical experts in the decision-making processes could be beneficial. The members of the policy community argued that although foresight studies should not be turned into policy papers, they could be more forthcoming with sharing their findings with the policy community in language and outcomes that are more accessible to the policy-makers. It was also discussed that policy makers could benefit from courses and toolkits that improves their futures literacy and aids decision-making. UK GO-Science Futures Toolkit was discussed as a

valuable resource in this regard. The need to build anticipatory capacity to conduct foresight and TA to engage with future challenges in a long term was discussed.

WAY FORWARD

The next steps regarding strengthening the R&I foresight and technology assessment community should be moving further towards implementation and also institutionalization of these processes and methods. Awareness of foresight activities is essential to strengthen the foresight community. Through the Czech Presidency workshop, awareness was raised ***of the public engagement as an important part of foresight and TA*** in policy formation. This was strengthened ***within different actors within policy formulation and policy implementation***, and the potential for it to ***enable R&I strategic directionality***. For example, awareness was raised of the potential of the upcoming platform Futures4Europe, as well as common topics of interest through which the community can be galvanized to work together on (thus limiting duplication of effort).

Strengthening the foresight community also needs to focus on building foresight's and TA´s credibility, creating a critical mass and bringing different communities together to understand the relevance and possible impact of foresight and technology assessment. Furthermore, training of policy makers to be strategically intelligent in leveraging foresight is crucial.

The Czech Presidency representatives have clearly shown their plan to include the public engagement in the process of formulation of the **Czech RIS 3 Strategy and National R&I Priorities**. They also expressed the explicit acknowledgement of the need for foresight and technology assessment analysis, especially in terms of attaining the missions, objectives and targets defined within the ERA.

Furthermore, ***an official Mutual Learning Exercise on R&I foresight has been launched by the European Commission***. This activity aims at further strengthening the foresight R&I network – taking forward this workshop series' achievements and excellent discussions.

In their closing remarks, **Ralf ENGEL** (Ministry of Higher Education, Research and Innovation, France), **Jürgen WENGEL** (DG RTD) and **Lukáš LEVÁK** (Ministry of Education, Youth and Sports, Czech Republic) stressed the importance of foresight and technology assessment for strengthening the public engagement in R&I policy-making. They highlighted that the social dimension and upholding of European values should be taken into account in foresight and TA activities. They also invited all participants to take part in future actions organized by the futures4europe platform and the mutual learning exercise on R&I Foresight that will take further steps in strengthening the role of foresight and TA in R&I policy-making with an emphasis on greater public engagement in science, technology and the related policies.

ANNEX – Workshop agenda

10.00 – 10.20	**Welcome and setting the scene** • Marek HAVRDA (Deputy Minister for European Affairs of the Czech Republic) • Alexandr HOBZA (Head of Unit, Common R&I Strategy & Foresight Service, DG RTD)
10.20 – 11.00	**Public engagement in policy-making processes** • Public engagement in foresight (Matthias WEBER, AIT and Tanja SCHINDLER, 4strat) • Public engagement in technology assessment (Tore TENNØE, Norwegian Board of Technology) • Q&A
11:00 – 12:00	**Towards effective involvement of society in R&I decision-making** • Mutual Learning Exercise on R&I Foresight (Jürgen WENGEL, DG RTD) • Trust between society and science: What developments in the coming decades? (Marie DE LATTRE-GASQUET, CIRAD and Emmanuelle JANNÈS-OBER, INRAE) **Parallel sessions discussions** • Challenges for R&I policy that need to be addressed through greater involvement of citizens (Ventseslav KOZAREV | Lenka HEBÁKOVÁ) • How to involve marginalised groups in decision-making processes (Michal PAZOUR | Tomáš RATINGER) • Policy mechanisms for implementing TA and foresight in decision-making processes (Jürgen WENGEL | Poonam PANDEY)
12:00 – 12:15	Break and preparation of summaries from discussions
12:15 – 12:45	**Reporting back to plenary**
12:45 – 13:00	**Closing remarks and the way forward**