'Re-imagining science advice to policy after COVID-19. How to build a stronger, better-connected ecosystem in Europe?'

The annual European Research and Innovation Days sets out to gather policymakers, researchers, entrepreneurs, and the public to debate and shape the future of research and innovation in Europe and beyond.

The session 'Re-imagining science advice to policy after COVID-19. How to build a stronger, better-connected ecosystem in Europe?' was moderated by Research and Innovation Deputy Director-General Patrick Child. Scientific Advisors from various levels of governance Nicole Grobert, Tarmo Soomere, Anne-Greet Keizer, and Director for Support to Member States' Reforms Nathalie Berger discussed the role of science advice for policy during the Covid-19 crisis and reflected on ways to strengthen the European science advice ecosystem.

This session was co-organised by the secretariat of the Scientific Advice Mechanism at DG Research & Innovation and the Joint Research Centre.

A summary of the discussion is presented below, and a recording of the event is available on YouTube here: #RiDaysEU | Re-imagining science advice to policy after COVID-19



Panel session 'Re-imagining science advice to policy after COVID-19. How to build a stronger, better-connected ecosystem in Europe?' moderated by Patrick Child (on the right) with Nathalie Berger in the studio and joined online by Nicole Grobert, Tarmo Soomere, and Anne-Greet Keizer (from left to right).

Patrick Child, Deputy Director-General of **DG** Research and Innovation

Deputy Director-General Patrick Child referred to the Covid-19 crisis as a 'stress test' for science in policymaking. The crisis raised questions on how to deal with uncertainty and misinformation and beyond that, how to build a greater shared vision and improve the coordination between the different scientific advice bodies across the European Union.

Patrick Child opened the panel discussion by asking all speakers how they see the success of the collective response to the Covid-19 crisis. Are there lessons to be learned and what can their respective organizations do?

Nicole Grobert, Chair of the Group of Chief Scientific Advisors (GCSA)

Prof. Grobert sees indicators for both success and failure of the response to the Covid-19 crisis. Covid-19 has put science advice and advisors in the spotlight. This increased awareness of science advice to policy, but also forced scientists to deliver advice under high levels of uncertainty and sometimes on issues outside their expertise. Science advice should always reflect on three main questions: 'what we know', 'what we don't know', and 'what we are unsure about'. In this context, two types of science advice need to be distinguished: long-term or strategic science advice, which allows more time to gather and assess the available knowledge before proposing appropriate policy recommendations, and science advice during an emergency, which requires a fast response and is thus characterized by more uncertainty and pressure.

There is no 'one-size-fits-all' concept that addresses all aspects of acute, interdisciplinary and timely relevant advice. The GSCA, usually following an interdisciplinary approach and focusing on longer-term issues, reacted to the eminent pressing Covid crisis with a 'phased response'. This kind of tiered approach allows responding to what is needed at the moment and simultaneously more time to work in interdisciplinary ways.

Tarmo Soomere, Chair of the European Science Advisors Forum (ESAF)

Prof. Soomere pointed out that the Covid-19 crisis highlighted the necessity of scientific information for policy, from both medical and social sciences. A valuable lesson was to respect the importance of trust and transparency during the science advice process, especially when dealing with great uncertainty and controversial information. However, this also raises the delicate guestion whether all advice should equally be communicated to society. Citizens have the right to know what is recommended to their government, especially recommendations that have been used by policymakers. This needs not necessarily be the case for advice that could not be implemented immediately despite good quality and great value for the long-term.

The ESAF network offers a platform for communication and exchange that can help mitigate the imbalance of expertise between different Member States. ESAF analyses the strong features of the various national advisory systems, revealing that flexibility as well as transboundary and trans-sectoral connections, i.e., between sectors within science and within policy, are vital. The bottleneck of this kind of cooperation is that most operational advice is produced in national languages. ESAF is trying to

address this issue by translating the most important documents to other languages.

Anne-Greet Keizer, Research Fellow and international liaison officer the **Netherlands** Scientific Council for **Government Policy (WRR)**

According to Anne-Greet Keizer the crisis revealed that science advisors require a certain craftsmanship. This includes the ability to explain the continuous creation of new knowledge to policymakers and the general public, and the need for science advice to be adjusted accordingly. Advisors also need to be skilled communicators, choosing the precise words is equally important than conveying not merely scientific insights but also uncertainty. Exchanges between countries were vital during the crisis and the Netherlands Scientific Council for Government is committed to further invest in international relations, e.g., as a member of ESAF and through participation in workshops organized by the Joint Research Centre.

Notably, established infrastructures for science advice for pandemics did not necessarily ensure a better response than ad-hoc organized advisory processes. In a recent report, the WRR identified three main elements of effective science advice during crisis: the adaptability of advisors and advisory infrastructures to changing advice evidence, the implementation of multidisciplinary advice in a more flexible model, and the division of responsibility between advisors and policymakers to avoid intertwining and deciding. Strengthening advising relationships between scientific disciplines and policy sectors during 'peacetime' will improve the ability to assess incomplete and uncertain knowledge fast when acute crises hit.

Nathalie Berger, Director for Support to Member States' Reforms of DG REFORM

Nathalie Berger explained that the crisis revealed an uneven level of scientific advice in different Member States and collaborations will help close this capability gap. The crisis also showed that the current administration systems were designed in times of relative stability and deep organisational, technological and cultural transformation will be required to address the increasing complexity of today's world and anticipate future challenges. A disconnect between public administration and scientific organisations, where researchers are not aware of knowledge needs of policymakers and policymakers are not aware of the knowledge available, leads to inefficiencies, contradictions, but also lack of transparency and loss of public trust. Preventive and successful policy measures will rely heavily on both sides working together. Changes at different levels will improve collaborations: establishment of mediating organisations to facilitate the communication at the institutional level, better organised multidisciplinary input based on 'problem- or mission-oriented' research to address the needs of the complex reality at the policy level, and development of skills and competences of everyone involved in the policymaking process at the individual level. Within public administrations, more scientific literacy is needed, while the research community needs to learn how to produce fit for purpose evidence and understand the drivers of policymaking.

DG Reform at the European Commission provides technical support and advice to EU Member States by ensuring that policymaking is rooted in scientific evidence. The idea is to provide support on demand for projects initiated by Member States. Moreover, DG Reform encourages multi-country proposals that build on the efforts of the Joint Research Centre to promote the evidence culture in Member States.

Following Nathalie Berger's intervention, Patrick Child invited the other panellists to react with a short statement.

Nicole Grobert stressed the importance of trust, communication, and training for policymaker and researchers alike, but also the diversity of advisors, in an interdisciplinary as well as transgenerational way. She welcomed the recent joining of the Young Academies to SAPEA and referred to the Prime Minister's Youth Council in Canada as another example.

Tarmo Soomere explained the difficulties to work with uncertainty and block misinformation during the crisis, so going forward, he suggests a form of legislation for science advice and importantly to distinguish advice from lobbying, i.e., advocating for science and research funding.

Anne-Greet Keizer pointed out that through the work of ESAF and the support from the EU, the awareness of science advice has increased over the past years. Necessary next steps include the extension of the exchange between countries and collaborations on content-related topics.

Patrick Child then invited the panellists to give their statement on a final question submitted by the audience regarding the possibility to avoid short-term, opportunistic use of science and its politicisation.

Tarmo Soomere referred to the responsibility and ability of advisors to be able to stand next to the leaders to explain and defend the evidence publicly. Patrick Child added that the choice of the advisor, however, is itself a political act.

Nicole Grobert sees a way to maintain scientific advice from being politicized by integrating younger generations. Giving a voice and listening

to the youth is crucial to prevent returning to business as usual.

Nathalie Berger pointed out that multidisciplinary inputs must be normalised and become part of day-to-day policy thinking to prepare administrations, governments, and policymakers for the future.

Anne-Greet Keizer acknowledged that science advice directed at long-term challenges is always in danger of being ignored by policymakers. She therefore recommends making a direct connection to issues of today and highlighting what needs to be changed now to be prepared for the longer term.