European Commission

Bridging the gap between science and policy: supporting evidence-informed policymaking to improve society

HorizonEU

PSF CHALLENGE - MUTUAL LEARNING EXERCISE

Bridging the gap between science and policy: Evidence-based knowledge to improve society

Scientific knowledge and evidence are important tools for policymakers addressing society's challenges, helping them identify issues, assess different policy options, design effective solutions, and make well-informed decisions. Yet the role of science in informing policymaking remains challenging, as clearly seen during the Covid-19 crisis. How can we bridge this gap to ensure scientific knowledge informs and enhances policymaking in a systematic way, to improve their quality, effectiveness and societal impact?

The challenge of bridging science and policy

The Mutual Learning Exercise (MLE) focused on the challenges of incorporating scientific insights and evidence-based research into policymaking to address today's complex, emerging and evolving societal challenges. The rationale for addressing this issue is clear: policymakers need access to reliable and relevant scientific knowledge to make informed decisions that benefit society. However, the current system often fails to provide this knowledge in a timely and usable manner. This can be due to a variety of factors such as a lack of communication between scientists and policymakers, a lack of understanding of the policy process among scientists, fragmented advisory structures, difficulty in integrating varied types of knowledge and a lack of incentives for scientists to engage with policymakers. Coordinated governance across the S4P ecosystem is necessary to overcome these barriers. This includes collaboration between policymakers, scientists, and other relevant actors, recognising science for policy (S4P) ecosystems as multi-stakeholder processes of learning and creating knowledge.

About the Mutual Learning Exercise

The MLE on 'Bridging the Gap Between Science and Policy' took place between June 2024 and May 2025. It engaged fifteen Member States and Associated Countries: Austria, Belgium, Czechia, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, the Netherlands, Norway, Poland, Portugal, Republic of Moldova, and Spain.

The exercise is designed to facilitate the exchange of information, experiences, and lessons learned, and to identify good practices, policies, and programs that promote the use of scientific knowledge in policy decisions. It helped participating countries to identify their S4P needs, challenges and opportunities, and identify effective ways to address them.

The exercise focused on four core topics to help strengthen S4P ecosystems: a knowledge-based view on S4P, mapping components of existing S4P ecosystems, assessment and evaluation of S4P mechanisms and ecosystems, and fostering and managing trust in S4P. Belgium, Spain, the Netherlands, and Poland hosted four country visits and thematic discussions based on these core topics. The experts compiled the learnings into thematic reports to advise how to use evidence-based scientific knowledge in policy to benefit society.

Key takeaways

The MLE's first thematic report addressed the **Fostering Knowledge-Sharing Within and Among S4P Actors.** The report emphasises the need to integrate diverse forms of research and policy-relevant knowledge from different scientific disciplines and communities for a holistic understanding of S4P.

The second thematic report, outlines the **Roles, Enabling Conditions and Incentives,** in national science-for-policy ecosystems. Its framework helps countries map their S4P systems by considering actors, functions and roles, competences and skills, and incentives.

The third thematic report, **Assessing the Effectiveness and Successful Implementation of Science-for-Policy Ecosystems,** provides ways to evaluate both individual components and the overall functioning of S4P.

The fourth thematic report, **Trust as a Governance Challenge for Science-for-Policy Ecosystems**, covers trust in scientific information, expertise, advisory bodies and science-based decisions. It concludes that trust is both essential for and a result of effective S4P ecosystems, advocating for participatory and anticipatory governance processes.

Recommendations

By the end of the project, the MLE experts developed eight actionable recommendations from their discussions.

A proper understanding of a S4P system and its development requires a systemic view so S4P should be governed at the ecosystem level. Doing so will reduce fragmentation, develop support mechanisms, and align the incentives and objectives of actors across the S4P ecosystem.

Another recommendation is to foster and institutionalise collaboration among S4P actors and facilitate public engagement. Collaboration is necessary for knowledge integration, trust and shared learning. It makes evidence-informed policies more accepted and strengthens stakeholder engagement.

MLE experts also suggest evaluating ecosystems, not only their components or inputs. Clear system-level goals and well-defined delivery paths for S4P are important for justifying investments, agreeing upon S4P impact and contribution indicators, and the fair prioritisation and distribution of costs and benefits among ecosystem participants.

Another recommendation is to integrate foresight and anticipatory policymaking in S4P, which opens S4P to new views on what is possible and desirable. Countries are also encouraged to recognise and reward policy engagement and redefine metrics for success so that researchers are better able to contribute to S4P.

Developing S4P capacity for policymakers, researchers, and intermediaries was also highlighted so that policymakers can understand how scientific knowledge can be used in policy. In addition, the MLE recommends increasing transparency and accountability in S4P for democratic decision-making and to ensure advice and evidence is actually used in the policy process.

Finally, the MLE's participant countries recommended that scientific integrity and quality-control systems should be strengthened to resist a potential erosion of the scientific knowledge base resulting from low-quality articles being used to train generative AI systems, for example.

Conclusion

In conclusion, the MLE emphasises the importance of a knowledge-based view of science for policy, which recognizes that scientific knowledge is only one of many factors that influence policy decisions. This approach requires scientists to be aware of the policy context and the needs of policymakers, and to communicate scientific knowledge in a way that is relevant and usable for policymakers. By adopting this approach, scientists and policymakers can work together more effectively to promote the use of scientific knowledge in policy decisions, and to improve the effectiveness of policies and decision-making processes.

Overall, the MLE is an important step towards promoting the use of scientific knowledge in policy decisions, and towards improving the effectiveness of policies and decision-making processes. By highlighting the importance of governance, incentives, trust, evaluation, and ongoing dialogue and collaboration, the MLE provides a valuable framework for understanding the complex relationships between science, policy, and society, and for identifying ways to improve the use of scientific knowledge in policy decisions.

For further information:

Thematic Report 1: Fostering knowledge-sharing within and among S4P actors

Thematic Report 2: Science advice to policymakers: Roles, enabling conditions and incentives

Thematic Report 3: Assessing the effectiveness and implementation of science-for-policy ecosystems

Thematic Report 4: Trust as a governance challenge for science-for-policy ecosystems

Final report: Mutual learning exercise on bridging the gap between science and policy

The PSF's objective is to help Member States and Associate Countries to 'improve the design, implementation and evaluation of R&I policies.' The PSF provides expertise and practical support to Member States in three major ways: PSF Country (formerly PSF Peer Reviews & Specific support to countries); PSF Challenge (including the PSF Mutual Learning Exercises, focused on specific and operational R&I challenges of interest in several volunteering countries); and PSF Open (which allows countries that have already benefited from a PSF exercise to receive support to follow up on PSF recommendations). The PSF is funded under Horizon Europe.

Publications Office of the European Union | © European Union, 2025 | Reuse of this document is allowed, provided appropriate credit is given and any changes are indicated (Creative Commons Attribution 4.0 International license). For any use or reproduction of elements that are not owned by the EU, permission may need to be sought directly from the respective right holders. | All images © European Union, unless otherwise stated. | Image sources: © ivector #235536634, #249868181, #251163013, #266009682, #273480523, #362422833, #241215668, #244690530, #245719946, #251163053, #252508849, © Oksana #224383683, 2020. Source: Stock.Adobe.com – all rights reserved.

ISBN 978-92-68-27582-5, DOI: 10.2777/8823362, KI-01-25-114-EN-N