



POLICY WORKSHOP **SCIENCE FOR THE GREEN TRANSITION**

7 SEPTEMBER 2021

WORKSHOP
REPORT

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Workshop Report: Science for the Green Transition

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POLICY WORKSHOP SCIENCE FOR THE GREEN TRANSITION

TUESDAY, 7 SEPTEMBER 2021



The Workshop on Science for the Green Transition is an accompanying event of the Slovenian Presidency of the Council of the European Union 2021.

Table of Contents

_ 1. Introduction	5
_ 2. Key Messages from the Workshop	6
_ 3. Science Policy for the Green Transition	8
3.1. Perspectives from national research organisations	8
3.2. Science for Policy: Bringing evidence to policy makers	9
3.3. Perspectives from the European Union	10
_ 4. Programme	12

1. Introduction

The [Workshop on 'Science for the Green Transition'](#) was co-organised by the Spanish Research Council (CSIC), the Swedish Research Council for Sustainable Development (FORMAS), UK Research and Innovation (UKRI), and Science Europe on 7 September 2021. The workshop was an accompanying event of the Slovenian Presidency of the Council of the European Union. It brought forward the perspectives from different actors involved in science policy with a view to facilitate the 'Green Transition' towards climate neutrality.

The goal of the workshop was to study the roles and contributions that national governments, research performers, and research funders can play in helping to apply scientific knowledge into policies and actions that address the climate crisis. It aimed to gather views and experiences of Science Europe members and of other important actors in the science policy arena.

The event was organised as part of the framework priority to "strengthen the role and contribution of science in tackling societal challenges" of the new Science Europe strategy for 2021–2026. The outcomes of the workshop will inform the focus areas of work for Science Europe's new Working Group on 'the Green and Digital Transition', and helped shape the input that Science Europe prepared as a contribution to COP26.

This report presents the outcomes from the discussions, based on the plenary speeches and parallel group discussions. It also provides a summary of each of the presentations by the speakers that contributed to the event.

The conversations during the workshop demonstrated the importance of drawing on expertise at the local, regional, and (inter)national level, as well as the need to increase co-operation between the research community and policy makers.

A [full recording of the Workshop on Science for the Green Transition](#) is available on Science Europe's YouTube channel.

2. Key Messages from the Workshop

The Workshop ‘Science for the Green Transition’ provided an opportunity to reconsider and revise the role of research funders and performers in supporting the development of effective science–policy interfaces for climate change. A first important consideration was to differentiate policy processes from political processes. While both are linked, not all policies result from the latter. Public administrations, such as the European Commission and national research funders and performers, play an important role in policy making.

Climate change is a global and pressing issue that requires action based on scientific evidence and technology. Policy makers and research communities need to work together more to find better solutions and advance faster on climate change mitigation and adaptation.

The discussion focused on two issues: the first one addressed the question ‘what role can research performing and funding organisations play in the requirement for the timely co-ordination of scientific evidence and the importance of sound and trustful research for evidence-based policy making?’ The second dealt with ‘how to remove the barriers to leverage best scientific knowledge in a coherent way for policy makers to inspire action?’

The event highlighted a series of ways in which progress could be made to bridge the gap between policy and science. As a result of the speakers’ input and parallel discussions, five elements were identified to improve the interaction between science and policy to address climate change:

- Communication with and engagement of stakeholders.
- Supporting and rewarding communication and science advice activities.
- Involving researchers in policy co-creation mechanisms.
- Removing barriers to the science-policy interface.
- Fostering international collaboration.

The discussions were rich and stimulating and led to the conclusions presented below. Overall, participants agreed that ensuring stable funding for research related to climate change and the green transition was crucial. The definition of policies based on research outcomes was also deemed essential and gave rise to the five key aspects below to enhance the dialogue between scientists and policy makers.

Communication with and engagement of stakeholders

- There is a need to engage with the public so that researchers and research organisations can help them better understand climate-related phenomena and identify those related to anthropogenic climate change.
- Awareness raising and knowledge sharing between research organisations and all stakeholders is a critical first step.

Supporting and rewarding communication and science advice activities

- Science communication needs to be appropriately recognised and incentivised by research funders and research performing organisations. It is essential to develop an approach to science communication that is evidence-based and fitted to the purpose of informing policy.
- Funding communication activities and training as part of research projects could be envisioned.

Involving researchers in policy co-creation mechanisms

- Involving researchers in policy co-creation mechanisms is essential and facilitating sectoral mobility (through training schemes for early career researchers, for instance) will contribute to this. Likewise, involving policy makers in research processes (research evaluation committees) may help to build bridges.
- Researchers need training to facilitate varied communication targets and should be appropriately rewarded when engaging in policy-making processes and consultation mechanisms.

Removing barriers to the science–policy interface

- Barriers internal to academia stemming from the diversity between and within research communities must also be addressed to facilitate science communication and a more effective research–policy interface.

Fostering international collaboration

- International collaboration is also vital as the problems faced are not national but global, and cross-border research funding must be better promoted.
- Research funders and performers could work to connect the scientists they fund or employ across borders more efficiently.

3. Science Policy for the Green Transition

This section presents the main messages put forward during the workshop by the different speakers in their presentations.

Marc Schiltz, President of Science Europe and Secretary General of the National Research Fund of Luxembourg (FNR), inaugurated the Workshop and welcomed the participants. He placed the event in the context of the new Science Europe Strategy Plan 2021–2026. One of the main objectives of this strategy is to strengthen the role and contribution of science in tackling societal challenges.

This raises the question of the kind of influence that research can have on policy decisions and the mechanisms that can be developed to direct research in a way that helps tackle these challenges. A broad agreement exists on the fact that climate change and the green transition are pressing global challenges. The Workshop on Science for the Green Transition is the first event of this new Science Europe priority and will start the discussion on what research organisations can do to address climate change.

3.1. Perspectives from national research organisations

Research organisations need to reconsider how they perform science to impact evidence-based policy, argued **Rosa Menéndez**, Vice-President of Science Europe and President of the Spanish National Research Council (CSIC). Indeed, the research community is constantly contributing to the diagnosis and analysis of climate change. Since the establishment of the Intergovernmental Panel on Climate Change (IPCC) in 1988, hundreds of scientists worldwide have contributed to its work to produce the most up-to-date evidence available. It is time to integrate that knowledge and evidence into policy. To do so, scientists and research organisations need to build bridges with policy makers, the media, and the public. Involving these actors in certain research activities might be needed to achieve this.

The latest IPCC report is clear: the world will deal with the climate crisis for generations to come, and business as usual is not an option anymore, said **Ingrid Petersson**, Vice-President of Science Europe and Director General of the Swedish Research Council for Sustainable Development (FORMAS). Investing in research will be vital to accomplish the Green Deal and achieve the Sustainable Development Goals (SDGs). However, research is not simply an instrument to meet policy objectives: to avoid curbing the creativity and novelty of science, a variety of funding instruments must be used to support both curiosity-driven and challenge-oriented research.

A potential idea to explore, she explained, is the inclusion of research communities in the design of funding programmes. However, investments alone will not be sufficient. In fact, new research is not always the answer. To target efforts better, knowledge and implementation gaps must be differentiated. Finally, international collaboration is essential to address challenges that are inherently global.

Tim Wheeler, Director for International at UK Research and Innovation, emphasised that research funders have a series of fundamental roles to play to address climate change:

- Supporting research programmes and national institutes.
- Promoting initiatives to provide scientific advice to policy such as contributing to the IPCC activities.
- Investing in the next generation of researchers and innovators.

- Providing national infrastructure that universities or institutes cannot fund by themselves.

Funders can also play a crucial role in developing and supporting expertise at the local, national, and international levels. Actions that could be done in this regard include:

- Building networks of scientific excellence.
- Contributing to multilateral and cross-border funding schemes.
- Supporting policy fellowships.
- Engaging in international policy forums.

UK Research and Innovation is involved with COP26 through its support of the UK COP26 Presidency as well as through the organisation of events, dialogues, and activities on its own and in partnership with others. These events have taken place since November 2020 in the run-up to COP26 and will continue at COP26 itself and through to December 2021.

3.2. Science for Policy: Bringing evidence to policy makers

Evidence brokerage and synthesis

Peter Gluckman, Director of the Centre for Informed Futures, highlighted the importance of evidence brokerage. It is the practice of bringing relevant scientific knowledge to decision makers. It must be distinguished from evidence synthesis, which brings together information from a range of sources and disciplines to inform debates and decisions on specific issues. Good evidence synthesis crosses disciplinary boundaries and includes social sciences. While both are essential, they follow different processes and require different skills.

Knowledge brokerage is a complex process that requires the researchers and communication professionals who conduct it to:

- Have access to policy makers.
- Understand the issues policy makers want to address.
- Be capable of presenting information in an accessible and understandable manner.

Scientific advice to policy makers also needs to be prepared in a way that is appropriate for policy makers without compromising the science. It also relies on creating and maintaining relations between actors with different functions. For example, while scientists conduct research on climate change, governments are tasked to regulate and incentivise the green transition.

Essential observations for effective science-policy interfaces

It is difficult to find a blueprint for science-policy dialogue, said **Johan Kuylenstierna**, Chair of the Swedish Climate Policy Council. Policy making is complex and is shaped by several factors and influences. In addition, policy-making processes vary widely and range from decisions taken by administrations to political negotiations. Effective scientific advice to policy makers considers these complexities and the roles that researchers and research organisations can play in the development of evidence-based policy. For example, this role could be evaluating policies but also facilitating dialogue in complex discussions.

To that end, he added, the different scientific and policy systems need to develop stronger links through timely communication and exchanges. Professional communicators that can present scientific evidence to policy makers are required, and communication activities need to be integrated into research programmes from the onset.

Daniela Jacobs, Director of the Climate Service Centre, explained that climate services contribute to climate policy making by giving relevant scientific knowledge to policy makers and citizens. By doing so, they provide the necessary information for decision-makers to take evidence-based initiatives. There are four main ways to engage with policy makers, local communities, and the public: providing information, consulting, conducting dialogue, and developing partnerships. She stressed that co-ordination between climate services is essential to avoid local stakeholders receiving diverging information from different sources.

3.3. Perspectives from the European Union

EU initiatives addressing climate change

The [European Green Deal](#) is the EU strategy to address climate change. It aims to update existing EU legislation, use funding instruments, and develop new initiatives. **Clara de la Torre**, Deputy Director General for Climate Action in the European Commission, highlighted several initiatives by the European Commission to achieve the green transition.

- The [EU Climate Law](#) imposes an obligation to reduce greenhouse gas emissions by 55% by 2030, compared to 1990 levels. Achieving that objective requires deep transformations of our economies and societies while ensuring fairness and solidarity.
- In July 2021, the European Commission put forward a set of [legislative proposals](#) to deliver on the Green Deal goals. Some examples:
 - The [EU Emissions Trading System](#) (ETS) is one of the critical tools to decarbonise the European economy. The Commission proposes to further strengthen the existing system and apply emissions trading to new sectors, namely to fuels used in road transport and buildings.
 - For transport, the proposals also include strengthening CO₂ emission performance standards for cars and vans and improving recharging and refuelling infrastructure for zero-emission vehicles.
 - Another key area is addressing the decline in natural carbon removals in the EU, covered by the [Regulation on land use, forestry, and agriculture](#).
 - The Commission also proposes to raise the ambition of the ‘[effort-sharing regulation](#)’, which sets emissions reduction targets for all EU Member States for the sectors not covered by the ETS.
 - To provide support to the transition, a [Social Climate Fund](#) is proposed to address the social impacts from the extension of carbon pricing to new sectors. The [Modernisation Fund](#) and [Just Transition Fund](#) will support less-developed and more-impacted regions, while the [Innovation Fund](#) focuses on innovative low-carbon technologies.
- Climate is also at the heart of Horizon Europe, with a target of 35% of funding going to climate-related projects.

Tomaž Boh, senior adviser at the Slovenian Ministry of Education Science, highlighted two initiatives: [Green Hydrogen](#) and the [Plastic Pirates](#). The latter is a citizen science project involving children being part of water-sampling activities and researchers analysing the results and putting data together. Research and Innovation (R&I) is a crucial driver for the green transition. Two documents are being prepared by the Slovenian Presidency of the EU Council to address its role:

- Council Conclusions on the Global Approach to R&I.
- Council Conclusions on the Governance of the European Research Area (ERA).

In addition, several other key issues need to be addressed:

- Smart directionality, meaning that research should be connected to other sectoral policies, especially the green transition, and not solely concern researchers, research ministries, and research funders.
- Missions, which are crucial elements of the new ERA. Ownership of the idea must be with the national ministries and governments.

Role of scientific advice in the EU policies

Peter Eder, Joint Research Centre (JRC), clarified that the JRC plays a significant role in providing evidence for EU policy making. It focuses on providing that expert advice on the Commission priorities, and most of its activities are co-designed with other Directorates General of the European Commission.

The Joint Research Centre provides a series of types of advice and expertise, especially:

- Technical requirements and quality standards.
- Impact analyses of EU policies and legislation.
- Best practices related to Commission priority areas.

To fulfil its function effectively, the Joint Research Centre has developed processes to involve experts from all relevant stakeholders and build consensus on specific issues. These processes include:

- Researching, checking, and validating information with all relevant stakeholders.
- Co-ordinating feedback on the documents prepared by the Joint Research Centre.
- Setting up and management of technical working groups on specific issues.

Ensuring transparency across its activities is a priority of the Joint Research Centre, which makes its work available publicly to ensure that any interested actor can benefit from the evidence it produces.

4. Programme

Tuesday 7 September 2021 // Virtual Meeting

10.15–12.00 CEST **Science Policy for the Green Transition**
09.15–11.00 BST

Welcome

Marc Schiltz, President of Science Europe

Re-thinking the role of science in science-policy in Science Europe

Rosa Menéndez, CSIC, Spain – Performers' perspective

Ingrid Petersson, FORMAS, Sweden – Funders' perspective

COP26: What is COP26 and why is it important?

Tim Wheeler, UK Research and Innovation

European Green Deal

Clara De La Torre, European Commission

11.00–11.15 *Coffee and Tea break*
10.00–10.15

Perspective from the Slovenian Presidency of the Council of the EU

Tomaž Boh, Ministry of Education, Science and Sport, Slovenia

Role of science policy advice for the Green Transition

Peter Gluckman, Centre for Informed Futures, International Network for Government Science Advice, New Zealand

The co-ordination of scientific evidence and the importance of sound and trustful research for evidence-based policy making

Johan Kuylenstierna, Swedish Climate Policy Council and Stockholm University, Sweden

Moderator: **Lidia Borrell-Damián**, Science Europe

12.00–14.00 *Lunch Break*
11.00–13.00

14.00–15.45

Practical Approaches to Science/Policy Dialogue for the Green Transition

13.00–14.45

Scientific evidence and consensus building for environmental policy making in Europe

Peter Eder, Joint Research Centre

Leveraging scientific knowledge in a coherent way for policy makers to inspire action

Daniela Jacob, Climate Service Centre, Germany

Moderator: **Elena Domínguez**, CSIC, Spain

Parallel discussions

Parallel Session 1: What role can research performing and funding organisations play in the requirement for the timely co-ordination of scientific evidence and the importance of sound and trustful research for evidence-based policy making?

Moderator: **John Tumpane**, FORMAS, Sweden

Rapporteur: **Adrien Braem**, Science Europe

Parallel Session 2: How to remove the barriers to leverage best scientific knowledge in a coherent way for policy makers to inspire action?

Moderator: **Elena Domínguez**, CSIC, Spain

Rapporteur: **Lidia Borrell-Damián**, Science Europe

15.45–16.00

Coffee and Tea break

14.45–15.00

16.00–16.30

Final Discussions and Conclusions

15.00–15.30

Open plenary discussion

Moderator: **John Tumpane**, FORMAS, Sweden

Concluding remarks

Lidia Borrell-Damián, Science Europe

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We bring together the expertise of some of the largest and best-known research organisations in the world to jointly push the frontiers of how scientific research is produced and delivers benefits to society.

We advocate science and the scientific community to help build the European Research Area and shape the global scientific agenda.

More information on our mission and activities is provided at www.scienceeurope.org

