



SPI it out: Making a splash with outputs

The Brief in brief

Science-policy interfaces (SPIs) produce various outputs and outcomes that influence behaviour in science, policy and society. This brief examines SPI outputs, and identifies ways of enhancing their effectiveness. This brief is aimed at those developing SPIs, as well as actors assessing or funding SPIs.

A diversity of outputs

SPI outputs refer to the tangible products emerging from science-policy interface processes. These include the obvious categories of reports, assessments and policy briefs, but also websites, press releases, declarations, indicators, workshops, conferences and so on.

Outputs are the result of SPI processes, carried out to achieve SPI goals and functions. There is some overlap with processes, which can involve for example series of workshops and meetings along with review and analysis work, and we might view a particular meeting as both a part of a process and an output in its own right.

Outputs are also related to, yet distinct from, outcomes, which are the final impacts that SPIs have on policy development, human behaviour, and ultimately biodiversity and ecosystem services. These arise through the interaction of the SPI outputs with their target audiences and the relevant policy, legal and social contexts. Outcomes can also arise directly from processes, without being mediated by an output. In this brief we focus on improving outputs: the brief “Focus on Impact” considers outcomes in more detail.

From outputs to impact

There are many important aspects of SPIs and contextual factors that influence the ways in which outputs create impact. One useful model focuses attention on three features of SPIs and their outputs: *credibility*, *relevance* and

legitimacy (CRELE). This is discussed in more detail in the SPIRAL briefs “Keep it CRELE” and “CRELE Choices”.¹

Thinking about CRELE and analysing SPIRAL’s empirical evidence led us to identify three important features of outputs that enhance CRELE and can help to maximise the impacts arising through SPI outputs:

- Ensuring outputs are relevant
- Quality assessment of outputs
- Translation for target audiences

It was pressure to come up very quickly with some results. And also to meet expectations of policy makers, they expected numbers and figures, ... sometimes we could not find evidence for these claims, so it was hard to really get science behind what policy makers expected us to deliver. On the other hand, this kind of interaction gave us opportunity to really give relevant input for policy makers *Dr S, scientist*.

Relevant outputs

Outputs will have more chance of making an impact if they are timely with respect to policy needs, comprehensive, understandable and effectively disseminated. Possible measures include:

- Strategic promotion to increase visibility by launching outputs in key relevant events, selecting the right presenters and formats for the audience.
- Use of brief summaries to enhance accessibility and expand audience.
- Tailor outputs to the needs of target audiences and policy contexts.
- Timetable for outputs meshed with needs of the policy cycle, with mechanisms for rapid response where needed, and planning in advance for anticipated needs.

¹ Available at <http://www.spiral-project.eu/content/documents>

In some circumstances, too much focus on relevance can be damaging. Publishing premature results can decrease trust and lead to unnecessary conflict, and longer term goals may require attention to emerging issues and problems that are not high on the immediate policy agenda.

Quality assessment of outputs

The credibility of outputs is greatly enhanced by quality assessment measures in the development and publication of outputs, making it important to implement a system for continuous or periodic quality review of research and knowledge used in the SPI. Key elements of that system include data collection, extended peer review and treatment of uncertainty, in particular:

- Covering the full range of existing and reliable data sources to widen the knowledge base and ensure quality of knowledge.
- Checking completeness of knowledge coverage as it may help to identify knowledge gaps and further needs.
- Ensuring transparency and traceability about the origins of each piece of knowledge, to increase credibility and legitimacy.
- Adequate attention to accounting for and communicating uncertainties, divergent views and knowledge gaps. Formal procedures for scientific peer review.
- Extended/stakeholder review by policy makers and other stakeholders to increase CRELE.

Translation for target audiences

Efforts to convey information clearly to actors in diverse audiences and domains can help to ensure that messages are understood and seen to be useful. Good practice may include:

- Adapting language used to the audiences: avoiding jargon, explaining background assumptions, clearly explaining complex relationships and uncertainties while avoiding unimportant details and diversions.
- Using skilled 'translators' to help convey messages between scientists, policy makers and other stakeholders and ensure that mutual understanding is achieved.
- Using appropriate communication tools (figures, maps, pictures...) to capture the core of complex issues.
- Matching science and policy contexts to ensure that scales and variables of interests are aligned.
- Developing a clear communication and outreach strategy including effective media relations.

The way forward

The most appropriate and relevant features of SPIs to prioritise vary according to specific aspects of the policy problem, governance context, and scientific evidence. These and other factors will all combine in determining the most appropriate outputs for SPI work. So, it is neither possible nor desirable to derive 'one size fits all' solutions to the problems of designing, evaluating and improving SPIs for influencing behaviour. However, the identified features and related lessons learned can help those working with SPIs to find solutions for design problems. The three features outlined here aim ultimately to foster better connections between science and policy, as part of the adaptive governance process for biodiversity and ecosystem services.

Looking for more information on science-policy interfaces?

For more SPIRAL results, including separate briefs focussing on other features of SPIS, and lessons learned from other SPI processes, see companion SPIRAL briefs at <http://www.spiral-project.eu/content/documents>.

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The **SPIRAL** project studies Science-Policy Interfaces between biodiversity research and policy to improve the conservation and sustainable use of biodiversity. SPIRAL is an interdisciplinary research project funded under the European Community's Seventh Framework Programme (FP7/2007-2013), contract number: 244035.

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