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Strengthening the Engagement of the Scientific Community:
The Need for a Strengthened Science-Policy Interface

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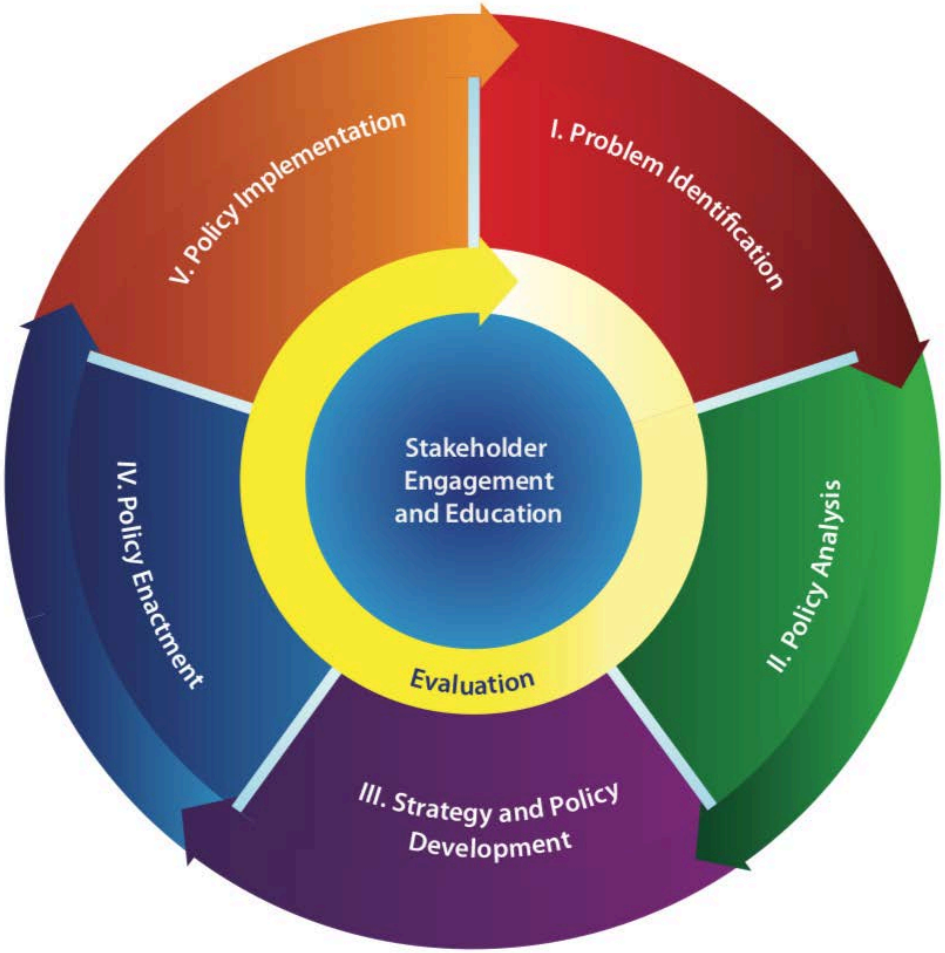
Outline

- Benefits from engaging the scientific community
- Challenges in engaging the scientific community
- Options for a way forward

- Acknowledgement

Benefits from Engaging the Scientific Community



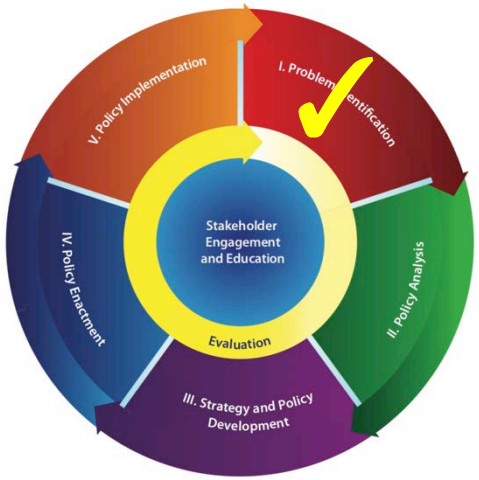
CDC's Policy Process
https://www.cdc.gov/policy/analysis/process/index.html

Benefits from Engaging the Scientific Community

- **Early warning / horizon scanning**

  → Identification of issues of concern

  e.g., ozone-depletion, greenhouse gases, POPs, EDCs, etc.



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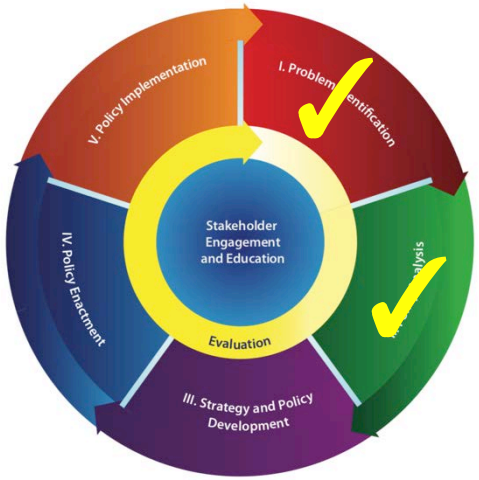


- **Knowledge generation**

  → generation and provision of scientific evidence for a better understanding of the issues and policy options, making problem formulation in a policy context more accurate and policy measures more relevant, e.g.,

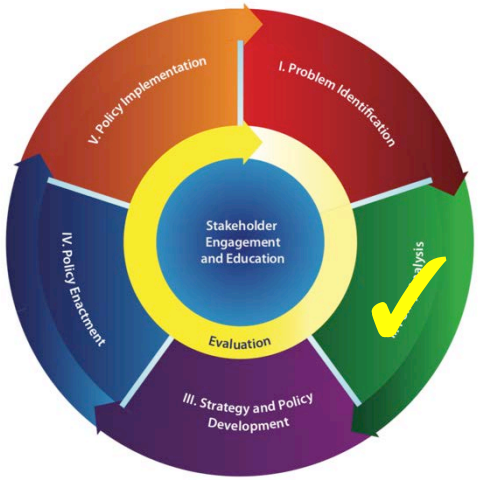
  - research on the causes of acid rain → CLRTAP
  - research on the causes of ozone depletion → Montreal Protocol

Benefits from Engaging the Scientific Community

- **Research and development of solutions**

  → Development of innovative technical solutions to the issues and/or methods and tools for policy implementation

  e.g., BAT/BEP



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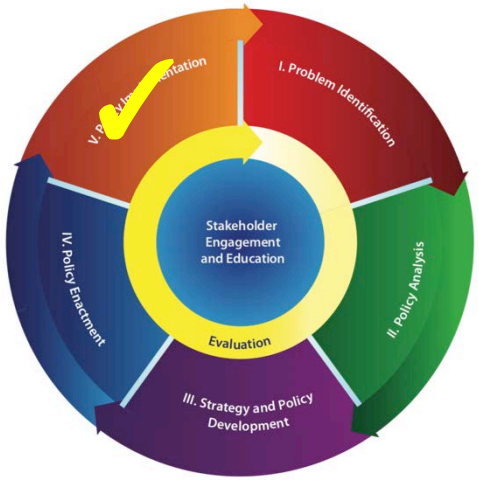

- **Monitoring**

  → Conducting long-term monitoring, providing quantitative scientific information for the evaluation of effectiveness of relevant policy measures

  e.g., recent identification of illegal production and use of CFC-11; Global Mercury Assessment; Global Monitoring Plan of POPs

Challenges in Engaging the Scientific Community

- **Factors due to how science and policy works**

	Science	Policy
Objectives	open, cutting-edge questions (e.g., while it becomes a policy relevant issue, it may no longer be relevant in the scientific community)	any issues of concern, often requires synthesis of existing knowledge
Approaches to an issue	a disintegrative approach, zooming into many specific (sub-)aspects with often limited to no mechanism to ensure coordination across disciplines and synthesis of knowledge	an integrative approach, looking at the "big picture"
Time frames	long timeframes to organize funding and conduct research	short and often sudden windows of opportunity for scientific input
Languages	publish in very technical languages targeting experts in the same field	publish in policy languages

Challenges in Engaging the Scientific Community

- **Factors due to how the two communities currently operate:**

	Scientific Community	Policy Community
Incentives	- heavily driven by H-index/impact factors; - funding agencies most often provide funding for novel methods, but not for synthesis knowledge (with exceptions in some cases).	often not possible to identify the influence of individual contributions to the final outcome
Value perception	Some believe scientists should not be engaged in policy processes to be neutral	
Awareness and training	often not aware of policy-needs or trained to think of policy considerations	
Information access	has no access to CBIs; in such cases, academics may not have essential information to act on	often has limited access to scientific journals
Information overkill	difficult for scientists to keep up-to-date with multiple and diverse policy needs under the large number of parallel policy processes	difficult for policymakers to follow up with 10,000s of papers/year

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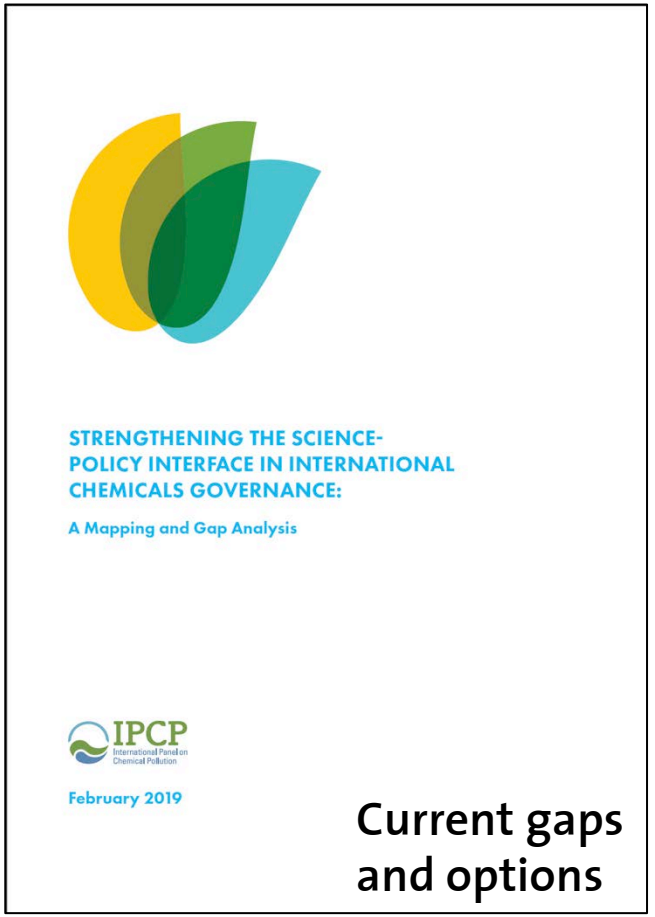
Recent Initiatives on Strengthening the SPI



https://www.ipcp.ch/activities/strengthening-the-science-policy-interface-in-international-chemicals-governance

Acknowledgement

- The Swiss Federal Office for the Environment (FOEN) is gratefully acknowledged for providing financial support.

- Niko Urho, Melissa Wang, Nils Simon, representatives from the international science-policy interface bodies, and international experts at the workshop in November 2018 in Geneva, Switzerland for various discussions and inputs

- The IPCP team (Martin Scheringer, Justin Boucher, Iona Summerson, Adelene Lai, Chantal Britt, Thomas Kast)

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Thank you for your attention!