

Science Policy Society

Science-Policy-Society Interfaces (SPSI)

are defined as relational undertakings between scientists and other actors in the policy process. They allow for exchanges, co-evolution, and joint construction of knowledge to enrich decision-making.

Science-Policy-Society system

is the set of actors, and connections through which scientific knowledge is acquired, synthesised, translated, presented for use, and applied in the policymaking process.

In this infographic the CrossGov methodology for assessing SPSI related to EU marine policies and Green Deal related strategies is presented alongside a selection of key results and examples from case studies.

Scroll to go the methodology or click on the button to reach the page of interest.

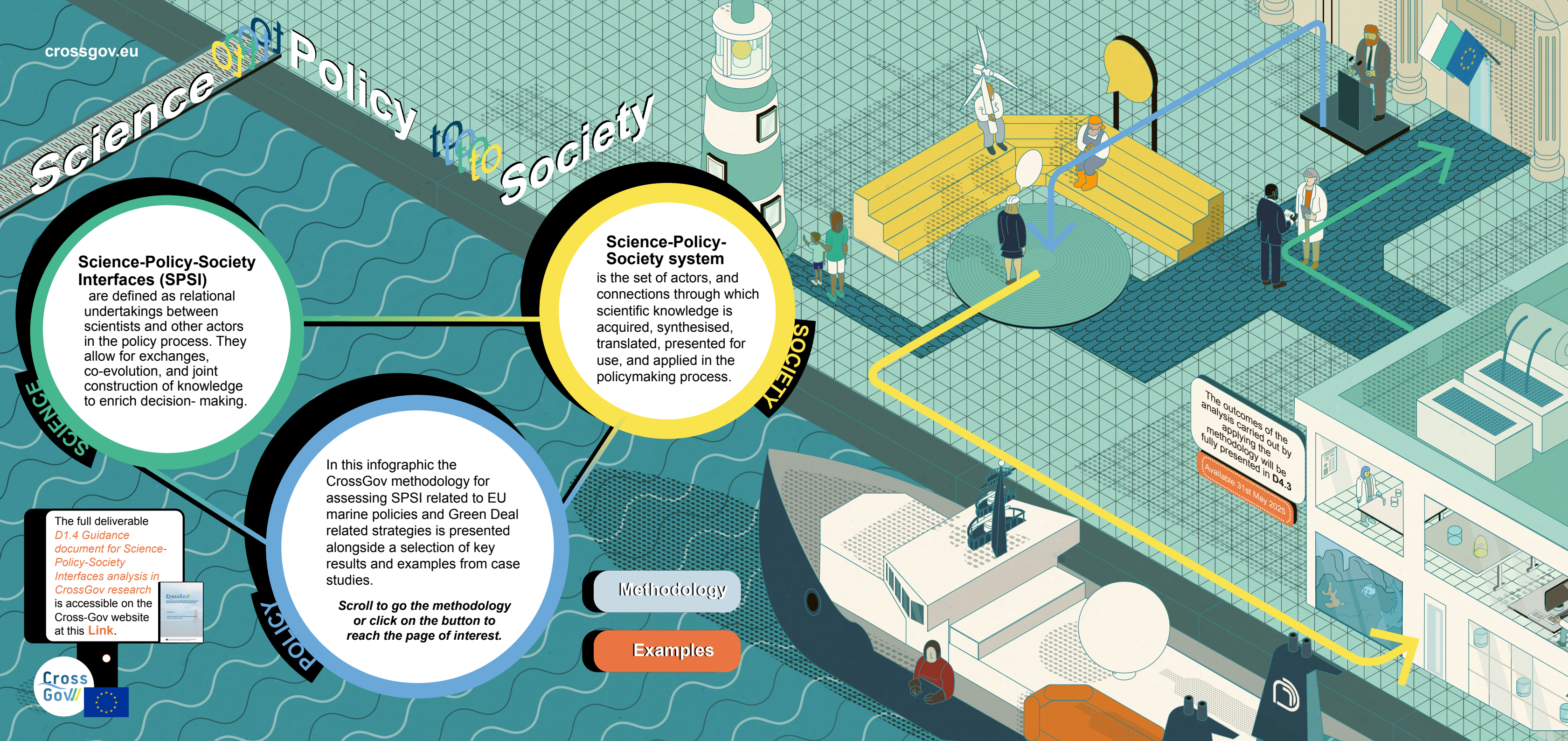
Methodology

Examples

The full deliverable *D1.4 Guidance document for Science-Policy-Society Interfaces analysis in CrossGov research* is accessible on the Cross-Gov website at this [Link](#).



The outcomes of the analysis carried out by applying the methodology will be fully presented in D4.3
Available 31st May 2025



Are you in need of a SPSI Analysis Methodology?

The CrossGov SPS methodological approach is developed to analyse how efficient and effective SPSIs can contribute to sound policy-making and decision-taking, including coherence and cross-compliance of selected and Green Deal-related marine policies.



START

Define the scope of the analysis

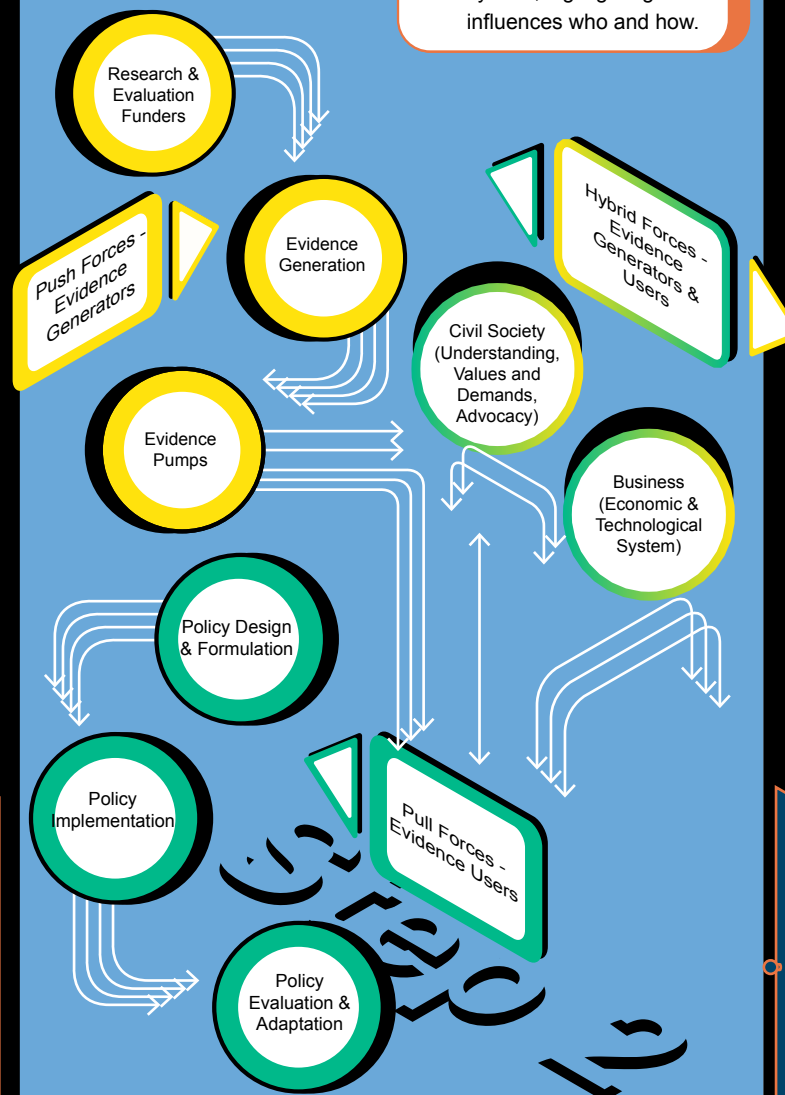
The methodology can be applied in a flexible way to different context. For this, an inception phase is needed, to define the scope of the analysis and the following steps.

- The geographical scope of the analysis
- The policies under analysis and which stages of the policy process need consideration
- The time frame of the analysis
- The research questions to be addressed
- The most important sources of information



Define the analyzed Science Policy Society System

By considering the involved actors it is possible to define a system, highlighting who influences who and how.



Characterize the Building Blocks of SPSI to answer the research questions

OUTPUTS

- Data & Knowledge**
How data and knowledge are made available and used in the policy making and decision making process.
- Assessments**
How assessments assemble the best knowledge available in a form useful for decision making.

ATTRIBUTES

- Availability and access to data; Gaps and uncertainty; Problem framing.
- Credibility; Relevance and Legitimacy; Data and knowledge providers; Problem framing.

METHODS

- Models and mechanisms**
Models of scientific advice and knowledge transfer mechanisms and their effectiveness.
- Permanent SPSI platforms**
Permanent platforms and their role in SPS and in implementing knowledge transfer mechanisms.

- Type of model; Credibility; Relevance and Legitimacy; Type of transfer mechanisms; Utilisation.
- Type and role of platforms; Participants; Problem framing.

INPUTS

- Competence framework**
How competence frameworks and related capacity building activities influence the SPS process.
- Funding & resources**
How funding, existing infrastructures and resources affect the multiple dimensions of SPSI.

- Type of competence; List of competences; Training & capacity building activities and targets.
- Type of funding; Drivers for funding; Level and adequacy of funding and resources (including human resources).

Synthesis: answering the research questions

What type of science, knowledge, and interactions do we need for coherent and cross compliant formulation and implementation of policies?

What type of knowledge is currently provided and used in the implementation stages?

Which role does science play in decision-making, policy-mapping and planning?

How is knowledge contributing to horizontal and vertical coherence and cross-compliance of policies?

NEEDS: the science we need

PRACTICES: the science we use

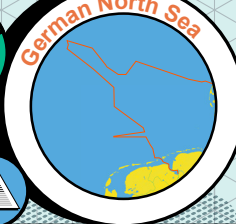
IMPACTS: the impacts of science

EXAMPLES

Sources Legend
● Desk review – Science
● Stakeholder – Society
● Government – Policy

* The methodology is still being applied. It will be updated thanks to the listed testers and further case studies that can be accessed on the project's website.

2004-today



Strategic Environmental Assessment (SEA) Directive, Renewable Energy Directive (RED) III, biodiversity policies, MSFD, MSPD.

Data for SEA processes is available but varies in accessibility. Difficulties in integrating detailed local and private sector data. Key issues include **knowledge gaps in long-term marine impacts, data standard discrepancies, and partial integration of data into policies** like RED III and MSFD. SEAs for offshore wind energy ensure include evaluation, public participation and integration of multiple policy objectives, evaluating the impacts of wind farms on the marine ecosystem and other maritime activities.

Strategic Environmental Assessments rely on collaborative models involving government agencies, scientific institutions, NGOs, and industry, working together. **SPS platforms contribute that the offshore wind projects comply with national and EU laws**, while providing research and data.

Various capacity-building activities (or planned): **specialized courses in environmental management and offshore technology**, fellowships and internships. The current focus includes a wide range of stakeholders. But there should be an effort in targeting local government officials and community leaders. Funding comes mainly from EU and national funds and by energy companies.

2010-today



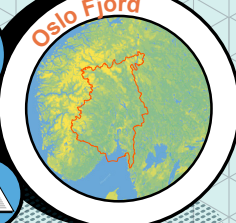
Fishery, biodiversity, and climate change policies.

Climate change data are currently not collected in a systematic manner or regulated under a Mediterranean-wide policy framework, although aggregate assessments exist. Fisheries data is generally more influential in different policy frameworks, both the EU-ones (like Marine Strategy Framework Directive and Common Fisheries Policy) and the Mediterranean ones (like Integrated Monitoring and Assessment Programme). Nevertheless, **a large number of fish stocks remains unassessed**. Biodiversity data availability and quality vary among Mediterranean countries. While governance systems struggle to improve data sharing (due to limited funding and enforcement), but broadly there is a lack of action following from the available data.

Scientific policy advice is mostly following a linear model. **Knowledge integration into Med policies is institutionalized through the Barcelona Convention and General Fisheries Commission for the Mediterranean and Black Seas working groups**, while public involvement is limited to specific projects. **The transfer mechanisms established from delegated experts and national focal points are seen as providing legitimacy** to decisions taken at Mediterranean level, as contracting parties of both Barcelona Convention and GFCM need to be involved. Challenges include funding issues, insufficient engagement and consultation, lack of political will, and non-compliance.

EU funding is the primary source for Med projects, with additional support from national funds, NGOs, and the private sector. **Funding disparities create imbalances**, favoring socio-economic sectors like fisheries over environmental ones. Research priorities often align with available funding.

2019-today



WFD, Municipal spatial plans, Integrated Norwegian Ocean Management Plans (and their effect and interplay of these 3 plans with the sectors agriculture, sewage, fisheries).

The availability of data in decision-making processes is hindered by **limited integration and data-sharing systems across planning and policy processes**, which is further reflected in the fragmentation across multiple portals and databases. This fragmentation is particularly pronounced across jurisdictions along the land-sea interfaces and between environmental and spatial planning policies, creating a significant barrier to effective ecosystem-based management. Example: The monitoring and indicator system of the WFD is mainly tailored to freshwater, falling short of addressing environmental status in the coastal/marine environment. This gap is not filled due to a disconnect from the environmental assessments on the state of the ocean developed as part of the Ocean Management Plan.

Collaborative transfer models prevail. While the implementation of the WFD is characterized by a "network collaboration model," where river basin districts facilitate the integration of decentralized waterbody assessments, the **environmental assessment for ocean management is centralized by the state**. A close integration of science and policy is achieved through a formalized process involving a steering committee (composed of ministries) and two advisory bodies that provide assessments and monitoring data.

Funding mainly comes from the EU (e.g. through projects), the Norwegian government, national authorities and counties along the Oslofjord region.

MSFD, MSPD, WFD, fisheries, renewable energy and biodiversity policies.

2018-today



Abundant data for established directives (WFD, MSPD, Habitat and Bird Directives) but sparse for sectoral policies. Gaps in biodiversity, fish resources, coastal morphodynamics, and climate change impacts. **Assessments for MSFD and WFD are credible and legitimate**. Sectoral policy impact assessments sometimes lack transparency given that funding is provided by private companies.

SPSI model is by tradition linear with a **distinction between science and policy**. Nevertheless, **SPSI platforms exist and involve public institutions** and research centres to support decision-making by sharing data and raising awareness. Collaborative models were recently set up related to the MSPD and the repartition of uses at sea, including stages of public debates and expert consultations. **Sectoral policies such as offshore wind are developed through a stronger collaboration model**.

Capacity-building workshops and other activities related to biodiversity issues have difficulty attracting audiences from other fields. There is a **very strong silo structure between marine environment policies** (WFD, MSFD, MSPD) and **sectoral policies** (fisheries, offshore wind farms) with little collaboration. Funding primarily comes from national schemes and project-led initiatives; some cross-compliant funding exists (e.g. WFD/MSFD). There is a **lack of funding** for operational implementation (human resources) and a mismatch between scientific research timeline (long term) and decision making process (short-term).

2014-today



WFD, MSFD, MSPD, fishery, aquaculture, biodiversity policies.

Data fragmentation and broad access issues in policy implementation. Continuous data sharing systems may be lacking or delayed. **A number of gaps in knowledge areas are present, such as nature-based solutions at the land-sea interface**. Resources limitations (i.e. manpower and skills) in policy assessments. Good examples and successful collaborations are present, e.g. initial MSP assessments. MSPD policy not yet integrated into other policy assessments.

Collaborative transfer models prevail on linear models, but continuity in the knowledge transfer process is still a challenge. **Knowledge production integrated into policy-making**. Researchers act as knowledge brokers in co-design and co-management processes. Societal involvement is limited to consultation. **Permanent SPSI platforms: different focus and levels** (sub-national, national and international). Primarily include administrations, agencies, and research institutions. SPSIs provide technical and scientific support, knowledge transfer, promote engagement and dialogue.

Specialized, sector-specific knowledge can hinder effective collaboration. Workshops and training initiatives, do exist (e.g. EU projects). **Continuity in funding is crucial to ensure stable and adequate human resources**, rather than temporary programs.

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