



Tools for Science-Policy Interfaces: Recommendations on BISE and Eye on Earth

The Brief in brief

This brief explores the role of the Biodiversity Information System for Europe (BISE) and Eye on Earth and their potential as tools for reinforcing the science-policy interfaces of research projects.

Information availability and exchange

Environmental policy-makers and other societal actors need up-to-date and high quality information. In recent years, several key developments have taken place to increase the information basis, availability and exchange. These include dedicated information systems such as The Water Information System for Europe (WISE) and the Biodiversity Information System for Europe (BISE, <http://biodiversity.europa.eu/>), and innovative data presentation tools such as Eye on Earth (EoE, <http://www.eyeonearth.org>).

Focusing on the latter two, it appears that the links to data, information and knowledge from EU research projects through BISE are still underdeveloped and need to be improved. Similarly, EoE has a broad potential as a science-policy interface tool. Practitioners and researchers at a SPIRAL workshop explored ways and options to make best use of these tools to reinforce the science-policy interfaces of research projects, and came up with the following recommendations for BISE and Eye on Earth¹.

Recommendations for BISE

The Biodiversity Information System for Europe (BISE) is a single entry point for data and information on biodiversity in Europe. It is a partnership between the European

¹ The following recommendations were developed at a workshop on "Better interfacing EU research projects and EU policy-making", organised by SPIRAL jointly with the European Commission Directorate General for Research and Innovation (DG RTD), with the participation of the European Environmental Agency (EEA). More detailed recommendations can be found in the workshop report available at: <http://www.spiral-project.eu/contents/documents>

Commission (DG Environment, Joint Research Centre and Eurostat) and the European Environment Agency (EEA). Bringing together facts and figures on biodiversity and ecosystem services, it links to related policies, environmental data centres, assessments and research findings from various sources. It is being developed to strengthen the knowledge base and support decision-making on biodiversity. One of the five entry points of the BISE portal is research. That part of BISE is still in its infancy and input from both researchers and users of research results on how to develop it could ensure that it is adapted to needs and that it is relevant, credible, legitimate, and ultimately helpful for biodiversity-related policy and management.

The following recommendations may help to further develop BISE:

- **BISE as a standard entry point.** With its general approach, BISE has the best potential to become the starting place for all biodiversity-related information in Europe. In particular, it can become the central and long-term access point for policy-relevant research outputs. It is also a potentially powerful way to increase the visibility of research projects.
- **Networking beyond BISE.** Although BISE should be an entry point for research information and knowledge, further networking in research will be needed outside BISE to strengthen science-policy activities.
- **Sharing data from projects.** Beyond the formal data flows managed by the EEA and available via BISE, BISE could also allow for long-term availability of data and knowledge from research projects as an additional resource. The following initial activities should be considered to further explore their potential of their products:
 - Explore the use of indicator-related projects and the data produced by them to support the work on indicators for the EU Biodiversity Strategy.
 - Develop or use existing data storage standards to develop a standard system for storing data from research projects in a platform where they could be linked to BISE. Accordingly, key elements for such a joint platform and the related BISE standards need to be identified.
 - Conduct a feasibility study with biodiversity as potential case study for other areas of data needs in the work of the EEA.
 - Consider making project "speed-presentations" (e.g., videos, overview slides) on projects available through BISE.
 - Explore further the links to data-related projects and infrastructures, e.g. LifeWatch.

- Further develop the recently established database of research projects in BISE. This effort would benefit from additional elements such as:
 - mandatory minimum input from all EU-funded biodiversity projects, with clear guidelines;
 - direct links to project websites (and their products pages);
 - direct upload/download possibility for policy briefs and other products (using a DOI approach);
 - policy-focused project description in a standard format, accessible to a broad audience, and stressing policy and societal relevance of research;
 - standard list of keywords, including "policy-related" ones;
 - a list of project contact point to which policy-makers can address their requests.
- **Managing the project section of BISE.** This section of the BISE website could be opened by a guided content management system for projects to post their material. New content would need to be checked by a "research hub" facility in order to ensure quality and coherence. Network projects could help here.
- **Long-term archiving of project knowledge.** Explore whether BISE could become a long-term archive of the results, products and website contents after completion of projects. The EEA is currently developing Data Stewardship Agreements with a series of projects.
- **Explore the option of a BISE-RTD project** to help implement the above mentioned actions, similar to the WISE-RTD project in the water area.
- **Include data from other sectors.** As biodiversity and ecosystem issues require broader environment data, BISE could host/mirror some data from other sectors (e.g. agriculture) that would be of use to biodiversity researchers. For certain official data, this would require dialogue with other DGs.
- **Promote BISE in the research community.** The research community should be made more aware of BISE. This could be done through promotional material and newsletters and presentations at specific biodiversity-research workshops and conferences.
- **BISE as provider of research-relevant information on policy.** A function in BISE that could be developed is the provision of an entry point for researchers to better understand the policy context of their research.
- **Create an Assessment Panel for BISE.** At a later stage, an assessment panel of users could help improve its relevance, quality and user-friendliness.

Recommendations for Eye on Earth

Eye on Earth (EoE), facilitated by the European Environment Agency (EEA), is a 'social data website' for creating and sharing environmental information. Data and information can come in a variety of formats such as maps, graphs and tabular spreadsheets, alongside various tools. Maps can be viewed, created, interacted with, manipulated and shared. Users can choose to share information with closed groups or everyone. Examples of potential users include policy makers, environmental organizations, emergency responders, GIS professionals, communities and citizens. Eye on Earth has a high potential for use by research projects. It can serve (i) in the dissemination of results; (ii) as a science-policy interface tool; (iii) for joint work in projects and with stakeholders, and (iv) in involving the wider society. These potential functions need to be

further explored and demonstrated through practical examples (success stories). The following recommendations may help to further develop EoE:

- **Highlight the added value of EoE for research compared to other tools.** For this, better promotional material on EoE aiming at environmental researchers should be developed, which highlights advantages of EoE (e.g., data property right remains with researchers, restricted communities possible).
- **Develop showcase examples.** Examples on the use of EoE by projects would help to develop EoE further and adapt it to user needs. The HERMIONE collection of EoE Map Books on anthropogenic impacts in the deep sea is a good example².
- **Use EoE for European Ecosystem Assessment.** EoE is potentially a very useful tool and platform on which to develop the European Mapping and Assessment of Ecosystems and their Services (MAES).
- **Increase training.** Training options including: (i) better tutorial and help functions; (ii) specific sessions at EoE user conferences; (iii) specific workshops which could serve the triple purpose of promoting EoE as a tool for research projects, training research users on how to use EoE, and allow for these users to suggest formats and functions that would be useful to them; (iv) a summer school on EoE.
- **Implement a dataset citation system.** In order to make EoE attractive for researchers and to encourage researchers to add and share data and use EoE to its full potential, it is essential to implement a dataset citation system (e.g., DOIs) and clarify property rights issues.
- **Promote early uptake of EoE by projects.**
- **Ensure connections between LifeWatch and EoE** to explore joint work and services and avoid duplication of work (e.g., developing separate spatial data interfaces).

Looking for more information on science-policy interfaces?

For more SPIRAL results, including separate briefs focussing on recommendations to funders, policy-makers, and research projects, see companion SPIRAL briefs at <http://www.spiral-project.eu/content/documents>

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² Available at: http://eyeonearth.org/templates/Group_Gallery/index.html?group=f770875114ac4792b049d293cf46f16c