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Foresight in the ERA ENVHEALTH consortium

Exposure of citizens and workers to potentially toxic biological and chemical agents has been varying in time for centuries, with a strong acceleration at the middle of last century. Significant changes in exposure are expected in the next 25 years, with respect to demography, environmental pressure, scarcity of resources, evolutions of products and processes. Some of these changes may have positive effects on health while new risks may also appear. ERA-ENVHEALTH members look into such questions using different tools varying from reviews of scientific state of the art and societal developments to foresight exercises.

An ERA-ENVHEALTH colloquium was organised at ANSES in Paris on the 18-19 February 2016. Its aim was to gather about 30 people, to compare methodological approaches, future visions of various European organisations and discuss possible common actions. The colloquium was open to ERA-ENVHEALTH members and to other organisations collaborating with them, involved in risk evaluation or risk management or in foresight.

A wide variety of tools

Most of the organisations which were represented at the meeting use part of their resources to develop visions of what could be the future. It is interesting to note that in some countries such activities are strongly encouraged (The Netherlands, Germany, France). For instance, in Germany the agreement of the German government coalition of 2013 states “We strengthen the skills and capacities of strategic foresight in the ministries in order to recognise opportunities, risks and threats of medium and long term trends better.”

The exact purpose of these foresight activities and who uses the results may vary from one organisation to the other. This can be:

- Alerting the government, providing visions of future for the ministries (Germany, The Netherlands, ...)
- Understanding what is at stake, preparedness, for agencies, (Some French agencies, EEA)
- Providing insights for research programming and support R&I policy cycles (EU)
- ‘Future-proofing’ policies (EU)
- Research on social dynamics (EHESS)
The techniques used for foresight depend on the purpose of the exercise, the available resources and on the users (agency staff, politicians, general public). Also, some exercises are performed on a long-term basis (often horizon scanning, or ‘signalling’ exercises), while others are ad hoc, targeted towards specific needs or issues. Some agencies (German Environment Agency and RIVM) even developed toolboxes to choose the best suited technique.

- Quantitative modelling to estimate exposure, understand the interplay between factors, etc.
- Qualitative modelling (maps linking various factors to represent the complexity)
- Explorative scenarios combining various trends in a coherent ways
- Meta-analysis of scenario to provide “normative futures”
- Watch, horizon scanning, web survey to analyse the present as a future in preparation
- Questionnaires, polls to analyse the vision existing in various communities

A full scale exercise generally requires significant resources, so that agencies with no dedicated teams rather develop small scale or pilot exercises.

**Impact of foresight**

These exercises are often encouraged by the Ministries or sometimes the agencies’ management boards. Their impact is variable. Most of the time foresight exercises do not add information but bring together existing data so that their added value must be explained. Generally speaking various factors strongly influence the impact of foresight exercises:

- Who requested this activity and the way he endorses the results. Often such exercises build cohesive teams with a shared vision of future but the question is how to bring this vision to people outside the group, especially the ones who requested the exercise. One novel experience is the serious game developed by the JRC to involve stakeholders so that they could “experience” these visions of the future and the drivers.

- The form of the result and the way it fits the purpose. For instance, politicians favour exercises with a “deterministic” output (modelling, survey) which can support decisions rather than outputs showing the complexity of the situation and the uncertainties related to any actions.

- The communication made around the foresight results is of utmost importance. Most of the actors communicate their results using various tools: narrations, attractive graphics, serious games.

For many participants the clearest outcome of such an exercise is an “intangible good”: new skills for staff involved in these exercises, opening minds, cohesion of groups.
Common issues

For most of these exercises, whatever the techniques used, some technical questions appear frequently:

– What is the best suited tool
– Tackling complexity. How to build systemic approaches with rigorous methods
– How to structure data (maps, clustering, ordering information, ...)
– Coupling qualitative and quantitative (indicators, trend analysis, modelling)
– Tool to analyse masses of data (from human to artificial intelligence)
– How to foster collective intelligence with people with diverse expertise and perspective
– How to foster creativity (to avoid, for example, surveys producing no novel information), what are the conditions to fulfil the exercise and also the limits
– How to involve a variety of stakeholders
– How to communicate results
– How to use foresight for action

Conclusions

Many foresight activities developed by agencies have similarities, although developed using various methods. There is room to develop a common activity in the perimeter of an ensemble of agencies. This may be (by order of increasing cost):

- Exchanges on methodologies, benchmarking
- Sharing watch, horizon scanning (especially to have multilingual information)
- Common exercise on foresight (keeping in mind that many of the issues at the interface between health and environment are also tackled at the European level)

This room for common activities should be considered when looking for research of funding to develop a common activity. N. Vercruysse pointed out the link “Foresight funding opportunities in Horizon 2020”\(^1\).

A good starting point to identify a possible common project could be:

- Gather a few normalised\(^2\) data about the methods used by the members.
- Identify issues that everybody would like to share with other members.

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\(^1\) [https://ec.europa.eu/research/foresight/index.cfm](https://ec.europa.eu/research/foresight/index.cfm)

\(^2\) These data are often presented in the power points but in various forms