

Innovating out of the crisis

Brainstorming session hosted by the European Research Area Board (ERAB), together with the European Forum for Forward Looking Activities (EFFLA) and the Innovation for Growth group (I4G)

EU Innovation Convention, Brussels 6 December 2011, 9h-11h30

This brainstorming session will be hosted by ERAB, together with the European Forum on Forward Looking Activities (EFFLA) and the Innovation for Growth expert group (I4G). Other experts have also been invited. A selected group of young researchers and the speakers of the ERAB Stakeholder Conference (Seville 2010) are amongst them.

The session will focus on three topics identified by ERAB as priorities for analysis, in the context of the European Research Area and the Innovation Union initiative.

There are great hopes in the role of research and innovation in overcoming the crisis, and new approaches are needed to make the most out of policies in this field. Participants in this session are asked to bring with them all their experience but also their candour to take part in a brainstorming on the future of European research and innovation policy.

▪ **Grand challenges: how to define agendas and mobilise national and regional resources**

Identifying a set of grand challenges will allow Member States to agree on common research strategies and to pool resources more effectively. But new questions emerge that will determine the success or failure of the initiative:

- Which will be the governance structure for joint efforts, and how will the research agendas be developed?
- Who will take part in this process?
- To what extent should these agendas be detailed?
- How will different technologies be integrated?

Tackling grand challenges has implications beyond European Research and Innovation (R&I) policy. The Framework Programme (in the future, Horizon 2020) mobilises a small part of national funds, but its structuring power is limited. Research efforts at national and European level need to be coordinated to avoid fragmentation and duplication of investments. The Strategic Energy Technology Plan (SET-Plan) is the biggest attempt to align European and national research agendas, involving Member States in the Steering Group and aligning national research budgets. The Joint Programming initiatives are further attempts to align national research budgets on a set of predefined areas.

- How must European and national funds be aligned for grand challenges?
- How can structural funds (SF) earmarked for R&I be added to the picture?
- How can we maximise the benefits of SF investments in view of the new policy priorities?

▪ **Developing the international dimension of the Innovation Union**

Global inter-dependence requires global actions. Research is indispensable to tackle current grand challenges, but it can only succeed if it is supported by coherent policies and political commitment. For research to contribute

to the development and cohesion of our societies and to adaptation to economic and demographic changes, the EU depends on building a strong European Research Area but also on developing strategic activities and synergies with other regions of the world.

International scientific collaboration allows for increased access to research resources and infrastructures, teaming up with professionals with complementary competencies, benefitting from knowledge generated beyond boundaries, capitalising on aggregated financial investments and achieving critical mass to tackle grand challenges. Research domains from technology and engineering to social sciences and humanities are instrumental to address current and future challenges. Delivery of findings, discoveries and innovations can build trust among people, societies and countries and contribute to global peace and prosperity.

Many results of European Union investments, such as trained researchers or patented inventions, are exploited outside Europe. While many EU Member States have economic interests abroad and engage in bilateral partnerships with other countries or regions of the globe, they fail to reap the benefits of a strong, pan-European approach. It is time for the EU to design a coherent strategy for international collaborations with ambitious targets, ensuring that Europe remains a key player in the international arena.

- Which is the best way to realise global collaboration on specific grand challenges?
- Are national funding organisations ready to fund international efforts?
- Are European scientists willing to embark on global collaborations?
- Are the actors of the public and private sectors ready to engage in open innovation globally?
- And beyond Europe, are policy makers, funders and researchers aware that Europe is concentrating on grand challenges?
- Are the required competences, e.g. technological ones, available over the globe?
- Does the required and accessible research infrastructure exist?
- Why do barriers for researchers' mobility prevail?
- Do we share global principles for research integrity and ethics, and for assessment of excellence and relevance?

▪ **Maximising the contribution of the social sciences and the humanities to innovation**

Social sciences are a tool to improved understanding of innovation processes, helping to make policy decisions and minimising the social negative effects of technological change. They are also a key component of the development of new products and the evolution of new markets. Is not the study of human behaviour more important than ever in economies that compete globally?

We have all recently read Steve Jobs' Stanford Commencement speech and how a calligraphy course that he took randomly contributed later on to the design of Apple products. The arts and humanities have a strong affiliation with the creative industries: they create languages to communicate technical complexity in an efficient way, and contribute to changing social perceptions that in turn create the appropriate environment for innovative markets and innovative policies. The case of agricultural biotechnology in Europe illustrates to what extent technical feasibility and cultural acceptance are required for innovation to happen.

Science can assess whether a path takes us to a goal. But it does not define these goals. Social sciences and the humanities create the spaces for public debate on what we want to achieve as a community of human beings and which tools we want to use to get there. Is the current debate on innovation taking this into account?

- How should social sciences and the humanities be embedded in the grand challenges debate?
- What will be the role of social sciences and the humanities in the innovation union?
- How can we provide policy makers with clear examples of the contributions of social sciences and the humanities and with proposals on their structural function in the research and innovation policy process?