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# Responsibilities of National Actors in the European Research and Innovation Area

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"Regarding research and innovation, in the US one mentions China — and in China, the US. Nobody mentions Europe." This is how Dr. Martin Schuurmans, president of the European Institute of Innovation and Technology (EIT), summarized his assessment of Europe's power (or rather: lacking power) for innovation during the conference of the Spanish EU-Presidency organized by the European Research Area Board (ERAB) in May last year.

The research and innovation vigor of the EU is stagnating while that of Asia is growing and the US is maintaining its higher investment level. Less than 25% of the global research investments are invested in the EU. Growing investments in science and technology from new "global players," especially in Asia, but also in Central or South America, reduces our share even further.

Until recently, it was mostly the weak private research and development investments that caused the EU to fall behind in the statistics. However, difficult budgetary situation have now resulted in certain states also drastically cutting their public investments in education and research. This will have consequences since international studies have identified high development costs, lack of demand for research and innovation, specific state regulations, a weak education basis as well as a weak production base as particular obstacles for innovation.

Underscored by the financial crisis, Europe gradually becomes aware of its weakness in innovation. And, as the Commissioner for Research and Innovation, Marie Geoghegan-Quinn, said, "It's time to walk the talk!" The European Research Area Board and the new Commission agree on the direction of the measures which eventually could bring Europe back onto the global innovation agenda:

— *Comprehensive innovation process:* The first goal is a better integration of education, research and innovation in order to strengthen the overall innovation process. It is about achieving an overarching process from basic research to the introduction of innovations into the markets and into society. We have to learn to think more within the "innovation triangle" or research, development and application because innovation processes are not linear. They are based on mutual ex-

changes between research and application and on feedback loops. The strategy of the “European Innovation Union,” published last October by the EU as one of the seven “flagship initiatives” of the “Agenda Europe 2020,” introduces the concept of “Innovation Partnerships.” Overarching thematic emphasis should serve to bundle the manifold support and cooperation instruments offered by the EU and its Member States in the future. A pilot project will be launched this year on “healthy and active aging.” In exchange, the individual support instruments of the EU should, on the long run, not be determined thematically and methodically anymore, but just methodically and thus simplified.

— *Innovation is culture:* At the same time, the awareness must grow that the term “innovation” is not limited to scientific insights, the latest technologies and to economic growth, but must simultaneously include societal breakthroughs. Each of these innovations represents a cultural achievement. Innovations are, therefore, dependent on context that is culturally beneficial and challenging. Science and innovation have to be embedded in a social and ethical discourse. Excellence by itself is not enough. Only if science acknowledges its responsibility which is inherent in its excellence, can it achieve global outreach and enter a socially relevant discourse. The discussion of ethical, social and economic dimensions within the scientific community and the public dialog about them will make science even more valuable. Without taking responsibility, inner freedom cannot be achieved - and inner freedom is a prerequisite for creativity and innovation.

— *Effective and efficient use of public funds:* Setting priorities when big investments are made in research infrastructures and programs and strengthening the profile of national university landscapes are topics for debate. International studies have identified clustering as being stimulating for innovation. Half of the research and development in the OECD area takes place in 10% of the regions. In other words, we would benefit a great deal if we would foster regional synergies. Building up such clusters must go hand in hand with enhancing EU-wide mobility. In the sense of a “fifth freedom,” researchers, knowledge and innovation must be able to move and develop freely in the EU area. This will pose challenges, especially for national retirement fund schemes. Moreover, the trans-national mobility of grants will be required.

— *Reduction of bureaucracy:* For an effective and efficient use of public research funds, bureaucracy must be reduced in Brussels, but also in Berne, Vienna and probably also in Ljubljana. It is important to emphasize excellence when investing in research and higher education. Research investment must first of all serve scientific discovery. The European cohesion and federal interests within our countries must be supported by other means. Just a month ago DG “Research and Innovation” invited the European research community to participate in framing the next research programme. The Green Paper *'From Challenges to Opportunities: Towards a Common Strategic Framework for EU research and innovation funding'* has been published on February 9. This Green Paper launches a public consulta-

tion on the key issues to be taken into account for future EU research and innovation funding. The outcome of the consultation will subsequently feed into the preparation of the Commission's formal proposals for these programmes, which are due to be adopted before the end of 2011. In other words, this comprehensive consultation shall clarify the research community's basic interests and I therefore invite all of you to take this opportunity and to participate as institutions or as individuals in this process. It is still open whether there should be another, similar "top-down" Framework Programme or whether EU's means should be distributed through agencies at arms lengths such as the European Research Council (ERC) to "bottom up" research initiatives.

The treaty of Lisbon has upgraded research from a political project which had to serve the competitiveness or specific sector politics of the EU, to a political goal of the EU in itself. This makes it possible for Brussels to support research beyond the clearly defined Framework Programmes and also to coordinate national policies in science and innovation. The new Commissioner for Research and Innovation is willing to apply these new competencies. In discussion are, for example, the possibility of a coordination of national innovation politics and public procurement policies by the means of an EU directive. At the same time, and since a growing number of countries would like to participate in the Framework Programmes, the EU is thinking about a new strategic research governance including its member states only and perhaps some specially selected partner countries.

The general goals of the European Research and Innovation Area are broadly endorsed by the European research community, by private companies as well as in political speeches. However, there are questions about their implementation: How will the Member States react to regulatory suggestions in the field of research and innovation? Will it be possible to raise public and private investments to the necessary levels? Can Europe rouse the entrepreneurial, risk-taking and risk-awarding spirit which is needed in today's global innovation competition? What about the profiles and the modernization of national systems of higher education and research? These open questions will lead to long discussions.

However, if it is about catching up, then Europe can build on specific strengths: The large number of well-educated people, the tradition of respecting research, the public's feeling of responsibility for education and research as well as our cultural diversity. These are important prerequisites for dealing with complexities and with today's and tomorrow's challenges. In addition, the EU still has, when compared globally, the largest number of scientific publications. Europe also has a growing research community which makes it attractive for international research investments.

These aspects are fundamental and we must take care to maintain our values, because, in the end, it's not just about strengthening Europe's innovativeness with regard to economic competition but even more about finding solutions for global challenges of climate change, safe supplies, social cohesion, and the fertile exchange in

cultural diversity. The second annual report of the European Research Area Board, which was published last October, stated clearly: “The prospect of what might happen if we don’t act immediately is economic and social decline in Europe and further environmental degradation.”[1]

Ladies and gentlemen, allow me to conclude by summarizing the most important responsibilities of national actors in the European Research and Innovation Area in three points:

1 *Public investments in education and sciences must continue on a high level.* The continuation of public funding on a high level is of special importance because scientific research so strongly depends on long-term stability. Stop-and-go politics show disproportional negative consequences.

2 *National innovation regions must be created.* Scientific competition does not take place on regional or national levels, but internationally. On the national level, coordination and cooperation must be our priority. Universities, technical colleges, private companies and public institutions must work together and regional clusters should be strengthened. We are not making full use of our potentials yet.

3 *Research funding must be based on excellence.* This pertains to basic research as well as to applied research, since excellence is not a question of research style; it applies to all methods.

Ladies and Gentlemen, thank you for your attention. I wish us a productive conference and I hope that we will contribute to integrating and strengthening the European Research and Innovation Area and thus foster a new Renaissance of science, culture, economy and politics.

March 3, 2011/Barbara Haering

1 European Research Area Board, ERAB, Second Annual Report, October 2010