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Societal Challenges and Innovative Capacity: Future Perspectives on European Research and Innovation Funding

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Ladies and gentlemen,

thank you for your kind welcome, it is a pleasure to be here. Today, I would like to put forward three general arguments here on the future of European Research and Innovation funding.

1.

My first point: I think we should be very cautious with basing our funding policies in Europe on a narrow, economistic, and reductionist concept of Europe. Beyond academia, we can already see how much of a detrimental effect such a reductionist vision of Europe has on the process of European integration. Just think of Europe's difficulties to work out a common responsibility and response to the refugee crisis and to develop a broader vision of European cooperation — difficulties that have created a severe crisis of legitimacy for Europe. Or think of the return of national populisms and new forms of xenophobia across our societies. They apparently try to fill (by wrong concepts of course) the vacuum of rich cultural meanings that a purely economistic version of Europe leaves behind — and thereby puts the very idea of a broader, pluralistic, and integrative European union in danger.

Now, you might think that European research funding may be a completely different issue. And yet, here as well, we have to ask ourselves what kind of Europe we want. Do we want a Europe which bases its research funding on the concept of an economistic reductionism and therefore limits its researchers to just finding "real solutions" to "real problems", as Commissioner Moedas put it



in a speech a few weeks ago?¹ Do we want a Europe, which pits impact-oriented research against curiosity-driven research rather than seeing both of them as essential and interrelated components of our research and innovation systems? And, so, do we really want a Europe which so dramatically *underestimates* the diverse and enormous social, economic, and cultural functionalities that research and science serve across our continent?

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Well, it is up to us, the member organizations of *Science Europe*, to shape the Europe we want. And it is therefore vital and imperative for us not to underestimate the power and the importance of those principles and values that have been at the core of Europe's innovativeness for the last few decades: the pluralism of research horizons, methods, topics, and approaches that we have in Europe; the balance between direct problem-solving and our commitment towards curiosity-driven research which is essential for that pluralism; the freedom of our researchers to address questions of direct societal challenges, but also to ask those questions, about whose relevance society does know nothing yet — and to choose their topics free of any direct economic, political, social or ideological stipulations.

Those principles are not (as commissioner Moedas put it) a "traditional constraint" towards fostering scientific innovations, economic growth, and European prosperity. Right to the contrary, they are the basis for the very success of this mission.

I am deeply convinced, therefore, that we should have a great interest not to reduce the functions of modern research to notions of an economistic reductionism. Real innovation is not only about solving those problems we already know. It is also about detecting those problems we do not see yet (who would know anything about climate change without curiosity driven research?). And it is also about coming up with ideas and approaches nobody expected and anticipated.





¹ Carlos Moedas, The future of market-creating research and innovation in Europe, Speech, Centre for European Economic Research, Mannheim, April 13, 2016.

And so, we should take a great interest in fostering and nurturing the richness and plurality of approaches, of disciplines, of research fields, and of possible insights that research has to offer across Europe.

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2.

My second point is closely related to what I just said: in speaking about building more innovative capacity in Europe, we should not inflate the concept of impact.

With respect to scientific and scholarly knowledge, impact is a category in hindsight rather than with foresight; it is an ex post, not an ex ante category. We can rarely anticipate how research projects are going to evolve, they may change focus, and they may come up with completely different results.

To be sure: It is legitimate and important to base funding decisions on criteria of impact where researchers set out to find direct solutions to direct societal problems. But we also have to acknowledge that there are wide areas of research where making expectations of future impact a category for funding decisions would impinge massively on the success of research, its performance, and its diverse and enormous social functionalities.

Perhaps, you allow me to share here the German experience. Today, Germany is undeniably doing well economically. Exports are up, as are tax revenues. Quite a few medium-sized companies are global leaders in innovation-triggered industries. But how do we foster a culture of innovation? The answer is simple: by having a significant segment of our research system where expected impact does not count in as a funding criterion at all. Only about one third of Germany's public research expenditures goes into problem-, and impact-oriented research programs determined by the government or into dedicated extra-university research institutes such as the Helmholtz- or the Fraunhofer institutes. Two thirds go into the direct funding of university research, which, because freedom of research is anchored in Germany's legal constitution, is then spent entirely according to the interest of the various researchers. And they go into the funding of organizations dedicated to fundamental, curiosity-driven research like the Max Planck Institutes or my own organization, the DFG.





So, my point is: Research in Germany does have such a societal impact, precisely because in very large sectors of our science and research system we do not use categories such as future societal impact or applicability as criteria for funding decisions.

For European Research and Innovation funding, then, this might have two important consequences: First, we should not inflate the concept of impact beyond the field of programmed and applied research. And second, we should not underrate the importance of a climate for opportunities, the freedom to try new ideas which might sound unconvincing to others but still lead to major new insights and scientific breakthroughs.

3.

The very basis for such a climate of opportunity, I believe, is the diversity of Europe: the pluralism of the funding instruments that we have on both a national, a bilateral, and a European level, their interrelationships, the possibility and variety of choice that they open for individual researchers.

Which leads me to my third and final point: To create a strong and competitive European area of innovation, we have to assure and strengthen the pluralism of our funding schemes and instruments across Europe. And this means, above all: In terms of research funding, we need balanced and pluralistic decisionmaking systems on a national level, but also on a European level. So, on each level, national and European, we not only need funding systems that base their funding decisions on criteria of social, economic, or political usefulness and future impact; we also need funding systems that make decisions by following criteria of academic novelty and scientific or scholarly relevancy.

And in addition to that, to assure pluralism, we also need a healthy balance between funding and research financing on a national as well as on a European level — and we need smart balances and interconnections on the level of bilateral funding collaborations and instruments. It's those balances and interconnections which create the climate of opportunities that our researchers need. They create the diversity in research styles that makes our continent flourish.



And so, that's the Europe we should work for. And these are the principles that should guide the interactions of the national and European levels of research funding.

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