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Consultation on the ERA Framework:
Areas of untapped potential for the development of the European Research Area

General aspects

EU 2020 and the Innovation Union set ambitious objectives for Europe. Becoming the most innovative economic area in the world requires that the dynamics of European economic development is significantly enhanced. One of the key challenges is overcoming the fragmentation that severely hampers the development of Europe. Fragmentation leads to ineffective and inefficient use of resources, lack of critical mass and unnecessary barriers for mobility of labor force, access to internal markets, etc., just to name a few.

Overcoming the problem of fragmentation is targeted in several EU-level policies. However, policies aiming at Single European product, service, financial and labor markets have not been effective enough to enhance the dynamics and innovativeness of the European economy. It is therefore necessary that these policies are strengthened at EU-level.

One of these EU-level policies targeting fragmentation focuses on developing the European Research Area. Now that the Commission has even stronger mandate and also legislative power to address ERA, it is clear that ERA policies can be strengthened accordingly. In doing so, the Commission should look at ERA in the wider context of policies addressing fragmentation, not as an isolated objective in itself. ERA has strong linkages to Single Market policies through innovation as well as labor policies via researcher mobility. Especially in view of EU 2020 and Innovation Union objectives, the link between ERA and

Single Market policies should be clear and visible. Even the most excellent scientific research does not necessarily lead into economic or social returns in Europe, unless European markets are dynamic, attractive, conducive and accessible for innovation. As most innovation activities rely strongly on research, ERA should specifically address both research and innovation.

The ERA landscape should be improved and simplified keeping in mind the main objective of ERA, which is removing obstacles and creating a single market for knowledge, research and innovation. In the development of ERA both national and EU level actions are needed and both financial and legal measures are necessary. The implementation work should be based on EU Member States' free will to commit. As the implementation work deals with domains that have to do with Member States' competence, legislative measures at EU level should be avoided or limited to the very indispensable and supplementary ones. In parallel, there could be specific incentives to encourage those who proceed most effectively in committing to joint rules and harmonizing their practices. Even specific terms and conditions for the EU funding (e.g. in researcher mobility) could be considered and used by the Commission. Large strategic initiatives such as EIPs, JTIs, JPI, EIT and the whole grand challenge approach where many EU level financial instruments are co-ordinated, is seen important in this sense. The EU level legislation should offer a very general framework with additional new incentives.

The role of entrepreneurship and especially growth companies is extremely important for the structural renewal of the European economy. Entrepreneurship and innovative growth companies should always be taken into account when innovation and enterprise policies are planned and implemented (including regulation, taxation, public procurement and education). Regarding the EU funding activities heavy bureaucracy should be avoided where possible to stop the disengagement of companies and industry from the EU Framework Programmes.

ERA development requires new indicators for monitoring its success. The specific indicators should reflect the broadening nature of innovation and how successful we are in removing the obstacles for the ERA development. There is a need for indicators drawing specific attention to structural reforms to enable monitoring the progress towards common European objectives, such as ERA and the single market for knowledge. Most of these could focus on achievements in removing fragmentation and other structural barriers for knowledge transfer (e.g. true mobility of researchers and other skilled workers), access to finance (e.g. cross-border funds and investments within EU), administrative costs (e.g. costs of patenting in EU for SMEs, or volume and costs of cross-border public procurement of innovation) and access to markets (e.g. costs of approval and/or SMEs perception of how easy it is to access EU markets, etc.).

ERA development

1. Cross-border operation of research actors

In order to fulfill the aims of the European Research Area including innovation, Member States must work together more efficiently. A close dialogue between Member States and the Commission will help increase complementarities and division of tasks between national programmes and European activities. ERA policies should serve the Horizon2020 concept and grand challenges more visibly especially through relevant exploitation instruments and links to business innovation. In addition, the role of Structural Funds to contribute to the goals of ERA should be discussed and specified.

The concept of Joint Programming based on variable geometry can be used when some Member States are ready to act more rapidly, as well as combine their forces and resources available. Joint Programming also suits the situation where participating countries see that they have common needs and complementary expertise and knowledge. Possibilities to pilot intensified funding co-operation between voluntary countries is important. The joint target should be more ambitious than in the present ERA-NETs.

Implementation of the first and second wave JPIs should be prioritized in the coming years. There could be specific incentives (e.g. complementary funding of the Commission) or rules to encourage those who proceed most effectively. Ideally, the major contribution of the Commission is more strategic than operational. Ways to involve more industry and SMEs in the work of the JPIs should be studied further by the Member States.

Joint efforts and better synergy with EU Member States' research and innovation programmes is needed to make Europe stronger and less fragmented. The relationship and complementarities of the Joint Programming process and European Innovation Partnerships should be carefully designed.

The networking of nationally funded research activities on the European level as realized up till now in the frame of the European Cooperation in Science and Technology, COST, has been proved a very successful mechanism for cross-border operations. It should be developed further and continued in the Horizon 2020.

2. Researchers' careers and mobility

Global and European-wide mobility of researchers is very important for the development and competitiveness of Europe. Mobility between industry and universities should be more strongly encouraged. Cross-sectoral mobility between academia and public sector should be promoted to circulate knowledge and information on decisions and also to create mutual understanding and user driven new ideas for research. Barriers (e.g. social, recruitment rules) should be abolished. Sustainable development also demands that new ways of mobility are developed. Besides project co-operation also research mobility could and should be among core activities in the Joint Programming Initiatives.

3. Research Infrastructures

Implementation of research infrastructures in the ESFRI roadmap should be a priority. Regarding European Research Infrastructures relevant links to industrial activities and user experience need to be better studied and developed in order to create and foster innovations: i.e. up-scaling and accelerating promising results of fundamental and technological research into new sustainable products, processes and services. To be able to facilitate technology development, technology integration and technology validation, Europe needs investments in multi-technology infrastructures.

4. Knowledge circulation

Innovations play a key role in addressing the major societal challenges. The grand societal challenges should not be taken solely as proposals for new research activities as research has a specific exploratory, observatory and anticipatory role which is complementary to other elements of innovations.

Finding solutions to grand challenges requires holistic approach and broad-based innovation measures. Joint efforts and investments by both public and private sectors are needed. The complexity of the major societal challenges calls for global and alternative initiatives. Open innovation functions especially in publicly funded or mainly publicly funded research. New instruments and incentives (like the level of funding) could be developed taking into account open innovation and virtual solutions. Open innovations require confidentiality and mutual trust, innovation friendly environments and change of attitudes. Innovation policy instruments should more and more expand from the traditional science, technology and innovation promotion to such new areas as innovation friendly regulation, taxation, flexible IPR regime, innovative public procurement, education and skills development. When used in a coordinated manner, these different policies and instruments can effectively address the needs of new innovation patterns.

5. International cooperation

There is a need for focused international cooperation with variable European consortia to gain critical mass and power needed. Europe may act more strongly together and may also combine declining resources and budgets in a genuine way in global cooperation networks. However, bilateral approaches of Member States may sometimes succeed to achieve the joint goals as effectively as very wide partnerships. Large emerging economies are a relevant international cooperation arena in the future. Mutual benefit is an essential part of the collaborations.

6. Cross-cutting governance issues.

The ERA governance should have methods of long term planning with rapid implementation capabilities. High commitment is needed for impact generation for the ERA in the future.

State Aid Rules could be renewed to create more flexibility regarding collaboration in public private partnerships and in developing research and innovation infrastructures as well as in research mobility between the academic world and industry.

ANNEX:

The European private equity/venture capital (PE/VC) market

- Main problems impeding access to risk finance in Europe:

The European private equity/venture capital (PE/VC) market is fragmented. This causes not only problems related to access to finance, but the fragmentation also hinders private investors to specialize in the different stages of business development and growth. Fragmentation also makes exits more difficult. Therefore we welcome all efforts to create a single European VC market to promote cross-border investments.

The US VC market is often seen as a benchmark. Our understanding is that serial entrepreneurs play a key role in the US market, whereas the European VC market is relying more on investment banking and other stakeholders with limited industry or business specific experience.

Introducing public (national and/or EU) funding to the VC market is only a partial solution as far as the structural obstacles of pan-European VC market continue to exist. Public interventions must be carefully designed so that they do not replace private funding, but leverage it.

In 2008, Tekes introduced a new funding instrument for young innovative enterprises, utilizing the possibilities created when the State Aid Rules for R&D&I were updated in 2007. In this new funding scheme, we have created advisory panels consisting of private Finnish and non-Finnish investors. This has turned out to be a solution that not only brings business expertise to the decision making, but also attracts private funding. Already, more than 50% of the private funding for the enterprises in this scheme comes from abroad.

What should the European Commission and the national administrations do to improve?

Both national administrations and the EC are considering shifting toward loans, equity investments and other forms of reimbursable funding. These instruments can be attractive and appropriate, especially when financing demonstrations and pilots. There is, however, a risk that a strong parallel, uncoordinated move from grant type of instruments to this direction in the whole of Europe will change the public funding landscape and subsequently the behavior of enterprises in an unpredictable way.

We are concerned that there is a risk of confusing cohesion and research & innovation policies. One should keep in mind, that cohesion is about improving competencies and supporting catching-up in those regions that are not in par with the best European performers. Research and innovation policy is on the other hand very much about commercial and societal excellence with the goal of improving Europe's competitiveness vis-à-vis with the economic strongholds outside EU.

Altogether, public funding should be about providing smart money. It requires both very careful design of instruments, and excellence in governance and management of the

schemes that have been launched. National governments and the EU have decades of experience in running grant-based schemes, whereas PE/VC is for many public stakeholders an unknown territory. Therefore, great attention must be given to design of the schemes, and to skills and incentives/compensation for those parties that would operate the schemes.

National administrations must keep in mind, that significant growth of companies is only possible if they succeed in the global marketplace. This means that narrow views of national interest may lead to measures that are from companies' point of view limitations. Ensuring that Europe is able to generate growth companies is important not only because of the wellbeing that these companies directly create, but also because ecosystems that have a proven track record of generating growth companies attract investments of multinational companies and investors (e.g. Silicon Valley, Israel).

Access to funding is crucial to enable growth of companies. The more loans and PE/VC type of instruments are being used, the more emphasis should be given to using public funding as an instrument to leverage private funding (asymmetrical funds etc). Policy makers should also understand and approve, that in order for public-private funding partnerships to function, it must be recognized that these partnerships must be for-profit ventures for the private investors.