KTH:s Comments on EU’s Research and Innovation Program 2014-2020
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KTH welcomes EU’s visionary and strong proposed Research and Innovation Program 2014-2020: Horizon 2020. Sweden and the EU need to worry about their scientific capability, their capacity to recruit research talent and train new generations of researchers, and their capacity to innovate in light of rapid globalization. Science and technology are integrally linked to our economic health and general national welfare. It is therefore of utmost importance for Sweden to ring-fence the proposed research programs and the proposed funding amount for the benefit of a future integrated and economically competitive Sweden and Europe.

Today, globalization is rapidly changing higher education and research, as is the increased rate of knowledge generation, which is leading to new models for learning, forcing new models of translational research, creativity and innovation, and leading to the formation of global networks of universities and businesses. The EU needs to enable an even stronger participation of global partners in the proposed Horizon 2020 program. Thus the EU needs to ensure that the Horizon 2020 program will result in a number of university-based research and creativity environments that are on par with leading US universities – i.e. excellence-driven environments that help entire Europe. The role of the EIT KICs is central in this regard, as is the proposed strengthening of the European Research Council.

It is positive that the EU is focused on Industrial leadership for creating new SMEs for growth and jobs. It is however, disconcerting that the proposed new Horizon 2020 program would lead to a reduction in allowable overhead costs to universities. In particular, Swedish universities would be at a disadvantage, since we use full cost models for research (i.e. the SUHF model).

It is very good that the proposed Horizon 2020 program includes funding for Research Infrastructure (including e-infrastructure), as well as a focus on future and emerging technologies for opening new fields of innovation. It is important to ensure that research infrastructure funding not only pertain to the most expensive infrastructures, but should also include key strategic infrastructure such as that needed for High Throughput Screening of molecules and DNA, strengthening of research databases, and advanced microscopes needed for ensuring a sustainable and leading European research area.

It is very positive that the rules for participation are being streamlined into a single set of rules, a single funding rate, simplified and uniform evaluation criteria, and new forms of funding aimed at innovation. It is also significant the proposed Horizon 2020 framework includes proposals for simplier rules for grants, fewer and better targeted audits and controls and maybe most importantly improved rules on intellectual property.
Below, we list some additional key issues we believe are important for the success of the new Horizon 2020 program:

- Sweden should make a strong point on keeping the focus on university-based research and education for increasing creativity for the benefit of society. Knowledge and creativity are the precursors to innovation and societal well-being. The Horizon 2020 program should help us to realize the unique potential of the universities becoming the breeding places for creativity and innovation teams that give Europe a lead by 2020.

- The proposed budget is at the right level in terms of the balance between scientific excellence, societal challenges and support of industrial leadership.

- Strengthening the ERC as a truly European excellence driven research council is very positive and will contribute to the creation of the ERA.

- The EIT through its stakeholder driven knowledge and innovation communities can provide a step change for the European innovation system once it is given autonomy and appropriate funding. It is therefore of utmost importance to further strengthen the EIT through giving it a strong mandate for independence, as well as ensuring that the proposed funding for the EIT KICs is realized and not diminished through political maneuvering. In summary, maintain the budget EUR 2.8 billion for the EIT, even if Horizon 2020 budget is decreased. Further, it is of utmost importance for Sweden to maintain the funding of EUR 1.65 billion for the existing EIT KICs.

- The integration of research, education and innovation that is a central aim of the EIT requires high quality, stable sources of research funding that feed the innovation system. Member state funding should be viewed as co-financing for the research, and not the major research funding.

- Allow flexibility in programs, such as “bottom-up” research in the coming Horizon 2020 program in order to realize the synergies between scientific excellence, impact and implementation.

- Do not dilute funding by a large increase in the number of new KICs, new areas – since this will only generate lesser impact. I.e. stick to the current proposed list of new KICs.

- It is important that the societal challenges should not be seen as silos wherein experts are isolated from each other in academic disciplines. Rather, it is important to see them as opportunities for translational research, creativity and innovation, enabling interacting and interdependent themes and solutions between the societal challenges.

- The emphasis on grand challenges is positive. Research organizations need to establish integrated research and innovation environments that are rooted in the knowledge triangle and in many cases develop the governance structures that allow for the handling of these larger initiatives. This requires new thinking based on clear program goals, transparency and simplicity in the contracts upon which the research financing framework is built. To facilitate the creation of excellent university-based research environments in Europe, the EU may want to evaluate the introduction of a pre-qualification program for universities to further enable rule simplification. The researchers need to be allowed to focus on achieving the research and innovation goals in these programs through the introduction of simplified, transparent, and goal oriented approach to research administration that is based on trust and past history of delivering on research projects. I.e. strengthen further the emphasis on rule simplification in the coming Horizon 2020 program combining increased requirements for excellent governance and process with the principles of innovative thinking by larger research consortia.

- The funding from the EU for Research and Innovation needs to be seen as the main source of funding, with full project and overhead costs, such that the overarching goals in the Horizon 2020 program are always remain the focus. This approach will strengthen cooperation across borders that may include the research, innovation, and excellent research infrastructure needed to obtain the goals of the program. The current proposal for capping overhead costs at 20 percent will put universities that use full cost models at a disadvantage.

- The mobility of researchers and students between different countries and/or universities or companies should be a prioritized even further in the Horizon 2020 program through encouraging enabling processes for linking Erasmus Mundus and Marie Curie programs with other Horizon 2020 research programs.
This memorandum has been written by professor Björn Birgisson, vice-president for Research and professor Ramon Wyss, vice-president for International Affairs.

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