Aalto University’s position regarding the Interim Evaluation of Horizon 2020

Horizon 2020 has been an excellent and the most crucial form of research funding within Europe. Aalto University strongly supports EC’s proposal to increase funding for Horizon 2020 until 2020 in order to promote sustainable peace, democracy, prosperity and wellbeing of Europe’s citizens. Aalto University encourages the EU framework programmes, such as Horizon 2020, to be aimed at ground-breaking science, excellent research and innovation in order to take urgent action in combating climate change and its multiple impacts.

According to Aalto University’s experience

1. **Larger budget is required.** In order to maintain Europe’s position globally it is necessary to increase the support to ground-breaking science and excellent research, leading to innovations, products and services. The value chain from fundamental research to existing and new markets ingrained into the fabric of novel innovation ecosystems, with co-creation and collaboration with stakeholders within Europe and beyond drives the creation of added value for the Horizon 2020 instrument. Therefore, a larger budget is required for long-term creation of ground-breaking science, excellent research and innovation. For successor programmes, larger budget allocations should be directed both to bottom-up collaborative projects under the Excellence pillars: FET-Open, MSCA-ITN, ERC-SynG and possibly new multidisciplinary bottom-up schemes. In addition to this, the gap between ERC-CoG and ERC AdvG should be filled.

2. **Stronger impact needs to be created.** Emerging disruptive technologies and radical innovations call for flexible and proactive collaboration with the best European as well as international academic and intra-sectoral partners. In consequence, facilitating science and technology into business in a faster and more efficient way via e.g. multidisciplinary bottom-up and collaborative projects can create better influence if done in a timely manner. A concerted effort should be on agility, speed and impact with focus on high quality outputs, impacts and solutions based on an understanding of the nature of disruptive and radical innovations. EU’s research needs to be focused on finding solutions, focusing on outputs and not inputs, and boosting disrupting innovations to tackle major societal and technological challenges e.g. by promoting Open Science, that is Open Access publication and Open Data, increasing the attractiveness of the area for world’s top researchers e.g. through ERC funding and promoting international and inter-sectoral mobility of young researchers e.g. through MSCA funding.

3. **Increase the harmonization of rules and practices and decrease oversubscription.** Harmonisation of rules between EU funding programmes need to be increased in order to facilitate the use of complimentary funding. In addition to this, harmonisation of practices between agencies and project officers should be implemented in order to ensure equal treatment of the proposers and grantees. Calls for applications must provide clear and easy access, detailed information beforehand concerning financial and administrative rules, and possible restrictions, enabling applicants and their respective institutions to adjust their practices accordingly. This is essential for enabling project officers in different locations to effectively deal with Horizon 2020 programme management. Two-stage applications procedures should be promoted to minimize unnecessary work and to streamline application processes. This would lower the currently challenging oversubscription. Budgets could be more balanced for different topics of funding and the success rates should be balanced even more in the future. Digitalization should be integrated more effectively into all preparative and managerial measures of the programs and technical issues of the participant portal need to be addressed swiftly, in order to improve the practical usability.

4. **Exploitation of research results must be reinforced.** A dedicated instrument needs to be created, e.g. ERC-PoC type of scheme for all three pillars. Exploitation of the fundamental research (low TRLs) should be increased, e.g. extra Proof-of-Concept grants for highly successful Pillar II and III projects of low TRLs. The TRLs should be completely eliminated, as it is evident that the present programs have created artificial and non-functioning categorization. Rigid categorization of TLRs are a mismatch with the nature of scientific research and rapidly evolving disruptive research, rather the actions should be simply grouped into Research – Track to innovation – Innovation stages instead.
5. **Synergies with various EU programmes demand strengthening.** Investments to Horizon 2020 create more synergies with other EU programmes and national funds. Therefore, a programme continuum must be established in order to attract even more private investments to help boost Europe’s performance in answering to global economic and other challenges. The proposal of the EC to increase the funding of Horizon 2020 is of utmost importance in order to **strengthen the role of universities in feeding disruptive innovation and supporting highly interactive innovation eco-systems as well as safeguarding funding for bottom-up science-driven inventors, entrepreneurs and their ideas.** EU should prepare for a new ethical, legal and financial framework allowing for broad participation of institutions from the entire European Research Area (ERA). In the development of such a future framework it is imperative to strive to develop a less-complex, flexible and proactive way of collaboration. Disruptive and radical innovations do not proceed in a linear manner, and will therefore not be fostered by rigid and highly regulated systems. The vision on European Innovation Council (EIC) offers opportunities and Aalto University is committed to contribute to its further development. Currently due to very differing evaluation criteria and financial and administrative rules in H2020 and ESIF as well as other structural fund programmes, the complementary use of these funding sources cannot be actively encouraged in the university. In consequence, better synergies with ESIF and other EU funding programmes should be created in the future after Horizon 2020. Funding from European Fund for Strategic Investments (EFSI) should also be made possible in the form of grants for universities in order to improve academia and business relations.

6. **The liabilities should be limited.** The unlimited liability towards the funder in joint undertaking projects is problematic for universities because the funder consists also of enterprises which might have conflicting interests in the projects.

Aalto University influences actively through networks to support and continue Horizon 2020 and its successor. Aalto University will also express its position regarding the Interim Evaluation of Horizon 2020 via both CLUSTER\(^1\) network as well as CESAE\(^2\)R network in urging EU to **strengthen the Europe of Knowledge – a globally competitive knowledge economy.** Aalto University strongly supports national Finnish views on strategic programming of Horizon 2020 and the following future framework programme planning. It is clear that Horizon 2020 has already boosted intra-European sustainable growth and created jobs and Aalto University is sure that it will continue to do so both in Finland as well as within Europe. **Horizon 2020 is an excellent and the most crucial funding instrument for research and innovation in Europe. It is an indispensable tool for ensuring scientific and technological progress.**

Aalto University is looking forward to energy union with a forward looking climate policy. According to our strategy we are committed to spreading excellence and widening participation globally. **Transparency in process of formulating new framework programme as well as its calls for funding are important in the near future.**

If the EU support to research and innovation – Horizon 2020 and its possible successor – would be discontinued or the funding remarkably diminished, the effect for the universities of Europe would be dramatic and very negative. There would be a decrease in quality and the universities would need to cut down some of their operations. The EU funding, most of which is Horizon 2020 funding for many, makes up a significant part of Aalto University’s external research funding. Possibilities for international research collaboration would be greatly affected, number of publications, inventions and innovations would be reduced. In addition to this, young researchers’ mobility would to a large extent be cut down. In consequence, Europe’s position in global context would be greatly downsized.

**All in all, the importance of EU funding via Horizon 2020 towards Europe’s and Aalto University’s ground-breaking science, excellent research and innovation needs to be continued and increased in the future years.**

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\(^1\) CLUSTER (Consortium Linking Universities of Science and Technology for Education and Research) is a consortium of 12 elite European Universities in Science and Engineering (and architecture) which associate members from around the world.

\(^2\) CESAE\(^2\)R (Conference of European Schools for Advanced Engineering Education and Research) is a network of 51 leading doctoral-granting universities of science and technology from 26 European countries.