CSC - IT Center for Science Ltd.
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CSC statement on EC public consultations Horizon Europe Co-design 2021-2024 and Horizon Europe Co-design – Implementation

Consultation on Horizon Europe Co-design 2021-2024

A strong research infrastructure foundation to support excellent research and innovation

Europe must play a leading role in driving excellent research and innovation to tackle global grand challenges. This requires a strong research infrastructure (RI) foundation. A key role for RIs is to enable broad strategic R&I missions, where data intensive and cross-disciplinary research can reach its full potential. CSC supports the Horizon Europe policy priorities: *Protective, Competitive, Fair, Sustainable and Influential Europe*. Research Infrastructures is a prerequisite for excellent research and innovation targeting all these priorities, clearly affecting the success of all of the pillars in Horizon Europe. RIs are becoming increasingly advanced and more expensive to develop, and sufficient funding must be directed to support RIs in pillar I "Excellent Science". Excellence should always be the main criterion for funding.

Promoting Open Science and developing the European Data economy

CSC strongly supports the principles of Open Science as the modus operandi of the Horizon Europe programme: the fostering of open access to research data and the support of FAIR principles, and the further development and consolidation of the European Open Science Cloud (EOSC). CSC is happy to note that the use of existing RIs and following the FAIR principles is explicitly promoted in the RI section of Horizon Europe. However, more emphasis should be put on data interoperability and on the training and skills development aspect of Excellent Science, and the immense impact this could have for Europe. The possibility for RIs to become more engaged in addressing multi-layer interoperability issues should be better addressed.

Europe should actively fund, manage, and safeguard the increasing volume of data being generated by publicly funded research. By integrating and sustaining core data resources from research across Europe, member states enable data users in academia and industry to carry out research and innovation without unnecessary replication of experiments.

Horizon Europe must prioritise linking the two parts of the European Cloud Initiative: EOSC and the European Data Infrastructure (EDI), where EuroHPC JU is the main component. This is a crucial step towards building the European Data Economy.

Synergies between the pillars in Horizon Europe and between EU funding programmes

Synergies between EU funding programmes, in particular Horizon Europe, Digital Europe Programme, and the CEF2 Digital Programme, will leverage the impact of both national and European investments in R&I. Synergies are visible in the Horizon Europe Implementation strategy but need to be better reflected in the strategic priorities and impacts - in particular for HPC and digital skills, which are prioritised areas in many EU funding programmes.

A stronger linkage and visible collaboration is needed especially between pillar 1 "Excellent Science" and pillar 3 "Innovative Europe" for better coverage of the whole knowledge chain, since innovations are ultimately based on achievements of basic research.

Increased international cooperation

EU's international cooperation in R&I is indispensable for effectively tackling global challenges, and may lead to an enhanced EU role in setting R&I policy agendas, and in shaping new technologies and innovative solutions. It is positive that Horizon Europe recognises the need to reinforce the international dimension also related to EU Research Infrastructures. RIs and e-Infrastructures in particular are global efforts and even more so in the future: ambitious RI efforts in Europe have to comply with efforts elsewhere. Existing successful global initiatives such as Research Data Alliance should be supported in its endeavour to promote data sharing and exchange, to address grand challenges and accelerate data driven innovation worldwide.

Consultation on Horizon Europe Co-design - Implementation

CSC is pleased to see so many ambitious suggestions for implementation improvements for Horizon Europe across the entire project life cycle. It shows that the H2020 feedback has been carefully analysed and reviewed. It is encouraging that the process of simplifying the administration has been further developed, to support faster innovation cycles and reduce administrative burden. There are some doubts whether these suggested improvements - if implemented on a larger scale - can be financially motivated. For instance, an improved Funding and Tenders portal is positive, but if it comes at a very high cost, it may be more efficient to invest in other means to improve both the implementation and the impact of Horizon Europe. This balance is hard to assess in a consultation like this.

In general, CSC would like to stress the critical role of research infrastructures in an era where demands for handling and combining vast amounts of data is crucial for excellent research and innovation. This applies to all pillars of the framework programme.

Improved evaluation process with focus on excellence

Clarification and simplification of the evaluation criteria "Excellence", "Impact" and "Quality and efficiency of the implementation" is important since these criteria are overlapping in H2020. Excellence must remain the most important criterion. The feedback to unsuccessful applicants is a very good suggestion to improve the understanding of the call, as well as the transparency of reasons for objection for the applicants. Running a pilot for blind evaluation could also be valuable to assess the risk that excellent proposals from new or less well-known stakeholders would be evaluated unfavourably. However, it is important to ensure transparency in the blind evaluations.

Open science to support stronger link between research results and policy-making

Policymakers need evidence to make more informed decisions. Increasing the accessibility of research is an important aspect to help strengthen the link between research and policy and to increase the use of evidence in decision-making. Promoting Open Science and the use of FAIR principles are very important parts of improving research accessibility, and making R&I results more visible and attainable. Research infrastructures are instrumental for ensuring, that EU is capable of addressing the needs of increasingly data-intensive, multi-disciplinary and broad research projects and missions.

Need for modernised project models

The traditional waterfall model for projects is old fashioned - especially in the field of IT-related projects as it contradicts the modern lean and agile ways of working. Certain segments in IT related calls could allow for proposals that build on a framework and a vision, but much of the detailed content could instead be developed during the course of the project. The evaluation process could then focus more on the overall vision but also on the past track record of the applicant.