

Creating the Best Possible Start for Horizon Europe

Science Europe Response to the European Commission Consultation on the Horizon Europe First Strategic Plan 2021-2024

Science Europe is the association representing major public organisations that fund or perform excellent, ground-breaking research in Europe. Science Europe and its Member Organisations collaborate with the European Commission in order to strengthen the European Research Area (ERA).

Science Europe welcomes the opportunity offered by the European Commission to provide input on the content of the Horizon Europe First Strategic Plan 2021-2024. Science Europe believes that the following cross-cutting issues deserve specific attention.

Impact and Value of Research

Research has always had a wide impact on society, but this does not always come in the form of a clearly defined outcome, application, or effect. Impact frequently occurs as a more gradual development in the understanding of the consequences of new knowledge. In response to the Strategic Plan:

- Science Europe welcomes the effort of the European Commission to embrace a broad concept of impact in the description of the Clusters' objectives. In each Cluster, the described 'Impacts' are broad, not limited to short term impact, include social and societal impacts for systemic transformations, and do not prescribe ways towards their achievement. This has been regularly recommended by Science Europe.¹
- However, the content of the Strategic Plan should also encompass the intangible but intrinsic value of scientific research and its capacity to generate new knowledge. It should call for scientific impact and strive to push the frontier of knowledge in all Clusters, Missions, and European Partnerships.

Adequate Balance of Research and Innovation

In order to achieve the highest level of impact (see above), it is crucial to support the entire research and innovation (R&I) ecosystem,² and encourage scientific and technological exploration and experimentation. In response to the Strategic Plan:

¹ <u>Science Europe Position Statement on a New Vision for More Meaningful Research Impact Assessment</u> (July 2017) and Response to the European Commission Consultation on Horizon Europe Co-design 2021-2024 (September 2019).

² <u>Science Europe paper on Strengthening European Research: Funding Boost Needed to Guarantee Sustainability</u> (June 2020)

- Science Europe noticed with satisfaction that the Strategic Plan does not hint at Technology Readiness Levels, and therefore does not exclude segments of the R&I ecosystem.
- However, the Strategic plan should go further and promote a comprehensive approach
 encompassing all aspects of R&I. Fundamental research and curiosity-based experimentation must be
 supported, and their essential role, for R&I, must be acknowledged.

Equal Opportunities and Gender Related Considerations

Gender aspects, but more generally diversity, and equal opportunities for all, are essential to achieve a fair and inclusive ERA. Moreover, the better integration of sex, gender, and diversity dimensions in the design, implementation, and content of research and experimentation increases the quality and societal relevance of results. In response to the Strategic Plan:

- Science Europe supports the European Commission decision to keep inclusive gender equality as a cross-cutting priority in all parts of Horizon Europe. However, the whole spectrum of equality aspects should also be embedded.
- Horizon Europe must ensure that sex or gender bias is reduced in the design and selection of research priorities. The Gendered Innovation project, previously funded by the European Commission, provides very relevant tools to address these issues and support funders developing related policies.³
- Evaluation processes that take into account possible gender and other biases are essential tools to guarantee the fair and transparent treatment of researchers. Science Europe encourages the European Commission to utilise the recommendations from its 'Practical Guide to Improving Gender Equality in Research Organisations' to address possible bias in evaluation and monitor gender equality in grant management practices. The future outputs of the Horizon 2020 project ACT⁵ and the FORGEN community of practice, in which Science Europe participates, will also provide guidance to ensure equality at all stages of grants evaluation processes.

Social Sciences and Humanities Across Clusters

Social Sciences and Humanities are key to comprehend the social forces that shape society. They are essential research disciplines in their own rights. Moreover, they address the various facets and the complexity of global and technological challenges including the environmental crisis, and the consequences of the COVID-19 pandemic.

The integration of Social Sciences and Humanities in Horizon 2020 so far has been disappointing and needs to be further deepened under Horizon Europe. In response to the Strategic Plan:

- Science Europe welcomes the inclusion of societal dimensions and goals in the targeted impacts of all Clusters, Missions, and Partnerships. In the Strategic Plan and in its implementation tools, Social Sciences and Humanities areas should be considered as key disciplines, and as essential components in true interdisciplinary approaches.
- A stronger importance should be given to Social Sciences and Humanities across all pillars and parts of Horizon Europe.

³ Gendered Innovations, led by Stanford University since 2011.

⁴ Science Europe Practical Guide to Improving Gender Equality in Research Organisations (February 2017)

⁵ Horizon 2020 project <u>ACT</u>

⁶ FORGEN - Funding Organisations for Gender

Open Science Policies and Practices

Science Europe collaborates closely with the European Commission on Open Science development, especially on issues related to sharing research outputs. Open Access to research publications empowers the R&I community and accelerates discoveries and progress. It also provides significant social and economic benefits to all potential users and to the society at large, as demonstrated during the COVID-19 crisis.

In addition, Science Europe promotes the alignment of research data management (RDM) in Europe, which will also facilitate the establishment of the European Open Science Cloud (EOSC).

In response to the Strategic Plan:

- Science Europe supports the European Commission's plan to enshrine a strong Open Access policy in the Model Grant Agreement.
- As in Horizon 2020, the Horizon Europe Model Grant Agreement should include a reference to the Science Europe Practical Guide on Research Data Management,⁷ to support researchers in RDM harmonisation. A reference to Science Europe's 'Guidance Document Presenting a Framework for Discipline-specific Research Data Management'⁸ could also be added to provide additional support to research communities in the various scientific disciplines. To complement this set of tools, Science Europe is currently exploring the evaluation of data management plans and is ready to foster synergies with European Commission services on the matter.
- Science Europe supports the idea of an EOSC that fosters the cross-disciplinary exchange of research
 results among researchers in Europe and beyond. The strong commitment of national stakeholders
 and the European Commission to establish EOSC under Horizon Europe will be an important step
 towards Open Science. It will also foster the exchange of good practices and tools, development of
 standards, and guidance and training on the sharing of research outputs.

International Collaboration

Collaboration with excellent research performers based in non-EU countries is essential to achieve impact at global level. Researchers must be given possibilities to continue cooperation within their established networks and respected partners from the ERA and beyond. In response to the Strategic Plan:

- The participation of researchers and innovators from the EU's traditional partners, such as Norway, Iceland, Switzerland, and the UK provides undisputable added value and must be facilitated and encouraged in Horizon Europe.
- Collaborations both within the ERA and with non-European partner countries must be guided by a mutual recognition of scientific freedom.

Synergies Across the Various Parts of Horizon Europe

The Strategic Plan 2021-2024 mainly focuses on Pillar II's instruments. However, it also aims to bridge the gap between Pillar II with the other Pillars and parts of Horizon Europe, and establish synergies between the instruments included therein.

⁷ <u>Science Europe Practical Guide on Research Data Management</u> (January 2019)

⁸ <u>Science Europe Guidance Document Presenting a Framework for Discipline-specific Research Data Management'</u> (January 2019)

Science Europe stresses the need to keep fundamental differences between the objectives of the three pillars in order to achieve the diverse set of goals targeted by Horizon Europe:

- The outcomes of projects funded by Pillar I's instruments (European Research Council (ERC), Marie Skłodowska-Curie Actions, and Research Infrastructures) or by the European Innovation Council's (EIC) Pathfinder Open could feed into the achievement of the Strategic Plan's 'Impacts'. Collaboration and exchange among project coordinators may be supported. However these instruments must not be prescribed by any political priorities. They must follow a purely scientific bottom-up approach with no exception. Excellence in all disciplines must continue being the sole objective and criteria for the selection of projects.
- Beyond its bottom-up approach, the EIC's Pathfinder Open should retain its collaborative and interdisciplinary nature to explore the early-stage of scientific and technological ideas, towards radically new future technologies. No other instruments in Horizon Europe offers such an opportunity.
- To foster synergies with Pillar II's instruments, the EIC's Pathfinder Challenge should concentrate on strategic emerging R&I areas that require technology development, excellent interdisciplinary research, and collaboration over sectorial limits.
- Science Europe welcomes the opportunities offered to researchers that emerge from synergies between the different Pillars. For example, fast track applications of ERC grantees to the EIC can provide additional perspectives to scientists and help to transfer the results of basic research into application.
- Science Europe also welcomes the contribution of the horizontal part of Horizon Europe to achieve
 the programme's cross-cutting objectives, including Open Science, gender equality, and cooperation
 between national research systems. The development of R&I capacities in underrepresented
 countries is also an essential condition to achieve the Strategic Plan's goals and strengthen the ERA.
 Science Europe therefore supports the European Commission's efforts to encourage the participation
 of a broad range of stakeholders from relevant sectors and geographical areas in Horizon Europe, for
 example in the European Partnerships.

Conclusion

Beyond the thematic targeted impact, the above-mentioned cross-cutting issues should remain key objectives for Horizon Europe. To achieve them, these policy objectives must be fully embedded in all the tools aimed at implementing this first Strategic Plan 2021-2024, including the Work Programmes, and the projects evaluation and selection methodology.

Science Europe looks forward to continuing its dialogue with the European Commission in order to further develop the ERA.

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