

Science Europe Reaction

to the European Commission Proposal on Horizon Europe

Brussels, 8 June 2018

Science Europe welcomes the overall continuity between the internal structure and funding rates between Horizon 2020 and Horizon Europe.

Budget

Science Europe recognises the proposed budget increase for the period 2021-2027 but remains disappointed that this increase does not live up to the ambitious scenarios that the European Commission defended in front of the Heads of States and Governments in March 2018. Expressed in constant 2018 prices, the Horizon Europe budget is €86.6bn, as opposed to the €67.1bn for Horizon 2020 (also expressed in 2018 prices and excluding the UK contribution). This comparison illustrates an increase of only 29% which will not be sufficient for Europe to meet its ambitious political goals and solve its grand challenges.

Pillar 1 'Open Science' and the European Research Council

The instruments of the first pillar (ERC, MSCA, and research infrastructures) have demonstrated undisputable European added-value. Science Europe is pleased to see that excellence will remain the sole evaluation criteria of the ERC. Science Europe strongly supports the preservation of the independence of the ERC Scientific Council and that it will be the "guarantor of the quality of the activity from the scientific perspective and [have] full authority over the decisions on the type of research to be funded."

The instruments of the first pillar were clearly underfunded in Horizon 2020. Unfortunately the Horizon Europe proposal fails to provide a real solution in the form of a substantial budget increase. Science Europe urges the European institutions to reassert the importance of these instruments and increase their budget.

The ERC was called "our jewel in the crown" by Commissioner Moedas, 2 despite this it is only allocated approximately the same budget share it had in Horizon 2020. This is particularly disappointing considering that fundamental curiosity-driven research underpins all types of present and future research and innovation activities, and that the ERC, since its creation, has demonstrated outstanding results, developed a world-wide reputation, and contributed to the visibility of EU research.

¹ Annexes to the Proposal for a Decision of the European Parliament and of the Council on establishing the specific programme implementing Horizon Europe – the Framework Programme for Research and Innovation, p8

² Annual Report on the ERC activities and achievements, 2017

Pillar 2 'Global Challenges and Industrial Competitiveness' and the Missions.

Science Europe considers mission-oriented research a useful addition to the funding portfolio of Horizon Europe and is encouraged by the fact that the proposal does not specify neither the topic of the missions nor their budget. This leaves room for discussion in order to carefully design a framework for selection, implementation, and governance of the missions and ensure a fair and fruitful combination between excellence and impact in science and innovation.

The mission-oriented approach should not dominate the funding portfolio. Funding and sustaining a strong research base, including infrastructures, must have priority as they are the condition to successfully achieve missions of today and tomorrow.

Particular care must be given to the definition of the missions and the scientific contributions to each given mission. The European Commission plans to select large cross-disciplinary missions with a strong societal relevance. Strong collaborations, at basic research level and with the Social Science and Humanities, are therefore needed. Nevertheless science alone will not able to solve the global challenges: support beyond research and innovation will be needed to complement research activities or convert results into effective actions and societal or behavioural changes. Horizon Europe's support to missions should focus only on scientific challenges.

Numerous Science Europe Members Organisations have direct experience with similar approaches. Their expertise can contribute to the strategic planning process that will lead to the definition and funding of mission-oriented projects.

Science Europe also supports the organisation of open calls for expression of interest to appoint the missions' board members. The inclusion of the research community in the governance of the missions is of utmost importance.

Pillar 3 'Open Innovation' and the European Innovation Council (EIC)

The EIC's objective is to foster breakthrough technological ideas and turn them into market-creating innovation. Its Pathfinder and Accelerator instruments must therefore propose and encourage mechanisms to maximise the number of collaborations between excellent academic resources and enterprises, including support to technology transfer. Appointing researchers to the EIC's Board will help reinforce the importance of academic research for innovation.

Science Europe is concerned about the implementation and evaluation modalities of the Pathfinder instrument. It is built on two Horizon 2020 instruments, the Future and Emerging Technology (FET) schemes and the SME Instrument Phase 1. However substantial differences exist between these instruments, both in terms of beneficiaries and types of research and innovation activities, and it is unclear how they can be efficiently combined.

The Pathfinder instrument must offer sufficient opportunities to collaborative projects involving academic activities at the lowest Technology Readiness Levels such as forward looking research and idea validation. These pave the way for breakthrough innovation. The proposal indicate that Pathfinder will focus on "early stages of scientific and technological research and innovation" whilst specifically mentioning proof of concept and prototypes as target activities; these are already at higher TRLs, however some clarification is required on this matter.

Sharing Excellence

The increase and ring-fencing of the budget dedicated to sharing excellence and spreading participation in the programme is welcome. It supports the continuation of the instruments that help increase capacity building in all European countries to increase excellence throughout Europe.

Science Europe encourages the European Commission to regularly assess the progress made, and it reasserts the need for the regulation guiding the European Structural and Investment Funds (ESFI) to include strong obligations regarding research and innovation activities for all EU regions.

Going Forward

Science Europe commends the efforts of the European Commission in two additional specific areas. First of all, the proposal reinforces Open Science and the Open Access requirements for research publication and data. Secondly, Science Europe welcomes the proposition for a simplified and rationalised funding landscape via the creation of new categories of European Partnerships. Science Europe will share the extensive experience and concrete outputs of its members to support the practical design and implementation of these mechanisms from the start.

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