

5 July, 2018

## **Finnish Research Council – Academy of Finland: Position on the Horizon Europe proposal**

### **KEY MESSAGES**

The Academy of Finland is satisfied with the main features of the European Commission's proposal on the new framework programme for research and innovation (Horizon Europe 2021–2027). We welcome the continuity in most instruments and substance from Horizon 2020 to Horizon Europe.

The Academy of Finland acknowledges with pleasure that excellence, competition, openness and impact remain the basic principles of the new framework programme. While the funding for the European Research Council (ERC) could be at a higher level considering its success in producing top-quality science and the low application success rates, we note positively the absolute, if not relative, increase in the ERC's funding. It is also positive that the independent position of the ERC is retained and that the funding for MSCA actions continues. However, we express our deep concern at the decrease in the funding of research infrastructures, which poses a threat to the competitiveness of the European science system and its attractiveness in the eyes of top-level researchers.

Pillar II has the highest funding in the Horizon Europe proposal, and it is vital to solving European and global societal challenges. Therefore, it is critical that Pillar II also supports high-quality collaborative and multidisciplinary research, which would help provide solutions to the challenges. The Academy of Finland welcomes the mission concept and the underlying aim of better engaging European taxpayers in research and innovation. The missions, too, need to be based on solid high-quality research, and they need to integrate the humanities and social sciences into their design and implementation.

Supporting disruptive innovation and SMEs are the key goals of the European Innovation Council in Pillar III. The Academy of Finland wants to emphasise that creating disruptive innovation requires the continuation of activities currently supported by FET Open, including the current application, evaluation and decision-making practices that guarantee the high quality of such projects.

The Commission's proposal for Horizon Europe prioritises mainstreaming open science principles in Horizon Europe. This is very positive. The clarification of the partnerships landscape and its better integration into the programme priorities are also important, and the work needs to be continued. Simplification efforts need to be strengthened. More attention should be paid to encouraging international cooperation in the proposal.

*Below are some suggestions by the Academy of Finland on the further development of the Commission's proposal. The suggestions include some points that warrant further clarification.*

## PILLAR I: Open Science

Both the European Research Council (ERC) and the Marie Skłodowska-Curie Actions (MSCA) are excellent European-level funding instruments, resulting in top-quality science as well as stronger research careers and knowledge transfer, while also increasing the attractiveness of European research among top researchers outside the EU. These instruments help build a strong knowledge base and skilled researchers that contribute to the aims of the other Pillars of Horizon Europe and to societal challenges yet unknown.

On this basis, the Academy of Finland welcomes the increase in the ERC's budget, even though it is unlikely that it will solve the oversubscription problem of the instrument. We also acknowledge with pleasure that the structure and operations of the ERC remain as they are in Horizon 2020. The continuation of MSCA actions is also important.

The Academy of Finland congratulates the Commission for its actions on research infrastructures. We welcome the aim to consolidate the European research infrastructure landscape including the notable initiatives European Open Science Cloud (EOSC) and European High-Performance Computing (EHPC). We support opening, integrating and interconnecting key research Infrastructures also with industry and further strengthening European research infrastructure policy together with the ESFRI and other relevant policymakers, including national research funders.

The aims stated in the proposal are ambitious and would be attainable with adequate investments. The Academy of Finland expresses serious concern over the reduction of infrastructure funding. This reduction may lead to a situation where European infrastructures lag behind infrastructures in other parts of the world, which would endanger the quality of European science and reduce the attractiveness of European research environments among top researchers from Europe and elsewhere.

The Academy of Finland is pleased to see that Horizon Europe pays attention to industrially oriented infrastructures which are piloted in the clusters in Pillar II. We emphasise that it is important to develop this area in close connection to the research infrastructures to avoid duplication and fully exploit the collaborative potential for scientific advancement and innovation.

## PILLAR II: Global Challenges and Industrial Competitiveness

The budget of Pillar II accounts for more than 50% of the whole framework programme. The proposed clusters are large and contain two or more thematic priorities and/or societal challenges of Horizon 2020. This raises some concerns. The concept of clusters in Pillar II has not been clearly described, and their organisation and governance also raise questions. How will the management of clusters be organised? Will the programme committees be much larger than in Horizon 2020? How will the integration of social sciences and humanities be secured?

The Academy of Finland wants to emphasise that the clusters need to be regarded as portfolios that bring together a diverse range of activities, including high-quality research consortia. It is also important that ERC-funded projects can be connected to the clusters.

The missions are a new and promising concept in that it seeks to demonstrate the value of research and innovation activities to the European public by presenting concrete aims and timetables and involving citizens in mission design and implementation. To achieve the significant social impact promised by the missions, there must be a strong research component included. Furthermore, solving important European problems



and engaging European taxpayers necessitates the crossing of sectoral and disciplinary borders and the full integration of humanities and social sciences. It is also important that knowledge and innovations gained in Horizon 2020 and in other parts of Horizon Europe be utilised in the implementation of the missions.

The FET Flagships currently belonging to Pillar I in Horizon 2020 are suggested to be moved to Pillar II in Horizon Europe. This provides a logical context for their future operation.

According to the proposal, the Joint Research Centre (JRC) will be integrated into Pillar II. This is naturally positive, if in this way the JRC can provide better support for thematic research and innovation activities in the clusters, and vice versa.

### PILLAR III: Open Innovation

The Academy of Finland supports the proposal that European Union funding also be directed at supporting disruptive innovations and the access of European SMEs into global markets.

However, the Academy of Finland is concerned that transferring collaborative projects aiming at breakthrough technologies, currently funded under the FET Open instrument, to Pillar III might endanger the high quality and disruptive nature of the projects. While the general aim of increasing cooperation between sectors to ensure better utilisation of research results is good, it is of utmost importance to retain FET Open in its current form, including its rules of participation, evaluation practices and decision-making, also in Pillar III. Likewise, it is important that the FET Proactive instrument, which has strong linkages to business activity and an important role in creating new cross-sectoral innovation activity and structures, remain close to FET Open activities to achieve the necessary critical mass.

### Strengthening the European Research Area

The Academy of Finland welcomes the strengthening of the European Research Area. Improving and enlarging national STI systems and ecosystems is beneficial to all of Europe, since it increases the overall quality and impact of European research and innovation.

However, the Academy of Finland believes that each Member State must by itself assume a major role in further developing R&D systems. Furthermore, the massive aid – hundreds of billions of euros – provided by the Structural Funds needs to be channelled more strongly also to this purpose. Horizon Europe must maintain excellence and competition as its core principles.

The Academy of Finland considers measures aimed at reinforcing Responsible Research and Innovation (RRI, i.e. the strengthening and mainstreaming of public engagement and the societal impact of research, science education, gender equality and research integrity) to be very important considering the overall goals of the next framework programme and the ERA. In Horizon 2020, the main instrument for strengthening RRI has been the Science with and for Society programme (SwafS). The proposal for Horizon Europe does not include a similar programme. The Academy of Finland understands that it is necessary to integrate RRI activities into all pillars. However, when a relatively new approach and way of thinking is in question, such integration is often difficult to implement successfully. Therefore, it might be good to reconsider the need for a separate RRI programme.





The Academy of Finland is pleased that the funding for COST is no longer taken from the budget of thematic, SSH-related research, since COST actions are clearly more compatible with other instruments in strengthening the ERA.

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*The Academy of Finland is a government agency within the administrative branch of the Finnish Ministry of Education, Science and Culture. Our mission is to fund high-quality scientific research, provide expertise in science and science policy, and strengthen the position of science and research. In 2018, our funding for research amounts to 444 million euros. Part of the Academy's funds come from proceeds of Finland's national gaming company Veikkaus.*