

PEER feedback on the specific programme for implementing Horizon Europe - the Framework Programme for Research and Innovation

PEER – the Partnership for European Environmental Research

PEER is a partnership of eight of the largest environmental research centres in Europe (www.peer.eu), founded in 2001 with the aim of combining forces to follow a joint strategy in environmental sciences, to enhance research on ecological sustainability and to further develop the European Environmental Research Area. This co-operation was confirmed by a Framework Agreement signed on the 25th June 2002 in Roskilde, and renewed in 2007, 2012 and 2018.

PEER members are mainly publicly funded national and European competence centres characterised by scientific autonomy and interdisciplinary expertise. They carry out basic and applied research combining different disciplines from natural and social sciences. Research covers all fields of the environment, particularly addressing the interactions between mankind and nature.

With a combined budget of about €600 million and approximately 5,800 staff members, PEER has a wealth of experience in participation in major international networks and programmes, and all members have been actively involved in numerous projects funded by the EU's Framework Programmes for Research and Development.

PEER aims to be a world leader in integrating knowledge and expertise for sustainable development. The partnership promotes interdisciplinary and innovative research in support of decision makers, industry and society.

Please note:

This response does not represent the position of the Joint Research Centre (JRC) of the European Commission. The JRC did not contribute to the elaboration of this response and disclaims any responsibility for the use which may be made of the information contained therein.

The PEER members are:



PEER welcomes the opportunity to respond to the proposal on the Specific Programme for implementing Horizon Europe before adoption by the EU Parliament and Council.

PEER has summarized proposals for missions in FP9 in a position paper for the EU's next Programme for research and Innovation (FP9 – Horizon Europe). Among others three missions were presented in the paper under the headline “future environmental research for a sustainable society and economy”:

- Water for life:
 - o To increase Europe's resilience to drought and water shortage in Southern and Central Europe and to increased precipitation and flooding in Northern Europe by 2030
- Healthy Environments for All:
 - o To ensure a healthy environment for Europe through monitoring, new technologies and education
- Moving towards true sustainability:
 - o To create new sustainable circular economy business and operating models and cut raw material consumption by 30 % by 2030.

PEER presented these missions for the Commission at a meeting arranged by PEER in Brussels in January 2018.

1

FP9 Budget: budget allocation to pillars I and II should be revised.

Horizon 2020 has become the most important funded research and innovation programme around the world and it has proven its success in paving the way towards an excellent knowledge base, the reinforcement of cooperation, and the boosting of competitiveness. FP9 should aim at strengthening these objectives, which can only be achieved through the allocation of sufficient funding.

PEER strongly supports the Commission's proposal to increase the overall budget for Horizon Europe to 97.2 billion. Even though this budget is not much higher than that of Horizon 2020 (7% in current prices), PEER recognizes the effort made by the Commission under a difficult financial context especially marked by the withdrawal of the United Kingdom from the European Union and the loss of one of main financial contributors to European research and innovation programmes.

PEER welcomes in particular the proposal to allocate 35% of the overall budget of Horizon Europe to climate action and the implementation of the Paris Agreement dealing with greenhouse gas emissions mitigation, adaptation and finance.

Still, PEER recommends the Commission to work on the budget reallocation for instruments within Pillars I and II. Both the Marie Skłodowska Curie Actions (MSCA) and the European Research Council (ERC) have a proven track record in the generation of EU added value. For this reason, both instruments deserve a more substantial budget increase. As regards Pillar II, PEER suggests the Commission to distribute the budget more equitably across clusters as they

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are all pressing challenges that require immediate action.

2

Structure of the programme: the importance of covering the whole research and innovation chain.

PEER welcomes the proposal of the Commission to maintain the architecture of Horizon 2020 under the FP9 as the three pillars are meant to provide a good balance across the research and innovation chain. However, PEER recommends the Commission to further support fundamental research as a major player in fueling impact-oriented research. In addition to contributing to a notable return on investment, as argued by experts, fundamental research provides a foundation of principles on which future practical applications will be based.

Therefore, PEER invites the Commission to reconsider the omission of the FET Open instrument from Horizon Europe proposals. PEER acknowledges the inclusion of the pathfinder instrument within pillar III but PEER is concerned about the strong emphasis of *Pathfinders* on the launch of start-ups/ implementation of close to market activities and the weight of this criterion in the evaluation of proposals. As mentioned above, upstream research is at the origin of societal and economic impact but results are not easily measurable and attainable in the short and medium term.

3

The need for new measures enhancing the attractiveness of the programme. The role of the Seal of Excellence.

Four years after the launch of the programme, PEER notes a “Horizon 2020 fatigue feeling” amongst research groups. Responding to a call and setting up a project is a long process that requires the full involvement of numerous members of staff well before the submission deadline. Given that the overall success rate for Horizon 2020 is only around 10%. This translates into a considerable waste of effort and financial/ human resources. Therefore, PEER invites the Commission to reflect on possible measures to reduce oversubscription and thereby increase the success rate of FP9. PEER suggests for example the wider introduction of the two-stage evaluation process as well as the launch of more targeted calls (as in the case of FP7).

Further, PEER encourages the Commission to open the award of the Seal of Excellence to collaborative projects within Pillar II that would merit funding from alternative sources (private or public regional, national, European, international).

4

Pillar II: proposals for a pillar that takes fully into account existing environmental challenges.

PEER supports the architecture of Pillar II, which takes on-board the different societal challenges already present in Horizon 2020.

PEER recognizes the importance of the UN Sustainable Development Goals (SDGs) in shaping future research and innovation activities. However, it stresses the need of future FP9 actions to further support the implementation of European policies related to Water, Climate Action, Environment and Biodiversity, Citizen’s Security, Food Safety and Agriculture.

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PEER warmly welcomes the integration of Social Sciences and Humanities (SSH) as a cross-cutting issue given their major importance in the implementation of projects, public acceptance, as well as the creation and the assessment of the societal impact of innovative products, services and governance models.

PEER further proposes that the inclusion of the following proposals would strengthen the pathways towards the overall objectives of Pillar II.

➤ Cluster 2 “***Inclusive and secure society***”.

Europe’s water infrastructure is ageing in all EU member states. Ageing water infrastructure jeopardizes water quality and is the major cause for water loss in distribution networks. Estimates indicate that doubling the sectors annual investment of 45 billion Euros is needed to adequately modernize European water infrastructures. PEER therefore recommends to direct substantial funding for water asset management.

Europe needs to seize the management and business opportunities offered through ICT technologies to master water distribution network losses and monitor water quality both in urban and rural areas. Asset management needs to integrate future needs in the light of global megatrends like urban sprawl (due to demographic changes, migration), climate change/ higher propensity of extreme events, and the presence of emerging pollutants/ micro-pollutants in water resources.

➤ Cluster 4 “***Climate, energy and mobility***”.

The water cycle is particularly vulnerable to global dynamics. Changes in rainfall patterns, floods and droughts are expected to become more frequent in the years to come, causing severe impacts on both natural and social systems. Innovation is still needed in the development and implementation of policy support tools (modelling, risk assessment and forecasting tools). For this reason, PEER welcomes the willingness of the Commission to support actions related to the *adaptation pathways and policies for vulnerable ecosystems, critical economic sectors and infrastructure in the EU, including improved **risk assessment tools***. However, PEER suggests targeting some funding to forecasting activities.

The impacts of climate change on water resources are at the heart of societal conflicts in many regions in Europe and beyond. Innovative governance approaches are needed to balance out the different interests, usages and needs regarding the limited water resources (i.e. agriculture, industry, leisure activities, and human consumption). PEER considers that this topic is relevant at the European scale and it welcomes its inclusion in the Specific Programme of Horizon Europe (under cluster 5) with a significant budgetary envelop to cover research and innovation in this area.

PEER wishes to remind the Commission that adaptation pathways to climate change are particularly needed when it comes to water management. The World Economic Forum, in its Global Risk report (2007), advocated the development and integration of adaptive water management strategies and it identified the water crisis and the lack of adaptive water plans as one of the largest risks for the global economy.

➤ Cluster 5 “***Food and Natural resources***”.

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PEER considers that this cluster is extremely ambitious. Cluster 5 covers many of the scientific areas currently funded through challenges 2 and 5 of Horizon 2020 (that is the case of bioeconomy, marine research, inland water research, food security, and natural resources). PEER welcomes the inclusion of all these themes in Horizon Europe as both the environment and the efficient management of natural resources are at the cornerstone of human well-being, economic growth and competitiveness. PEER regrets however the low budget allocation for this cluster (around 10 billion Euros in comparison to the 15 billion Euros allocated to clusters 3 and 4).

5

The multi-actor approach in FP9 projects.

PEER supports the multi-actor approach. But simultaneously PEER stresses that this approach is not optimal in all cases and therefore it should not be an indispensable requirement in collaborative projects. Scientific gaps do not always benefit from participation of actors on all levels but rather from the contribution of actors coming from different research approaches. As a network of research institutions PEER provides participation with such different scientific approaches.

Interaction of projects between clusters should be highlighted and supported. For example, “ecotoxicology of compounds and new pollutants”, which is included in the cluster “Food and Natural Resources” is also relevant to the cluster “Health” since compounds and new pollutants might also have an impact on human health.

PEER is aware of the launch of a working group aimed at the definition of a water mission. PEER is informed of discussions and future developments of this group thanks to its close links with Euraqua (the European network of Freshwater organisations). PEER is willing to contribute to discussions on other missions, and it offers its competences in environmental research and sustainable development for any future exchanges with the Commission and the Parliament.