

EREA Position Paper on Missions in the Research and Innovation Framework Programme 9 (FP9)

Motivation

Both Interim Evaluation of Horizon 2020 and the report of High Level Group chaired by Pascal Lamy express a high demand of maximising the impact in the future EU Research and Innovation (R&I) programme (FP9). Their intention was to address the observed shortcoming in the last stages of research and foster commercialisation. In view of the pressing global challenges and the political need of research to prove its purpose, its effectiveness and added value to society, the concept of mission has been introduced by the European Commission as key feature of the future framework program (FP9). Its goal is said to address these goals while promoting impact and commercialisation of research. The concept of mission is described in the report by Professor Mariana Mazzucato. This position paper reflects EREA's view on the report and in particular on the intended implementation of mission in FP9.

The scope of missions

According to the Mazzucato report, missions are supposed to link broad grand challenges with specific research projects covering various areas of interest and cross-sector. In general, EREA welcomes the intention by the European Commission to pursue EU-priorities which take into account the Sustainable Development Goals (SDGs). Doing so, EREA sees a strong need to define a holistic approach on how to mobilize efforts for their achievement at top European Union level. The Grand Challenges, e.g. "Climate Change" as stated in the COP21 conference in Paris, need to become one of the topics with highest priority agreed on high political level by all European Member States. Efforts in each mission contributing to this overarching goal have to be streamlined amongst the relevant Directorates-General, agencies and executive bodies. They can provide a platform for orchestration, governance and for stocktaking, bringing together dispersed information and assessments. The research and innovation framework programme should derive its goals from top EU-priorities and needs to be flanked by dedicated instruments that provide all means of roll-out and implementation.

EREA doubts that discrete missions, e.g. "100 Carbon Neutral Cities by 2030", embedded in a R&I programme alone are capable of achieving a significant and measurable impact towards Global challenges (SDGs) in terms of implementing the necessary actions. The future R&I framework programme (FP9) is one key contributing instrument that should inherit those goals and offer enabling scientific and technological innovation. It is not up to research and innovation to pursue and achieve implementation.

EREA clearly sees a need to distinguish between research and innovation and implementation. The latter is the effort needed to spread out the developed technology to a large scale. This distinction is particularly crucial in missions whose impact greatly depends on a mass uptake of technology and require significant finances to accomplish them (like "Man on the moon").

With respect to the above mentioned examples, EREA sees a strong need to make a clear distinction between *research and innovation* on the one side, and *implementation and legislation* on the other side. For this purpose a clear distinction is needed between what can be achieved by a *research and innovation* program and what needs to be addressed by additional instruments dedicated to *implementation and legislation*. R&I is responsible for technological developments, their market uptake is to a great degree depending on factors that lie outside the scope of research. **EREA strongly advises against using FP9 dedicated budget for implementation as there are dedicated tools on EU-level for this purpose, e.g. European Fund for Strategic Investment (EFSI), European Structural and Investment Funds (ESIF), Connecting Europe Facility (CEF) and others.**



The role of mission as part of FP9

With regard to the report by Mariana Mazzucato EREA gives the following recommendations on the role of missions as part of FP9. EREA welcomes missions as a substantial instrument to increase the impact of European research and innovation and hence provide real European added value. EREA agrees that missions can capture the public imagination and foster a spirit of European collaboration amongst different disciplines, stakeholders and sectors. EREA also acknowledges that a meaningful budget for missions is clearly needed for them to succeed. However, focus must not entirely be shifted towards higher TRL research and innovation. **With missions being part of FP9, it is crucial to keep the well balanced approach between the different TRL levels and topics.**

The other segments of research and innovation, in particular basic and applied collaborative research need to be strengthened in the same degree as impact is pursued in missions and an extra effort towards market-maturity is undertaken. **It is essential to maintain the whole TRL chain providing continuous development through the entire TRL chain to prepare tomorrow's innovation.**

In order to achieve truly innovative approaches that go above and beyond existing knowledge, co-definition of ambitious missions and roadmaps with academia, research and industry representatives as well as the integration of key collaborators along the value chain is essential. **Missions need to encompass a portfolio of projects with bottom-up approach. Their results should lead to technical maturity and allow for deployment.** This approach facilitates strong governance and programme management which is essential to achieve tangible impacts that boost the European economy. Within the structure of a mission **a significant part of the creative interaction of cross-sectorial and trans-disciplinary science needs to be reserved for low TRL activities.**

EREA welcomes the five key criteria for selecting missions of the Mazzucato report. From our point of view focus should be laid on a balanced mix of bottom-up and top-down solutions that are open to be addressed by different development paths, achieved by cross-disciplinary and cross-sectoral collaboration with both ambitious and realistic research and innovation actions centred across the entire TRL chain. Setting specific targets and timing is essential to determine success, however, research activities can hardly be predicted and the added-value cannot be determined in binary ways. Therefore, timeframes needs to be tailored to allow processes to grow and targets should allow for quantification against a baseline scenario, i.e. whether a certain percentage reduction against a baseline has been reached.

EREA appreciates the idea of missions driving the research and development with FP9 towards a specific goal. **The essential role of missions in FP9 is to develop the technical foundations by means of research and innovation to address the high-level goals.** This approach increases the knowledge, fosters mature technologies and drives innovation to commercialisation on a specific topic. Once technologies reach the maturity of commercialisation the focus needs to be on implementation. With the above mentioned distinction in mind it is obvious that **implementation is not part of a framework program for research and innovation.** Hence missions embedded in such a framework need to be flanked by implementation programs that take the burden of scaling up technologies to a degree that their outcome is measurable.

Implementation is significantly supported by the instruments that are dedicated for this purpose, such as EFSI or ESIF, as well as the instruments that can support this process on a thematic level. A proper orchestration of EU instruments from related policy domains will ensure that the results of FP9 are used correctly and that European added value is achieved.

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