Science Europe has followed with keen attention the proposal by Commissioner Moedas to introduce a mission-oriented research approach with a strong societal dimension in parts of the next Framework Programme for Research and Innovation (FP9).

Science Europe sees interesting opportunities in the use of missions and cross-disciplinary Research and Innovation (R&I) as part of Europe’s toolset to address societal or global challenges. Science Europe, however, believes that there is a need for a forum to discuss in substance the concept of missions and their introduction in FP9, beyond this European Commission call for feedback.

Ambitious missions, such as those put forward in the report ‘Mission-Oriented Research & Innovation in the European Union – A Problem-solving approach to fuel innovation-led growth’ (February 2018), span beyond the mere R&I realm. In addition to R&I activities and funding, the successful accomplishment of the proposed examples of missions depends on a strong political consensus and public sector commitment (at various levels: local, regional, national, global). Achieving them will require substantial investments, both public and private, regulation changes in various sectors, and will demand European citizens to adapt their lifestyle (such as consumption, mobility, and behaviour).

The criteria to define missions – as presented in the report – remain too general to be used in practice. For mission-oriented research under FP9 to be successful, more careful and critical consideration needs to be given to a) the overall purpose of these missions as a whole – what are the high-level societal, economic, or governmental outcomes sought, and what is the expected role of R&I in delivering those outcomes? and b) what set of criteria for the selection of missions would most likely deliver those outcomes and ensure the individual missions fulfil the expectations placed upon them? The absence of such explicit criteria as the basis for a rigorous and robust selection of missions, is likely to be highly problematic.

Science Europe recommends to:

- take the available reports as starting points and involve experienced stakeholders to further substantiate the rationale for a mission-driven approach;

- design FP9 in a way that does not jeopardize the breadth of research, maintains scientific excellence as the core principle (including for the missions), and guarantees sufficient resources for other goals, in particular basic research;
focus planning efforts and discussions on developing a robust mechanism to frame mission-oriented research; describe criteria to identify and select suitable missions; develop the methodology for their implementation through actionable projects; define the level and type of funding needed; design the necessary accompanying measures to ensure their success; and, only then proceed to establish a list of potential missions;

focus missions primarily on objectives that can be reached through R&I activities; and

launch a pilot to test the mission-oriented approach before becoming a fully-fledged part of the programme.

Science Europe will dedicate its 10th annual High-Level Workshop (31 May 2018, Madrid) to the mission-oriented approach, its implementation at national level, and lessons learned. Science Europe has invited European Commission officials to attend this event and debate the concept of mission-oriented research together with Heads of Science Europe Member Organisations, experts, and senior representatives from national ministries.