

18 June 2019

Informal Meeting of Ministers responsible for Competitiveness (Research) Helsinki, 4 July 2019

Presidency discussion paper

Missions as a strategic tool in Horizon Europe

Context and aim of the discussion

The purpose of this discussion is firstly to inform ministers responsible for research and innovation about the latest developments in the process of creating a framework for mission-based research. Moreover, the discussion should offer views and perspectives on issues that the Member States and associated countries see as vital for the successful implementation of mission-based research.

The EU strategic agenda for 2019-2024 was agreed at the June 2019 European Council and sets out the overarching priorities guiding the work of the EU over the next five years. The EU's long-term budget (multiannual financial framework, MFF) will support these priorities, together with national budgets and complementing other efforts at European and national level.

Horizon Europe, the EU's framework programme for research and innovation, is designed to generate new knowledge and technologies, promote scientific excellence, create social and environmental impact and contribute to growth and jobs by speeding up the bringing of research results to market and scaling up innovations.

One of the main new initiatives in the Horizon Europe programme is the mission-based approach and funding for specific missions. Through missions, Horizon Europe will bring together smart innovation-led growth, inclusion and sustainability while directing research and innovation to solve the pressing global challenges of our time. Its success will be enhanced by providing direction and sufficient funding for research and innovation, creating a functional programming process, and by ensuring its ability to foster systemic change in the increasingly digitally driven economy.

Mission-oriented research and innovation initiatives are typically ambitious, exploratory and ground-breaking in nature, often targeting a concrete problem or challenge, with a large impact and a well-defined timeframe. Such initiatives tend to be sizeable, cross-disciplinary, inter-sectoral and involve several types of stakeholder. They require a mix of horizontal policy instruments going beyond research and innovation policies. The mission-oriented approach should be applicable to different industrial sectors and social contexts. One of the big challenges for the success of this approach will be ensuring that all sectors and relevant actors are included in the planning and implementation of missions.

Mission-oriented research and innovation in Horizon Europe

Missions in Horizon Europe are expected not only to have an impact on Europe and the world and find answers to global challenges, but also to bridge the gap between research, science, innovations, citizens and public awareness. Missions will be ambitious, high-profile initiatives which will have a transformative impact on the challenges that European citizens face. To succeed, missions will require the development of a systemic approach to a challenge and the identification of a well-defined goal. This may involve multiple types of intervention in addition to education, research and innovation, with a Europe-wide or possibly global approach.

In Horizon Europe, a mission is 'a portfolio of excellence-based and impact-driven R&I actions across disciplines and sectors, intended to:

- achieve, within a set timeframe, a measurable goal that could not be achieved through individual Member States actions,
- have impact on European society and European and national policy-making through science output and technological and digital advancement, and
- be relevant for European citizens'.

One of the key challenges when developing successful and impactful missions will be to find the right balance between feasibility and the level of ambition. The missions will have to be inherently ambitious to have the desired impact and aspirational effects, but they will also have to be well focused in order to be carried out within a limited timeframe. Missions will be programmed within the 'global challenges and European industrial competitiveness' pillar, but may also benefit from actions carried out within other parts of the programme, as well as complementary actions carried out under other Union funding programmes. Missions will allow for competing solutions, resulting in European added value and impact.

Missions will be defined and implemented with active and early involvement of the Member States and exchanges with the European Parliament. The missions, their objectives, budget, targets, timeline and scope, indicators and milestones will be identified in the strategic R&I plans and the work programmes, as appropriate.

Strategic planning will ensure alignment with other relevant Union programmes and consistency with EU priorities and commitments, and

increase complementarity and synergies with national and regional funding programmes and priorities, thereby strengthening the European Research Area. The Horizon Europe Regulation will establish areas for possible missions and areas for possible institutionalised European partnerships.

Areas for missions in Horizon Europe are:

- adaptation to climate change, including societal transformation;
- cancer;
- healthy oceans, seas, coastal and inland waters;
- climate-neutral and smart cities;
- soil health and food.

Missions will, for example,

- using Sustainable Development Goals as sources for their design and implementation, have clear research and innovation content and EU added value, and contribute to the fulfilment of Union priorities and commitments and the achievement of Horizon Europe programme objectives;
- cover areas of common European relevance, be inclusive, encourage broad engagement and active participation of various types of stakeholder from public and private sectors, including researchers, citizens and end-users, and deliver research and innovation results and impact that could benefit all Member States;
- be open to multiple, bottom-up approaches and solutions taking into account citizens' and societal needs and benefits and recognising the importance of receiving contributions from diverse target audiences to achieve the jointly defined goals of these missions;
- benefit from synergies with other European Union programmes, as well as with national and, where relevant, regional innovation ecosystems.

The Council of the European Union and the European Parliament have agreed that for the first three years of the Horizon Europe programme, the budget for missions should be no more than 10 % of the programme's second pillar, 'global challenges and industrial competitiveness'. In the Commission's proposal, the budget for the second pillar is 52.7 billion euros, out of a total budget of 94.1 billion euros for the Horizon Europe programme.

Role of mission boards in the selection and implementation of missions

Each mission area listed in the Horizon Europe Regulation will have its own mission board. The chairs of the mission boards will be announced during the informal Competitiveness Council meeting.

Mission boards will play a key role throughout the life of a mission. They will propose one or more possible specific missions for each mission area. These proposals will be evidence based, using analyses and information presented to the mission board by the Commission, together with input from mission board members and Member States. The work of the mission board will include open consultations with a wide variety of target groups and

stakeholders. The final selection of specific missions would be for the Commission, in dialogue with the Member States.

Professor Mariana Mazzucato (University College London) will give a keynote speech at the informal Competitiveness Council meeting. She will present the new report on mission governance, which will be published during the meeting.

Question for discussion (in break-out groups):

- How can we ensure that the selected missions will actually address the opportunities and challenges set out in the Sibiu Declaration and the EU's strategic programme for the next five years?