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NOTE

From:	Presidency
To:	Permanent Representatives Committee/Council
Subject:	*Preparation of the Competitiveness Council of 30 November - 1 December 2017* The mission-oriented approach in the ninth EURDI Framework Programme *- Policy debate*

Delegations will find attached a Presidency note on "The mission-oriented approach in the ninth EURDI Framework Programme" with a view to the policy debate at the Competitiveness Council on 1 December 2017.

ANNEX

THE MISSION-ORIENTED APPROACH

IN THE NINTH EU RDI FRAMEWORK PROGRAMME

The rationale for a mission-oriented approach

The transition from FP7 to Horizon 2020 marked an evolution from a rather sectoral into a challenge-based approach. Moreover, while maintaining appropriate support to research, Horizon 2020 gave new impetus to innovation, including to the development of novel solutions to concrete challenges, targeting high impact.

During the implementation of the Horizon 2020 its structure faced the need to cope with the evolution of problems to be tackled, political priorities to be implemented and to develop technologies in an interdisciplinary manner. Consequently, focus areas were introduced in order to achieve objectives cross-cutting the Societal Challenges and Leadership in Enabling and Industrial Technologies (LEIT), such as for progressing in the circular economy and decarbonisation, implementing the Paris Agreement (COP21). The focus areas are proving their value in increasingly going across challenges, sectors and disciplines, but potential still remains for achieving higher impact and make them more relatable to citizens.

The interim evaluation of Horizon 2020 concluded indeed that impact should be better demonstrated and the potential of interdisciplinarity should be tapped, but also considered that research and innovation (R&I) should be brought closer to the public. The High Level Group on maximising the impact of EU research and innovation led by Pascal Lamy thus recommended adopting a mission-oriented, impact-focused approach to address global challenges: *'The post-2020 EU R&I programme should thus translate global societal challenges (social, economic, environmental) into a limited number of large-scale research and innovation 'missions'… They should mobilise many actors and investors, including at national level, and induce action across disciplines, sectors and institutional silos.'*

Some or parts of the activities to be carried out with the next FP could be translated into a limited number of large-scale research and innovation ***'missions'*** that could be described as **assignments given for a portfolio of R&I actions to achieve measurable results for a given impact within a set timeframe**. The missions could be a new and powerful approach to increase the impact of EU R&I, while stimulating the interest of citizens bringing research and innovation closer to their expectations and concerns.

Missions should thus achieve higher impact, set the direction, make research and innovation relatable to citizens and have open, non-prescriptive programming.

Higher impact

The impact of the FP is real and large in many aspects but there is scope for making clearer **what impact we want to achieve** and what difference we want the FP to make for economy and society. One way of achieving this is to more effectively **define expected impacts across the entire portfolio of activities**, rather than at the level of individual topics only, as has tended to be the case in Horizon 2020 so far. Such R&I missions should increase the impact of the entire FP in a more demonstrable way. Missions can also set direction for expected impact from the other pillars of the FP, without these pillars being programmed.

Setting the direction

The goal of R&I policy should not be limited to addressing market failures, but also to help create new markets of the future for innovative solutions that address societal challenges. At the EU level, this should aim at tackling global or societal challenges, which call for a trans-national mobilisation of resources and creativity. This argues for setting direction at EU level on what the EU wants to accomplish through R&I, coupled with investment of a critical mass of resources and, where appropriate, with accompanying measures in other policy domains in order to optimise the framework conditions for deploying new solutions. To maximise impact, investment through missions should be prioritised in areas where the EU added value is greatest in terms of the degree of risk involved and where the benefits of economies of speed, scale and scope can be reaped.

Relatable to citizens

Missions can be a way of explaining in more plain language what EU R&I is aiming at, who should participate in such effort and what is expected to come out of the FP. There is potential to go beyond involving usual stakeholders in the priority-setting of missions and in their implementation, in accordance with the objectives of open science (including citizen science) and open innovation. This means making a step from reactive consultation to interactive co-design of missions with input from stakeholders as well as a larger public. This should also encourage the involvement of citizens in developing research agendas and in co-creating new solutions.

Open, non-prescriptive programming

Once the direction is set and the top-level goal is clear, the calls for proposals can be more open than is currently the case in Horizon 2020 work programmes. This should allow for more creative ideas to be submitted at various levels of the science and innovation chain. Missions would give rise to a portfolio of complementary collaborative projects and other interventions, using the instruments that are most appropriate for the mission and the corresponding projects.

Characteristics of EU-level R&I missions

The characteristics of FP9-supported R&I missions could notably include the following:

- Be R&I actionable from the EU level;
- Have transformative potential for science, technology, industry and/or society;
- Have clear, understandable goals that set direction towards an impact expected within a timeframe beyond individual topics or projects;
- Be easy to communicate, to capture public imagination and to involve the public (co-design and co-creation);
- Encourage a systemic approach (technological, business model, finance, regulatory, governance, social, skills innovation);
- Induce action across disciplines, sectors and policy departments;

- Be open to all actors in the R&I chain (e.g. cities…) providing for experimentation;
- Mobilise all R&I actors and programmes at all levels (international, European, national, regional…);
- Exhibit a level of granularity or scope adapted to the challenge (accelerators or transformers);
- Be implemented through non-prescriptive calls for proposals (including possibly the choice of instrument) leading to a portfolio of EU interventions;
- Enable to ascertain, measure and communicate the extent of mission accomplishment within the envisaged timeframe;
- Enable steering and flexibility for success, tolerance for failure and benefit from unexpected spill-overs;
- Result from a participative process with Member States, stakeholders, end-users, citizens and other key actors.

Questions for discussion

- ***Are the characteristics of missions the appropriate ones in order to achieve higher impact and make research and innovation more relatable to citizens?***
- ***How should missions be identified and designed?***