

EARTO Inputs for the EC Communication on Horizon Europe Missions

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EARTO is fully committed to further support the elaboration and implementation of what needs to be recognised as one of the key European initiatives of the future: the Horizon Europe Programme. EARTO members very much appreciate the efforts of the EU Institutions to further develop Horizon Europe, addressing new and disruptive challenges and increasing the capacity of the programme to react flexibly towards these new challenges, especially the 'new mission-oriented' approach. As input to the European Commission future Communication on Horizon Europe missions, EARTO hereby presents its views on the topics.

RTOs have a historical track record of working to address societal challenges and missions. They are ready to support the new EU mission-oriented innovation policy. Such approach to R&I policymaking implies setting pre-defined goals addressing global challenges, with specific targets and expected impact, and working to achieve such targets in a set timeframe. A more differentiated and comprehensive take is needed on the variety of policy approaches to address mission-oriented and transformative change in science, technology, economy and society. Leveraging complementarities between different policy domains, instruments and fields and developing an integral policy approach for this purpose remains a major challenge, at local, (inter)regional, national and European level. RTOs have proven that they can play a very important role as intermediary or even leading actors in piloting system transformations by mobilising both supply- and demand-side dimensions of innovation mediating between local, (inter)regional, national and European levels.

In this context, EARTO members especially call on the European Institutions, while further setting-up the EU missions, to:

- 1. Ensure a proper budget for Horizon Europe and its pillar 2 from which the future EU missions financing will come from.** [EARTO recurrently called with its industrial partners](#) for a budget of at least €120 billion (in 2018 prices), directing a minimum of 60% of this budget to the Horizon Europe pillar 2.
- 2. Set up Horizon Europe's missions as an ambitious shared agenda across public and private actors and citizens, pooling expertise across domains and sectors to jointly deliver concrete changes to society with real impact.** Among others, this requires having a stronger involvement of RTOs in their governance, design and implementation.
- 3. Set up Horizon Europe's missions as integrated programmes across Horizon Europe pillars and clusters and create synergies with policies at EU, national and regional levels,** promoting clear programming links with regional smart specialisation strategies and ensuring clear synergies with EU Structural Funds.
- 4. Link citizens' engagement and stakeholders' engagement** as crucial for missions. Both engagements can go hand in hand and should not be placed as two separate actions. Indeed, as key RD&I stakeholders, RTOs can play a pivotal role in the new way of communicating about the future EU missions that takes place through collaboration, co-creation and collective intelligence. A strong and appealing narrative with concrete goals is required to inspire and motivate citizens and stakeholders to contribute collectively to the EU missions.
- 5. Provide the appropriate governance and management structures for the implementation of these missions.** The implementation of missions requires strong management capacities both on European as well as on national level.

Financing of the EU missions

A key question is the financing of the future EU missions: their declared ambitions should be in line with the future budget. Financing for missions is today planned to come from pillar 2 of Horizon Europe. Accordingly, a proper budget should be planned for this pillar 2 in order to add enough financing for missions next to the already existing instruments. If pillar 2 financing is not high enough, the new EU mission instrument will indeed add pressure on:

- Financing an already packed pillar 2 which includes the merged societal challenges and KETs activities of Horizon2020, including all future 40+ EU partnerships,
- Performance in reaching the many targets set so far for all clusters under pillar 2,
- Linking this pillar's activities to the new green and digitalisation targets set by the new EU Green Deal, the new EU Recovery Package and the new EU industrial and digital policies.
- Lower TRLs applied collaborative research: an effect we already saw in current Horizon2020 programme from the financing of the Juncker Plan by the Horizon2020 budget.

Accordingly, EARTO calls on the EU institutions to direct a minimum of 60% of Horizon Europe budget to pillar 2, the only pillar for truly collaborative research, to avoid placing too much pressure to this pillar's activities in the coming 7 years.

Governance of the EU missions

Advising policymakers and performing technology foresight feeding into industrial and national strategies is part of RTOs' public missions. As such RTOs certainly have a role to play in the future EU missions as central actors in innovation systems. RTOs will prove to be essential to the well-functioning of Horizon Europe's missions, and should therefore be involved in their governance. EARTO Members are very active in a variety of mission-oriented innovation policies at national, (inter)regional and local level¹. RTOs' experience will therefore be crucial to further define and implement the future EU missions. EARTO calls for more openness towards RTOs direct engagement in the EU missions.

Currently, EU Mission Boards are elaborating their suggestions to the European Commission on the five missions defined in the Horizon Europe's regulation. Soon, these proposals will have to be transformed into new and permanent governance structures. The work done by the OECD Committee for Scientific and Technological Policy (CSTP) with its new project² aiming at providing further understanding on mission-oriented innovation policies could be further utilised to define the future EU missions' governance and implementation.

Current experience and lessons learned with the first EU Mission Boards and Assemblies should be analysed in order to implement an improved governance for the EU missions when they are launched: assemblies have not been used much so far and RTOs' expertise has been underutilised. The involvement of RTOs should be improved in the future governance of the EU missions. Accordingly, the coming EC Communication on the EU missions should set a balanced involvement of the various stakeholders in the governance of the future EU missions, with a specific reference to RTOs, which have proven to be key actors in the European R&I ecosystem. Among others, the governance should be set in such a way as to allow RTOs to provide the proper policy support (e.g. horizon scanning, foresight, strategic and policy process assurance, etc.) to the EU Mission Boards for them to anticipate and not just react to change to societal changes and technology developments as well as to increase the missions' outreach and thereby their legitimacy based on a broader societal support.

Implementation of the EU missions

To be successful, EU missions will need to be implemented leveraging and aligning with other EU Programmes, EU policies as well as linking with national and regional efforts. Horizon Europe's missions must be set up as ambitious shared agendas across public and private actors and citizens, pooling expertise across domains and sectors to jointly deliver concrete changes to society with real impact. Accordingly, EU missions should be set up as:

- **Integrated programmes across Horizon Europe's pillars:** EU missions for now are mainly seen as part of Horizon Europe pillar 2 while they should go over all pillars covering the whole science and innovation cycle. Such narrow scope will limit the speed and directionality effects they could have on R&I investments.
- **Linking the different Horizon Europe and EU policy instruments together in a coherent and integral set.** For example, some of the envisaged 40+ EU partnerships will be instrumental for the future EU missions, and the IPCEIs equally have thematic overlaps with missions. Among others, the EU partnerships will also support the missions into delivering their expected impact on R&I.

¹ [Mission-Oriented Research and Innovation: Inventory and characterisation of initiatives](#) by the [JIIP](#).

² [What is the CSTP project on mission-oriented innovation policies to address societal challenges?](#) by the OECD.

- **Creating synergies by defining clear links with other EU policies** such as the EU Green Deal, the renewed ERA, the new EU Digital agenda and EU industrial policy based on industrial ecosystems and key industrial value chains, the EU Cohesion Policy, and other EU sectoral policies (transport, health, etc.). For that, breaking down silos and ensuring policy coherence are required. Pascal Lamy³, Mariana Mazzucato⁴ and many more emphasised that collaboration is key. Synergies between different programmes are needed and mainstreaming sustainability will become a must in all EU policies.
- **Inspiring and mobilising a wide range of actors together towards a common goal.** Here, ensuring RTOs' participation in the EU missions' implementation will support such efforts. RTOs are by nature integrators operating at regional, national and European levels, having built trusted-based relationships with a wide range of different stakeholders, with a vast experience to dialogue and link cross-disciplinary connections at multi-levels. They can dialogue and link cross-disciplinary connections at multi-levels. RTOs have a great understanding of regulatory and institutional constraints in sectoral policies and are well connected to industry. Indeed, RTOs play a very important role as intermediary or leading actors in piloting system transformations by mobilising both supply- and demand-side dimensions of innovation, integrating societal/citizens perspectives and mediating between regional, national and European levels. RTOs have long term experience in transition management which is essential to implement mission-oriented innovation policies. RTOs could evolve into systemic intermediaries for piloting mission-oriented system transformations maximising the EU missions spill-over effects.
- **Integrating the various layers of decision-making in the EU landscape in order to coordinate actions towards the EU missions' goals.** In this context, EU missions could be a new way of working, building further links between regional, national and EU strategies to support directionality and intentionality of R&I investments. EU missions will be defined at EU level but will not be able to succeed if implemented at EU level only. Involving RTOs in the governance, design and implementation of European missions will ensure the connection of the relevant national and regional initiatives. With a tailored transparent monitoring system, a decision-making process can be supported, increasing the accountability of the new approach, consequently broadening societal support.
- **Linking citizens' engagement and stakeholders' engagement** becomes crucial for missions. With a strong and appealing narrative, including concrete goals, citizens and stakeholders can be inspired and motivated to contribute collectively to the EU missions. Indeed, as key RD&I stakeholders, RTOs can play a pivotal role in the new way of communicating about the future EU missions that takes place through collaboration, co-creation and collective intelligence. For example, RTOs could facilitate and strengthen collaboration with local governments and SMEs at the forefront of smart cities on the meshing of networks (communications, transport and energy) to develop solutions to meet societal needs. Another example, RTOs are used to manage ICT living labs collecting directly feedback from citizens on ICT technology developments and involving citizens as "test-users" of new technologies. RTOs have also co-developed digital platforms for citizen participation (e.g. Decidim) that are already being used by different regional and local administrations.

Evaluation of the EU missions

In its [earlier analysis of the EC Regulation proposal for Horizon Europe](#), EARTO already recommended that a full evaluation of the missions, covering both their focus, performance, Board appointment, governance shall be carried out at an early stage of Horizon Europe. This evaluation should take place to inform and guide the identification and creation of new missions, or the continuation, termination, redirection of the current missions. Indeed, policy reflexivity and strategic flexibility will be required to allow adjusting this new EU policy R&I instrument. The potential unanticipated consequences of missions should also be accounted for. The success of missions should be measurable, assessable and transparent. The coming EC Communication on the EU missions should define guidelines for their future evaluation.

As stated in the Lamy report, "it should be possible, within the appropriate timeframe, to ascertain to what extent the mission has been accomplished. Failure should be allowed, and unexpected spill-over benefits should be encouraged."

³ [LAB – FAB – APP - Investing in the European future we want](#)

⁴ [Mission-Oriented Research & Innovation in the European Union - A problem-solving approach to fuel innovation-led growth](#)

Conclusion

European RTOs are willing to be key partners in the new EU Mission-oriented innovation policy approach and ready to support with expertise and contribute to the major transitions at EU, national and regional levels. EARTO strongly believes that RTOs will have a key role to play in the definition, design and implementation of successful EU missions. RTOs can provide strategic intelligence through horizon scanning and foresight, monitoring and evaluation, support the future direction of missions, provide knowledge needed and make applications possible. RTOs also have a brokerage role, as they understand the policy-making system, including cross-sectors and cross-technologies. They can link different actors and communities as well as change configuration adapting to the mission. RTOs can mediate between national and European/international communities. They engage in network-building with a variety of downstream actors: economy, sectoral policies. Being themselves mission-oriented actors and having national and regional experiences to share on mission-oriented policy, RTOs are key actors of the future EU missions and a much stronger engagement of RTOs in contributing to missions' agenda definition, implementation and evaluation should be organised.

EARTO and its experts remain ready to further discuss with Institutions of all levels the way of setting up missions and mission-oriented innovation policies at large.

RTOs - Research and Technology Organisations: *From the lab to your everyday life. RTOs innovate to improve your health and well-being, your safety and security, your mobility and connectivity. RTOs' technologies cover all scientific fields. Their work ranges from basic research to new products and services development. RTOs are non-profit organisations with public missions to support society. To do so, they closely cooperate with industries, large and small, as well as a wide array of public actors.*

EARTO - European Association of Research and Technology Organisations: *Founded in 1999, EARTO promotes RTOs and represents their interest in Europe. EARTO network counts over 350 RTOs in more than 20 countries. EARTO members represent 150.000 highly-skilled researchers and engineers managing a wide range of innovation infrastructures.*