The Norwegian University of Science and Technology (NTNU) is committed to advancing research, innovation and scientific cooperation on a global scale. As we look to the next phase of European research and innovation funding, we present our input for the upcoming European Framework Programme (FP10). Our position paper outlines ten recommendations to ensure an impactful European research and innovation system with the framework programme as the key implementing feature.
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1 A substantial and ring-fenced budget

Solutions to the severe challenges that Europe and the global community are facing in the present and coming decades, heavily depend on a continued strong research and innovation effort. NTNU strongly advocates for a robust and impactful FP10 with a minimum budget of 200 billion Euros. This is essential for FP10 to effectively address the challenges. Solutions heavily depend on a continued strong collaborative research and innovation effort across Europe and beyond to deliver urgently needed scientific and technological advances.

Furthermore, it is crucial to ring-fence the FP10 budget to prevent annual reallocations for other purposes and initiatives and to ensure long-term and impactful outcomes of investments.

2 A continuation of the previous programme structure

NTNU would like to see the structure of FP10 being shaped in continuity with the ones of its predecessors Horizon 2020 and Horizon Europe. The current structure has proven to provide a clear framework of reference and has demonstrated to be an efficient way to organize research and innovation funding. Substantial changes in the structure would imply high investments cost in researcher's training for R&I stakeholders and could potentially result in a decrease in participation in the initial phase of the programme.

Corrective actions should be considered instead of structural changes to address weaknesses in the current programme structure. In this respect, NTNU would like to see a stronger interplay between schemes and instruments across the current pillars. Instead of discontinuing Pillar III, as some stakeholders are advocating for, we suggest strengthening the research component in Pillar III, as well as bridging Pillar I and Pillar III funding schemes and instruments to increase knowledge valorization and impact.

3 More funding for excellent curiosity-driven collaborative research in Pillars II and III

NTNU supports continued funding of research and innovation in the full knowledge value chain in FP10, from low to high Technology Readiness Levels (TRL). We have seen a development throughout the last Framework Programmes towards higher TRL level activities being prioritized. NTNU strongly advocates for more funding for excellent curiosity-driven collaborative research at low to middle TRL in Pillars II and III.
The former and current European framework programmes have been very successful indeed in bringing together research-performing institutions and stakeholders from the full spectrum of public and private sector actors. **To fully exploit the fundamental knowledge and technology development for innovation, collaborative research projects at low to middle TRL-levels are imperative.** This will strengthen the further development of European innovation ecosystems and directly connect Europe's research capabilities to commercialization and knowledge valorization. Specifically supporting an increase of PhDs in industry and public sector would help knowledge transfer and valorization both in existing companies and in public sector.

There is also a need for a **reassessment of the concept of innovation**, traditionally associated with technological and industrial advances. Innovation must truly encompass the broader dimensions of **social innovation**, innovative public services, and an innovative approach to the role of civil society organizations.

### 4 Reintroducing FET Open and a revision of EIC Pathfinder with a focus on deep tech

NTNU suggests **reintroducing the FET Open scheme** to allow more opportunities for low TRL collaborative research to reinforce the generation of basic knowledge to be used as a solid baseline for the creation of prototypes, products and processes. The scheme should be re-introduced in Pillar I and a proper interplay between Pillar I and II be guaranteed to exploit the generated knowledge.

Furthermore, a **revision of the EIC Pathfinder scheme** guaranteeing appropriate complementarity with the reintroduced FET-Open scheme should be made to create a favourable participation framework for universities as a further support tool for the deployment of the Modern Universities Strategy of the ERA framework.

**Specific actions on deep tech** should be reflected, also taking the need for deep tech talent development in general and in Artificial Intelligence in particular into consideration.

### 5 A continuation of the Missions

NTNU recognizes the pivotal role the Missions can play in addressing societal challenges and supporting the claim for increased investments in research and innovation so solve them. The Missions offer unique possibilities to bring European stakeholders and global players together and
pool resources. **NTNU supports the continuation of the Missions as part of the future framework programme, as an integrated element interplaying closely with the rest of the programme.**

It is premature to expect deliveries and measurable results from the Missions as they have been active only for a short period of time. Still, a careful analysis of the current governance model should be performed, and corrective action taken where necessary. It is in particular imperative to avoid the risk of the Missions devolving into a mere portfolio of disparate projects.

### 6 Optimizing the Strategic Partnerships

Strategic Partnerships have emerged as valuable instruments for fostering collaboration and driving innovation. The overall approach based on openness and transparency underlying the partnerships is commendable, leaving interested stakeholders the choice of how to invest resources and engage.

NTNU finds that there is a **need for a rationalization in terms of the number of strategic partnerships.** Also, an effort should be made in making the participation model more understandable and smoother. This would ensure an increased acceptance of the instruments that can positively impact on their capabilities to attract resources and investments from sources also from outside the Framework Programme.

### 7 Reshaping the EIT KICs

NTNU finds that the role of the EIT as a tool to support the implementation of European policies and strategies should be enhanced and strengthened to better align it with the broader European programming. This will increase the EIT’s interactions with sectoral policies and instruments, making the EIT contribution more visible. We believe that this would help relaunch the perception of the EIT as an important asset in the portfolio of key European R&I instruments.

We would strongly advise that an effort is made to drive **the design of the business and sustainability models of the KICs in a direction that would retain universities as members beyond the end of the Commission `s funding period.** There is a high rate of withdrawal of universities as soon as the KICs evolve towards more business-oriented initiatives. Retaining universities with an appropriate role would make the EIT directly contributing to the achievement of the ERA `s strategic goals, such as those outlined by the European Strategy for University,
focusing on stimulating Universities to increase their contribution to innovation and technology transfer, as well as to life-long learning initiatives requested by the industry.

When it comes to education within the EIT, universities should play a central role in providing formats to generate an adequate number of skilled people and talents, through innovative courses on upskilling or reskilling. In this context, it is key for the EIT to improve the recognition of the EIT label as a certificate of quality that is awarded to excellent educational programmes. The EIT should as well aligned with the relevant Erasmus+ schemes.

8 Widening and strengthening the European Research Area

NTNU supports that FP10 should be open for inclusive participation, to strengthen European research and innovation and contribute to global challenges. Widening and strengthening the European Research Area should continue to be part of FP10. Building scientific excellence should be pursued holistically, where institutions with research and innovation traditions of different maturity can benefit from joint projects and initiatives, exemplified through e.g. the European University Alliances and actions under the ERA Policy Agenda. The widening part of the projects can facilitate investment in national research and innovation excellence building in the EU13 countries.

To enable further simplification, the EEA and Norway Research Grants could be integrated into the Widening part of FP10, with own rules for participation, but utilizing the successful call and grant management structure of the European Commission.

9 Synergies and complementarity between instruments and programmes

FP10 and other European programs such as Erasmus+, Digital Europe, Health4EU, the European Defence Fund and the European Structural and Investment Funds should aim for synergies between the programs and further simplification, as education, research and innovation activities are supported by all the programmes.

FP10 should pursue open science principles and stay as open to the world as possible and closed when necessary. This includes being open to association from countries outside of the EU and Europe, enabling leading global consortiums to join forces on societal challenges.
Furthermore, FP10 should build on a **responsible approach to the dual-use potential** of knowledge and technologies, bearing in mind that universities have an important role in the development of research relevant for both civil and military use.

**10 Advancing Inclusion, Democracy, and Resilience**

As we acknowledge the strategic priorities towards inclusion, democracy, and resilience in Horizon Europe, NTNU wishes to stress the need for further development and extension of these perspectives within FP10. We recommend a **thorough reassessment of the role of inclusion, democracy and resilience in the framework program’s key strategic orientations, pillar structure and cluster combinations.**

We argue that inclusion is simultaneously a paramount goal, and also a precondition for the democratic foundations underpinning the European way of life. The focus on inclusion should range from concerns regarding each individual’s wellbeing, to the broad societal challenges facing Europe in the coming decades.

Europe cannot afford to delay in tackling these fundamental challenges for building an inclusive society. **We endorse the strategic priorities for an inclusive, resilient, and democratic Europe in Horizon Europe and contend that an even more prominent and integrated approach of these priorities should be developed right from the outset of preparations for FP10.**