

Norwegian preliminary input on the next Framework Programme for Research and Innovation (FP10)

Summary

FP10 should contribute to tackling **global and European societal challenges** and help build a Europe that is **excellent** in cutting edge research and technology, **competitive and resilient**. FP10 also needs to be prepared for a **more challenging geopolitical context** and **unforeseen crises and challenges** that will require an immediate response.

- To ensure a competitive **Single Market** fit for the future, there is a need for cooperation and coordination between the EU and the EEA EFTA States on how to better embed research and innovation drivers at the core of the Single Market.
- FP10 should be based on five **key principles**: Excellence, Impact, Fundamental values, European Added Value and Transparency.
- FP10 should build on the three-pillar structure of Horizon Europe.
- FP10 should be a driving force in reaching the **green, digital and just transitions and adaptations**, including the **triple planetary crisis** of climate change, biodiversity loss and pollution.
 - Continue and further develop **missions** in order for them to reach their full potential.
 - Strengthen the **science-policy interface**.
 - Continue to incentivate businesses and industry as well as the public sector to explore and implement **green knowledge and technology**.
- FP10 should aim for a **digital and technological boost** and help realize the potential for future value creation inherent in digitalization, large amounts of data and deep tech.
- FP10 should strengthen preparedness through a **deepening of the knowledge base**, including a strengthening of the ERC and the inclusion of '**Research Actions**' at lower TRL-levels in pillar 2.
- **Synergies with education and industry policies** should be significantly improved in FP10, as well as with sectoral EU-programmes relying on research and innovation.
- It is important to safeguard **strategic autonomy** and to promote research security, but **openness to international cooperation** should be the main principle.
- **Fewer and more targeted partnerships** based on simpler procedures and a better balance with **collaborative research projects** should be considered.
- Instruments in **support of innovation** should be strengthened, streamlined and rationalized, and fast track instruments should be established to link pillar 1 and 2 projects to innovation instruments in pillar 3.
- FP10 should prioritise a strategic alignment with European Research Area policies.
- Maintaining a persistent goal of **simplification** of instruments, administrative rules and procedures is necessary.
- **Co-design and co-creation** should be continued and further developed in the implementation of FP10, including for its strategic plans.

Introduction

Norway participates in all parts of the current Framework Programme, Horizon Europe, and the European Research Area, as well as ten other EU-programmes.

1 January 2024 marked the 30th anniversary of the Agreement on the European Economic Area (EEA Agreement), which covers the four freedoms of the Single Market with equal competition and State aid rules – as well as flanking and horizontal policies related to research and innovation (R&I), education, social policy and the environment. The EEA and Norway grants contribute to cohesion targets and strengthen R&I cooperation between the EEA EFTA States and beneficiary Member States.

The cooperation fostered by the EEA Agreement has strengthened the EU and the EEA EFTA States. To ensure a Single Market that is competitive, resilient and fit for the future and to implement a just green and digital transition, there is a need for close cooperation between the EU and Norway, including in research, education and innovation. The Green Alliance signed between EU and Norway complements the EEA Agreement and focusses on strengthened cooperation in areas such as hydrogen, CCS, wind power, green shipping, R&I and education.

This paper presents the Norwegian perspective on how FP10 might be structured for the benefit of Europe. It is based on consultations with Norwegian ministries, agencies, research performing institutions and other actors engaged in EU R&I activities.

Key principles for FP10

Norway believes FP10 should be based on the following key principles:

- 1) **Excellence:** Excellence should continue to be a main principle for R&I funding, based on competitive calls. FP10 must attract the best minds and ideas in Europe and globally.
- 2) **Impact:** FP10 should have a continued focus on impact encompassing cutting-edge research, technological breakthroughs, innovative solutions to societal challenges and enhancements in productivity and competitiveness.
- 3) **Fundamental values:** FP10 must be based on and promote fundamental values, as described in the ERA Pact for R&I, i.e. ethics, integrity, open science, gender equality and inclusiveness, and scientific freedom.
- 4) **European Added Value (EAV):** FP10 should focus on objectives, programme areas and actions that create value beyond what is achievable at the national level, while complementing and strengthening national priorities. Considerations of EAV should guide choices and priorities in all stages of the design and implementation of FP10.
- 5) **Transparency:** Transparency is a prerequisite for a well-functioning coordination process between the Commission, Member States, EEA EFTA States and other associated countries in FP10, and for a successful implementation of the programme.

Main messages on FP10

FP10 should contribute to a Europe that is excellent in cutting edge R&I and technological development. The Programme should generate the knowledge and preparedness we need to meet long-term challenges, handle acute crises and create a sustainable and democratic

society. Open science is a prerequisite for efficient R&I-collaboration across disciplines, sectors and countries.

To ensure a high societal and economic impact, Norway believes that the following main messages and recommendations should be considered for FP10:

1. Concentrate resources on the most important research and innovation areas based on European Added Value (EAV)

FP10 should be an integrated programme for R&I that builds on the three-pillar structure of Horizon Europe. **Resources in FP10 should be concentrated on the most important R&I areas based on subsidiarity and EAV.** Some of the clusters of Horizon Europe have a high number of sub-priorities, thus stronger prioritation should be looked into ahead of FP10.

The priorities of FP10 should be as stable as possible in the implementation of the Programme. FP10 must also be flexible in responding to shifting global developments and unforeseen crises. Redirecting funding to new priorities or other programmes' strategic objectives should however only be done in exceptional circumstances, following consultations also with EEA/EFTA States.

2. Continue the focus on transformative R&I policy

European and global cooperation to tackle common challenges should be a main priority in FP10, with a focus on driving the necessary transitions and adaptations, especially the green and digital transitions. FP10 should continue to enable business and industry as well as the public sector to explore and implement green and digital knowledge, -technology and -innovation. R&I-efforts related to healthy and sustainable use of **seas and oceans** should be continued and strengthened, with a special focus on the **Arctic and coastal areas**.

A main challenge in the transition from a linear to a circular economy is to address the **triple planetary crisis** of climate change, biodiversity loss and pollution. Climate, nature, land and energy must be approached in a holistic manner with a view to synergies and to help reduce conflicting objectives. Furthermore, R&I is key to develop tools and knowledge required to face the labour and skills shortages that is on the rise across the EU and EEA EFTA States. FP 10 should contribute to solving this growing and underlying societal challenge.

To achieve this, the following measures should be adressed:

- The EU-missions should be further developed , to reach their full potential. Each EU-mission should include a **R&I-pillar** supported by FP10, as well as an implementation pillar which must be supported by relevant sectoral EU-programmes.
- The **science-policy interface** should be strengthened in FP10 for governments to be able to respond better to societal and economical needs.
- The interplay between R&I and **education and skills** must be improved to ensure successful transitions and increased competitiveness.

- **Social Sciences and humanities, end-users and the citizens**, being essential to the development and implementation of new knowledge, solutions and technologies, should be integrated in all transformative activities of FP10.
- **Smaller scale, explorative projects** with less detailed demands for specific activities should be introduced within challenge-oriented calls to let researchers and innovators test creative ideas on a smaller scale.

3. A digital and technological boost

A digital and technological boost, including quantum, advanced materials, clean technologies and bio-tech, is fundamental to innovation and competitiveness and for addressing the green transition and global challenges. Digitalisation is highly relevant to an efficient and well-functioning public sector. **Artificial intelligence** offers new tools for tackling societal challenges and should be a cross-cutting theme in FP10.

To achieve this, the following measures should be addressed:

- FP10 must contribute to realize the potential for future innovation and value creation, both in the public and private sector, inherent in the **large amounts of data** generated through increased digitalization, including internet-based research networks and a shared network of computing power/supercomputers.
- FP10 should support the **digital infrastructure**, which research and technology infrastructures depends on to work efficiently, including the European Open Science Cloud (EOSC).
- Proper **infrastructure** is essential also for the development and deployment of AI.
- Multidisciplinary R&I, education and skills development is needed to **mitigate negative impacts** of increased digitalisation on society, climate and nature.

4. Pay more attention to long-term challenges and opportunities

The next Framework Programme needs to find a **better balance between directionality and research that does not necessarily solve current challenges**, but may be relevant to solving new and unforeseen challenges. Collaborative projects with a basic research orientation at TRL levels 2-3 can be ground-breaking for technological innovations and make important contributions to solving societal challenges. Cooperation with industry at lower TRL-levels could make important contributions to increased competitiveness.

ERC-funded projects and thematic projects that link to research infrastructures can lay the foundation for unexpected breakthroughs and innovations that contribute to resilience and transformation of industries and societies. ERC and MSCA contribute to the education of scientists, fostering a deeper understanding of scientific principles and critical thinking skills.

To achieve this the following measures should be addressed:

- FP 10 should include lower TRL levels in pillar 2 through calls for **‘Research Actions’** to complement the existing instruments.
- The budget of the **European Research Council** should be strengthened and then ringfenced.

- Stronger links should be ensured between **research infrastructures and the thematic priorities of FP10**.

5. Strengthen synergies and complementarities

There is an untapped potential for synergies both within Horizon Europe, between Horizon Europe and other EU-programmes, as well as with national R&I programmes. Synergies with **education and industry policies** should be significantly improved in FP10, as well as with **sectoral EU-programmes** relying on research-based results and innovations.

To achieve this the following measures should be addressed:

- Synergies and complementarities should be clearly outlined in relevant EU-programmes at policy, program and operational levels to maximize the effects of the total R&I-investments.
- Instruments and policies leveraging national, regional and private R&I-investments should be improved and strengthened where the EAV is high, including in research and technology infrastructures, missions and partnerships.
- Strategic initiatives to realize synergies and complementarities, including ‘**synergies by design**’ activities, should be included in the strategic plans of FP10.
- In order to have a better take-up of R&I results through other EU-programmes and at the national and regional level, an emphasis should be put on **knowledge valorisation**.

We support to explore the potential for increased synergies between **dual use civil and defense technologies** in the next MFF. It is however important that FP10 remains a predominantly civilian programme. We see challenges in delineating and defining dual use technologies and are thus reluctant to create a dedicated instrument with a specific focus on dual-use R&I. Efforts in dual use should not distract from sustainability goals in general and have a clear sustainability dimension themselves.

6. Strategic autonomy is needed, but openness to international cooperation in R&I should be the main principle

Norway recognizes the need to **safeguard strategic autonomy** and to promote **research security**. However, the rapidly changing international context and security situation should not result in closing off the Framework Programme to international R&I cooperation. International cooperation remains a prerequisite for solving global challenges and attracts world-class talent to Europe.

Any measure developed or employed in FP10 should be designed and implemented so that they do not jeopardize the possibility of R&I-cooperation between entities from the EU Member States and the EEA EFTA States to strengthen the Single Market.

7. Reconsider the balance between partnerships and collaborative projects

The European partnerships in Horizon Europe are vital for collaboration between the R&I- and the private- and public sector, but the current landscape is still too complex and the rules

of procedure/conditions should be simplified and streamlined. Calls for collaborative research projects are less complex processes than establishing new partnerships and can more easily be directed at new challenges and opportunities.

To achieve this the following measures should be addressed:

- **Fewer and more targeted partnerships** should be explored, including a stronger focus on global, technological leadership. This could lead to a **better balance** between the amount of funding channeled through partnerships and ordinary calls for collaborative projects and research actions.
- **Transparency and simplification** in the establishment and implementation of the partnerships are needed.

8. Streamline instruments in support of innovation

FP10 must fund more breakthrough- and disruptive R&I-projects, based on a portfolio approach.

To achieve this the following measures should be taken in FP10:

- To ensure synergies and impact within and between the pillars of the programme, **fast-track instruments** should be established to link pillar 1 and 2 projects to innovation instruments in pillar 3.
- The broad research approach of EIC-Pathfinder, which underpins the breakthrough technologies, should be continued.
- To streamline the lab-to-fab journey of breakthrough technologies stemming from tools like EIC Pathfinder, ERC, and pillar 2 Research Actions, we support strengthening **EIC-Transition funding**
- To meet the **risk capital requirements** for high-risk, applied projects that promise substantial gains and commercial breakthroughs, we support strengthening **EIC-Accelerator funding**.
- The current instruments for **innovation ecosystems** need adjustment. The EIT has underperformed, EIT-KICs are partner-centric and therefore not accessible to the wider ecosystem. We recommend improvements and continuation of the EIC and EIE, incorporating effective elements from EIT.
- Look into possible **overlaps between innovation instruments** in different EU-programs with a view to rationalization.

9. Ensure strategic alignment between the European Research Area and the Framework Programme

There should be better complementarities and synergies between funding measures in FP10 and non-funding measures in support of ERA. This should be based on a **continuous strategic alignment** between the activities of ERA and FP10, in particular as regards the missions, partnerships and research and technology infrastructures. FP10 should support the implementation of ERA priorities and vice versa.

To achieve this the following measures should be addressed:

- A **horizontal activity on ERA** should be continued and strengthened in FP10.

10. Simplify instruments and reduce the administrative burden

Work on simplified and streamlined landscape of R&I initiatives must continue to be a goal, something that will increase the attractiveness of participating in FP10. This entails that new R&I instruments should only be introduced after careful consideration, avoiding overlapping with existing instruments. There should be a user-oriented approach in FP10, with comprehensible digital tools.

Governance and implementation

It is important to ensure a **smooth transition from Horizon Europe to FP10**. Key supporting documents and guidance for participants should be accessible at the start of the Programme. **Co-design and co-creation should be continued and developed further**. Member States, EEA EFTA States and other associated countries should have a key role in defining the strategic directions and their implementation, together with the Commission. The current collaboration on **strategic plans is a good model for FP10 in for defining strategic priorities** and their implementation.