

The Netherlands' vision paper on the future EU Framework Programme for Research and Innovation ('FP10')

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Summary

Europe faces a wide array of societal challenges which are too big and complex for Member States to solve individually. Moreover, countries around the world are increasing their investments in new knowledge and technologies, on which Europe is increasingly dependent. In order to be ready for the future, Europe needs to remain competitive and strengthen its open strategic autonomy. This requires **investing in cutting edge research and innovation**. Europe already has a strong base. Now it is crucial that Europe takes a leap forward in competition with the rest of the world, while continuing to cooperate openly, strategically and safely globally.

The European Framework Programme for research and innovation (R&I) plays a crucial role here. The Netherlands believes the next Framework Programme (FP10) should raise the bar as high as possible. For Europe to strengthen its open strategic autonomy and to contribute to solving societal challenges, it needs to be able to compete with the rest of the world and belong to the global best. Therefore FP10 should support the **most excellent research and innovation projects, with the largest impact**.

FP10 should continue to fund the **full spectrum of knowledge development**: from fundamental research, to applied R&I and commercialisation. These elements are all indispensable for a thriving society and economy, both in the short and long term. This requires **further support for successful flagship instruments** such as the European Research Council, the European Innovation Council, strategic European partnerships and more attention for implementation of the results of research and innovation and market uptake.

In order to enhance societal impact, open strategic autonomy and European competitiveness, more focus is needed on **strategic research priorities and technology areas**. Around these areas, more and stronger cooperation between ecosystem players such as universities, startups, small and large companies, research organisations, governments and investors is necessary to increase impact. These types of organisations cooperate closely within R&I ecosystems, in which they collectively create and valorise knowledge. FP10 should better **capitalize on the power of R&I ecosystems**. In order to increase the leverage of scale benefits, **R&I ecosystems need to become better mutually connected at European level**. This should improve Europe's position in navigating the ever growing challenges of today and the future.

Disclaimer

With this vision paper, the Netherlands explicitly does not want to anticipate the yet to be determined position of the Netherlands on the next Multiannual Financial Framework (MFF) from 2028. It says nothing about the continuation of specific funds or budgets in Europe or the Netherlands, nor about the governance surrounding the deployment of future funds in the Netherlands. The overarching MFF position is leading in the event of conflicting formulations.

1. FP10's unique added value in the societal, economic and geopolitical context

The pressing need to deal with complex societal challenges and changing geopolitical circumstances, underline the urgency of European cooperation. The importance of knowledge, research, science, technology and innovation has grown in light of these challenges. European prosperity, well-being, and security can no longer be taken for granted. Moreover, it is increasingly clear that countries do not hesitate to use economic relations as a geopolitical weapon. Knowledge and technology are increasingly regarded as strategic assets within the context of global competition and collaboration and play an important role in ensuring a secure and democratic Europe.

EU research & innovation (R&I) investments (2.23% of GDP) lag behind those of China (2.41%) and the US (3.41%)¹. As a result, Europe's leading position in strategic research and technology areas is at risk, despite the excellent starting position of EU Member States, including the Netherlands, with leading knowledge institutions and high-tech companies that are among the world's best.

The global race in R&I and the need for addressing societal challenges underscore the importance of a strong commitment to European R&I cooperation in addition to solid national and private commitment.. European investments through the EU Framework Programmes (FPs) for R&I have been invaluable for European R&I cooperation for decades. The current circumstances call for an unabated consolidation of this trend and hence the development of an ambitious next, tenth Framework Programme for R&I, 'FP10'.

Stimulating scientific and technological leadership through the FP enables Europe to jointly develop and implement large-scale new solutions, preparing Europe for dealing with future crises. This is required because the interdisciplinary challenges we face are becoming increasingly large-scale and cross-border in nature. Examples include challenges related to safety, sustainability, health, climate, food, energy, digitalisation, civil security and socio-demographic transitions.

An ambitious FP is also necessary to ensure that the EU maintains or achieves a high degree of autonomy in strategic research and technology areas, as pointed out by the Strategic Agenda 2024-2029 of the European Council². This should prevent or reduce high-risk strategic dependencies on third countries, without isolating the EU from the rest of the world.

Last but not least, strengthening the scientific and technological capacity of the EU is urgent in order to improve European competitiveness. R&I stimulate economic growth, increase the human capital of the workforce and the quality of jobs, and promote well-being in the EU³. Additionally, the FPs play a key role in improving productivity growth and prosperity in Europe⁴. Furthermore, as Enrico Letta underlines in his recent report⁵, embedding research and innovation drivers at the core of the single market fosters an ecosystem where knowledge diffusion propels both economic vitality and societal advancement. R&I and the next FP should therefore be put at the heart of the EU's future competitiveness and the single market⁶

¹ R&D expenditure, Eurostat (2024). [R&D expenditure - Statistics Explained \(europa.eu\)](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1)

² European Council, Strategic agenda 2024-2029. https://www.consilium.europa.eu/media/4aldqf12/2024_557_new-strategic-agenda.pdf

³ European Commission, Directorate-General for Research and Innovation, Mitra, A., Canton, E., Ravet, J. et al., The added value of European investments in research and innovation, Publications Office of the European Union, 2024. <https://data.europa.eu/doi/10.2777/682623>

⁴ For every euro spent under Horizon 2020, it is estimated that the programme generates benefits of five to eleven euros for EU citizens. European Commission (2024). Directorate-General for Research and Innovation, Ex-post evaluation of Horizon 2020, the EU's Framework Programme for research and innovation. https://research-and-innovation.ec.europa.eu/knowledge-publications-tools-and-data/publications/all-publications/final-evaluation-horizon-2020_en

⁵ Letta, E. Much more than a market (2024). <https://www.consilium.europa.eu/media/ny3j24sm/much-more-than-a-market-report-by-enrico-letta.pdf>

⁶ Europe's Choice. Political Guidelines for the next European Commission 2024-2029. [e6cd4328-673c-4e7a-8683-f63ffb2cf648_en \(europa.eu\)](https://ec.europa.eu/e6cd4328-673c-4e7a-8683-f63ffb2cf648_en)

2. Main principles and considerations for FP10

FP10 should build upon the successes of and learn from its predecessors. The Netherlands considers the following elements as principal drivers of the development of FP10.

Excellence and impact

It is crucial to maintain excellence and impact as the main criteria by funding only the best R&I proposals with the most potential for scientific, societal and/or economic impact. By rewarding excellence, the FP stimulates competition within the European R&I community, thereby enhancing the quality of R&I in Europe and strengthening the EU's position as scientific and innovative leader at the global stage. This is what makes the FPs such a success: it attracts top researchers and innovators, and funds the strongest proposals and brightest ideas. This contributes greatly to strengthening Europe's competitiveness at the global level, by encouraging excellent valorisation: the development of high-quality research-based products, services, and technologies that can compete in international (growth) markets of the future.

Fostering collaboration across the entire knowledge chain

Supporting R&I across the entire knowledge chain in FP10 enables a continuous flow of new discoveries and solutions. This requires an FP that caters to all types of R&I: from fundamental to applied R&I and commercialisation, and from curiosity-driven to challenge-driven R&I. Addressing the full range of Technology Readiness Levels covers the discovery and development of tomorrow's technologies and solutions, as well as the demonstration and deployment of more mature R&I results. Where relevant, the FP should also focus on R&I procurement. Focusing on the entire chain promotes the necessary collaboration between different actors, also within and between R&I ecosystems, such as higher education institutions, including universities of applied sciences, research organisations, large companies, SMEs, investors, governmental organisations and (also public) end users as well as societal organisations.

R&I ecosystems can be regarded as thematic communities which collectively create and valorise knowledge, from fundamental research towards market introduction. Their strength derives from the inherent collaboration between the organisations involved, based on common goals and long-term relations. Complex R&I challenges furthermore require an interdisciplinary and comprehensive mix of knowledge, expertise, disciplines and research to create new and integrated solutions. The Social Sciences and Humanities (SSH), as well as arts and design disciplines, are necessary for the development and implementation of new knowledge and transformative solutions. Innovation also includes social, legal, cultural and/or ethical dimensions. Ideally embedding SSH across the FP ensures that social implications are taken into account within the innovation cycle and results get taken up by society.

Open, strategic and safe worldwide cooperation

Global partnerships are crucial for the impact of European R&I worldwide. The Netherlands supports efforts to promote open strategic international collaboration with non-EU partners, based on excellence, impact, shared values and reciprocity. European researchers and innovators need access to excellent knowledge and must be able to collaborate with the best partners, both within and outside the EU. At the same time, the principle of 'as open as possible, as closed as necessary' should continue to mitigate risks related to knowledge security. In line with the ambitions of the Council Recommendation on enhancing research security⁷, this requires a nuanced and case-by-case approach. Through international collaboration, the FP promotes European values such as open science, academic freedom, gender equality, diversity and ethics. These efforts, also within the context of the European Research Area (ERA), make Europe attractive for top talent to work and further develop, thereby strengthening its position as a world leader in R&I.

The open strategic autonomy of the EU, as well as its ability to take more responsibility for its own security, are important priorities. Therefore the Netherlands is positive towards the Commission's initiative to explore various options to facilitate cross-fertilisation between civil and defense-related R&D programmes. Simultaneously, the EU needs to carefully analyse and discuss the potential impact of the proposed options to broaden the scope of the FP to allow for dual-use research, for instance in view of the desired openness of the programme.

R&I at heart

The FP should exclusively focus on R&I activities, including coordinative actions, while encouraging private investments as much as possible. It should support both technological and non-

⁷ <https://data.consilium.europa.eu/doc/document/ST-9097-2024-REV-1/en/pdf>

technological research and innovation. By providing necessary R&I solutions, the programme forms a strategic foundation for overarching EU policy goals. The FP should be regarded as the bedrock on which progress towards overarching policy goals and further market deployment should be developed through synergies with other sectoral EU policies and programmes, for example the current Digital Europe. Firmly based in R&I, the FP can contribute to these important goals, such as strengthening the EU's future competitiveness, ensuring a secure and democratic Europe, enhancing the well-being of citizens and mitigating impacts of demographic change, leveraging the single market and advancing the green and digital transitions. This model ensures a clear role and position of the FP and its budget separate from, but at the same time in synergy with other instruments.

A stable foundation built on proven success

The existing pillar structure provides a good basis to build on. The Netherlands remains a strong advocate of an independent **European Research Council (ERC)** with competitive grants. The ERC has proven to be the main driver of patents within the FP, thus laying the groundwork for an innovative Europe. In addition, the essential role of the **Marie Skłodowska-Curie Actions** in training the next generation of talented researchers and innovators capable of crossing boundaries should be safeguarded.

Also the **European Innovation Council (EIC)** should be continued with competitive grants and equity. The EIC is crucial for startups to identify, develop, and scale up breakthrough innovations and transforming them into new products and services. Despite its short existence the EIC has already strengthened the EU's competitive position. Moreover, solutions for persisting challenges relating to serious follow-up investments for deep-tech companies should be explored beyond the EIC alone, looking at the broader EU risk funding landscape for start-ups and scale-ups. For instance through better links between EIC, InvestEU, EIB Group, and national promotional banks and institutions. Reinforcing the EIC should also be explored by integrating similar activities of the European Institute of Innovation and Technology (EIT).

Research infrastructures (RIs), including (e-)infrastructures, facilitate scientific and technological progress by pooling networks and (digital) resources, providing access to state-of-the-art research, data and computing facilities. FP10 should continue to support the development, upgrading, and consolidation of the excellent pan-European RI-landscape. New opportunities combined with a sufficient coverage of research domains should be strived for, for which an essential condition is the support for operational costs. Not only RIs, but also **Technology Infrastructures (TIs)** should play a more central role within FP10, linking R&I together with industrial policy, given their crucial role in technology development through testing and scaling up new and innovative technologies by providing relevant facilities, equipment, capabilities, and support services. Both in their own distinctive way, RIs and TIs are essential enablers of research, innovation and valorisation.

Collaborative projects in the current second pillar of Horizon Europe, and **strategic public-public and private-public European partnerships** in particular, are crucial for addressing societal challenges, achieving impact and, importantly, leveraging private investments. In this respect, the European Partnership on Innovative SMEs forms an interesting example of a successful instrument for bottom-up market-driven R&I projects, that stimulates international cooperation and private investment. These successful flagship instruments, of which also the European High Performance Computing Joint Undertaking is a prominent example, should be continued in FP10 in order to further build on their success while providing stability, predictability, and user-friendliness for the European R&I community.

3. Greater strategic focus to create scale and impact

As a rule, the FP should focus on complementary efforts that cannot be undertaken by individual Member States. Complementarity also entails that targeted investments in the FP supplement necessary national investments in a broad knowledge base. Simultaneously, complementarity involves coordination and synergies between the FP and national levels concerning the strategic R&I agendas deployed. For maximum EU added value, FP10 should promote open competition, transnational cooperation and networking, as well as create the necessary critical mass to leverage the European scale. In this way, impact is maximised.

Creating critical mass and scale to ensure more impact requires thematic choices in the top-down driven parts of the FP. Therefore, it is of paramount importance to invest more selectively in those strategic research priorities and technology areas that contribute the most to societal impact, strengthen European competitiveness and/or foster open strategic autonomy. A visionary, strategic planning process involving the Commission, Member States, and public and private stakeholders at an early stage should define the strategic research priorities and technology areas⁸. This should lead to an increased focus within thematic instruments across the board. Specifically with regard to the partnerships, focus should also be applied through carefully reviewing its ideal number and size and by making their implementation much more simple and effective.

Strategic portfolio management is helpful to promote synergies and complementarity in relation to more bottom-up driven programme parts. This requires more centralised strategic intelligence of activities that are being undertaken, which in turn will contribute to making well-informed, conscious choices in the top-down pillar and its instruments, for example on whether to further develop existing projects or launch new ones. This would promote improved connections and synergies between the pillars and different instruments and the uptake of research results across the programme.

Strategic research priorities and technology areas require more and better cooperation between the multitude of R&I ecosystem actors across the entire knowledge chain. Consequently, capitalizing on the power of ecosystems should become easier within FP10, in order to better facilitate valorisation. Requirements for calls and projects should better accommodate the dynamics within R&I ecosystems. By enabling project participants to involve ecosystem partners throughout the lifecycle of a project, the contribution of relevant partners such as SMEs, universities of applied sciences, (governmental) end users or investors can be better used. Removing administrative barriers that prevent smooth collaboration between ecosystem partners should be a priority.

Investments in FP10 should target focus areas that are most in need of pooling of resources and coordination at European scale so that connected R&I ecosystems are created. Europe possesses a multitude of thriving ecosystems that surround the widely spread (thematic) pockets of excellence across the continent. Other European (e.g. those under Cohesion Policy), national and regional investments in R&I and favourable conditions should allow them to emerge in the first place. In order to maximise impact, a leap forward is required in connecting improved and their development further strengthened based on excellence and impact. Encouraging further specialisation and cooperation may also encourage a more efficient allocation of scarce talent and human capital across the EU. Ultimately, such pooling of efforts across the whole of Europe should lead to more interconnected European R&I ecosystems around specific strategic research priorities and technology areas that can compete and collaborate at the global level. These individual ecosystems at European level through the FP, so that mutual collaboration can be

This ambition requires a better targeted, long-term funding approach in top-down driven thematic instruments. Importantly, research infrastructures and technology infrastructures should be integrated in this approach, emphasizing their distinctive, central role in enabling and promoting collaboration and innovation within R&I ecosystems. The positive elements and lessons learned of the current EU missions instrument, such as its emphasis on regional and local involvement and impact, would benefit an ecosystem approach in FP10. The programme should allow for customisation and flexibility, including in terms of project sizes, level of prescriptiveness and TRL levels to be addressed, based on the specific needs and characteristics of each project. In order to make the right choices, coherence and additionality with other projects at the ecosystem level should be pursued.

The Netherlands looks forward to engage in a constructive dialogue with the European Commission, Member States and stakeholders in the preparation of FP10.

⁸ The Netherlands' National Technology Strategy, which prioritises 10 key enabling technologies, is a useful example of a strategic long-term R&I agenda co-created by (the Dutch) government and stakeholders.