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From: General Secretariat of the Council
To: Delegations
Subject: ERAC Opinion on Guidance for the next Framework Programme for Research & Innovation

European Research and Innovation Area Committee (ERAC) delegations will find in annex the ERAC Opinion on 'Guidance for the next Framework Programme for Research & Innovation (R&I)', as adopted by ERAC at its plenary meeting on 26 June 2024.

ERAC Opinion on Guidance for the next Framework Programme for R&I (ERAC Opinion on FP10)

Synopsis

Context

The current state of the world, with its multiple crises and complex challenges, requires that the EU strengthens close cooperation in research and innovation (R&I) to create much-needed knowledge and deliver robust, R&I based solutions to societal challenges. Furthermore, to enable the emergence of a knowledge- and data-based economy fit for the future, R&I should be a central dimension of the EU's future strategy for competitiveness and the single market. Additionally, due to concerns about the EU's strategic autonomy, security and technological sovereignty, R&I needs to become a strategic policy domain for the EU.

The current Framework Programme (FP) and its predecessors have become the cornerstone of Europe's R&I policy, delivering excellent science and innovation, enhancing the EU's competitiveness, fostering talent and achieving impact by addressing societal challenges. But, as we have seen during recent years, the effect of the FPs goes beyond delivering R&I results. The FPs contribute substantially to maintaining and strengthening European values and its global reputation as a free, open and values-based market economy. The European added value of the FP is very high with R&I benefitting particularly from excellent transnational European and international cooperation and openness. In addition, the FP contributes to the advancement of the European Research Area (ERA) and the 'fifth freedom' as a result of its growing importance as a policy instrument that promotes an attractive working environment for R&I talent beyond its traditional function as a mere R&I funding programme.

This synopsis encompasses the European Research Area and Innovation Committee (ERAC) strategic policy orientations to help shape the next Framework Programme (FP10). The full text and recommendations can be found in the Opinion.

Strategic Policy Orientations for FP10 from ERAC:

- Continue the success of Horizon Europe and fund the most excellent researchers and innovators based on open competition and maintain and strengthen successful instruments. Improve the programme where needed, including the sunsetting of instruments that are no longer relevant or appropriate.
- Achieve policy objectives by addressing the whole R&I value chain, enabling more effective synergies between the pillars and by striving for the most effective balance between curiosity-driven basic and fundamental research, directional, applied and mission-oriented R&I and support for all types of innovation including for start-ups, SMEs and scale-ups. For example, new collaborative Research Actions should be introduced in the work programmes to cover the whole R&I value chain. Also, include calls that set out challenges and problems to be addressed and strengthen the role of SSH.
- Improve co-creation between Member States and the Commission to better identify and select the R&I priorities for FP10 with a more effective coordination of ambitious EU and national R&I priorities. This calls for an early and improved consultation process of Member States, Associated Countries and stakeholders. Priority-setting procedures and strategic planning need to be reformed to enable early and continuous involvement of Member States.
- Ensure an ambitious approach to leverage national, regional and private investments in R&I, by improving and strengthening jointly funded instruments and policies. Examples include better embedding research and technology infrastructures in the thematic clusters, adapting the governance of the missions and improving partnerships. Embed knowledge valorisation by improving the connection between regional, national and EU wide R&I ecosystems.
- Ensure synergies with policies such as education and industry, as well as EU funds and programmes relevant to R&I. FP10 should be exclusively dedicated to financing R&I so that the take up and deployment of R&I results is maximised.
- Strategically align ERA policy and FP10 to optimise the potential and opportunities to implement the ERA (such as open science and gender equality). Ensure the EU attracts and retains R&I talent and skills.
- For a strong EU, continue to address the need to capitalise on the full potential for excellence across the EU, by connecting pockets of excellence within the programme and improving efficiency and effectiveness for the benefit of the EU as a whole.
- Be a major contributor to a strong EU in the global arena, by continuing international cooperation, while mitigating the risks related to research security.
- Become more attractive for excellent R&I actors across the EU and beyond by substantially reducing the administrative burden and enhancing simplification for applicants and beneficiaries.

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Introduction and context

This Opinion on the tenth Framework Programme (FP10; running from 2028-2034) by the European Research Area and Innovation Committee (ERAC) is a contribution to the deliberations on the future direction of the European Union's Framework Programmes for Research and Innovation (R&I). As provided for under its mandate, ERAC agreed in September 2022 to establish an ERAC ad-hoc Task Force to develop early strategic advice to shape the next Framework Programme (FP). This ad-hoc temporary Task Force on "Guidance for the next Framework Programme for R&I" had extensive discussions between most Member States, EEA EFTA States and the European Commission, informed by reflections from European stakeholders, the OECD, the European Innovation Council (EIC), the European Research Council (ERC), and the ex-post evaluation of Horizon2020 with the consultation process supporting this evaluation and the interim evaluation of Horizon Europe. It does not necessarily reflect the full breadth of individual positions or the position papers of Member States nor does it pre-empt the negotiations on FP10 and/or the Multi-annual Financial Framework (MFF) as a whole.

Text boxes have been added to indicate where available information or the mandate was limited or the points of views between the ERAC members too diverse to come to a shared view.

Budget

The available budget for FP10 is an important factor of the feasibility of the proposed elements within this Opinion. Discussions about the budget do not fall within the scope of this Opinion since this will be discussed as part of the next MFF. An adequate budget for and stability of the FP is necessary, but this Opinion does not specifically elaborate on what the budget should be.

Part 1 - ERAC's vision: Europe as a global R&I powerhouse by 2034 and beyond

Over the years, the FPs have become the cornerstone of EU R&I policy. They have gradually evolved, expanding in scope as well as becoming more and more ambitious. They have served as the EU's main instrument for generating world-class science and breakthrough innovation, fostering talent, enhancing Europe's competitiveness and addressing the EU's policy priorities and societal challenges while creating value for European citizens, the economy and society. The FPs have contributed to the realisation of the European Research Area (ERA). They have promoted open international R&I collaboration while committing to shared fundamental values and principles.

Building on and continuing the proven successes of its predecessors, the next FP10 should take an even stronger leading role to promote EU competitiveness and the single market by offering solutions and responding to the challenges and emerging priorities of our times- today's world is facing multiple simultaneous unprecedented crises. To do so effectively, R&I should play a greater role in EU strategic priorities. For instance, the 6th Intergovernmental Panel on Climate Change (IPCC) report has underlined the urgency of tackling climate change as well as the necessity to create ways to adapt to its inevitable impact. The pursuit of a green, digital and just transition for the future sustainability and prosperity of Europe's economy and society requires Europe to make strategic policy decisions and specific choices on where to invest. The contribution of R&I is essential to tackle major societal challenges, achieve a successful digital transition and strengthen European resilience and competitiveness, especially in the changing geopolitical context. At the same time investment in knowledge creation and frontier research realised in a bottom-up manner is critical to respond to Europe's needs in the long run. Furthermore, the current geopolitical context and increasing geo-economic competition, also in neighbouring countries, has a tremendous impact on the political landscape and on the way we approach international cooperation. The need to strengthen European leadership and open strategic autonomy in key and emerging technological domains has become even more urgent than before.

FP10 should be an R&I nexus for other EU policies and initiatives, exclusively dedicated to funding R&I activities. It should furthermore help to promote European democracy and societal development by providing scientific evidence for important topics, including assisting in tackling misinformation and disinformation.

FP10 should contribute to a better life for European citizens through science-informed policies and added societal value brought by R&I. FP10 should foster the creation of job opportunities and a stronger and more resilient EU economy. The EU should become an innovative hotspot for companies to invest in development and early deployment of cutting-edge and emerging technologies. By providing required solutions to urgent challenges, FP10 will enable the EU to position itself as a global R&I powerhouse and trend-setter in strategically addressing complex societal challenges to 2034 and beyond.

The ever-changing context for R&I shapes the important role that R&I has to play in Europe's future. Long-term international cooperation and investment in the full spectrum of R&I, as well as a stable and predictable framework for R&I financing during the whole programming period, are paramount when preparing such a future for Europe. If Europe does not adequately invest in R&I, it will ultimately lead to the loss of talent, skills and jobs and affect our quality of life and internal market. In the short term this means that Europe needs a robust, resilient and ambitious FP10 with the necessary European added value and critical mass, based on excellence and impact in open competition.

To achieve this vision for 2034 and beyond, an even more ambitious, globally competitive effective and efficient R&I programme than its predecessors is necessary, focussed on tackling the most complex challenges and seamlessly working hand in hand with other sectoral European and national programmes to address these challenges.

FP10 should therefore be built upon the following six overarching principles:

1. Facilitate and enable excellent transnational R&I cooperation

Like with its predecessors, transnational cooperation and excellence in R&I should remain the cornerstones of FP10, thus expanding the knowledge base, strengthening competitiveness, scientific and innovation networks in Europe and beyond and the open strategic autonomy of the EU. To reinforce Europe's international competitive position while ensuring research security, and regain technological leadership, the FP must continue to fund the most excellent researchers and innovators based on open competition. To achieve a global leadership role in R&I, it is essential that we join all forces within Europe to exploit the existing potential for excellence across the EU. Therefore FP10 should address the whole R&I value chain creating impact through knowledge creation and putting more emphasis on increasing its attractiveness for all stakeholders, thereby attaining a greater diversity of beneficiaries.

2. Effective coordination of ambitious R&I priorities

The COVID-19 pandemic has shown the world the essential role of science, technology and innovation in building resilience and the ability of societies to deal with disruptive situations. Embracing digitalisation and emerging technologies will drive innovation across all sectors of the economy. Europe has a longstanding tradition in R&I, but that in itself is not enough to close the gap with other R&I superpowers. Closing that gap starts with looking very closely at how we invest in and capitalise on our available resources. Europe must therefore be able to strategically coordinate its priorities and resources, both at EU and national level. Europe's overarching long-term strategy, the Pact for R&I, which was agreed by the Competitiveness Council (Research & Innovation) in December 2021, provides the policy framework within which to develop the next FP. R&I does not work as a stand-alone policy, but should be seen in synergy with other programmes and policies, such as the Digital Europe Programme, the European Defence Fund, Erasmus+ and Cohesion Policy. Furthermore, the current discussion on dual use research impacts R&I policy. This means that FP10 should make more strategic choices to specify the focus areas to invest in and create European added value, together with policy-makers from sectors that are responsible for addressing challenges in these areas. A holistic vision of the EU funding ecosystem would enable a better division of tasks between the different EU sectoral programmes relevant to R&I within the next MFF.

3. Leverage national, regional and private investments in R&I

With public budgets increasingly under pressure in the EU, FP10 should focus on strengthening efficient and user-friendly possibilities to attract national, regional and private investments for transnational R&I. Possibilities for this include facilitating excellence-based access to and joint investments in research and technology infrastructures, missions, European Partnerships, and knowledge valorisation activities and thereby strengthening innovation and entrepreneurship and boosting exploitation and take-up. In order for FP10 to leverage private investments, public-private cooperation should for example be intensified. This includes an important role for private (capital) investors and start-up and scale-up ecosystems, and the promotion of risk-taking and entrepreneurship. In order to be able to act as a lever, FP10 should be designed and implemented in such a way that co-funding R&I activities with national, regional and private funding becomes easier and more attractive.

This requires an improved process of priority setting that meaningfully engages Member States earlier and continuously, fostering an atmosphere of trust and building on the shared priorities and needs. This would accelerate the process of expanding national investment in R&I and establish a cross-fertilising feature of FP10 to national initiatives.

4. Attract and retain R&I talent and skills

FP10 should contribute to making Europe an attractive and stimulating working environment for (early career) researchers and innovators in Europe and from around the globe, and at the same time help to prevent brain drain. To maintain and where possible improve Europe's high level of welfare and social services in the future - against a background of a declining and ageing population - higher productivity and economic growth across Europe are needed. Labour force shortages increasingly affect the R&I sector as researchers are among the most desired and mobile employees globally.

Europe needs to become a magnet for scientific and innovative talent and the FP should provide a platform where the most excellent researchers and innovators can circulate, meet and connect their ideas. FP10, being the most important element of the R&I funding landscape at EU level, should act as an EU lighthouse for excellent researchers and innovators, including those at an early-career stage. The national R&I systems involved should cooperate and compete on a level playing field in the ERA recognised for its quality, inclusiveness and resilience. In this regard, ERA's role as a 'single market for knowledge' and the fifth freedom¹, embedding R&I drivers at the core of the single market should be further strengthened and made visible across the EU.

5. Secure access to global knowledge as a global R&I powerhouse

The changing geopolitical context requires a timely and joint response as well as collective efforts from all Member States, Associated Countries and the Commission to strengthen and exploit R&I potential for excellence across Europe. Furthermore, the global nature of today's big societal challenges and the rapid pace of technological developments require inclusive, diverse, open and strategic global cooperation, without being naïve but also recognising the interconnected nature of these challenges and associated risks.

In the spirit of fostering a stronger global position, it is imperative to enhance collaboration with similarly aligned third countries that uphold European values and principles. This should focus particularly on nurturing relationships with longstanding and trusted partners, all while safeguarding the integrity of EU contributions and reciprocity. Furthermore, science diplomacy and the exploration of new ways to facilitate research partnerships with countries outside the EU is important. At the same time, the EU should prepare de-risking strategies that will include implications for R&I, especially in sensitive and dual-use technologies as well as in the field of international cooperation.

Increasing geo-economic competition has put more emphasis on pursuing strategic autonomy while preserving an open economy – to decrease dependencies - and tackle foreign interference. An overarching strategic EU approach to foreign interference and research security is a prerequisite to adequately address the risks that come with international cooperation in a turbulent world.

¹ the "fifth freedom" of the EU would include the freedom of investigating, exploring and creating for the benefit of humankind without disciplinary or artificial borders and limitations. This 'fifth freedom' would be additional to the four existing freedoms in EU treaties (cross-border movement of goods, services, capital and people). It was recently mentioned in the [Letta report](#).

6. Put applicant and beneficiary needs at the centre of FP10 implementation

A prerequisite for a successful FP10 is to first and foremost stimulate researchers and innovators to apply to its calls and programmes. The reduction of the administrative burden for applicants should be one of the most important goals, enabling them to put forward successful proposals. Therefore, enhancing simplification, including through the streamlining and rationalisation of the multitude of instruments – including in relation to other programmes with R&I relevance – must become a core priority in the design of FP10. The FPs have evolved over the years and new instruments and requirements have been added for good reasons, but this has resulted in making it more and more complex for participants to find their way. Hence, a comprehensive Member State engagement and stakeholder consultation throughout the design and all steps of implementation of FP10 is important to ensure that FP10 meets their needs and addresses their concerns. The design of FP10 involves strategic choices and instruments. These should be carefully analysed to avoid overlap and duplication, sun-set instruments where it is appropriate to do so, achieve simplification for applicants and create more synergies between the different parts of the programme. The (online) findability and accessibility of funding opportunities should also be improved. The National Contact Points (NCP) can help with proposals for further simplification and accommodate less-experienced participants and newcomers of all kinds.

Part 2 - ERAC's recommendations to achieve the ambitious vision for FP10

1. Strategically align ERA policy and FP10

As stated in the Treaty on the Functioning of the EU (TFEU), the Union aims to strengthen its scientific and technological bases by achieving the ERA. Achieving and strengthening the ERA is an ongoing endeavour at European, national and regional levels. To do so, national efforts and the FP are both important factors. The new ERA approach, notably through the ERA Pact for R&I in Europe (the Pact) and the ERA Policy Agendas, provide the policy framework. The design of FP10 and its policy approach should be seen as a unique opportunity to ensure a more coherent and thus effective R&I policy across the EU. This requires that the FP contribution to ERA Policy is targeted to focus on areas which bring the most European added value. It is important to highlight the relationship between the implementation of the ERA framework condition and the actions set out at a national level under the ERA Policy Agendas.

In order to better and more strategically align ERA Policy and FP10, ERAC recommends that:

- Across the whole scope of the Programme, FP10 should explicitly integrate key ERA values and principles as agreed in the Pact such as high standards in scientific excellence, ethics and integrity, open science, gender equality, scientific freedom, research assessment and knowledge valorisation, attractive and sustainable research careers.
- In line with the TFEU requesting the EU to ensure that national and EU R&I policies reinforce each other, FP10 should state clearly how it will contribute to the implementation of the Pact and the ERA Policy Agendas. The respective objectives of the FP and the ERA Policy Agendas should therefore be strategically coordinated.
- ERA and FP10 interact very strongly through the implementation of their distinctive priorities. It should be decided on a case-by-case basis between Member States and the Commission whether a topic that is part of the ERA Policy Agenda should also be addressed through FP Work Programmes to ensure better complementarity, carefully examining the (societal) urgency, political commitment, nature, content and added value of a FP call in addition to following an ERA Policy Agenda activity. When FP10 addresses sufficiently an ERA Action, the ERA Action should have an exit strategy.

2. Identifying and selecting R&I priorities in co-creation

In order to better coordinate ambitious R&I priorities at EU and national level, address them across the EU programmes as appropriate and leverage more national public and private investments, FP10 should focus on the challenges, opportunities and sectors most strategically relevant to our societies and economies. Therefore a new approach for priority-setting and co-creation is needed. This approach should entail a stronger engagement of Member States from the start of the (design and drafting) process. This calls for an early, improved and transparent consultation process of Member States, Associated Countries and relevant stakeholders and should not only be conducted after extensive internal Commission decision-making procedures have taken place. Strategic planning should start early enough to steer a long-term vision by selecting the strategic R&I priorities for the preparation of the work programmes.

In this context ERAC recommends that:

- Priority-setting procedures need to be reformed to enable the early and continuous involvement of Member States. Member States must be able to transparently engage and provide overviews of their planned priorities and activities before the first proposals of the strategic plans and the work programmes are put forward by the Commission to ensure shared FP priorities. It should also be carefully assessed how the governance and co-creation can be optimised in terms of stronger Member State involvement in the design and content of the strategic plans and the work programmes. This could involve the development of leaner and more predictable procedures and consistency among the different configurations in which the FP is discussed. The comitology process provides the possibility to participate in the creation of the strategic plans and the work programmes, therefore they should be implemented with great responsibility and efficiency on both the side of the Commission and the Member States.

- Strategic planning should contribute to a higher degree of predictability and stability in the budget of FP10. The strategic plans should be more focused through careful selection of the priorities, which should be taken as the primary guideline for the various funding activities. Any deviation from the priorities set out earlier or appropriation of the FP10 budget over the seven-year period of the FP needs to be transparent and considered in close consultation with the Member States with a focus on relevance and urgency. The capacity to accommodate and potentially fund new priorities should be limited only to the thematically relevant part(s) of the programme for that specific priority. More agility and responsiveness will require transparency on all sides combined with strong evaluation and communication of the European added value. Strategic planning at EU level also has an impact at a national and regional level and this should be duly considered during the whole process.
- Through the strategic plans, the interplay with other EU programmes should be ensured, and synergies with national and regional funding programmes and priorities facilitated and encouraged, while at the same time, the responsibilities of different EU and national programmes should be clearly delineated. FP10 strategic planning timelines and processes should be synchronised as much as possible with the principal planning timelines of other EU programmes and policies with which complementarities are sought. The link with ERA policies, where relevant, should also be strengthened through the strategic planning process. Further guidance should be taken from lessons learned through entities like the Partnership Knowledge Hub and the Mission Boards; their insights and lessons learned need to be considered as part of future planning.
- While different documents and processes for determining the priorities (such as the Horizon Europe Specific Programme, strategic plans, work programmes) can be of added value, we need to make better use of existing structures and only consider creating new structures when there is a compelling reason to do so.
- This approach requires a strong and sustained commitment from the Member States and the Commission to work in an efficient partnership which co-creates the strategic plans and work programmes.

3. Safeguard and promote the most effective balance between research and innovation

FP10 should be exclusively focused on funding R&I and cover the whole R&I value chain with funding pathways across Technology Readiness Levels (TRLs) - from fundamental curiosity-driven research to targeted and applied sciences and innovation. It should aim to balance the different project dimensions and phases of R&I, between (directional) top-down and bottom-up approaches and between supporting knowledge creation, knowledge application and scaling up with a focus on impact and valorisation. Horizon Europe addresses all these forms of R&I through its three pillars which should be further interconnected. Horizon Europe has seen an increase in the number of larger projects in terms of budget, number of partners and complexity of tasks and their implementation, which risks overwhelming coordinators and project partners and increases the administrative burden. On the other hand, large collaborative projects may foster new partnerships between different applicants that would otherwise not naturally find each other. Therefore it is important to have a balance between smaller and larger sized projects across TRLs, depending on the specific goal to be achieved.

In this context ERAC recommends that:

- An objective analysis should be conducted on how to properly address the complete R&I value chain within FP10, including identifying the appropriate TRLs and multi-beneficiary projects. Recommendations on what is the most effective balance between various types of projects to achieve the objectives of the programme should be incorporated into FP10. In addition to Research and Innovation Actions (RIA's) and Innovation Actions (IA's), collaborative Research Actions (RA's) could be introduced in the work programme allowing researchers to respond to global challenges and lay the foundation for breakthrough technologies.

- FP10 should accommodate both directional as well as bottom-up 'blue-sky' approaches. It should include calls that, instead of only defining expected outcomes, set out challenges and problems to be addressed, allowing researchers and innovators to provide multidisciplinary solutions to challenges. This will facilitate different types and sizes of bottom-up collaborative projects between higher education institutions, civil society, research organisations and businesses including SMEs.
- The main structure of what is currently Pillar II, including the topic description in the WPs, should be improved, simplified and streamlined. The current cluster structures where large units include very different themes, impede an efficient management approach and create an unnecessary obstacle for participants looking for funding opportunities and access to networks, especially newcomers. Furthermore, the coherence between the clusters, missions and partnerships should be reconsidered to make FP10 more attractive, understandable and accessible for applicants where overlaps between respective calls are identified and avoided.
- Within FP10, the indicative size of projects should be adequately identified within a given topic or priority in order to ensure the greatest diversity of competing ideas and allow for a wider range of potential partners within a call's budgetary framework.
- There should be enough room for both larger and smaller projects, with a balance between them based on their goals and on the overall balance within the pillar. The Commission should diversify the kind of support given based on the size and complexity of the different projects.
- FP10 should avoid, whenever possible, financing only one project per announced topic/call, to ensure a diversity of approaches and methodologies on the topic, as different projects may bring unique perspectives, methods, and innovations contributing to a more comprehensive understanding of the issue at hand. Funding more than one project per call also increases the potential for positive impact (with the exception of Coordination and Support Actions (CSA)).
- The outcomes of diverse projects may collectively lead to a more profound understanding of the topic and have a broader influence on policy, industry or society. This effect may be even stronger with for instance a portfolio approach where the different projects under the same call or similar projects under different calls are stimulated to connect to and interact with one another after they have been granted. Such actions would require more integrated support from the Commission, in particular its executive agencies, as they oversee the full scope of starting, ongoing and finished projects.

4. Capitalise on Europe's full potential for excellence

The full potential for excellence of Europe's R&I should be optimised and capitalised on under FP10, so that the EU's competitiveness in an increasingly competitive world will be strengthened. The attractiveness of the European R&I system should be continuously enhanced at all levels. Although success rates are converging, there are still differences between Member States when it comes to levels of participation across the FPs². Previous reports and studies³ point to the need for reforms of national R&I systems, adequate national investments and the need for access to international networks. FP10 should connect and integrate pockets of excellence everywhere in Europe and capitalise on the progress that has been made so far. This should lead to a full optimisation of Europe's R&I potential and ultimately to a more distributed participation in the future.

In order to strengthen the EU R&I ecosystem and tap into all of Europe's potential, ERAC recommends:

- Continued national commitments for adequate national investments and reforms to support and strengthen the impact generated by the FP10 instruments (a Member State responsibility that could be based around appropriate ERA Actions and be supported by Policy Support Facility/Technical Support Instrument findings and recommendations).

² Widening in Horizon Europe: state of play of the implementation (December 2023), European Commission

³ For instance: ECA report (2022) Measures to widen participation in Horizon 2020 were well designed but sustainable change will mostly depend on efforts by national authorities

- That the Commission, in cooperation with the Member States, provides a common evidence base which comprehensively analyses all the available data on the impact of the “widening package” on participation, including in collaborative projects and networks and their influence on national R&I systems. This may require a restructuring of the package towards retaining the most successful instruments and processes.
- Co-design a system that will allow for efficient use of Cohesion Policy and other EU programmes to support national reforms and create synergies in the area of R&I using FP10 instruments, thereby simplifying the implementation rules. To this end, it is necessary to ensure that synergies are considered from the very beginning of the design of the new programmes. Innovative ways of applying existing schemes (e.g. Seal of Excellence (SoE), transfer of resources) could create more synergies between the different sources of funding including Cohesion Policy and the FP. It may motivate applicants if they could enjoy the benefits and a label of ERC or MSCA even if covered by structural funds.
- Continue and efficiently develop dedicated actions and instruments, both at the EU and national levels (including NCPs) to facilitate access to scientific and innovation networks.

ERAC suggests pathways for further analysis to substantiate discussions about widening participation in FP10 in Annex 1.

Pathways for further analysis

ERAC acknowledges that there are more elements where consensus could possibly be reached with regards to capitalising on excellence. For instance, the level of applications, national R&I investments and the role and functioning of NCP networks are relevant factors for discussion. At the time of writing, the Horizon Europe interim evaluation is still ongoing. As a result there is limited evidence to have informed discussions about the functioning of specific measures to widen participation, such as the hop-on facility and the criterion of geographical diversity for ex aequo evaluation rankings. The criteria for defining a widening country also need to be taken into consideration.

5. Limit the number of new instruments, improve missions and partnerships

The FPs have evolved over the years. New instruments and requirements have been added, making it more and more complex for stakeholders to find their way. If change is needed to improve the contribution of EU R&I efforts to drive Europe’s competitiveness and to accommodate new circumstances, existing instruments should be used to the greatest extent possible. Consideration also needs to be given to sun-setting instruments that are no longer relevant or effective. Under Horizon Europe, new instruments such as the missions were created and a new governance and approach to European Partnerships were introduced. Introducing innovative measures or measures proven elsewhere to enhance the impact and efficiency of the programme are always welcome, but in such a way that this ensures stability and predictability for the applicant. New initiatives require a careful design and testing before broader roll-out, and proposals should be examined for their added value with adequate input from relevant stakeholders. It should also be possible to discontinue instruments if not effective.

ERAC recommends focusing first on analysing the need for continuation and further improvements to (new) instruments and elements and their governance, with the missions and partnerships as examples:

- The mission instrument is an element that should be further examined. It is critical to recognise that the fulfilment of the mission objectives requires more than the FP can address on its own and goes beyond R&I activities. Furthermore, the governance of the missions should be adapted, including a possible phasing out from the FP, in order to anchor the missions at a higher and more horizontal political level. To reach the objectives of the missions, they should be anchored within the relevant sectoral EU, national and/or regional programmes. In this way these programmes can (financially) contribute to reaching the mission objectives. The FP should only support the R&I component of the missions as this is its core competence.

- The process of selecting partnerships should be more open and transparent, in true co-creation with Member States, Associated Countries and relevant stakeholders. Member States should be involved at an earlier stage in the setup of implementation models, including the options for phasing out or follow-up. From the outset, partnerships should have clear and demonstrated European added-value. While the current partnership system is set up to be more efficient than other FP instruments (e.g. regular calls), there is still room for improvement for some partnerships. Partnerships should be focused and designed to invite and stimulate Member States (and other partners) to redirect their investments towards European cooperation with a view to achieving critical mass and increased impact. They should therefore improve their openness, transparency and accessibility, as was intended when they were set-up.

Missions and partnerships

Missions and partnerships, in their current form, are both newly introduced initiatives under Horizon Europe. These parts of the Programme are, to a greater or lesser extent, experiencing issues. In particular, legislation needs to ensure a smooth management of jointly implemented partnerships between Member States, Associated Countries and the Commission (currently known as co-funded partnerships). Exploring options and advising on possible (dis)continuation of each of the current partnerships or missions as such, is a recommendation ERAC cannot make on the basis of the currently available data/information. Therefore ERAC restricts its contribution to elements that could be improved. At the same time, ERAC deems it very important that both instruments are thoroughly assessed, in order to give more specific recommendations than currently in the Opinion. Considering the strong statement in this Opinion that FP10 should only focus on financing R&I, the possibility of a new governance structure allowing the responsibility for missions to be placed partly outside the FP, should be explored.

6. Embed knowledge valorisation across the EU R&I ecosystems

The EU faces challenges in harnessing knowledge valorisation and creating social, policy and economic value. The level of European venture capital in critical technologies lags significantly behind other parts of the world, which puts the EU's competitiveness at risk.

Furthermore, it leads to suboptimal exploitation of the social and economic potential of the EU's strong knowledge base. It is vital to strengthen R&I ecosystems and foster knowledge valorisation in order to respond to societal and economic needs.

To do so, knowledge, (open) data, know-how and research results from different sectors need to be transformed into sustainable products, services, solutions, and policies that effectively reach the market and benefit society as a whole. Smart coordination across R&I ecosystems and a more efficient use of all capabilities and resources at European, national, and regional levels would improve the EU's competitiveness and innovation performance.

Greater efforts to embed knowledge valorisation within R&I-performing organisations should be organised. This could be done as a core element of the ERA policy approach, e.g. by better streamlining EU and national/regional and local valorisation measures.

ERAC therefore recommends:

- FP10 should continue to promote the connection between the excellent ecosystems of universities, higher education institutions and knowledge institutes and both larger companies and SMEs and continue to support all types of innovation. In projects stemming from these collaborations, end-users should be engaged early on.
- FP10 should strengthen its capacity to leverage national and private investments for shared objectives through combined funding for deployment of results from FP-supported projects at national levels (including through the Seal of Excellence approach).
- Examine whether results of projects under FP10 should have an obligatory knowledge valorisation component that should be used for further exploitation of results.
- The design of the ERC proof of concept, the EIC transition funding and the EIC Accelerator should guide further reflections for making better use of FP funded R&I, as good examples. The innovation network provided by the European Institute of Innovation & Technology (EIT) plays a role as an 'ecosystem builder'. By creating working ecosystems, the Regional Innovation Scheme (RIS) of the EIT contributes to better integration of less developed regions.

- The current innovation landscape is complex and the future role of the EIT and its link with other innovation instruments and in particular with the top-down, directional part of the programme (current Pillar II) needs to be further examined. Additional analysis of the added value of the EIT in valorisation efforts is needed, so that complementarity and synergies between the different innovation instruments can be considered.

7. Get the most out of European research and technology infrastructures

If Europe wants to be a competitive world leader and safeguard its open strategic autonomy, a more ambitious overall approach to R&I infrastructures is necessary, complemented by testing and upscaling facilities. Research infrastructures are an essential feature of the European R&I ecosystem research infrastructures (RIs) and technology infrastructures (TIs) have an important and specific role for knowledge valorisation and for strengthening the collaboration between universities, research institutes and the business sector. Currently, there is a need for a definition and mapping of users' needs for technology infrastructures. Subsequently, an EU strategy for TIs as a follow up of this mapping is key for avoiding avoid duplication of investments, for developing complementary assets and de-risking innovation processes, taking into account relevant work of ESFRI. As networks of excellence, research infrastructures and technology infrastructures contribute to the FP through the circulation of knowledge across silos and the valorisation of the knowledge created. Furthermore, state-of-the-art RIs and TIs can act as magnets for international talent.

However, to ensure the EU is reaching its full potential when it comes to large scale infrastructures, ERAC recognises:

- The need to achieve more competitive and impactful infrastructures with a quicker process towards building and operation.
- FP10 cannot substitute national investments in research infrastructures and technology infrastructures, but funding from the EU (FP and/or other EU programmes) should leverage national investments in R&I. They are often the core of R&I ecosystems and are crucial for attracting talented researchers and innovators, as well as for the development of more industrial uses.
- Connect the infrastructures better to the thematic clusters of Pillar II for more impact.

8. Maintain and strengthen successful flagship instruments

In addition to the collaborative instruments, the European Research Council (ERC) and the Marie Skłodowska-Curie Actions (MSCA) are flagships of the Framework Programme when it comes to opportunities for individual applicants. They should continue to be recognised for their valuable role in supporting career development as well as bottom-up, breakthrough research. These programmes are important in attracting and retaining the best talents, as well as facilitating early researcher careers in Europe.

Aside from these established flagship instruments, a new flagship instrument with a lot of potential is the European Innovation Council (EIC). It has demonstrated its importance to address certain gaps between research excellence and the transformation of those findings into market opportunities.

Therefore ERAC recognises:

- The critical role the ERC plays in attracting and retaining the best talents in Europe which should be further strengthened. ERC call success rates should be further improved, while maintaining the high level of ambition in its awards. Interesting results from frontier and breakthrough science projects should be given the opportunity to mature further.
- As for the MSCA, all research talent should continue to be targeted, from PhD students to post-doctoral researchers. Further points of interest include brain circulation and (future) employability of researchers across sectors.
- The EIC and its Pathfinder, Transition and Accelerator programmes contribute to Europe's open strategic autonomy and competitiveness. The EIC is essential for the scaling up of breakthrough and deep tech innovations, supporting European startups and scaleups and stimulating entrepreneurship. The EIC needs to ensure a smooth implementation that corresponds with the needs of entrepreneurs and the European innovation landscape and leads to higher success rates.

9. Improve horizontal elements

As well as the eight specific recommendations, important cross-cutting horizontal issues are also presented, that are less specific but nevertheless relevant in the context of FP10.

- **Simplification:** achieving simplification first and foremost for the applicant must become an important policy priority in the design of FP10. The extensive knowledge of competitive project funding within the Commission services needs to be used fully to substantially reduce the requirements and administrative burden for applicants and beneficiaries.

The following suggestions offer opportunities for simplification:

- Programming Methodology:** Better clarify the objectives of specific actions and calls while allowing more flexibility in their implementation (target-based programming).
- Horizontal Requirements:** Ensure that the horizontal requirements such as open science, gender equality, ethics principles, research integrity and research security are addressed with specific and targeted measures at the overall level of the programme, keeping in mind the need for simplification for applicants.
- Evaluation system:** The evaluation process for Horizon Europe calls is one of its more appreciated features. Any change must be carefully planned. Consider multi-stage evaluations, in particular for more complex instruments and large-scale projects (combined with more resources and highlighting the need for professional research management at the national level) and more detailed evaluation summary reports for the benefit of participants. The results of the blind evaluation pilot should be carefully analysed;
- Lump Sums:** Following a proper evaluation, the implementation of the lump sum concept should be improved to ensure simplification for the beneficiaries and address some of the unintended side-effects it has generated to date. The possibility of using unit costs could be considered where appropriate;
- Services to Applicants:** More efforts to direct applicants to the most appropriate funding scheme at EU, national and/or regional levels. This requires more resources and considerations for a smart NCP system and the use of a transparent automated processes as far as feasible, including in the Funding and Tender Portal. A strong and continuous support from the Commission of the NCP system must be achieved so that newcomers can be contacted and guidance provided to participants.

- **Synergies:** The creation of synergies and a concerted effort between FP10 and other EU policy fields and programmes, such as the Funds under Cohesion Policy, Digital Europe, the European Defence Fund, the European Space Programme, EU4Health, Erasmus+ and Invest EU should be a priority in both the design of these programmes and that of FP10 in the next MFF. A more holistic vision of the European funding ecosystem and the contribution of the various programmes to EU policy objectives would enhance coherence and reduce potential fragmentation between different programmes. This would allow each individual programme to better focus on its core mission and tasks. For instance, FP10 should focus solely on R&I, whereas other programmes could go beyond R&I and focus on further implementation, deployment or market uptake of R&I results. Strategic planning could play a role in further strengthening this aspect. Simplification, clear articulation of the goals, combined with efficient procedures for the applicants and managing authorities are essential for the FP. The FP should not replace national investments. Instead synergies with national funding should be sought to create more impact and to align priorities.
- **International cooperation and research security:** FP10 needs to provide more tailored support to public and private R&I communities for planning and implementing international cooperation in a safe, strategic, excellent and open manner (research security). Association of third countries to the FP is a good way to support international R&I cooperation. The association process for neighbouring countries that share our values and principles needs to be faster and less administratively burdensome.
- **SSH:** In order to promote multidisciplinary and transdisciplinary approaches, societal uptake of R&I results as well as their excellence and impact, collaborations between Science, Technology, Engineering, Mathematics (STEM) and Social Sciences and Humanities (SSH) are essential. FP10 should therefore include an evaluation of the SSH dimension either at the level of a consortium or as part of the excellence and impact of the proposal. Likewise, the relevance of a challenge for society should be assessed at the starting point of FP programming. FP10 should also continue to support fundamental SSH R&I.

- **SMEs:** Recognising the pivotal role that SMEs play in fostering innovation and economic growth, the co-financing structure for partnerships could be adapted. Currently in some forms of initiatives (institutionalised partnerships), SMEs are required to make a 50% co-financing contribution. Exploring the possibility of lowering the percentage to be covered by SMEs should be considered.
- **Portfolio approach:** In Horizon Europe, a portfolio approach is used for missions and the EIC. For FP10 we propose an approach whereby the instrument manager can suggest a coherent set of projects already selected for funding, in order to better achieve the expected outcomes and impact. A better understanding of the portfolio approach and the way it is currently being implemented is necessary and further evidence on its added value in its current form is crucial before deciding on its continuation. The portfolio approach could potentially create synergies between the different parts of the programme (not only the EIC and missions) and avoid duplication, provided its use is transparent and well understood. The mandate given to portfolio managers as well as the role of the policy and/or project officers of the Commission and in the Executive Agencies should be transparent and well-defined in order to create stakeholder trust, especially taking into account success rates in the calls. This means that adequate support to beneficiaries from the Commission is necessary, which currently seems to be challenging.
- **A highly active NCP system:** A highly active NCP system should be the backbone of the existing specific national/regional support schemes to guide applicants to the most appropriate funding programme. This should improve the applicants' satisfaction with an increasingly complex funding system and contribute to the submission of more excellent proposals and a better balanced success rate across all parts of FP10. In order to have this efficient NCP system, an adequate level of support and interaction with the Commission services and agencies must be ensured.
- **Communication:** FP10 should create a structured framework for efficient communication among stakeholders, Member States, Associated Countries and the Commission.
- This entails four levels: communication with applicants/beneficiaries, including on the project results; communication between the Commission, Member States and Associated Countries (as a backbone for co-creation); communication on the value of the programme for society including the value of EU collaboration; and above all - communication with society to strengthen trust in science and fight misinformation.
- **Monitoring:** the monitoring of the programme and its implementation will need to improve significantly to ensure it becomes a recognised self-learning programme. In this respect, complete, homogeneous and quality data are of paramount importance. Furthermore, both the CORDA databases and the dashboard are not sufficiently developed to meet the requirements of a strategically developed programme, underpinned by evidence-based data and analysis. FP monitoring should also consider the more effective use of ERA monitoring efforts in order to achieve a better coherence and complementarity between EU level measures and national/regional R&I policies and programmes.

Annex - Recommendation to further elaborate on the issue of capitalising on excellence

In the course of the discussion on the issue of capitalising on excellence in the Task Force it became apparent that a deeper analysis is required to go beyond the recommendations agreed in this Opinion and to inform future elaborations. ERAC therefore recommends, addressing Commission, Member States and ERAC, to collect and/or analyse and/or interpret information addressing the topics mentioned hereunder, in order to draft FP10 based on an evidence-informed approach.

The topics concerned are:

- Level of submissions

In particular the reasons behind the difference in submission numbers across the different pillars and in relation to participation and R&I investments as % of GDP and the distribution of the coordinators of the consortia.

- Levels of national investments for R&I in widening countries

In particular why these national investments are lagging behind and what the implications (participation wise, political, policy, budgetary, administrative) of a construction of funding of Seal of Excellence (SoE)-projects e.g. without additional evaluation and with a possible ERC or MSCA label would be.

- Other elements to consider include what the effects would be of:

- a separate EU scheme for R&I capacity building/policy support;
- the current, voluntary, possibility of transferring up to 5% of the resources from Cohesion Policy funding to other, directly managed funds;
- transfer of funding as done with the Cohesion Fund to Connecting Europe Facility as an option for R&I.

- Opening networks

Including a network analysis of the consortia within the FP and their actors, with attention to the definition and type of the newcomers in those networks and the causes of those networks being perceived as 'closed clubs'.

Interesting elements for this topic are the impact of COST on FP participation, the role of European Partnerships in opening up networks and possible other instruments are at the Commission's disposal for this purpose.

- NCP networks

In particular their set up in the different member states and successful elements that could be replicated in other countries.

- Hop-on Facility

In particular on the current effects of this instrument and potentially, as a next step to this, the possibility and the implications (also financial) of having (a) further widening partner(s) hopping-on and what would be needed to make this possible in practice and whether it could have an adverse effect on the openness of consortia.

- Geographical diversity - ex aequo criteria

Looking to what extent the ex aequo criterion of geographical diversity is being used and/or part of granting a proposal under Horizon Europe.

- Background information

In particular estimating

- the number and type/subgroups of R&I actors that have not (yet) found their way to the framework programme;
- the impact of the widening measures/participation in the widening package instruments in further participation in Pillar II collaborative calls and other FP instruments and the interrelation of those;
- the potential to remove persisting barriers for synergies.