

Position Paper

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Beyond Horizon

Creating an ambitious framework
programme for Europe's R&I excellence

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Beyond Horizon: creating an ambitious framework programme for Europe's R&I excellence

Executive summary

The European Union is about to negotiate its tenth framework programme for R&I (FP10) while at the same time defining a new vision for its competitiveness and values in an increasingly turbulent geopolitical context. We trust that the renewed impetus given to Europe's competitiveness and strategic autonomy could be a unique opportunity to reassert the crucial importance of further investing in research and innovation. However, we are concerned that this new policy agenda may instead regard research and innovation as simple instruments to achieve other objectives and not respect them as an independent and forward-looking policy area.

The Guild urges for a future-oriented outlook on FP10. The framework programme must be geared towards building Europe's competitiveness and resilience based on its scientific leadership. A core principle of FP10 is to strengthen research excellence by nurturing researchers' creativity and curiosity. The framework programme needs to focus on research and innovation activities and position knowledge creation as a key objective for all its programmes and instruments, whilst building synergies with other EU programmes (including European Regional Development Fund, Erasmus+, EU4Health, etc.) to increase national, regional and institutional capacities for research and knowledge valorisation and to accelerate the deployment of new innovations.

Our position on FP10 pivots around seven main principles:

- **Ensure an ambitious and stable budget.** The Guild reiterates its calls for a budget of at least 200 billion euro and ringfencing it to avoid that short-term policy goals result in sudden shifts in budget allocations.
- **Build on the instruments that have already demonstrated their effectiveness in building and strengthening Europe's scientific excellence.** Because of their well-evidenced outstanding success in fostering scientific excellence, attracting and retaining talents, and laying the grounds for groundbreaking innovations, the European Research Council and Marie Skłodowska-Curie Actions must be anchored in FP10 and benefit from a higher budget to expand their impacts.
- **Leverage researchers' creativity in challenge-oriented projects.** FP10 must guarantee funding for collaborative and low-TRL research and tap further into the potential of social sciences, arts and humanities to address societal challenges. We also strongly warn against calls that are prescriptive regarding content,

expected outcomes, impacts and types of collaboration expected.

- **Embed innovation in scientific excellence.** Researchers must be empowered to select and carry out the knowledge valorisation they deem the most relevant. Instead of exclusively focusing on industrial policy priorities, the European Innovation Council must be open to all promising ideas and provide researchers easy access to proof-of-concept funding to develop these ideas.
- **Safeguard research excellence through academic freedom and openness.** A core principle for FP10 must be to limit the scope for research and innovation only in exceptional and well-justified cases. The development of dual-use research should not be prescribed by policymakers because such directionality may impose constraints detrimental to researchers' creativity and academic freedom.
- **Further facilitate international cooperation.** It is crucial that FP10 remains open to the world and recognizes Switzerland and the United Kingdom as preferential partners, whose association is in our mutual interest. It should also cultivate a spirit of collective academic responsibility and risk-management for a self-regulation towards responsible internationalisation.
- **Strengthen research excellence across Europe and reduce the R&I gap.** Instruments aimed at Widening countries must be maintained in FP10 to improve their performance and capacities to become R&I leaders. We recommend expanding the instruments with proven success mainstreaming widening elements across FP10, and prioritizing synergies with Cohesion Policy.

We translate these principles into concrete recommendations for the future framework programme. In the first section, The Guild presents its vision for the overall narrative of FP10. In Section 2, we present recommendations for individual parts of FP10 and their funding instruments.

PART I: Our vision

Europe is currently at a crossroads in terms of defining a new vision for its competitiveness, objectives and values in a turbulent geopolitical environment. Decisions planned in the next years on the investment priorities of the European Union (EU) and their underlying political objectives will have far-reaching consequences for the coming decades and for the public perception of the EU. In this context, The Guild outlines its vision for a future-oriented tenth Framework Programme for research and innovation (FP10) running from 2028 to 2034, that will build on lessons learned from the past framework programmes while ensuring Europe's scientific and innovative competitiveness and a constantly developing knowledge base that is a precondition for responding to global challenges in the decades to come.

1. Build on financial ambition and stability

Representing 52 leading research-intensive universities in Europe, The Guild, the League of European Research Universities (LERU) and Central European Universities (CE7) have together **called for an ambitious budget of at least 200 billion euro to be allocated to FP10. This is required for demonstrating in practice the willingness to build on Europe's excellence in research and innovation (R&I) as a prerequisite of Europe's competitiveness.** This call has since been amplified by other stakeholders and Members of the European Parliament, and it comes at a time when the EU lags severely behind in achieving the goal of 3% of GDP for investment in research and development by 2030¹. A decision to invest a bigger share of the EU's overall budget in research and innovation is necessary in order to guarantee Europe's competitiveness, technological proficiency, and resilience in the volatile global environment.

R&I must not only be recognised as an investment area that alone can enable progress in all policy areas of the EU, but it must also be recognised as an independent and forward-looking policy area with a ring-fenced budget. It should be protected from short-term policy goals and sudden shifts in budget allocations. This is crucial in order to maintain Europe's full ability to lead the way in the societal development and equipping Europe with the knowledge and solutions that are needed in the decades to come, in the face of challenges that research helps us understand and prepare for. Therefore, R&I should be acknowledged as crucial for the strategic autonomy and competitiveness of Europe. The role of R&I in the development of human capital, in increasing the well-being of citizens and environmental sustainability, and in enabling economic growth should be matched with a proportionate budget for FP10 that fully empowers these functions.

2. Invest in the best performing parts of the framework programme to boost our scientific leadership

As a precondition for genuine prioritisation of societal resilience and the future well-being of European citizens, The Guild calls for the EU's new priorities to be founded on science-based competitiveness. The framework programmes of the EU have had an irreplaceable role in

1 – Council Recommendation 2021/2122 of 26 November 2021 on a Pact for Research and Innovation in Europe.

supporting scientific excellence in Europe, and in attracting and retaining leading scientists in our continent. Two of the outstanding successes in the history of the framework programmes are the European Research Council (ERC) and the Marie Skłodowska-Curie Actions (MSCA). They empower the creativity of researchers to contribute to the expansion of our knowledge base and to develop our human capital through research-led teaching, two key factors in the competitiveness of Europe.

According to the ex post evaluation of Horizon 2020, remarkably, they exceeded their expected impact in terms of publications, contributed to patents at a level comparable to the more innovation-oriented instruments, and, within the framework programme as a whole, have accounted for the largest number of international participants. Moreover, they had a significant structuring impact in the R&I sector in Europe by providing researchers with prominent career opportunities in Europe and in enabling the retaining of talent².

The Guild therefore emphasises the need to increase investment into the ERC and the MSCA as proven successes. To maximise the impact and success of FP10, **these two programmes, which support bottom-up, frontier research should be boosted in terms of their budget, which should then represent at least 35% of the framework programme's overall budget, including funding for research infrastructures.**

3. Adopt a renewed approach to global challenges that empowers the creativity of excellent researchers and innovators

FP10 should adopt an overarching vision and longer-term perspective to support knowledge creation across all areas of societal development, from R&I challenges related to health and democracy to climate and digital technologies. This would allow FP10 to genuinely contribute to the long-term resilience of the EU. Therefore, The Guild does not support limiting the scope of FP10 to focus mainly on a limited number of technologies deemed crucial for Europe in the short term: technological innovation and industrial transformation should not dominate the objectives of the framework programme. Taking a long-term view, funding reserved for R&I projects addressing global challenges should include **a prominent share dedicated to the creation of new knowledge on current and future challenges.** This funding must complement the calls focused on the application of solutions with a shorter-term perspective. Likewise, **the calls aimed at solutions to global challenges should provide more flexibility and room for innovative approaches for applicants by being less prescriptive on the content, expected outcomes, impact and types of collaboration required, and allow for both smaller and larger projects to be funded.** Finally, whereas the call topics will need to become less prescriptive, scientific representatives of the relevant disciplines should be systematically included in advising on the priority areas in the thematic clusters of the challenge-driven part of the framework programme. This is essential for ensuring the cutting-edge nature of the R&I that is funded by FP10.

² – Report from the European Commission to the European Parliament and the Council: Ex post evaluation of Horizon 2020, the EU framework programme for research and innovation (COM/2024/49 final).

4. Acknowledge the connectivity between research and innovation

Europe's global competitiveness and resilience depend on its capacity to accelerate its transformation into a knowledge-based economy. This requires strengthening scientific excellence and translating research outcomes into economic and societal value. The framework programmes have a crucial role to play in this regard. **In FP10, therefore, research and innovation funding should not be considered as separate silos. Instead, the creation of new knowledge should be embraced as one of the key objectives of all parts of the framework programme, with research being considered a key element of boosting our innovative capacity.** Furthermore, FP10 must not be regarded as a mere implementation tool for industrial policies. It is important to establish a clearer distinction between the funding reserved for research and innovation in FP10, and funding for industrial activities focused on deployment and policy implementation in the other sectoral programmes of the EU. As a general principle, FP10 should not go beyond funding R&I activities.

We urge the European Commission to adopt a flexible approach to knowledge valorisation covering all activities aimed at the exploitation of research outcomes to create economic and societal value. These include, but are not restricted to, technology transfer, high-technology-readiness-level (TRL) projects and academia-industry collaboration as means to generate impact. Knowledge valorisation also encompasses engagement with societal actors, science for policy, sharing of research infrastructures, and cross-sectoral mobility. **Researchers must be empowered to determine which knowledge valorisation channels are the most appropriate to exploit the outcomes of their projects.**

5. Continue empowering openness and academic freedom

The quality of European R&I will be distinguished by how attractive the world's top scientists find it to collaborate with European research. Our vision for FP10 is centred around a framework programme that enables competitive qualities of connectivity and cooperation designed to address shared challenges. Groundbreaking research is essentially inspired by the best minds, irrespective of where they are and of their nationality. And given the power of data, the most groundbreaking knowledge is produced where researchers have access to high-quality data in large quantities across geographical borders.

FP10 and the European Research Area (ERA) should help to safeguard the fostering of research excellence through academic freedom. This potential is implemented at a practical level: it involves academics identifying both the cutting-edge research questions and the valid methodologies for exploring these questions, including the choice of collaborators. The institutional autonomy of universities provides the space for academics to produce cutting-edge work, and the space for self-regulation and for fostering a culture of responsible internationalisation.

FP10 should implement across its instruments a principle of avoiding restrictive measures that might limit the scope for R&I – this should happen only in exceptional and well-justified cases. However, While it is impossible to determine all the possible uses of a new technology in the early stages of its development, **we believe that the current framework programme**

principle of an exclusive focus on civil applications should remain in place. This principle does not prohibit the development of military applications from Horizon Europe-funded R&I, but it refrains from incentivising those aspects. Dual-use research should be supported through other programmes, most notably the European Defence Fund, where dual-use technologies demonstrate potential for military applications.

6. Further facilitate international cooperation while supporting improved risk management

Previous framework programmes for R&I have built a reputation and capacity for international cooperation that has enabled researchers based in Europe to foster scientific ties across the globe. The potential of FP10 is greatly bolstered by the long-term vision of the African Union–European Union (AU-EU) Innovation Agenda and the increasing number of countries such as Canada, the Republic of Korea and New Zealand associated to the framework programme. At the same time, the risk of a reversal of this positive development has been painfully highlighted by the effect of political impasses in the association of Switzerland and the United Kingdom to Horizon Europe, despite their long, close and trusted integration in European collaborative research and innovation. Therefore, **we call for FP10 to be designed as a framework programme that is open to the world, that has a focus on associating with the leading R&I countries, and that facilitates smooth global cooperation while guaranteeing at the same time transparency and the respect of rights and obligations.**

The Guild promotes the association of strong R&I partners globally, especially Switzerland and the United Kingdom, whose association to FP10 should be facilitated as a matter of priority. In that context, **Switzerland and the United Kingdom should be preferential partners for FP10 in a distinct category for association that reduces the risk of delays or cancellation of such vital links.** The rationale for such a category would be to acknowledge the importance of the role they have played in the framework programmes and ERA. To mitigate the exclusion of associated countries from certain calls in FP10, it is crucial that any such exceptions should be kept to a minimum and that they should be justified, predictable, and flagged for easy filtering.

Responsible internationalisation enacted by European institutions and facilitated by the framework programme can enable a spirit of collective academic responsibility and risk management to ensure that universities continue to be open to an increasingly complex and interdependent world. Any policy initiatives or adjustments to the legal basis of the framework programme must be based on solid information or proven added value. It is precisely because R&I have a geopolitical dimension that political will and investment must be committed to reducing the need for restrictions and to providing as much openness as possible. Open, international R&I collaborations are essential to succeed in addressing global challenges such as climate change, global health and resolving geopolitical conflicts.

The Guild recognises that there are security and economic risks associated with international collaboration. Governments and public authorities that have concerns about particular kinds of international collaboration must not impose top-down control on such

activities. Disproportionate restrictions can be caused by strategic choices or lack of resources needed to enhance research security. A more effective approach to mitigate complex, dynamic risks should enhance trust, understanding and collaboration between public authorities and researchers. Finally, in designing FP10 it is important to note that the resources required for enabling self-regulation are very likely to lead to an increase in the indirect costs of carrying out research. Likewise, if the framework programme becomes less attractive due to a policy on research security, it could undermine our collective ability to attract the best researchers to participate in the projects funded by FP10.

7. Empower FP10 to set standards for excellence whilst ensuring capacity-building support for Widening countries

It is crucial that FP10 maintains excellence and open competition as core principles for its funding across its instruments. The framework programmes have, throughout their history, had an essential role in providing international peer review to evaluate the scientific quality of proposals, which forms the core element of excellence. **The Guild calls for the protection of this principle across the whole framework programme**, and warns against any measures that could dilute the excellence principle in the evaluation framework and therefore lead to a loss of quality in the funded projects.

Similarly, **FP10 should maintain its strong focus on funding research and innovation activities, as opposed to increasing investment in other types of activities**. However, the current support for capacity building provides important tools for R&I actors across Europe to increase their institutional excellence and competitiveness. While the focus on excellence is crucial for setting the standards for the quality of R&I across Europe, we should ensure that R&I capacity is boosted in the Widening countries to contribute to the closing of the R&I gap. Ultimately, the uneven distribution in European countries' ability to foster cutting-edge research and innovation is a barrier to competitiveness, growth and job creation.

PART II: Building a framework programme based on existing successes

Boost excellent science by building on the success of the current instruments

1. European Research Council – future-proofing scientific leadership of Europe

The Guild calls for an increase in the budget for both the ERC and the MSCA, as a necessary means of ensuring that Europe remains attractive to leading scientists in and beyond its geographical borders. The ERC has proven its huge contribution to Europe’s innovation capacity and to its work on global challenges, and remains a leading contributor to Europe’s competitiveness as a knowledge society. Its role continues to be irreplaceable in empowering and retaining leading research talent in Europe, at a time when Europe is increasingly lagging behind other global scientific powerhouses that have been faster in increasing their investments in fundamental research. For example, according to an EU report published in 2022³, China has already overtaken the position of the EU in terms of top-cited scientific publications. In this context, Europe’s scientific leadership cannot any longer be taken for granted. Europe needs to renew its ambition to become the leader in world-class research. This ambition must be translated into concrete objectives and relevant tools to achieve them. **Crucially, the ERC requires increased resources to optimise its impact on the European scientific ecosystem, along with the ringfencing of its budget, to secure its attractiveness to the best researchers around the world.**

The ERC has proven its high impact through its ability to produce important contributions to a broad range of timely R&I priorities purely through a bottom-up perspective; for example, it has funded 757 projects in artificial intelligence, quantum technologies, cryptography and security in Horizon 2020⁴. A 2023 analysis also revealed that more than 40% of research conducted in ERC-funded projects was cited in patents⁵, which is an indication that **the ERC plays a key role in the innovation output of the framework programme.** Furthermore, according to an expert report supporting the ex post evaluation of Horizon Europe, “Horizon 2020 Pillar 1 achieved patenting rates similar to other pillars of Horizon 2020”, with the ERC having the highest number of foreground patents⁶.

Moreover, the ERC has had a notable structuring effect on the career opportunities for leading researchers at different stages of their careers. It has also served as a benchmark for scientific

3 – European Commission (2022), Science, research and innovation performance of the EU 2022 – Building a sustainable future in uncertain times, Publications Office of the European Union. DOI: 10.2777/78826.

4 – Statement by the ERC Scientific Council on the next EU framework programme for research and innovation (FP10), 24 January 2024, <https://erc.europa.eu/news-events/news/statement-erc-scientific-council-next-eu-fp> (last access on 1 May 2024)

5 – Munari, F., Righi, H. M., Sobrero, M., Toschi, L., Leonardelli, E., Mainini, S., & S. Tonelli (2022), Assessing the Influence of ERC-funded Research on Patented Inventions, Final Report.

6 – European Commission (2023), Evaluation study of the European framework programmes for research and innovation for excellent science – Horizon 2020 – Phase 1 final study report, Publications Office of the European Union. DOI: 10.2777/967813.

quality through its international peer-review system and Europe-wide competition for ideas, pushing the boundaries of our existing knowledge. However, budgets reserved for individual projects have not been able to take into account rising costs due to inflation. An increase in ERC budget should also note that individual grants will need to increase to maintain their attractiveness.

The ERC has over the years developed a highly refined system for rewarding groundbreaking research by individual researchers. The Guild calls for continuity in its instruments and role within the Excellent Science pillar of the future framework programme. **The role of the independent Scientific Council should be protected as the ultimate decision-making body of the ERC**, being in charge of its work programmes and the use of its budget. Likewise, we call for the protection of excellence as the sole evaluation criterion of the ERC, while welcoming the recent changes that were made to increase alignment with principles of the research assessment reform.

2. Marie Skłodowska-Curie Actions – combining research excellence and mobility

Since their establishment, the MSCA have made a significant impact in Europe in terms of empowering the career development and research excellence of the most promising scientists. Together with the ERC, they represent the most successful and cost-effective part of the framework programme in generating high-quality scientific publications and producing innovation outputs with patenting rates comparable to other parts of the framework programme. They also proved to be the most international part of the framework programme, with 40% of researchers being nationals of non-EU countries, thus playing a significant role in attracting research talent to Europe.

Despite this uncontested success, budgetary limitations are currently threatening to make the programme less attractive for researchers across and beyond Europe. Therefore, our message is clear: **the MSCA require a significant boost in FP10, in order to respond to the growing demand to enable the programme to fulfil its important role in the R&I ecosystem of Europe.**

The Guild urges the further strengthening of the MSCA in FP10 by building on the following principles:

- Ensure the future attractiveness of the programme by increasing its budget, and by ensuring **appropriate budgets per project** by updating the country correction coefficients to reduce the disparities in the attractiveness of the grants in different European countries and to continue drawing applications from the best researchers.
- Continue fostering research and training projects from **a bottom-up** principle. This is a key feature of the MSCA and represents a cornerstone of what attracts the best researchers. We warn against any thematic guiding of the funding calls of the MSCA.

- Focus on **scientific excellence** without overloading the scope of the grants with additional requirements stemming from policy developments. The structuring effect of the MSCA on research careers, innovation and skills development is already significant, and it has been mediated through the bottom-up nature of the programme.

2.1. Recognise the contributions of the MSCA to making Europe more innovative

As stated above, a report on the ex post evaluation of Horizon 2020⁷ confirms that the ERC and the MSCA were as effective in leading to patent applications as other instruments of the framework programme. This demonstrates that excellence-based and curiosity-driven research is highly effective in delivering innovation. Researchers are best placed to identify promising ideas, to expand the frontiers of knowledge through their work, and thereby to make groundbreaking discoveries with high potential for large economic and societal impacts (in addition to scientific impacts).

Because of their bottom-up nature, the MSCA – like the ERC – leverage researchers’ creativity to boost Europe’s competitiveness and capacity to tackle emerging and future challenges. Therefore, we urge the European Commission to safeguard this distinctive feature. MSCA projects holders who are willing to further exploit their research outcomes should be given better access to existing proof-of-concept funding, such as European Innovation Council (EIC) Transition funding.

The MSCA should maintain their current approach to facilitating cross-sectoral mobility, as this is an effective means for early-career researchers to get a better understanding of the needs of non-academic sectors, to exploit their research outcomes, and to improve their opportunities to pursue careers outside academia. We nevertheless underline that, in bottom-up and fundamental research, it is crucial that non-academic organisations – if involved – do not restrict the freedom and creativity of researchers.

2.2. Further invest in the MSCA to increase their positive impacts on research careers

The Guild strongly supports the objective of making research careers in Europe more attractive, but we warn against the idea that all related challenges can be solved through a single instrument. The issues at stake are too complex and multi-faceted (including variations across countries) and must be addressed by various instruments to be implemented at EU, national, regional and institutional levels. The ex post evaluation of Horizon 2020⁸ shows that that the ERC and the MSCA made the highest contributions to improving researchers’ skills, their mobility across countries and sectors, and their career prospects. **Hence our recommendation to further invest in the MSCA to increase their positive impacts on research careers, while preserving their bottom-up nature that already allows the creation of significant impact in these areas.**

7 – Ibid.

8 – Report from the European Commission to the European Parliament and the Council: Ex post evaluation of Horizon 2020, the EU framework programme for research and innovation (COM/2024/49 final).

3. Empower the development of research infrastructures in FP10

Research Infrastructures (RI) constitute an essential part of the European R&I ecosystem. Thanks to the framework programme, European R&I stakeholders have been able to pool their investments and resources by jointly agreeing to share access to expensive research facilities, as well as the costs for running these facilities. Beyond the large-scale facilities (such as the European Organization for Nuclear Research - CERN, the International Thermonuclear Experimental Reactor - ITER, the European Space Agency - ESA, and the European Spallation Source - ESS), the RI programme and the joint undertaking mechanism have enabled a series of European, regional and national infrastructures that constitute joint ventures for Europe. RIs provide European research and industry with unique knowledge and expertise, scientific instrumentation and technical resources that increasingly constitute the backbone of research and that can be used for a large range of purposes. By constituting nodes in networks of excellence, RIs also contribute to the circulation and valorisation of knowledge. However, if Europe wants to maintain its position as a global R&I powerhouse and exploit the huge potential in RIs, a more ambitious overall approach to R&I infrastructures is needed.

An ambitious approach would include:

- **A renewed commitment to the RI programme's main objectives:** pooling resources and investment, sharing management costs, ensuring the dissemination and valorisation of newly created knowledge. The rising costs, including those related to ensuring the openness of data, research security etc. should be accounted for in setting funding levels. RIs must continue to be driven by a bottom-up principle, stemming from frontier and scientifically excellent research. This is the best way to ensure that RIs are scientifically productive and internationally competitive, which will also strengthen Europe's ability to respond to societal challenges such as climate change and digitalisation, and to guarantee that RIs can be open for international cooperation, which is the basic prerequisite for science.
- **Invest in different sizes of RI and in high-risk–high-reward activities. Funding from FP10 should also be allocated to small and medium RIs that have a clear European added value.** In high-risk–high-reward projects, there is an increasing gap in the funding landscape. These funding calls tend to be crowded out at Member State level due to the budget constraints generated by the steady increase in the number of infrastructures, not least in the digital domain. The European Commission should support the Member States through calls focusing on high-risk–high-reward projects for novel technologies and explorative projects. These calls ought to be 100% funded, but could include long-term commitments for co-financing for operational expenditure by the applicant organisations. Such long-term commitments with requirements for cooperation and exchange with, for example, national RIs would also help guarantee their continued existence and sustainability.
- **Exploit synergies and address the skills gap in RIs.** Continue to develop opportunities to combine RI funding with other programmes and initiatives

based on the framework programme, and develop synergies with mobility and scholarship programmes, large-scale initiatives and joint procurements. The development of skills, including for the management of RIs, also offers scope for enhancing links within not only the Erasmus+ programme and the European structural and investment funds, but also the ERA action on research management. It is crucial that future research infrastructures can call on skilled staff who can manage and maintain both new and established RIs and provide support for their users, without burdening the limited RI and FP10 budget.

- **Enhance standardisation.** In addition to investment in knowledge-based scientific instrumentation and information and communication technology infrastructure, there is development potential in streamlining infrastructures by developing common standards. The standards may range from common interfaces to the development of common tools to facilitate easier and more efficient use of existing infrastructures. Additionally, there is a need for increased funding for the development of scientific software, common tools, standards, work flows, and interoperability in order to facilitate the sharing of research data. This is essential to maintain international cooperation and exchange.

Adopt a novel approach to R&I in response to global challenges

Research and innovation that responds to global challenges continues to receive increasing attention in funding programmes, and not least in Horizon Europe, where it accounts for half the framework programme's budget. However, with growing budget allocation comes a responsibility to maximise the value of the investment. As things stand, many prominent researchers find the challenge-driven calls less attractive, given the lack of opportunity to develop research collaboration and truly innovative approaches outside the restrictive conditions in the calls. In Horizon Europe, funding has focused on requesting solutions to short-term political goals through projects focusing on application, demonstration and deployment. For FP10 to be truly innovative, forward-looking, and to have longer-term impact, this approach needs to be changed.

A concrete way of addressing these issues in the Global Challenges pillar is **to reserve a balanced share of the funding to projects creating new knowledge through collaborative research, and operating at low TRLs (1-3)**. These calls should be less prescriptive in nature, and allow not only for researchers to describe the potential impacts of their project from a bottom-up perspective, but also for a longer timeframe for its consideration. This flexibility is crucial to recognising the risky and unpredictable nature of research in its societal, economic or scientific impacts. In order to enable researchers to find these opportunities easily and for their budget share to be better monitored, we recommend introducing research actions dedicated to this type of calls, to complement the research and innovation actions (RIAs) and innovation actions (IAs). As a general principle, this pillar should not fund projects beyond TRL 6, as these would fit better in the pillar dedicated to innovation. In order to make the application and evaluation process more feasible, the increasingly bottom-up nature of the calls could be accompanied by a wider use of two-stage calls.

FP10 could also promote interaction between funded projects touching upon similar topics at different TRLs, or provide a progression towards higher TRLs in consecutive work programmes. A way to adopt a portfolio approach could be to foster their formation on an ex post basis to encourage synergies, collaboration and dissemination, as well as to feed into the formulation of future funding priorities and call topics.

Truly transformative R&I cannot exist without contributions from excellent research.

The Guild [has previously expressed its views](#) on the introduction of R&I missions in Horizon Europe. We see missions as having the potential to concentrate research efforts in order to achieve a specific objective. The current approach to the role of R&I missions in FP10 should be reviewed in line with our overall recommendations for the pillar fostering challenge-based R&I. This includes reserving a fair share of funding for collaborative fundamental research, adopting a longer timeframe for the impact and objectives of the mission, and including the scientific community from the beginning to shape the goals of the missions, in order to

guarantee that they will attract leading researchers. The Guild recommends that the current 10% share of the budget reserved for Global Challenges would be appropriate for the missions also in FP10. Finally, it is crucial that FP10 only funds R&I activities within the missions. Activities outside the scope of R&I should be funded from other sectoral EU programmes, and the European Commission should facilitate coordination between contributions from different programmes in a centralised way.

1. Tap into the full potential of social sciences, arts and humanities

FP10 should endorse and support research in the social sciences, arts and humanities (SSAH) disciplines as valuable in its own right, besides finding ways of further empowering its crucial role in interdisciplinary and cross-sectoral collaborations. The Guild calls upon the European Commission to have a comprehensive perspective on the SSAH landscape and not merely to perceive these disciplines' contributions as add-ons to other disciplines and only required for the facilitation of the impacts of the projects. Just like STEM disciplines, SSAH fields are required to understand and act on current global developments ranging from the climate crisis and the fast digitalisation of our societies to geopolitical tensions and democratic backsliding, including conflicts, wars and the rise of populist and anti-democratic voices. It is worth noting that when looking at research publications related to the Sustainable Development Goals of the United Nations, SSAH disciplines have a wide contribution to most of the 17 goals, extending far beyond the improvement of democratic functioning or education⁹. This further demonstrates that SSAH research is a necessary prerequisite for articulating future challenges and responding to current ones.

Building on our proposals for the Global Challenges pillar presented in the previous section, **low-TRL call topics should be introduced in this pillar that could accommodate SSAH disciplines and enable research collaboration across disciplines to address global and societal challenges from many different perspectives**. Consequently, the SSAH integration process will be further streamlined and improved by proposing less prescriptive calls that might encourage robust collaborations across disciplines. Reducing the prescriptiveness of the calls will also allow a diversity of consortia to apply, including those exploring interdisciplinary approaches to global challenges through a consortium of researchers besides those based on cross-sectoral collaborations.

The concept of flagging SSAH is an important practice which can still be improved in FP10. SSAH perspectives should be integrated into call topics systematically and early on in the design of the strategic priorities and the relevant calls. We welcome that the European Commission encourages topic drafters to consider interdisciplinarity through SSAH and we stress the importance of more involvement of SSAH researchers in this process. Calls that do not include an SSAH perspective in their early design are less likely to be successful in fostering truly interdisciplinary collaborations.

Lastly, The Guild underscores the critical importance of evaluating SSAH dimensions

⁹ – Wilsdon, J., Weber-Broer, K., Wastl, J. & E. Bridges (2024), Reimagining the Recipe for Research & Innovation: The Secret Sauce of Social Science, Academy of Social Sciences. DOI: 10.4135/wp.240118.

in interdisciplinary projects. We stress the need to involve SSAH research experts in the evaluation process of all SSAH flagged calls to ensure that SSAH research continues to be assessed under the excellence criterion and so that the funded projects include a genuine SSAH dimension. By upholding rigorous evaluation standards, we can safeguard the integrity and robustness of interdisciplinary research endeavours.

2. Further improve opportunities for collaboration with African R&I actors

We strongly support flagging call topics for collaborative projects with African partners under the 'Africa Initiative', in line with the current practice in a series of Horizon Europe work programmes. This practice should continue in FP10. It is an important component of the AU-EU Innovation Agenda which we welcomed in 2023, as it is in line with [our call to strengthen Europe–Africa cooperation in science](#). The joint commitment for R&I collaboration between the continents should be built into the strategic planning for FP10 as the Agenda's long-term vision. The commitment between the AU and EU must coincide with the duration of FP10 and has the potential for learning lessons and building trust for a new phase of Africa-Europe collaboration. In order to further improve the attractiveness of these calls, more opportunities at low-TRL collaborative grants and third-country participation in bottom-up calls should be introduced so that excellent collaborations between R&I in Africa and Europe can compete for such opportunities, in line with our recommendation for the whole of this part of FP10.

Connect Europe's scientific excellence and innovativeness

FP10 must keep pursuing the objective of making Europe more innovative in order to increase its competitiveness and resilience. However, it is crucial that the instruments for this purpose contribute to, and take full advantage of, scientific excellence. They must reflect the non-linearity and heterogeneity of knowledge valorisation processes.

1. Open the European Innovation Council to all innovative ideas

The ambition of the EIC must be to stimulate new discoveries and accelerate the transformation of the newly generated knowledge into game-changing innovations. Since its launch, the European Commission has increasingly mobilised the EIC to support the development of specific technologies considered critical for Europe's strategic autonomy and competitiveness.

We acknowledge that the EIC could be instrumental in achieving the European Union's industrial policy objectives and thus to strengthen Europe's competitiveness and resilience in strategic sectors and technologies. However, **it is important that the EIC remains open to all new ideas – including non-technological and/or social innovations – that could bring about game-changing innovations in Europe.** This implies that the open calls in the EIC Pathfinder and Transition schemes must be ring-fenced, or even increased, within the total EIC funding budget, and that they must remain outside the scope of any portfolio management strategies driven by considerations other than excellence and the potential for breakthrough innovation.

2. Facilitate access to proof-of-concept funding

Funding for proof of concept, maturation and validation of new ideas – while being of a moderate size compared to research grants – can significantly increase the capacities of researchers to generate economic and societal values from their research outcomes. We call on the European Commission to expand such funding opportunities without skewing the FP10 budget away from fundamental and curiosity-driven research.

This means that the ERC Proof of concept scheme should not grow to the detriment of the other schemes. **We recommend that the EIC Transition instrument remains open to all projects funded under the framework programmes and invite the European Commission to make sure that a higher number of FP-funded research projects with clearly promising and exploitable outcomes have a fast-track and smooth access to the EIC Transition funding.** This implies that this instrument gets a higher share in the total EIC funding budget without affecting the EIC Pathfinder scheme. Proof-of-concept funding

must be flexible, easy to implement by small consortia involving researchers, and focused on the activities that the researchers deem the most appropriate in their strategy to put their knowledge to good use.

3. Embrace a knowledge valorisation-oriented approach

We urge the European Commission to follow its flexible approach to knowledge valorisation – understood as the exploitation of research outcomes to create economic and societal value – and not to consider technology transfer and academia-industry collaboration as the only possible means to generate such impacts. **Researchers themselves should determine how most appropriately to exploit the knowledge generated through their research.**

We strongly stress that **there should be no systematic requirement to engage in knowledge valorisation, especially for fundamental research projects**, since their outcomes cannot reasonably be foreseen. Similarly, no specific knowledge valorisation channel (e.g. citizen engagement) should be made compulsory, as this would not take into account the idiosyncrasies and diversity of innovations and ecosystems, and it might even hinder the exploitation of research outcomes.

We welcome support to strengthen the capacity and institutional strategies of universities for knowledge valorisation. **Capacity-building funding opportunities must nevertheless be open and flexible for bottom-up approaches and a variety of activities, to allow for genuine institutional impacts to emerge from transnational projects.** In other words, it is important to leave the applicants freedom to define activities and how they will enhance their capacity for knowledge valorisation, since needs and starting points vary across institutions and countries. At the same time, duplication of the types of support available at national and regional levels (such as through funding from the European Regional Development Fund) should be avoided, in order to focus on capacity-building activities that gain added value from European collaboration.

4. Re-centre the European Institute of Innovation and Technology on building knowledge triangles

Knowledge valorisation requires universities to be well integrated within their innovation ecosystems. The initial ambition of the European Institute of Innovation and Technology (EIT) to build and strengthen these ecosystems across Europe is therefore highly relevant and should be pursued under FP10. Its added value in comparison with other European partnerships lies in its aim to better integrate research, education and innovation activities, forming what is described as the knowledge triangle. The activities of the Knowledge and Innovation Communities (KICs) must complement the funding provided through the EIC by supporting smooth knowledge flows between all ecosystem actors.

We reiterate our concerns about KICs prioritising activities with a business case and that are

linked to their financial sustainability. By neglecting education-related activities (e.g. those that aim to diffuse the latest research outcomes through teaching, or to improve skills and capacities in order to generate value out of research outcomes), these KICs depart from their unique role and raison d'être: strengthening innovation ecosystems based on the idea of the knowledge triangle.

For this reason, **while acknowledging the autonomy of each KIC, we strongly recommend that the European Commission ensure that they operate in accordance with their primary objective and bring education, research and innovation closer to each other.**

Otherwise, the added value and therefore relevance of their financing through FP10 will be severely diminished.

Finetune funding for capacity building

The horizontal opportunities dedicated to reforming and enhancing the European R&I system have great potential to advance the ERA in a number of priority areas, while improving the enabling conditions for research excellence in the participating institutions.

The future ERA pillar should focus on supporting meaningful initiatives that aim to improve key areas of institutional development and reforms in the R&I sector. **Less prescriptive calls which truly reflect the needs of the universities and other research performing institutions would be welcomed. Call topics allowing bottom-up approaches could make the ERA pillar more attractive to researchers and universities.** These could include support for knowledge valorisation activities, interdisciplinarity, the use of artificial intelligence in education and research, improving research careers etc. An increased number of RIAs focused on generating new knowledge on these types of themes besides the coordination and support actions (CSAs) should also be considered. Likewise, the visibility of the calls should be improved. We suggest separating the ERA calls from the ones targeted at Widening countries to provide more clarity to potential beneficiaries.

Equally important, policymakers should mobilise the EU's structural funds to support R&I capacity building. Establishing links between the ERA priorities and regional R&I strategies will be crucial. If it provided incentives to beneficiaries to introduce institutional changes, Europe would benefit from better national uptake of the reforms promoted by ERA. Member States should be encouraged to dedicate funding for R&I activities of universities in their national operational programmes, and make better use of the Seal of Excellence and transfers of structural funding to the framework programme to further support researchers.

Articulate a vision to close the R&I gap

Strengthening research excellence and increasing the participation of the (Widening) countries with lower R&I performance must remain one of the principles of the framework programme (FP10). Instead of calling for the removal of the Widening dimension in FP10, The Guild calls insistently for a clear articulation of how Widening measures relate to other parts of FP10 and to each other, and what their ultimate objective is. While the focus on excellence is crucial for setting the standards for the quality of R&I across Europe, we should also ensure that R&I capacity is boosted. This is **not a zero-sum game**. Ultimately, R&I underperformance represents a barrier to competitiveness, growth and jobs, while brain drain affects Europe's cohesion.

The European Innovation Scoreboard 2023 shows that the gap is increasing as the leaders are moving faster than others. The performance differences within the group of Emerging innovators have not narrowed and they are not catching up with the Moderate innovators¹⁰.

Since the introduction of Widening measures, the goal has been to improve the overall participation and success rates in framework programmes. The average success rates of applications from Widening and non-Widening Member States under Horizon Europe are converging with the biggest differences remaining in ERC and EIC. However, structural changes in Member States also require co-investment at national and regional level as confirmed by the Court of Auditors Special Report on Widening measures¹¹. The long-term goal of Widening measures should be to **close the R&I gap and achieve more cohesion in Europe**. As the mid-term goal, Widening measures should **increase participation (and coordination roles) by countries with lower R&I performance in the framework programme**. Against this background, we expect countries to phase out from the Widening group as they improve their performance.

Instead of focusing on "improving access to excellence", the framework programme should **empower institutions and researchers in Widening countries** to "improve their own performance, increase capacities, and become R&I leaders¹²". In the end, Widening is about strengthening and making better use of Europe's entire talent pool.

10 – European Commission (2023), European Innovation Scoreboard 2023, Publications Office of the European Union. DOI: 10.2777/119961.

11 – European Court of Auditors (2022), Measures to widen participation in Horizon 2020 were well designed but sustainable change will mostly depend on efforts by national authorities, Special Report 15/2022. DOI: 10.2865/359822.

12 – Alliance4Life (2023), Alliance for Life Policy Paper on Efficiency of Widening Measures, <https://alliance4life.ceitec.cz/news/policy-paper-on-efficiency-of-widening-measures-was-published/> (last access: 1 May 2024). The Alliance4Life consortium consists of 12 leading life science institutions in Central and Eastern Europe, including two Guild members, the University of Tartu and the University of Ljubljana.

1. Invest in areas with a proven track record in excellence

The current approach to Widening, which is based on the country's overall performance, should be kept. The Widening work programme builds on existing pockets of excellence and connects them to broader networks in Europe as future drivers of the knowledge economy. The aim should be to further strengthen their capacity to succeed in winning competitive excellence-based funding. Therefore, the framework programme should continue targeting institutions that have already demonstrated a strong capacity to compete and attract international researchers. Although there is also growing divergence in R&I among European regions, those needs should be answered by Cohesion Policy instruments.

2. Invest in measures with proven success

The Guild strongly supports investment in instruments that have proven their added value – Teaming, Twinning, ERA Fellowships, Seal of Excellence (SoE). Widening instruments have not all worked uniformly well, and some measures have been introduced only recently.

ERA Fellowships (previously MSCA Widening fellowships) should be strengthened. The MSCA Mobility Flows study¹³ showed that these fellowships were important for attracting international researchers and promoting the return mobility of experienced researchers with an average increase of 56% in the number of grants to Widening countries. Similarly, the preliminary findings of the Horizon Europe interim evaluation consider the ERA Fellowships to be a significant step forward in increasing research funding in Widening countries.

To highlight the fact that the scheme supports excellent researchers, we suggest rebranding the fellowships to include the MSCA label. As there are no differences between Widening and MSCA Postdoctoral fellows in the evaluation process, the level of grants, or the evaluation scores they receive, the label would help raise the visibility of the scheme in the research community. The available data shows that most ERA fellows are hosted by only a few Widening countries since researchers are guided by the attractiveness of the country's research system. The Guild recommends prioritising the geographical diversity criterion for ex-aequo ERA Fellowship proposals, to enable more Widening countries to benefit from the scheme.

The Seal of Excellence (SoE) should be further promoted and simplified. It provides additional motivation for researchers applying under the MSCA calls. However, SoE grants are based on national rules and procedures which can cause an administrative burden for applicants and make the SoE grant less attractive. We encourage Member States to use national and Cohesion Policy funds to support MSCA proposals with the SoE, but in a streamlined way to facilitate implementation. Again, the prestige of the SoE could be made more attractive with the MSCA label.

13 – European Commission (2022), Study on mobility flows of researchers in the context of the Marie Skłodowska-Curie Actions – Analysis and recommendations towards a more balanced brain circulation across the European Research Area, Final report, Publications Office of the European Union. DOI: 10.2766/401134.

3. Mainstream Widening elements across the framework programme

The Guild supports the mainstreaming of Widening elements across the framework programme, as it would be counterproductive to focus on closing the R&I gap through the Widening pillar alone. **Mainstreaming would be beneficial for Widening countries wishing to boost their participation in other parts of the framework programme such as ERC or EIC.** It would also offer more research opportunities across the framework programme in addition to CSAs, thus making it more attractive to researchers from Widening countries. Here, we suggest strengthening initiatives such as the ERC Visiting Fellowships Programmes and ERC Mentoring Initiative. We also urge the promotion of further initiatives to leverage FP funding, such as the use of SoE to support unfunded high-quality ERC projects.

4. Diversify measures to reflect the heterogeneity of needs

Measures aimed at Widening countries should continue to cater for different needs. National contexts and investment levels vary, notwithstanding changes in political priorities. A toolbox of measures ranging from CSAs to RIAs would be needed also in the context of EU enlargement and in the transition phase of more advanced Widening countries. However, a clear articulation of how different Widening measures relate to each other is necessary, as is a clear strategy by the Member States to create synergies with national R&I priorities.

The current framework programme, Horizon Europe, is focused on building innovative ecosystems in Widening countries rather than supporting activities at the level of research teams. Research grants for research teams with distinct deliverables should be at the core of the framework programme. **Therefore, a better balance between system-level initiatives and instruments aimed at individual researchers is needed.** Also, The Guild calls for a Widening instrument that supports early-career researchers with a grant to start smaller scale collaborations. This type of measure is lacking – on one hand there are networking opportunities such as the European Cooperation in Science and Technology (COST) or Twinning and on the other hand more ambitious instruments aimed at institutional changes such as Teaming.

5. Evaluate existing instruments to boost what really works

If the Widening instruments are still aiming to increase the Widening countries' success in other parts of the framework programme, then we should make sure that this goal is met. Although it is difficult to establish causality, more data are needed to answer the following questions: Does success in Widening measures lead to better overall success in the framework programmes? How is the investment from the framework programmes complemented from national and/or cohesion funding? Why are certain instruments successful? Are there cases of low R&I investment at national levels but high levels of participation in the framework programmes? Data would also facilitate better understanding of the expected impact of Widening projects and possible modifications. For example, Widening actions had a positive impact on research intensity: nearly one in three of the highly cited publications of Horizon

2020 produced by Widening Member States came as a result of Widening actions¹⁴.

The European Universities initiative is an important driver to scale up mobility, foster cooperation and stimulate career opportunities for students and staff members. The added value of participating in an alliance relies on universities having sufficient means to shape the alliance and bring about excellence. Although exchanges at the institutional level are welcomed, they do not target bottom-up research collaborations as such. It would be beneficial to analyse whether participation in an alliance leads to increased participation in the framework programmes.

6. Prioritise synergies with Cohesion Policy

The structural causes of R&I underperformance in Widening countries need sustained engagement at national and EU levels. So far, the primary funding source for synergies has been Cohesion Policy funds, followed by the Recovery and Resilience Facility and national and/or regional funds.

If we wish to close the gap, **synergies at the level of policy and programming must be a priority for the next framework programme**. We call for a greater proportion of Cohesion Policy funding to be dedicated to building capacity in R&I. Furthermore, a greater proportion of this funding must be linked to **supporting the enabling of conditions for excellence**.

Investment from the European Regional Development Fund (ERDF) in countries with lower R&I performance has been crucial in increasing the quality of their research and higher education sector by supporting capacity-building activities, research infrastructures and human resources, early-career researchers, internationalisation and mobility. It is impossible to strengthen a university's place in the regional innovation ecosystem without better supporting its research capacity. **Universities should be supported in their core missions that the ecosystem depends on**. Any vision for closing the gap must include a focus on how R&I can be better supported by European and national actors, and how these instruments complement each other. Therefore, it is crucial that universities work with national authorities and are formally involved in the design of Smart Specialisation Strategies in their contribution to the R&I capacities of their ecosystem. There is a need for greater support for research activities at lower TRLs that can either be linked or independent from university-industry collaboration. This should be reflected in the funding available for universities under ERDF and the types of projects that are eligible in the implementation programmes of these funds.

Guidelines on synergies between ERDF and Horizon Europe¹⁵, although welcomed by the sector, represent only the first step. For example, MSCA applicants still encounter administrative difficulties in relation to the SoE. We recommend developing guidelines for national/regional authorities to shape the financing conditions as closely as possible to the MSCA scheme to ensure the greatest impact of synergy. Additionally, in some cases, strict

14 – European Commission (2023), Evaluation study of the European framework programmes for research and innovation for excellent science – Horizon 2020 – Phase 1 final study report, Publications Office of the European Union. DOI: 10.2777/967813.

15 – Commission notice of 5 July 2022 on Synergies between Horizon Europe and ERDF programmes (C(2022) 4747 final).

adherence to the Smart Specialisation Strategy focus areas makes it difficult to support postdoctoral fellows across all research fields.

Another example is the use of ERDF funds for **Teaming Centres of Excellence**. Although the Teaming call foresees complementary funding for infrastructure and equipment costs, universities in some countries have experienced limitations in using ERDF funds for that purpose and have had to mobilise national co-funding instead.

Finally, **researchers from Widening countries lack funding to build excellence within their home institutions**, including research labs and support to build research groups. Here, national and Cohesion Policy funds must play an important role.



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