



PUSHING
THE FRONTIERS
OF INNOVATIVE
RESEARCH

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LERU's blueprint for FP10

Recommendations for the next
EU Framework Programme for
Research and Innovation

LEAGUE OF EUROPEAN RESEARCH UNIVERSITIES

University of Amsterdam • Universitat de Barcelona • University of Cambridge • University of Copenhagen • Trinity College Dublin •
University of Edinburgh • University of Freiburg • Université de Genève • Universität Heidelberg • University of Helsinki •
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Ludwig-Maximilians-Universität München • University of Oxford • Sorbonne University • Université Paris-Saclay •
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Executive Summary

Research and innovation are strongly interconnected with the priorities of the European Union: moving towards greater strategic autonomy, stimulating sustainable green and digital transitions, and sustainable transitions in the economy and society in general. These all require more research and innovative products, technologies, services, and policies stemming from this research. A wave of public and private investment in Europe is needed to enable this, beyond the target of 3% of GDP. To ensure this investment also pays off in the long run and helps to prepare for the unforeseen, it is necessary to look beyond immediate gains by increasing funding for basic research, alongside more applied research, and to continue funding across all disciplines or challenges. Adopting a human-centred approach to EU R&I priorities is key to asking the right questions and ensuring relevance to citizens.

The European Framework Programme (FP) for Research and Innovation (R&I) has become, over the past decades, an important cornerstone of the European R&I landscape, and as such it needs to be strengthened to contribute to the maximum of its potential to addressing EU priorities and societal challenges. A ring-fenced budget of €200 bn is needed to ensure this. While funding is crucial, harmonising regulatory frameworks is important too, facilitating scale-up across Europe and stimulating cross-border collaboration in research, innovation and education.

For FP10, LERU envisages a continuation and strengthening of the European Research Council, the Marie Skłodowska Curie Actions and the European Innovation Council's Pathfinder and Transition schemes, maintaining their current characteristics and increasing their budgets. Support for research infrastructures and top-down, priority-driven, collaborative funding like the current Pillar II is also crucial and should be continued in FP10. In general, LERU calls for a better balance between funding for basic, applied, and close-to-market R&I activities, with more opportunities for basic research in FP10 than in Horizon Europe.

To stimulate creativity and allow for more agility within the top-down priority-driven collaborative part of FP10 LERU proposes a series of relatively small but important changes, such as introducing Research Actions, developing bottom-up calls at destination level and funding smaller projects in addition to larger projects. Smooth transitions between different parts of the FP should be stimulated, including transitions from innovation back to basic research, in order to better address the complexity of R&I process. Less prescriptive Strategic Plans, Work Programmes and calls, with less detailed outcomes and impact pathways, will allow for greater flexibility. Interdisciplinarity should continue to be stimulated and the Arts, Social Sciences and Humanities (ASSH) should play a greater role in developing R&I priorities and research questions.

Scaling and pooling effort across the EU R&I funding landscape is an important task of the FP. Despite efforts to rationalise the partnership landscape, increasing the accessibility of partnerships has proven to be difficult. LERU recommends selecting partnerships carefully, where they have most added-value and reducing the share of funding for partnerships in FP10, allowing more traditional consortia to be funded. For missions, LERU proposes their adoption at an EU wide level, with only the R&I activities funded by FP10.

Open international collaboration should continue to be the starting point for FP10, especially for research-focused projects, taking concerns of research security into account but avoiding too much red tape. LERU favours a continuation of the association of strong R&I countries, but emphasises that the UK and Switzerland are different, closer partners in this regard. We hope that the EU, UK, and Swiss authorities can ensure a swift association of both countries to FP10.

Competitive calls with a credible, excellence-based assessment are key characteristics of the FP, which should be guaranteed in the future. Academic freedom and European values should guide the FP and its beneficiaries. LERU also emphasises the importance of Equality, Diversity and Inclusion, and of Open Science as leading principles, both for the FP and the European Research Area (ERA). FP10 should be proactive and stimulate these principles with beneficiaries.

Another important principle to adhere to for FP10, as was the case for previous FPs, is stimulating simplification. For FP10, LERU recommends a focus on simplification for applicants, ensuring the FP is easy to navigate and that application processes have a lighter touch. Some of the recommendations LERU makes for simplification in FP10 are: simpler Strategic and Work Programmes and calls for proposals, with less EU speak; equal early access to these documents; more two-stage application processes; and no description of standard conditional elements in the first application stage.

Synergies should be stimulated at different levels: between projects, between parts of the FP and between different EU programmes and possibly even beyond. To enable synergies between programmes, LERU underlines that including the necessary provisions in legal texts of the programmes is key and proposes in addition to develop designated pathways from FP10 into relevant other programmes, and to set up a cross-unit service to monitor and steer this process.

Last but not least, the role of research infrastructures and of knowledge, research and innovation ecosystems is underlined. Infrastructures and ecosystems should be supported in FP10, especially stimulating collaboration and exchanges practices. The approach to widening participation should be reconsidered, focusing more on increasing success throughout the FP. Many of the recommendations in the paper would certainly contribute to this.

The European Research and Innovation Framework Programme is a crucial programme to promote excellence, to strengthen the research profession, to encourage collaboration across borders,

disciplines, and sectors and to trigger better take-up of research results in the EU and beyond. In short, it not only funds important R&I activities, but it also drives change in the R&I landscape, ensuring an enhanced contribution to the EU's competitiveness and sustainable prosperity. This paper should be seen as a confirmation of the importance of the FP and as a commitment of LERU and its member universities to contribute to it. LERU looks forward to discussing the ideas set out in this paper with the European Commission, Member State representatives, members of the European Parliament, and with the High-Level Expert Group.

Introduction

The importance of the EU Research and Innovation (R&I) Framework Programme (FP) for European society and European competitiveness, and for the R&I landscape in Europe in general, cannot be emphasised enough. With this paper, LERU wants to explicitly underline this importance and contribute to the development of the next FP, for now called FP10, to make it even more robust and impactful than Horizon Europe already is.

The paper is intended to provide a comprehensive and detailed insight into the characteristics and parts of the FP that LERU considers to be crucial, what is functioning well and where we believe there is room for improvement. This analysis and the recommendations made are based on LERU members' extensive experience with FP programmes and funding. It brings together some older and some new ideas, and adds detail to our previous key messages for FP10¹. Other papers or statements related to the FP, for instance on the European Universities Alliances, may follow in due course and complement this paper.

¹ <https://www.leru.org/publications/key-messages-for-fp10>

1. An ambitious EU Framework Programme for Research & Innovation, a priority for the EU in a changing world

More research and innovation are needed to support the EU in a changing world

The Covid pandemic, plus the war in Ukraine and the geopolitical tensions that it has caused have had a profound impact on the priorities of the European Union. While support for the green and digital transitions is still very much needed, the increasing focus on achieving greater strategic autonomy has brought industrial policy again to the forefront of EU policy making, with the Chips Act and Critical Raw Materials Act as clear steps in that direction. Defence has also surfaced strongly as an EU priority. Realising these priorities will require a wave of public and private investments in different policy areas, including research and innovation as R&I is clearly interlinked with the twin transitions and with new and emerging industry needs. It will also require combined efforts at EU as well as at national level across the continent.

More research and innovation are needed to achieve strategic autonomy in the longer run, and to further stimulate sustainable transitions in both society and the economy. This includes, for instance, research into new types of batteries and heat storage systems, and into transporting and trading inexpensive electricity from renewable sources such as photovoltaic plants². In order to realise these goals within the set timeframes more research in these areas is urgently needed. However, the EU also needs to ensure that any economic transition is sustainable and that these transitions strengthen society, not deepening the growing tensions caused by rising inequality, a loss of faith in democracy and a lack of social cohesion. A focus on industry and economy alone will further alienate European citizens from EU policy and from politics in general. A more human-centered approach to research and innovation is also needed to address and mitigate this risk. For example, research on the behavioural and social factors governing attitudes to sustainability and on societal acceptance of novel technologies also needs attention.

While more effort is needed in areas of direct relevance to strategic autonomy and industrial competitiveness, it would be a terrible mistake to gear all funding towards these ends. Both the Covid pandemic and the war in Ukraine have clearly shown that priorities, and the research areas needed to address them, can change quickly in times of crises. The development of the Covid vaccines illustrates the importance of funding curiosity-driven research to solve tomorrow's problems. EU research funding programmes have significantly supported the early stages of Professor Uğur Şahin's mRNA vaccine research, including through an ERC Advanced Grant³. It is an absolute necessity to strengthen funding for fundamental research, to feed the innovation process and to lay the foundation for solutions to the problems of tomorrow. In times of crisis, politicians tend to focus on what they think will pay off in the short run. However, for the above-mentioned reasons, striking a better balance between funding for research and for innovation is a must, also in FP10.

So, more research and more innovation across different stages of the R&I process and across disciplines is needed to secure strategic autonomy and sustainable competitiveness, and to be prepared for unforeseen crises. This also requires more well-trained researchers, in academia and beyond, to undertake this research, to support the translation of research into society, and to drive innovation more generally.

Increase investment in R&I also at EU level

A key condition for more R&I and more well-trained researchers is increased investment. To follow the developments in the United States and China, and remain a relevant competitor at the global stage, the EU needs to increase investment in R&I beyond the current target of 3% of GDP. This increased investment is needed at different levels, at national/regional level and at EU level, and should come from public as well as private sources. In addition to investing more in R&I, an increased investment in education, including higher education, is needed to ensure more people have the appropriate technical and soft skills needed in a rapidly changing society and economy.

² Examples used by Joël Mesot, President of ETH Zurich, in his speech at Davos World Economic Forum 2024, <https://www.weforum.org/agenda/2024/01/universities-research-emerging-technologies-economic-resilience/>

³ <https://erc.europa.eu/news-events/magazine/tackling-covid-19---role-european-research>

The EU R&I Framework Programmes have become an indispensable part of the European funding landscape, with characteristics that are complementary to, and therefore cannot be replaced by, national or regional funding mechanisms: raising the level of research excellence through global competition; attracting and retaining top researchers; increasing the attractiveness of research careers for young researchers across Europe, both within and beyond academia; stimulating and leveraging cross-border R&I collaboration in crucial areas and global challenges and scaling effort. As the recent Horizon 2020 evaluation has shown, investing in the FP pays off. Every euro linked to costs made in Horizon 2020 will bring five euros in benefit to EU citizens by 2040⁴. LERU therefore calls on the European Commission to be ambitious for FP10 by foreseeing a considerable budget increase in its proposal for the next Multi-Annual Financial Framework (MFF) 2028-2034. We repeat that a budget of €200 bn for FP10 is necessary to realise the programme's full potential in contributing to a sustainable and prosperous future for the EU in the short and long run.

In addition to a €200 bn budget, we need a sufficiently large reserve at the MFF level so that allows to fund new initiatives or priorities across policy fields can be funded without depleting the budgets of EU programmes like FP10, which should be ring-fenced. The current set-up of the MFF makes the unprotected R&I FP budget the first and most popular victim for budget transfers or decreases. This needs to be avoided in the future.

Unify regulatory frameworks to stimulate more R&I

As mentioned above, it is important to provide sufficient funding throughout the R&I process, including for close-to-market R&I and proof-of-concept work. However, while increased funding is an absolute necessity for research, innovation and the training of researchers, funding alone will not be sufficient to ensure Europe becomes better at innovation and at keeping promising start-ups on the continent. Unifying regulatory frameworks across borders, for instance on VAT, bankruptcy rules and intellectual property, would make a big difference in this regard, increasing the attractiveness of Europe for the scaling of innovative technologies, products, and services. The approach currently tested in regulatory sandboxes, for instance on AI, is very interesting, but needs to be broadened to the entire EU.

Realising both the European Research Area and the European Education Area requires similar efforts, ensuring mobility of researchers and students, and that European collaboration is not hampered by borders. LERU is pleased to see this recognised in the Letta report "Much more than a market", where the suggestion to add a 5th freedom to the single market, to enhance research, innovation and education, explicitly points to the importance of "*dismantling administrative and legal barriers to foster a vibrant exchange of expertise and open the door to unique research opportunities*" and to "*harmonise and uniformly implement laws across MS, simplify bureaucracy, expand the use of regulatory sandboxes*".

4 https://ec.europa.eu/commission/presscorner/detail/en/IP_24_461

2. Evolution from Horizon Europe to FP10, building on the success stories

For FP10 LERU envisages an evolution instead of a revolution, building on those aspects or parts of Horizon Europe and its predecessors that have proven added-value, impact and attractiveness. We support maintaining four parts in the FP: one supporting excellent, frontier research; one supporting innovation; one for collaboration on set priorities or challenges; and a fourth, smaller part focused on support for R&I through research infrastructures, enhancing R&I performance and ecosystems development.

Within these different parts, four funding schemes are and should continue to be the backbone of the FP, namely those that best translate the characteristics mentioned in the introduction: the European Research Council (ERC), the Marie Skłodowska Curie Actions (MSCA), the European Innovation Council's (EIC) Pathfinder and Transition schemes, and the challenge-driven, collaborative funding scheme (currently Pillar II).

European Research Council (ERC)

The funding the European Research Council (ERC) provides for excellent, fully investigator-driven research ideas across disciplines has become an indispensable and world-renowned part of the European funding landscape, and of the Framework Programme in particular. In the 17 years of its existence, the ERC has proven its added value by challenging researchers to be ambitious and original, generating impressive impact, in the research domain and beyond, and training many excellent early-career researchers. This is clearly demonstrated by several ERC reports⁵, which highlight, for example, multiple Nobel prizes awarded to former ERC grantees and over 2,400 patents and other IPR applications reported by ERC projects. Hence, the fact that many ERC proposals are evaluated as excellent but cannot be funded because of a lack of budget is a real loss for Europe. A considerable increase of the ERC budget is very much needed, to fund more excellent, ground-breaking, impactful research and to allow for an increase in the reimbursement rates for ERC grants. The current rates are still those set 17 years ago, while the costs of living, research supplies and energy have increased considerably.

In addition to increasing the ERC budget, LERU strongly underlines the importance of maintaining the independence of the ERC Scientific Council, the completely bottom-up character of ERC funding, the focus on young researchers in addition to established ones, and the ERC's engagement to fund step-change research projects where incremental or easy wins are outside of the scope for funding.

Marie Skłodowska Curie Actions (MSCA)

LERU universities notice that it is increasingly difficult to attract and keep young people in the research profession. FP10 should seek to help reverse this worrying trend by supporting and incentivising the development of attractive research careers, both within and beyond academia, even more strongly than in previous FPs. The ERC, FP10 as a whole, but especially the Marie Skłodowska Curie Actions (MSCA) play an important role by continuing to set the quality standard for early-career researchers, stimulating mobility and improving the training of doctoral candidates. LERU supports MSCA as a fundamental part of the FP and would welcome a continued focus on Doctoral Networks and Postdoctoral Fellowships. LERU underlines the need to increase the MSCA budget in FP10 considerably for the Actions to continue to play their structuring role and fund more excellent early-stage researchers' mobility.

European Innovation Council (EIC)

The European Innovation Council (EIC) is too young to have a strong track record comparable to ERC and MSCA. But based on the experiences with the EIC Pathfinder's predecessor, the Future and Emerging Technologies (FET) funding stream, with the EIC pilot and with the current EIC Pathfinder and EIC Transition schemes, LERU advocates continuing and strengthening EIC Pathfinder and EIC Transition in FP10. Both schemes function very well, offer attractive funding opportunities for research and innovation and are complementary to already existing programmes. The low success rates indicate that there is a real interest in the type of funding offered and a clear margin for growth.

⁵ See for instance, <https://op.europa.eu/en/publication-detail/-/publication/3a11d526-ceab-11ed-a05c-01aa75ed71a1>

EIC Pathfinder, by providing funding for bold ideas for radically new technologies based on high-risk high-gain, and interdisciplinary research collaborations, is unique and very attractive to researchers. EIC Transition is an excellent next possible step for further developing novel technology and/or a business case and model for future commercialisation.

While the EU needs an instrument offering direct investment for the scale-up of companies, the logic of debt and equity is fundamentally different from that of grant funding. Mixing both, as is currently the case in the EIC Accelerator, is very difficult given the well-known economic phenomena of moral hazard, selection biases, agency, and information asymmetries, etc. Problems related to paying the EIC Accelerator's direct investments have clearly shown this in recent years. For FP10 LERU recommends an honest assessment of the blended approach between grant, equity and debt and of the position of EIC Accelerator in the FP.

Top-down, challenge-driven, collaborative funding

A fourth part of the FP which is much appreciated by the research community and supported by LERU is the top-down, challenge-driven, collaborative funding, now offered in pillar II of Horizon Europe. It is the funding for interdisciplinary, international and/or intersectoral teams, working towards addressing societal challenges which makes this part of the FP so important and attractive. Research is a team effort. Funding that recognises this is very important. LERU also pleads to a large extent for continuity in this part of the FP. However, to strengthen it, we propose changes that will help to further increase the impact, efficiency, and accessibility of the FP budget directed to top-down priorities and societal challenges (see points below).

Research Infrastructures

Although not being one of the main funding priorities, unlike the four funding schemes mentioned above, the importance of research infrastructures for FP10 needs to be underlined. Research infrastructures are of increasing importance for the international competitiveness and strength of research across disciplines. LERU's views on FP10's role in this regard are set out in point 10 below.

3. Better support of the R&I process by stimulating smooth transitions and new ideas

Like its predecessor, FP10 should aim at contributing to more innovation, i.e. the development of new products, including processes, policies, or technologies, and to positive transformations in society. At the same time, FP10 should support research across disciplines to address the many still-existing gaps in our understanding of, for instance, the human body, human behaviour and culture, the universe or processes impacting our planet. Increased knowledge will serve society in a variety of ways and will lead to more and better innovative products. The forthcoming global competition in deep-tech, personalised medicine, advanced materials and many other areas will further increase the role of research for innovation. Therefore, investment in research, also at pre-competitive stage, should be increased in FP10, across the full FP, and also in the successor to Pillar II. In addition to balancing investment across the R&I process, it is vital that more researchers are trained, with the right skills, to undertake this much needed research and to translate the results into innovation and benefits for society.

Most innovation stems from research. But while most innovative products have a research basis, they are hardly ever the result of a linear development from fundamental research to an applicable product. Most of the time, they are the result of multiple iterations whereby innovation activities can also generate new research questions, for instance when a new material or new medicine is tested, but without the desired result. FP10 should recognise and support this process better than Horizon Europe currently does.

The impact of FP10 would benefit from more and smoother transitions from one funding scheme to another. There are already good connections between the EIC and ERC with, for instance, more than 50% of the proposals funded under the EIC Transition scheme stemming from ERC grants in 2022⁶. Linkages between Pathfinder and Transition and other parts of the FP should be further stimulated in FP10. But FP10 should also openly promote and facilitate the upcycling of ideas and/or employment promising ideas in developing responses to global challenges, for instance in post-competitive collaborative projects. In this section, LERU makes recommendations on how to realise more smooth transitions, especially for what is now Pillar II, moving away from a linear approach to the R&I process.

Introduce Research Actions

To make it clear and explicit that basic research approaches to set topics, alongside applied research and experimental development, are wanted in FP10's successor to pillar II, LERU promotes the idea for the European Commission (EC) to introduce Research Actions (RA) as a new instrument, alongside the existing Research & Innovation Actions (RIA), Innovation Actions (IA), and Coordination and Support Actions (CSA).

Develop calls for bottom-up projects within top-down priorities

At the level of what in Horizon Europe's 'destinations', LERU recommends having bottom-up calls in addition to more targeted calls. These bottom-up calls should allow for potential funding of the latest developments in R&I that are not yet captured in the more specific calls for proposals, including new research questions arising from innovation projects. The applications to these bottom-up calls should also help to identify knowledge gaps that could feed into future calls. Instead of having a specific deadline for these calls, we envisage two cut-off dates per year. These calls should have a two-stage evaluation, but with the least possible gap between stages. There are examples in the current FP of calls that head in the direction we envisage⁷. Such calls should be organised across all priorities, at destination level, in FP10. In order to prepare for this type of call, a pilot in Horizon Europe could be organised.

Stimulate a mix of smaller and larger projects

LERU is convinced that an increased variety of consortia sizes and project durations would generate a more interesting dynamic and mix of outcomes. Although we understand that the current practice of funding fewer, larger consortia per call might be easier to manage for the EC, it is important to note that it is increasingly difficult to find coordinators for these large consortia. Also, the larger the project, the less agile it becomes. Therefore, LERU recommends introducing separate calls for smaller projects, for instance for the Research Actions mentioned above or for Innovation Actions. These smaller calls should complement larger calls, allowing a mix of consortia of different sizes to be funded within the same destination. The approach should not necessarily be the same throughout, since in some destination or broad topic areas larger projects make more sense than in others.

⁶ <https://erc.europa.eu/news-events/news/speech-european-parliament-itre-committee>

⁷ <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-cl3-2023-fct-01-04>

Follow-up funding

It is very positive that EIC Transition is now accessible to pillar II projects, and this logic should be continued in FP10. To enable a smoother transition for pillar II projects to EIC Transition, LERU proposes that the EC introduces 'follow-up funding' for consortia in FP10. This is an older idea, but one which is still very valid. This follow-up funding should be a sort of proof-of-concept grant, allowing a consortium to take the necessary steps in order to turn a project research result into a tangible outcome. It should be a rather small amount of funding for a limited period of time. The application process for this small grant should be light-touch and allow consortia to continue their work without interruption. This follow-up funding should be a step towards EIC Transition and not overlap with it.

No artificial TRL levels

As already stated on many occasions⁸, LERU is not in favour of maintaining the current TRL approach in the future. It promotes the idea of R&I as a linear process, splits that process into artificially small pieces and is only relevant for few R&I activities. On a meta level, we would prefer to avoid a split of the R&I process all together, but for evaluators and applicants it is useful to have some indication of what is expected from a certain call. A possible alternative to TRL levels, would be to use the distinction in the OECD's Frascati Manual (2015) between basic research, applied research and experimental development. This could link to the instruments proposed above (RA, RIA and IA).

8 First of these occasions, was in the LERU paper 'The Strength of Collaborative Research for Discovery in Horizon 2020' published in August 2016.

4. Clear, top-down priorities, but less prescriptive and human-centred

Pillar II's successor should focus on a limited set of priorities, namely a mix of industry-driven and societal priorities, supporting a competitive and sustainable Europe in a more competitive and sustainable world. While priorities and topics for calls should be set top-down, more flexibility and agility should be stimulated. Also, as indicated in the introduction, Europe needs to adopt a more human-centred approach, including for industrial priorities, especially when end-user driven. In this section, we set out how to realise these goals, while maintaining to a large extent existing practices and structures.

Limit the level of detail in the Strategic Plan and ensure it is informed by recent research insights

The Strategic Plan is a good way of identifying priorities and challenges for the successor of pillar II. For FP10 however, LERU recommends limiting the level of detail in future Strategic Plans as the current level of detail is hampering the flexibility and agility of Horizon's pillar II. The Strategic Plan should set out in clear and simple ways the overall aim of the different parts of FP10.

The formulation of research questions should be informed by society's needs, interests and characteristics, hence allowing for a human-centred approach. To ensure that the right questions are asked and that the most recent insights are taken into account, it is important to have a closer engagement with researchers in the drafting of the Strategic Plan, especially, but not only, researchers from the Arts, Social Sciences and Humanities. This engagement should not be limited to a general, public consultation but more actively be organised by the EC. The stakeholder feedback tool that the EC is testing for the Horizon Europe Work Programmes 2025 is an interesting and welcome step in this direction. We suggest widening this to the Strategic Plan, ensuring that, while open to all, researchers are actively stimulated to engage with it.

Allow for more agility and flexibility in Work Programmes and calls

To stimulate the agility and flexibility of pillar II's successor, LERU advocates for Work Programmes with destinations that, based on the Strategic Plan, provide direction for a given challenge without prescribing what approach offers the best solution. Calls for proposals should have clear and coherent outcomes, without defining scopes that make it impossible for projects to suggest novel solutions, ideas and methodologies to tackle the topic at hand.

The scope in calls for proposals should be limited to few bullet points, for instance indicating the need for a human-centered approach. In short, a call should outline the goal but allow participants to employ the most up-to-date knowledge and methodology when they design projects that help the EU to reach the goal.

The drafting process of the current Work Programmes, from idea to publication, is very long and complicated. This may make the initial demand for the call text obsolete, even before proposals are evaluated. Both limiting the scope in calls and the introduction of bottom-up calls within set priorities (see point 3 above), should make the calls in FP10 more adaptive to change.

Rethink impact pathways

The impact approach adopted in Horizon Europe's Pillar II has been an important development, ensuring consortia consider the impact of their work. However, the current approach to impact is too detailed and rigid. LERU observes that the overly prescriptive character of impact pathways leads to generic and uninspiring descriptions of how impact will be achieved and who will benefit. Therefore, we recommend that in FP10 the EC not pre-empt the impact pathways a project needs to address. Impact pathways, as LERU has envisaged in its Impact in the next FP note, should be more flexible, stimulating consortia to consider impact in different ways, choosing those best suited to their project, instead of pushing them into too many and too inflexible pathways, again limiting the flexibility and agility of projects.

An important impact of research, especially in universities, is how it is translated into education. LERU supports the call for a 'research-informed education' impact pathway in FP10, to allow consortia to include translation into education activities as a potential impact of their work.

Continue to support and enhance interdisciplinarity

In Horizon 2020 and Horizon Europe, the EC has recognised that addressing societies' wicked problems requires an interdisciplinary approach. However, stimulating true interdisciplinarity has proven to be very difficult. Despite these difficulties, LERU calls on the EC to continue promoting and strengthening interdisciplinarity in FP10's successor to pillar II to address EU priorities.

We are convinced that many suggestions made in this paper, including less prescriptive call texts, smaller consortia and the deeper involvement of researchers, including from ASSH in the drafting of the Strategic Plan, will improve the appeal of the collaborative challenge-driven part of FP10. For the bottom-up calls suggested above, interdisciplinarity could be an eligibility criterion. Additionally, in FP10 more calls should start from an ASSH perspective whereby the technology or solution is secondary. For example, how to promote and stimulate adoption of new energy solutions could be the focus point of a call, instead of starting with a focus on the technology itself and its adoption only considered towards the end of a project. ASSH should be used more to ensure that the right questions are asked at the beginning of a project, not only at the end, to look at market uptake or societal acceptance of a technology that already has been developed.

Evaluation is key to stimulating interdisciplinary research proposals. LERU universities will encourage researchers from all disciplines to register as reviewers for Horizon and FP10 proposals. It is of prime importance that ASSH researchers are also involved in the evaluation of proposals from other parts than those immediately linked to ASSH disciplines like the current cluster 2. A good briefing of all evaluators on how they are expected to assess interdisciplinarity is indispensable.

5. Targeted scaling of effort: partnerships and missions

The possibility to scale effort and pool resources from the FP with funding from Member States or private actors, towards addressing joint priorities, is an important asset of the Framework Programme. In FP10 LERU thinks this should be continued where most useful. However, the approach also leads to increase complexity and therefore has its limits. In this section LERU argues that increasing the focus on partnerships and missions in FP10 is not desirable.

5.1. Partnerships

LERU supports partnerships in FP10 as an important tool to scale effort on topics for which standard FP consortia cannot reach the objectives, or to pool Member State funding which is otherwise scattered and possibly overlapping with other instruments.

Partnerships to become more accessible and open

Despite efforts by the EC to streamline the partnership landscape, partnership activities remain difficult to access and even to assess because information is scarce. On paper there are currently three types of partnerships, but in practice there are many more, as rules and funding opportunities differ considerably, even among partnerships that are in the same category. This makes it difficult for beneficiaries to navigate the partnership landscape. For FP10, it is crucial that partnerships become less complex and more open and accessible. For all types of partnerships, information on who can participate in which partnership and on which conditions is needed much sooner, to allow more beneficiaries to participate in their activities.

Decrease and streamline the use of FP funding for partnerships

In Horizon Europe, a very large amount of funding is going to partnerships. Data from early 2023 show that 42% of Pillar II funding, which is about €22 bn, is going to partnerships. This may even increase to 50%⁹ in 2025 with new partnerships being set up under the new Strategic Plan 2025-2027. Although partnerships in FP10 can and should become more accessible and open, it will be very difficult, if not impossible due to the inevitable complexity of partnerships, to make them as open as more typical calls for proposals.

Therefore, LERU recommends decreasing the funding going to partnerships, starting with the inclusion in the FP10 regulation of a considerably lower maximum percentage of funding from the Pillar II successor's budget that can go to partnerships. This should allow funding for more traditional collaborative R&I projects/consortia which are more open and equally accessible to all. LERU also calls on the EC to be more transparent about the funding going to partnerships. Data is difficult to find. It would be helpful if partnerships had a separate funding line in FP10, instead of being 'hidden' in different clusters.

More concretely, LERU recommends to:

- Use FP support to set up co-funded partnerships and to encourage Member States to join them. FP funding should be limited to seed funding and not be used for topping up or co-funding grants awarded through national/regional funding agencies.
- Ensure that FP funding for co-programmed partnerships, is better accessible to all and not only destined for a limited group of beneficiaries that have a competitive advantage because of their involvement in the drafting of the Strategic Research and Innovation Agenda. It is especially difficult for newcomers or less-established researchers to join these partnerships.
- Reduce funding for institutional partnerships which are equally difficult to access and for which information is not easily available and added value is not always clear.

Fund both research and innovation activities via partnerships

Partnerships follow the overall trend in Horizon Europe to focus more on innovation-related or close-to-market activities, instead of on a mix of both research and innovation-driven activities. Partnerships sometimes even focus on issues beyond innovation, for instance on regulation. For FP10, the focus should once again be both, and only, research and innovation. We call on the EC to monitor this closely and ensure adaptations are made when and where needed.

⁹ The Horizon Europe regulation states that the budget allocated to partnerships cannot exceed half of the pillar II budget.

Role of the European Commission

We commend the EC's efforts to streamline the partnership landscape. To guarantee that the significant investment in partnerships is worthwhile and that partnerships fulfill their important scale up purpose, this work should be continued and scaled up in the transition to FP10. The EC should incentivise Member State agencies and private partners more strongly to contribute to this effort, especially accepting common rules and regulations. Also, the EC should lead the process of identifying fewer partnerships on well-chosen priorities that have a clear added value compared to large traditional consortia funded by the FP.

5.2. EU Missions or R&I missions

When they were first conceived, Horizon Europe's missions were a very promising and potentially interesting addition to the R&I funding landscape, intended to bring together national, private and EU funding to enable their delivery and acting as beacons for citizen engagement and understanding. However, so far missions have not lived up to the expectations that they could drive change and scientific breakthroughs on specific topics. Too much time and energy has been spent on setting up the missions and on ensuring the involvement of partners, while funding for research activities that should help to meet each mission's target has been limited, except in certain areas such as cancer research. This is a missed opportunity, as there are still many knowledge gaps related to the current missions that are worthwhile addressing. Because the current missions still need to prove they are/have been worth the effort, LERU recommends their continuation, also beyond Horizon Europe, but to refrain from creating any new missions within Horizon Europe.

For FP10 and within the next MFF, LERU envisages a different approach to missions, namely that a limited number be adopted at a Commission-wide level, as cross-Commission priorities to which different EU programmes contribute on a wider and equal footing. This would allow the continuation of the current missions but avoid having them sit within the FP alone while R&I is not their only scope. FP10 should, in this scenario, fund the R&I activities of the missions, preferably via traditional calls for proposals on topics most relevant to the mission. The amount of funding for mission-related topics needs to be limited so there are still sufficient resources to address other areas identified as R&I priorities. Funding for other, non-R&I mission activities should come from other EU programmes. For this synergistic approach to function, it is important that one commissioner oversees one mission, while the possibility for synergies is built into the legal text of all EU programmes (see point 9 below) so that funding from different programmes can more easily be used for the missions. Pathways should be developed on how to combine funding from different programmes for a mission's purpose.

However, if missions are to be continued in FP10 alone, the focus of all the missions needs to shift to research and innovation activities, and the number of missions should not increase before the current missions have proven their added value.

6. Open international collaboration in FP10 as a starting point

It is important that the EU strives for greater strategic autonomy. However, this should not lead to an EU and an FP that are too inward looking. The challenges that Europe, and the world in general are facing, are complex and borderless. International research collaboration is needed because of the scale of effort that is required to address these challenges, and because of the multiple perspectives and diverse expertise needed to find coordinated solutions. Global warming, global health, and fighting populism and fake news are some very clear examples of such challenges. Research has been international for centuries. A recent example of how this has benefited society is the Covid vaccines: without open science and collaboration we would not have had the details of the Covid virus that made rapid vaccine development possible. Building and supporting networks of people is a powerful tool for stronger research results, but also for enhancing communication across borders and for overcoming political barriers. Although research security needs to be properly considered, recent geopolitical developments should not change the general paradigm of open, international research collaboration. FP10 should support this, strengthening the EU's cooperation with the Global South and allowing for scientific diplomacy with non-democratic countries. Meanwhile, international collaboration with experts in strategic issues should not be excluded, especially not for the research-oriented projects or calls. Otherwise, the EU risks isolating itself too much. To stimulate collaboration on sensitive issues, but at the same time avoid undesirable outcomes, clear guidance on the depth and content of international collaboration on these issues would be welcome.

Increased awareness of issues linked to knowledge security and foreign interference is needed. LERU welcomed¹⁰ the proposals published by the European Commission in January 2024 to enhance research security, putting actors like universities at the heart of their own decision making. As a research funder, the EC should provide guidance and advice to applicants and consortia. However, this should not lead to an additional burden or red tape for FP10 projects. Funding and support should be made available to assist research organisations in managing risks and implementing security measures. In recognition of the cross-border nature of this challenge, continued intergovernmental and sectoral dialogue should be prioritised, both within the EU, and including international allies.

Enhance collaboration with partners across the globe.

In light of strengthening international collaboration and building powerful networks of researchers to address societal challenges, LERU advocates continuing in FP10 the possibility for association of strong R&I countries like Canada, New-Zealand and South Korea. It would be good to keep these countries on board in the run-up to FP10, so that their association follows swiftly when the new programme starts.

Beyond association, the calls for proposals in the FP10 collaborative challenge-driven part of FP10 should, in general, be open to third-country participation, especially from Global South.

Ensure swift association of strong European partners

For FP10, LERU calls on the EC to facilitate a swift association of the UK and Switzerland to the full programme, possibly by creating a new category, or revising existing categories, in the association article so that they are considered differently from newly associated countries. The UK and Switzerland are very close and strong R&I partners that share the EU's values and that have a long collaboration track record with EU countries. Swiss and UK researchers have contributed greatly to the success and impact of the EU's R&I Framework Programmes over the past decades and both countries are undeniably part of the European Research Area. The period of limbo in their association to Horizon Europe has damaged and is still damaging the excellent research collaborations between the EU, the UK and Switzerland, which is a loss on all sides. LERU demands that all parties involved to realise the association of Switzerland in 2024.

LERU pleads that in the future, research and innovation collaboration and trusted partnerships between EU, Swiss and UK partners should no longer be hampered by difficult larger political frameworks. LERU strongly calls on the EU, the UK and Switzerland to avoid a repetition of this obstructive situation for the benefit of European society and competitiveness in the future.

10 <https://www.leru.org/news/leru-welcomes-proposals-for-more-secure-research-in-the-future>

7. Key values and principles that underpin European R&I

The values and principles set out in this section are not new. They have been underpinning European R&I, in the FPs and in the European Research Area policy, for many years. For LERU these values and principles are crucial. We recommend that they be not only maintained but also to enhanced in FP10.

Competitive calls and a credible, excellence-based assessment

Key to the appeal and success of the FP is the competitive awarding of grants after a credible assessment, first and foremost on the basis of excellence or the quality of the work proposed. For ERC, excellence should continue to be the only evaluation criterion. For the other parts of the programme, it should continue to be the first criterion, combined with other assessment criteria. In the future, for FP10 and beyond, this characteristic must be maintained. It is the best guarantee of money well spent. LERU warns against any weakening of these criteria in FP10.

For the credibility of assessment, it is important that highly regarded scientists with a variety of expertise participate in the assessments, depending on the topic at hand. It is also critical that a sufficient percentage of proposals with high evaluation scores are funded, to avoid the assessment feeling like a lottery. Hence, again, the need to increase the FP's budget considerably.

Academic freedom, European Values and the civil focus of FP10

Academic Freedom¹¹ should be a precondition for FP10 funding. Member States and countries that associate to FP10 need to respect and protect the academic freedom of their higher education institutions. They should also be expected to respect and promote European Values, namely human dignity, freedom, democracy, equality, rule of law, and human rights.

To stimulate research and development of technologies with dual use potential, the EC is looking into several options, including two that would allow these technologies to be funded by FP10.

LERU's preferred option is to maintain the focus of FP10 on civil applications only, meaning that funding for dual use applications should not come from FP10 but from the European Defence Fund. At the same time, synergies between different relevant programmes, including FP10, should be better exploited (see point 9 below). LERU's full position on the different options proposed by the EC can be found on our website¹².

Equality, Diversity, and Inclusion

LERU calls for FP10 to champion a vision of equality, diversity and inclusion (EDI) as lived values, embedded processes, and shared responsibilities. This is in line with the stated values of the EU and its policy "A Union of Equality", values that LERU shares and addresses consistently through publications, events and ongoing reflections and mutual learning within the network.

It is crucial to ensure that FP10 has the potential to advance achievements in the EDI space to date. There are some positive signs that the inclusive Gender Equality Plans introduced as an eligibility criterion in Horizon Europe in 2022 are having an impact in certain cases, and this is a great basis for further development in FP10. Moreover, there is still a need for more research that considers EDI perspectives. This can increase the impact of research in society by offering products and solutions tailored to specific demographic groups, or create additional knowledge on existing products and solutions that were developed without EDI perspectives.

Open Science

FP10 should continue to support Open Science in the same way as Horizon Europe, as a legal obligation. Open Science has changed and is changing the nature of research, its evaluation and the communication and publication of research outcomes. It fosters a quicker and better spreading of research results, increasing the societal impact of research. Greater transparency should also lead to a much-needed increased trust in research. FP10 should follow the line 'as open as possible, as closed as necessary', both in its approach to Open Science but also as a general principle for enhancing collaboration across borders.

¹¹ Academic freedom is not equal to freedom of speech or expression. On what academic freedom entails from a legal point of view, see <https://www.leru.org/publications/challenges-to-academic-freedom-as-a-fundamental-right>

¹² <https://www.leru.org/news/promoting-synergies-between-eu-funding-instruments-is-the-best-route-to-enhance-support-for-dual-use-technologies>

In that sense, the approach to Open Science should also be ‘as open as possible and as safe as possible’. Recommendations on how to deal with Open Science at application level are made below.

Research integrity is an important pillar of Open Science and should be further promoted in and by FP10.

Stable funding and legal certainty

Legal certainty is an evident, key principle for the EU to adhere to for FP10. An impactful programme is a stable programme, with stable rules right from the beginning. FP rules should not change in the course of the programme. Modification should only occur in very exceptional cases, when there is clear evidence that a specific rule is hampering FP activities. LERU calls on the Commission to consider rules in a timely and carefully way, and to discuss them with various stakeholders, before changing them or adding new rules in FP10.

Funding stability is also key to an impactful programme. In addition to ring-fencing the FP10 budget, the EC should avoid adding new priorities or initiatives to those set at the beginning of FP10, the only exception being when new priorities arise in light of the development of a new Strategic Plan halfway through the FP, or in the case of a crisis with pressing need for R&I activity, such as Covid 19 or the Zika virus, for example.

8. A simpler and more accessible FP10

The EC has been working on simplifying the FP for years, with support from stakeholders like LERU, an effort that has been much appreciated. For FP10 we envisage a different approach, changing the focus of most efforts in this regard from reducing error rate and simplifying grant management to increasing simplification for applicants, hence making the FP more accessible and comprehensible to all.

FP funding should be as open as possible to any beneficiary that fulfills the eligibility requirements and is best equipped to deal with the issue at hand or has the best ideas. It should not be limited to the happy few who know the ins-and outs or have early access to information. Writing an application to the FP has become ever-more complicated, developing into a 'genre' of its own, increasingly supported by consultants. Preparing and submitting an FP proposal is very time-consuming, while the success rates are low. For FP10 to be more appealing and open to all researchers and innovators with excellent ideas, including the less experienced applicants, its structure and the different texts, from Strategic Programme down to the calls for proposals, need to be simpler and less prescriptive.

Simpler Strategic Programme, Work Programmes and call texts, available to all

Simplifying Strategic Programme, Work Programmes and call texts entails having clear and coherent outcomes, without prescribing scopes (see point 4 above) but also ensuring texts are easily understandable for researchers across the globe. This means limiting the use of so-called 'EU speak', avoiding referencing too many EU initiatives and policies, and avoiding the use of concepts or words that have a specific meaning in EU policy but not otherwise.

The programming process from the various strategic documents down to the drafting and approval of the Work Programmes, calls and topics – including the timeline and procedures – should be more open and not only available to the happy few. LERU suggests that the EC openly share all draft documents. Early communication around and visibility of these draft documents should be a given. This would make the FP more understandable and predictable, and easier to navigate for all interested potential beneficiaries.

Evaluation process

LERU proposes a vast increase in the use of the two-stage application process for proposals to the successor to Pillar II,

whereby the first phase focuses primarily on the excellence section, dealing with the actual R&I activities foreseen, while the other sections would only be added if the project proceeds to the second evaluation phase. A two-stage application process should be standard for the new Research Actions and the Research & Innovation Actions.

Experts should have the right expertise to assess the content of the proposals, but they should also be properly trained to fully understand and evaluate the cross-cutting issues.

The blind evaluation pilot needs to be assessed well before being continued. Anonymising a proposal is an extra hassle for applicants, which would be acceptable if the effort proves worthwhile, but not if there is no decrease of bias in the evaluation.

Finally, it is important that evaluation is transparent. Feedback on submitted proposals is very much welcomed but is sometimes too vague. It should be interpretable, concrete, and constructive. Detailed recommendations on the further optimisation of Pillar II proposal evaluation are provided by LERU, and these recommendations will also have their relevance for FP10¹³.

Application process

Tools, templates, and accompanying guidance should be fine-tuned in FP10, so that they become much more intuitive and inviting. We recognise the many efforts made to improve the Funding & Tender Portal, including recently in March 2024. It is important that the Portal is simple to use, especially for those who are less experienced with EU funding, both in the proposal phase and during a project's lifespan, after the signing of the grant agreement.

LERU also recommends that the application process has a lighter touch, especially in the first evaluation phase. To this end, proposal templates in FP10 should not demand descriptions of standard conditional elements in the first round, except for the gendered and inclusive dimension in research and innovation contents and for the composition of the consortium, as these are inherently part of doing (collaborative) research. The latter should be a clear rationale for the choices made and not force consortia to include a specific percentage of female or male researchers, or researchers from underrepresented group. The purpose is to make them aware that the composition of the research team needs appropriate consideration.

13 https://www.leru.org/files/LERU-evaluation_Horizon-Europe_Pillar2.pdf

As for other mandatory elements, such as Open Science practices, analysis has shown¹⁴ that very often these are described in proposals and evaluations with general phrasing. Such general comments have little added value but take up space that cannot be used to describe other aspects of the R&I activities proposed. Also, the mandatory elements often require the involvement of internal services or external consultants, further complicating the application process and making it more costly. Researchers preparing the proposal for stage 1 submission should be able to draft this proposal without needing to rely on (too many) people that are not part of the consortium.

Instead, some aspects should be dealt with at beneficiary (institutional) level. With the Gender Equality Plans in Horizon Europe, the EC has already set a first, positive step in this direction. For LERU a similar approach could be taken for: 1) institutional plans for Open Science; 2) plans setting out research integrity, ethical and security checks; and 3) requirements for sustainable research, including how researchers at their university need to consider the ‘do no significant harm principle’. Developing such new institutional plans takes time and it is therefore advisable not to make them mandatory from the start of FP10. Instead, beneficiaries should be asked to formulate these plans within a designated timeframe, e.g. two years. Ecosystem funding (see below) could support the development of these institutional plans, for instance by facilitating an exchange of practice. To simplify proposal submission even further, LERU proposes that these plans should be linked automatically to the Participant Identification Code (PIC) of the beneficiary or institution, so that researchers that apply do not even need to check whether the institution they are part of, has fulfilled each of these requirements. One ‘tick box’ indicating that researchers are aware of these plans should be sufficient.

In addition to supporting the development of such plans, the EC should also sufficiently invest in the monitoring of their implementation, starting with pre-existing Gender Equality Plans.

Lump sums and other cost reporting options

LERU sees benefits in the increased use of lump sums in the present FP, so also in FP10, but shares the concerns of the Court of Auditors¹⁵ that a too hasty expansion is not a good idea. First, a thorough evaluation of the full lifecycle of the lump sum pilot projects is needed, including monitoring during and after the project. LERU made detailed recommendations on the full roll-out of lump sums in Horizon Europe in December 2021, and these are still valid for FP10¹⁶. A first preliminary analysis of the application stage of lump sum projects at LERU universities is rather positive. Nevertheless, it is important to continue monitoring the possible side-effects identified in our December 2021 note.

We also agree with the Court of Auditors that lump sums are better suited to mono-beneficiary grants like ERC grants and to smaller projects, than to large projects or consortia. The smaller grants and the Research Actions proposed by LERU in this paper would probably be suited to lump sums.

Internal invoicing

On the issue of internal invoicing, LERU has noted that the changes from Horizon 2020 to Horizon Europe have not been an improvement. The level of detail required is making the new approach as burdensome as the old one. Therefore, LERU proposes reducing the level of detail required.

In general, LERU calls on the EC to work with a variety of stakeholders, including universities, to adapt cost reporting options in the future. The devil is in the detail, and what works well for one type of stakeholder, might not work for others.

Artificial Intelligence

In FP10, it is imperative to incorporate artificial intelligence (AI) as a significant content area, aligning with the European strategy on AI and the AI Act. The rules of FP10 should explicitly delineate the permissible and prohibited uses of AI in the preparation and evaluation of proposals and during the course of funded projects. If generative AI is used for project assessment, this needs to be balanced with human expert involvement. Final decisions should be taken by the human panel and experts. For proposals seeking substantial grants, interviews with the consortium may be required to assess the integration and impact of AI on the proposal. Furthermore, the application of generative AI tools in the scientific proposals presents a valuable opportunity to enhance both efficiency and quality, and equal access. These tools have the capacity to assist in the creation of text, images, illustrations, graphs, and tables, thereby facilitating the writing process by accelerating the development of outlines, enriching content with details, and refining writing style and levelling out differences in language skills. Nevertheless, it is vital to acknowledge the limitations and risks of these technologies: all generated content must undergo thorough review and editing to prevent instances of plagiarism, fabrication and any potential intrinsic pattern of bias and discrimination. Consequently, the utilisation of generative AI tools in proposal development must be transparently declared in every submission, referencing the AI used and its version number, and in the reporting of funded projects. The latter could involve a self-assessment similar to that for ethics, but focused on AI in proposal preparation. This approach ensures that the use of AI is both responsible and in accordance with the ethical and legal standards set forth by FP10. Because it is difficult to foresee how AI tools will evolve, the use of AI in FP10 should be subject to a continuous monitoring process, including the possibility of amending the rules at the mid-term review.

¹⁴ https://www.leru.org/files/LERU-evaluation_Horizon-Europe_Pillar2.pdf

¹⁵ https://www.eca.europa.eu/ECAPublications/AR-2022/AR-2022_EN.pdf

¹⁶ <https://www.leru.org/publications/recommendations-for-the-further-roll-out-of-lump-sums-in-horizon-europe>

9. Stronger linkages and realising synergies for enhanced impact

Linkages between FP projects

A better connection between FP projects that are funded through the same call or that focus on closely related topics would increase the overall impact of the EU R&I Framework Programme. Projects could mutually influence and reinforce each other. In the past the EC project officers stimulated that connection, but with the move of project management from the DGs to the Executive Agencies this has become more difficult. For FP10 LERU calls on the EC to consider alternative ways of supporting this. One option could be to fund a specific CSA to this end, another to ask an EC unit or agency with a good overview of ongoing and completed projects to bring PIs together. A minimum requirement should be to organise, show, tell, and connect events for consortia, going beyond what is currently done in Horizon Europe and with some top-up funding for the lead organising consortium.

Synergies across parts of FP10

Although in separate pillars of Horizon Europe, the ERC and EIC Boards have discussed in 2021, how to work together, especially to stimulate ERC proof-of-concept grantees to consider applying for EIC Transition funding (see point 3 above). This collaboration is very much welcomed and an example of how different parts of FP10 could reinforce each other. In the future, applying to other FP or EU funding streams should be more actively stimulated. Project officers or National Contact Points could play an important role in this, pointing out to consortia or individual PIs what other EU funding options there are once the initial grant is about to end. To enable this, project officers should be trained about requirements and eligibility criteria of potentially relevant EU funding schemes. At the same time, information on potentially relevant funding opportunities should be made available on the EC website or via the Portal.

Synergies across EU and other programmes

In general, all EU programmes should keep their own, specific focus, avoiding overlaps, but all relevant EU programmes should be able to reinforce each other through well-developed synergies. Synergies between EU programmes have been on the EC's agenda for many years, but implementation has been lagging behind. Enabling synergies starts with integrating the possibility for synergies into the legal texts of EU programmes, including reconsidering state aid provisions. Further harmonising and simplifying rules of participation and implementation and using the same or similar templates is crucial to lower the burden of synergies from a grant management perspective.

For the European Structural and Investment Fund (ESIF) too, it is crucial to envisage synergies in the strategic planning documents at an early stage. Without this it is insufficiently clear to ESIF managing authorities how to best create synergies. To realise synergies in the next budgetary period (2028-2034) the possibilities need to be created now, in the legislative proposals for new programmes, including FP10.

In addition to making synergies possible in the legal texts of programmes, the EC should consider developing, where most relevant, complementary timelines or designated pathways from one programme into another. This is vital so as to avoid funding gaps, loss of talent and innovation leakage. For FP10 such pathways should be developed with the successor of Erasmus+, for instance for the European Universities Alliances, but also with the European Defence Fund (building on the existing spin in calls), the European Space Programme, EU4Health, the Digital Europe Programme, with ESIF and any other relevant programme, possibly including programmes at Member State level.

To enable the above, LERU suggests a cross-unit service be set up, with relevant people from different DGs meeting on a regular basis, to ensure synergies are included in the relevant legal texts of programmes. This unit would then have the responsibility to upskill EU staff, including project officers, and staff in Member State government departments and agencies, so that they can better avail themselves of transfers or cumulative funding rules. This EC cross-unit service should also regularly provide briefings for project coordinators and professional support staff in research-performing organisations about how they can progress their project outputs using other/different funding mechanisms.

10. Widening participation, research infrastructures and ecosystems support

For FP10, LERU envisions adapting the current European Research Area (ERA) and widening support into support for the totality of research, innovation and knowledge ecosystems, including research infrastructures and widening participation. This would also provide space to facilitate the R&I lifecycle by investing in professionals who support the system across the board. This part of FP10 would involve different funding streams, all focused on improving and strengthening the conditions for open, accessible, strong and inclusive R&I and the implementation of the ERA, ensuring a holistic approach to research and innovation. By recognising and supporting all ecosystem actors, this would advance the EU's position in the global landscape while strengthening the ERA framework and research and innovation ecosystems. This part of FP10 would support and interconnect with all other parts of the FP.

A different approach to widening participation

The current widening approach is outdated. It is based on a country-average giving the impression that all R&I actors in specific countries need widening measures while some are in fact much more advanced than others. FP participants from widening countries now often get a 'widening label' where that is not appropriate, and feel that this widening label is sometimes stigmatising.

For LERU, the most important widening goal for FP10 should be to stimulate as much as possible the awarding of 'standard' FP grants to partners from widening countries, without changing the rules of the game. Many proposals made in this paper, including making the FP more accessible and simpler, introducing smaller calls and more research-focused projects, will allow the best researchers from across the EU to participate in FP10 projects more easily than is the case in Horizon Europe.

The seal of excellence is welcomed and should be further developed in the next programming period. Pathways to alternative funding for excellent but unfunded proposals should be further developed, via investment from Structural Funds, but possibly also through national or regional funding. However, the quality label attached to a 'real' ERC grant or MSCA fellowship is missing when funding comes from other sources. The best solution to having more 'real' ERC and MSCA grants across Europe is to increase the budget of ERC and MSCA to that extent that they are able to directly fund all projects that are evaluated as excellent.

The existing widening instruments receive mixed support from the institutions that can apply to them. The instruments have little to no direct impact on the applications and success rates of widening partners across the other parts of the FP. While they offer interesting opportunities, their long-term impact on the existing institutions in widening countries is not clear. For instance, teaming centres need to become independent from the university that supported their establishment, creating a possible competitor for research funding instead of strengthening the existing institutions. LERU thinks it is necessary to carefully assess the current widening schemes and in FP10 maintain only the instruments (or aspects of instruments combined in something new) that have proven to contribute to the aims of the widening funding instrument, namely long-term reduction of the R&I divide.

The hop-on scheme that was introduced in Horizon Europe, has the potential to promote the participation of researchers from (what are now) the widening countries. Once a researcher/research group enters a consortium via this scheme, they have more chances of being directly involved in any other funding application afterwards. However, the scheme has not yet been implemented sufficiently to assess its success. Also, guidance for coordinators and awareness raising with consortia in general on the possibilities of this scheme is missing. LERU supports the continuation of this scheme in FP10 if its evaluation is positive, but suggests moving the hop-on to an earlier stage, namely when the project is accepted, and before project activities start.

Infrastructures are key to bridging the R&I divide, and also to build trust between partners who do not know each other well. LERU's proposals below addresses both these aspects and will be crucial for widening participation.

Research Infrastructures

The proposal to move the Research Infrastructure scheme from what is currently Pillar I into the 'support' part of FP10 should not be seen as a downplaying of the importance of this scheme. As indicated above (point 2) LERU strongly supports continuing research infrastructures in FP10. We also support continuing the different areas of intervention of the current research infrastructures scheme in Horizon Europe. We underline the role FP10 should play encouraging cooperation for investment in new research infrastructures, especially cross-border, thereby helping to avoid unnecessary duplication.

Stimulating and funding shared and enhanced knowledge about existing R&I infrastructures and how to access them also needs to be on top of the agenda. Research Infrastructures are a key players for a competitive European Research Area. Making them more accessible and optimising their use should be a priority.

Networks and training for R&I support

For research infrastructures, investment in staff retention and training is vital and largely overlooked in favour of investments in (new) hardware. This is the case for all research and innovation support staff, be it infrastructure facilitators and technicians, research (funding) managers, gender and equality officers, business developers, etc. To recognise, stimulate and strengthen the important role they play, LERU proposes a funding scheme that allows for the training and continuing professional development of specialised, skilled staff as well as for creating networks. This funding scheme should support the collaboration and interconnectedness of all actors relevant throughout the research and innovation lifecycle who collectively, together with researchers and innovators, drive the research and innovation process. This interconnected approach would foster adaptability, continuous learning, and innovation.

This funding scheme should help to further implement the current ERA action 17 on research management and could be used by the European Universities Alliances to further develop their research activities. It should also support exchanging practices to set up and/or implement gender equality plans and possible other plans adopted at institutional level, as proposed in this paper under point 8 – application process. This scheme would, through the networks it would support, also contribute to building trust with new partners and so indirectly support widening participation.

It is important to foresee some funding for ecosystem actors or stakeholders to come together, across borders, disciplines, and sectors, to share (best) practices, and possibly build new policies or projects. These so called 'knowledge ecosystem hubs' should be built around specific areas of interest to address cross-disciplinary themes, synergies and global challenges.

LERU is convinced that investing in networks and training for R&I would be an important addition to the support FP10 would provide to knowledge, research and innovation ecosystems, leading to a more sustainable and impactful FP and European R&I landscape in general.

European Institute for Innovation and Technology (EIT)

What LERU universities value most in joining EIT KICs, ever since they were first created, is the networking, bringing together different partners across borders and sectors to work together to address the innovation side of a given societal challenge or priority area. For LERU, any future role of the EIT should focus on supporting the building of such ecosystems, hence why we situate EIT in this part of FP10.

However, for LERU there are some important points that need to be considered when the future role of the EIT is examined:

- The concept of sustainability should be clearly defined. New KICs should set out from the onset how they are planning to achieve sustainability, including making membership requirements clear and transparent. Charging membership fees to non-for-profit organisations, including universities, should be avoided.
- Participation in EIT KICs is experienced by the LERU member universities as very complex and inflexible, with rules that frequently change, also during a project, and with onerous audit processes, creating a huge administrative burden. Often the time-effort of managing and administering these grants is much higher than of other (FP) grants and thus not financially viable for the participating universities. EIT processes need to be simplified and the rules made more stable.
- Given the complexities highlighted above, setting up new KICs or developing new EIT activities should be limited to instances when it is clearly complementary with, and has an added value compared to, other activities of the FP.

In general, LERU underlines that the EIT and the EIC should work much more closely together in FP10, avoiding duplication of effort in funding provided and support offered. Also, the existing support for European Innovation Ecosystems should be continued, perhaps within the EIT, to avoid overlap.

COST actions

COST actions should be continued to be supported through the FP because of their important contribution to the building of networks of researchers. COST actions should further support the development of interdisciplinary research networks, bringing together researchers, innovators and other professionals to collaborate on a specific topic, covering the network activities rather than the research itself.

Conclusions and overview of recommendations

The European Research and Innovation Framework Programme is a crucial programme to promote excellence, to strengthen the research profession, to encourage collaboration across borders, disciplines, and sectors, and to trigger better take-up of research results in the EU and beyond. In short, it not only funds important R&I activities, but it also drives change in the R&I landscape, ensuring an enhanced contribution to the EU's competitiveness and sustainable prosperity. This paper should be seen as a confirmation of the importance of the FP and as a commitment of LERU to contribute to it. LERU looks forward to discussing the ideas set out in this paper with the European Commission, Member State representatives, members of the European Parliament and with the High-Level Expert Group.

In short, LERU's key recommendations for European R&I and FP10 are:

For R&I in the next MFF 2028-2034

- More R&I is needed to achieve sustainable transitions in the economy and society, and to move towards strategic autonomy. This requires an increased investment in R&I at national and EU level, beyond the target of 3% of GDP.
- FP10 is a key programme for European R&I, complementary to national/regional programmes and with a clear added value. For FP10 to contribute its full potential to addressing current and future political, economic, and societal priorities and challenges, a budget of €200 billion is needed.
- It is necessary to review the MFF model to ensure the budgets of programmes like FP10 are protected while at the same time creating a separate flexible budget line that is sufficiently large to fund new initiatives or political priorities that arise during the seven-year period of the MFF.
- Stimulating research, innovation and education requires more funding but also a harmonisation of regulatory frameworks.

For LERU, FP10 should build on the following key programmes:

- The European Research Council (ERC) should be strengthened, retaining the same degree of autonomy and emphasis on bottom-up funding for step-change research projects, but with increased resources, to avoid too much research with potentially huge impact remaining unfunded.

- The Marie Skłodowska Curie Actions (MSCA) should be reinforced so that it continues to play its important role in setting quality standards for early-career researchers, supporting mobility and improving training of doctoral candidates, and supporting the much-needed increase in attractiveness of the research profession.
- EIC Pathfinder and Transition should be continued as important new parts of the FP. They are very attractive to researchers and innovators and are clearly complementary to other parts of the FP, providing support for cutting edge technology and stimulating the translation of research into innovation.
- A top-down, challenge-driven, collaborative programme, providing funding across disciplines, sectors, and borders, similar to the current Pillar II should also feature as an important cornerstone of FP10.
- A fifth, smaller yet important part of FP10 should be dedicated to Research Infrastructures and to supporting knowledge, research, and innovation ecosystems in general, including possible funding for widening participation.

For the successor to the current pillar II, LERU envisages some changes to better support the R&I process, stimulating smooth transitions and new ideas and to ensure top-down priorities are less prescriptive and human-centred. In short, we recommend that it:

- Fund more earlier-stage research, to achieve a better balance with applied and close-to-market research and innovation, and make this clear by introducing 'Research Actions'.
- Develop calls, at destination level, for bottom-up projects within top-down decided priorities.
- Stimulate a mix of smaller and larger projects, by including separate calls for smaller projects.
- Introduce follow-up funding, as a sort of proof-of-concept grant for consortia, enabling a smooth transition to EIC Transition funding.
- Move away from the use of TRL levels and from linear approaches to the R&I process.
- Limit the level of detail in the Strategic Plan and ensure it is informed by recent research insights.
- Allow for more agility and flexibility in Work Programmes and calls by making them less prescriptive
- Rethink impact pathways to stimulate impact instead of overly steering it.

- Continue to support and enhance interdisciplinarity.
- Stimulate scaling of effort in both research and innovation through partnerships where there is a clear added value compared to larger traditional consortia, but ensure partnerships become more open and accessible and decrease the amount of FP funding for partnerships.
- Adopt the current Horizon Europe missions at an EC-wide level, only funding the actual R&I activities via FP10.

LERU recommends continuing the important characteristics of the FP, to ensure its attractiveness to the best researchers and innovators and its relevance for Europe and for the R&I sector in Europe:

- Despite geopolitical tensions, a focus on more strategic autonomy and the increased importance of knowledge security, FP10 should continue to stimulate international collaboration with partners across the globe.
- Association of strong R&I partners should be continued in FP10 and a swift association of the UK and Switzerland should be facilitated.
- All parties involved should realise the association of Switzerland to Horizon Europe in 2024.
- FP10 should, like its predecessor, continue to award funding on the basis of competitive calls with credible assessment based on excellence.
- Academic freedom and European Values should be a precondition for FP10 funding.
- FP10 should champion a vision of Equality, Diversity, and Inclusion by building on the Gender Equality Plans of Horizon Europe and by funding research that takes an EDI perspective.
- Open Science, including research integrity, should receive continued support in FP10.
- FP10 funding should be stable, and beneficiaries should have legal certainty on the rules that apply throughout the project/grant duration.

LERU champions continued simplification of the FP and proposes to focus efforts in FP10 on making the programme more accessible. It should:

- Have a simpler Strategic Programme, Work Programmes and call texts, available to all.
- Have a robust evaluation process and a light-touch application process.
- Effectively assess lump sums and other cost reporting options, as well as changes to internal invoicing, when drafting FP10 rules for participation.
- Explicitly delineate the permissible and the prohibited use of AI for FP10 projects.

Synergies have been on the EC agenda for a long time. In this paper, LERU makes recommendations on how to realise them at three levels:

- Stimulate linkages between FP projects.
- Increase synergies across different parts of FP10.
- Ensure now that synergies across the EU and other programmes are possible in the next budgetary period by including the necessary provisions in the legal text of new programmes, developing pathways from one programme into another and set-up a cross-unit service to oversee this process.

To enhance widening participation, research infrastructures, and knowledge, research and innovation ecosystems, LERU recommends to:

- Consider a different approach to widening participation.
- Continue to support Research Infrastructures, on a similarly basis as Horizon Europe.
- Develop funding for networks and training of R&I support staff.
- Focus the activities of European Institute for Innovation and Technology (EIT) on supporting innovation ecosystems.
- Maintain FP support for COST Actions, building interdisciplinary networks of researchers.

LERU publications

LERU publishes its views on research and higher education in several types of publications, including position papers, advice papers, briefing papers and notes.

Advice papers provide targeted, practical and detailed analyses of research and higher education matters. They anticipate developing or respond to ongoing issues of concern across a broad area of policy matters or research topics. Advice papers usually provide concrete recommendations for action to certain stakeholders at European, national or other levels.

LERU publications are freely available in print and online at www.leru.org.



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About LERU

The League of European Research Universities (LERU) is an association of twenty-four leading research-intensive universities that share the values of high-quality teaching within an environment of internationally competitive research.

Founded in 2002, LERU advocates:

- education through an awareness of the frontiers of human understanding;
- the creation of new knowledge through basic research, which is the ultimate source of innovation in society;
- and the promotion of research across a broad front in partnership with industry and society at large.

The purpose of the League is to advocate these values, to influence policy in Europe and to develop best practice through mutual exchange of experience.

Facts and figures

- Collectively LERU universities represent almost **850.000 students**
- Each year about **18.500 doctoral degrees** are awarded at LERU universities
- Across the LERU members there are an estimated **5.400 start-up and spin-out** companies across Europe
- In 2023, LERU universities received **11.6 billion euro** in research outcome.
- LERU universities contribute approximately **1.3 million jobs** and **99.8 billion Gross Value Added** to the European economy
- On average more than **20% of ERC grants** are awarded to researchers at LERU universities
- Over **500 Nobel Prize** and **Field Medal winners** have studied or worked at LERU universities
- **Hundreds of LERU university members** are active in more than **20 LERU groups** to help shape EU research and innovation policies and exchange best practices





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ETH Zurich

University of Zurich

LERU Office

Minderbroedersstraat 8
3000 Leuven, Belgium

info@leru.org

 @LERUnews

www.leru.org