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Catalysing Europe's Competitiveness Through Smart Investments in Research and Innovation

How to enhance the impact of the next EU R&I Framework Programme



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1. SUMMARY

ECIU joins the recent calls of Enrico Letta ('Much More Than a Market', April 2024), Mario Draghi ('The Future of European Competitiveness', September 2024) and Ursula von der Leyen ('Political Guidelines for the Next European Commission 2024-2029', July 2024), to **strongly invest in research and innovation in Europe**.

The next EU mandate and programmes (2027-2032) provide a pivotal opportunity to bolster Europe's position as a global leader in innovation, address pressing societal challenges, and leverage the full potential of its research institutions and talents.

This paper advocates for strategic enhancements of a ringfenced research and innovation Framework Programme (FP10) to achieve these goals. Innovative universities, such as ECIU partners, play a crucial role in helping achieve the needed societal impact of FP10.

They help fostering an ecosystem where knowledge diffusion propels both economic vitality and societal advancement, which is crucial for the technological autonomy of Europe.

ECIU also supports Draghi's and Heitors (Align, Act, Accelerate, 2024) call to spend more, at least **220 billion euro**, on research and innovation (R&I), placing R&I at the heart to boosting EU competitiveness, and for simplification of the grant application process.

KEY MESSAGES FOR FP10

- 
Build upon the unique role of universities driving regional and European competitiveness.
- 
Enhance the societal impact of research with bottom-up calls to allow for multifaceted impact.
- 
Enhance Europe's innovation potential through smart investments, and a dedicated and ringfenced 220 billion euro budget for a strong Research and Innovation Framework Programme.

UNIVERSITIES AS DRIVERS OF COMPETITIVENESS

Universities are the cornerstone of Europe's research and innovation ecosystem and thereby in enhancing Europe's competitiveness. Innovative universities are vehicles to attract, connect and support **talent** from both the region and the globe to foster collaboration and understanding. They **educate** and give life-forming experience to those who will contribute to Europe's future role in the world. Moreover, they serve as hubs for **cutting-edge knowledge creation**, bridging academia, industry, government and society to drive societal advancement.

Therefore, universities are key to the success of any R&I Framework Programme (FP). It is vital that recognition be given to the funding needs of universities as part of their mission to support **co-creation** practices and develop the right skills and mindsets within and beyond universities to ensure a safe, secure, and sustainable future.

The role of universities should be emphasised in the next FP through:



ACKNOWLEDGING THE ROLE OF THE UNIVERSITY IN RAISING COMPETITIVENESS

Universities are central to regional economies; they can lead and support innovation and development and provide a **local sense of identity** and public engagement. At the same time, they are also part of the **European innovation system**, feeding into networks of excellence and linking regional clusters to European ones.

Strengthening the position of universities in the regional ecosystem will support the value creation stream at the local level. **Knowledge valorisation** is an important mission for higher education institutions. Strengthening their Technology Transfer Offices (TTO) is key to support the valorisation and impact of new knowledge.

ECIU institutions have regional collaboration in their DNA, as most partners are established in regions where traditional industries have declined. It was the region asking for a knowledge institution to keep to local economy advancing. ECIU partners work in **public-private partnerships** with local companies, and the entire chain of education and research institutes. Such collaboration is a unique contribution to regional challenges, tackling European transitions fuelled from regional advancement.

Therefore, ECIU advocates for increased support for university-led innovation ecosystems and regional collaboration networks in the upcoming Framework Programme. This support is essential for recognising the important role universities play in enhancing regional competitiveness, particularly in terms of interregional cooperation.



ECIU sees the increasing need to **support the collaboration between businesses and R&I stakeholders**, including universities. Strengthening these partnerships will help integrate Higher Education Institutions more effectively into Europe's innovation ecosystems by fostering better connections with start-ups, start-up networks, accelerators, and incubators.



SUPPORTING THE POTENTIAL OF STUDENT-BASED INNOVATION

Universities have an important mission in talent development and the training of highly skilled students. Through the right support, FP10 can **empower students** to become the key contributors to Europe's innovation landscape. Better supporting student-based innovation will accelerate the dissemination of cutting-edge research achievements, supporting deep tech start-ups, innovation clusters and entrepreneurial initiatives.

Making the students' knowledge and problem-solving skills contribute to creating ideas, solutions or services to solve real-world challenges has big potential. FP10 should strongly consider the cross-border involvement of students in projects linking them to any other potential partners, or investors. Pilots with new formats of European hackatons, innovation labs or creating capstone projects with industry and business are promising to realise the potential of student-based capital. Offering funding opportunity to MSCA-DN and MSCA-Postdoctoral Fellowships beneficiaries to turn their research outcomes into high-risk innovation transfer (patents, start-ups) is another opportunity. Mentorship programmes, accelerators and simplified access to funding, patents and training will help realise an e supportive environment where students will flourish.



Professional development of research support staff

In the past decades, European research financed by FPs has become more and more complex, involving a great number of elements that go beyond the „traditional“ scientific activities (like ethics, data management, planning detailed and constraint budgets (lump-sum), impact assessment, communication and dissemination, etc).

The R&I ecosystem has become more complicated, involving a number of actors other than the researchers, which are equally important for the impact of research projects. In this regard, FP10 could foresee **funding for training, professional development and networking of research support staff**, as a fundamental part of the good outcomes of the entire research cycle.

ECIU welcomes the development of a Career and Competence Framework for Research Management.

ENHANCING THE SOCIETAL IMPACT OF RESEARCH

The societal impact of research is a crucial measure of its success. Grand Challenges, such as the climate crisis, require deeper understanding, reflections, and solutions in times of urgency. By aligning research funding with societal needs, FP10 can drive innovation that directly benefits citizens, promotes sustainable development, and fosters inclusive growth. Strengthening collaboration between academia, industry, and civil society, as well as encouraging open science and public engagement, ensures that research outcomes are not only cutting-edge but also accessible and relevant to everyday life. FP10's focus on impact-driven research can maximise its contributions to societal well-being across Europe and beyond.

To enhance the societal impact of research, the next FP should focus on:

1

Aligning the FP with societal needs

Aligning research priorities with societal needs, such as climate change, health, digital transformation, and the protection of democracy, ensures that the outcomes directly benefit European citizens. Combining fundamental and applied science with **impact pathways** (embedding impact and ensuring follow-up) will help realise positive change in society.

However, the expected outcomes listed in many of the calls go well beyond the realms of what can reasonably be addressed by R&I projects and within a timeframe aligned to the project. Impact pathways should be more **flexible**, stimulating consortia to consider impact in different and creative ways, choosing those best suited to their project.

2

Needs for low Technical Readiness Levels (TRL), less prescriptive and more bottom-up calls to allow for multifaceted impact

There must be a greater scope for bottom-up and lower TRL calls (especially in Pillar 2) to allow for true innovation and **unpredictable impact**. Too much emphasis on 'close-to-the-short-term-needs' will lead to predictable outcomes and not disruptive results. Support for early-stage research, where groundbreaking ideas and novel technologies are first conceived, is crucial for **disruptive innovation**. Only investment in low TRLs will transform industries, society and create new markets. Experimenting with high-risk, high-reward ideas hold the potential for long-term, disruptive breakthroughs.

Establishing causality between research and societal outcomes is not straightforward. Moreover, impacts can be multifaceted, non-linear and complex. Furthermore, higher TRL involving construction of scaled up prototypes is expensive and does not enable supply chain issues to be optimally addressed. It would be worthwhile to consider **a more targeted challenge approach for high TRL projects**, recusing the number of cross-cutting issues that need to be considered, and focusing on the challenge that must be solved.

Building upon the previous point, **better guidelines** on how to describe impacts and KPIs are needed. This will also help to ensure evaluators have the opportunity to select from a range of approaches to pick the best one.

Directionality, refinement, and presentation of the expected outcomes at the topic level should avoid defining detailed scoping or approaches on detailed outcomes or specific long-term impact. ECIU suggests that it is best to **leave it up to the many actors to pick any suitable approaches to solve a given challenge**; this will further promote the use of novel solutions, newly developed methods and techniques, and allow actors to be more open to new constellations when it comes to collaborators.



Support for citizen science, public engagement and Living Labs to engage society

Especially in Pillar 2, engaging with stakeholders from early on is key to respond to societal needs, yet it requires fresh thinking beyond 'transfer'.

Embedding **citizen science** within research projects enhances public engagement and democratises science. By involving citizens in defining research challenges, data collection, analysis and interpretation, and dissemination, research can become more inclusive and reflective of societal needs and values. It will generate sustainability of project results and the reusability and interoperability of them.

However, clear definitions, a common understanding and agreement on the process would support the development of citizen science in Europe. The new **ERA Structural Policy on Trust in Science and Citizen Science** should support such a common understanding.

Public engagement must be fully recognised and incentivised as a key activity of researchers to support engagement with the surroundings, external stakeholders, citizens, and society. Public engagement is a powerful tool to create a dialogue and raise more awareness about science. FP-projects are greatly needed opportunities for researchers to develop their skills and competences to advance in their careers. Therefore, training on active outreach, co-creation, dissemination of scientific knowledge, partnership building, collaborative ethics, science communication, inclusive language, etc. is also important.

To accelerate transformations towards just and sustainable future cities across Europe, local and regional projects need to scale up and share sustainability pathways and planning efforts. In this context, Living Labs and innovation and experimentation spaces in general have demonstrated great potential in serving as platforms for connecting universities with societal stakeholders – such as end-users, communities or the public, facilitating transdisciplinary collaboration in the innovation process but also as tools for cross-case learning and upscaling innovative solutions.

4

Open Science

Open Science is essential for enhancing the societal impact of research because it promotes transparency, accessibility, and collaboration. By making research findings, data, and methodologies freely available, open science ensures that knowledge is shared beyond academic circles, allowing policy-makers, industry, and the public to benefit from and apply these insights. **This accelerates innovation, enhances public trust in science, and facilitates evidence-based decision-making on societal challenges.** Open Science also encourages interdisciplinary cooperation and global partnerships, increasing the reach and relevance of research in addressing real-world problems and creating more equitable access to knowledge.

The FP has achieved much to support Open Science. Continuing this as a priority is essential to preserving the European tradition of free and democratic access to knowledge.

Aside from supporting principles of Open Science in general, FP10 should continue to provide **open access** to the vast array of reports produced by projects as deliverables. Huge effort is invested in producing deliverables that, once reviewed, are hidden from view. Better access to deliverables could enhance the sharing of knowledge and avoid some duplication of effort.

ENHANCING EUROPE'S INNOVATION POTENTIAL THROUGH SMART INVESTMENTS

The EU R&I Framework Programme (FP) is unique in the way it supports international collaboration in research and innovation, balancing both competition and collaboration. This attracts the participation of top talent and enables cross-border, cross-discipline, and cross-sector research and innovation (R&I) collaboration.

The FP does more than bring researchers together. It provides the means for the coming together of people from a diversity of organisations from across Europe and beyond. Relationships formed through projects provide the backbone of a European identity and (career) opportunities for young people. Assessment of the value creation from past FP's provides strong evidence that **each euro spent will ultimately bring five euros in benefits to EU citizens by 2040**.¹

Technological competitiveness is key. Europe should be at the forefront of technological developments; investments budgets must increase - and not decrease like the reality is in many Member States. As Draghi points out in his competitiveness report, **Europe's economic success, societal prosperity, and its ability to meet global challenges hinges on sustained investment in cutting-edge research and innovation**. FP10 is the means by which Europe's top talent in research and innovation can work together to realise Europe's potential and should be shaped accordingly.²

Next to strong investments, investments must be smart. ECIU pleads for technological advancement. Combining both **technological advancement** with social sciences to make the last mile to implementation and societal acceptance. **Multidisciplinary** is the way to success. In addition, ECIU partners are known for their excellence in Science, Technology, Engineering, and Mathematics (STEM), but with a social science component - high tech - human touch³.



Dedicated 220 billion total programme budget

The Horizon Europe budget, though increased from Horizon 2020, is inadequate for the range of measures it supports. This leads to much expended effort in producing excellent proposals that cannot be funded and the ones that are having insufficient budget to achieve impact. The only remedy for the on average low success rates of Horizon Europe when considering the effort invested, and comparing it with other regional and/or funding instruments, is a significant budget increase. **For the**

¹ 29 January 2024, REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL Ex post evaluation of Horizon 2020, the EU framework programme for research and innovation.

² 9 September 2024, The future of European competitiveness, report by Mario Draghi.

³ Approach of the University of Twente, partner of ECIU.

sake of Europe's competitiveness, we must realise the potential of innovative ideas.

ECIU joins the call of Draghi, stakeholder organisations including European University Association (EUA), European Association of Research and Technology Organisations and Science Europe (joint call, January 2024)⁴ and the ResearchMatters Campaign⁵, to double the Horizon Europe budget to a minimum of 200 billion euro and for it to be protected to ensure stability and commitment to R&I support. ECIU encourages commitment to the **220 billion euro** budget proposed by the Expert group on the interim evaluation of Horizon Europe.⁶

Managing such an expanded programme will require new procedures in selecting and monitoring projects. A task force is needed to examine how the quality of assessment can be maintained and trust in the selection of projects for funding enhanced, including a review of what role AI based tool might play as well as the risks.



A holistic approach to funding and better use of synergies between programmes

Both Horizon Europe and Erasmus+ are aligned in their goal to strengthen Europe's competitiveness, knowledge base, and cohesion. There are obvious links between R&I actions supported by the FP (such as MSCA, EIC, EIT and ERC) and education initiatives funded under Erasmus+ (such as the European Universities Initiative). The nurturing of EU R&I talent would benefit from more opportunities to link education and research. This could be more strategically and effectively supported by the establishment of holistic calls and a single entry point for applicants. Dedicated funding streams to create holistic calls covering both the education and research dimension will ensure a more efficient application process. ECIU supports the position of the EUA to create more joint calls in its recent paper (June 2024).⁷

Furthermore, a **harmonisation of rules**, such as rules for participation and funding (personnel cost calculations, eligible costs, supporting documentation), and equal access to information would ease the administrative burden. Much has been achieved in establishing one central funding information portal for Horizon Europe and Erasmus+, and the use of similar budget templates for lump-sum topics are helpful. However, information about programmes co-funded with Member States is often not easy to access. In addition, the funding form should be appropriate to the scope and dimension of the undertaking.

There is much potential in using the **European Structural and Investment Funds (ESIF)** in synergy with the FP to develop long-term sustainable networks of researchers and regional societal stakeholders. Connecting regions and communities at a European level can strengthen the effectiveness of innovation ecosystems and facilitate more investment across ecosystems, and the exploiting of project results beyond regions. Creating innovation clusters has huge European added value, linking ecosystems throughout Europe, to enhance not only the valorisation of research results, but also its potential impact.

⁴ 19 January 2024, joint statement EUA, EARTO and Science Europe - Investing More in RD&I as a Strategic Move for Europe's Future Prosperity.

⁵ ECIU signed the ResearchMatters Open Letter to strengthen research and innovation in Europe on 4 June 2024.

⁶ 16 October 2024, Align, act, accelerate. Research, technology and innovation to boost European competitiveness. Recommendations from the independent high-level expert group chaired by Manuel Heitor.

⁷ Bullet 7 of the position of the EUA, The Next Leap Forward for Transnational Cooperation, 20 June 2024

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Funding for the European Research Area (ERA) policy priorities

There is a strong need to complete the measures proposed for the ERA as a key element to foster European competitiveness.⁸ ECIU supports the call of Enrico Letta for a fifth freedom on knowledge.⁹ FP10 could be a concrete way to **integrate ERA values and principles into research and implement ERA ambitions** such as in the field of research careers.

The ERA and FP10 could reinforce each other: FP10 could be seen as the implementation tool of the ERA, and the completion of ERA would allow European research (FP10) to fully deploy its excellence and support innovation.

Support for research careers, commitment to ResearchComp and improved market uptake of research outputs, clearly moves in this direction. In this way, the ERA can enhance the strategic capacity of EU's research performing organisations. FP10 can thereby provide the means to achieve ERA policy goals.

4

Longer-term funding

Innovation, particularly in high-risk, high-reward areas, will be central to rebuilding European competitiveness in areas such as the digital and green transitions, and next generation semi-conductors. Realising knowledge valorisation and impact often requires extended periods of research.

Short funding cycles can stifle breakthroughs by prioritising immediate results over sustained inquiry. **Longer-term grants, and opportunities for continuity beyond the initial duration of projects, allow researchers to undertake ambitious projects** with the confidence that they have the necessary time and resources. Moreover, longer-term funding will help **nurture the ecosystem needed** to enable effective collaboration at the European scale to address societal challenges and including the need for economic growth.

5

Smaller-scale funding

In addition to large-scale projects, agile and flexible smaller-scale funding should be increased to support grassroots innovation and early-stage research. This approach will encourage **diversity in research methodologies and partnerships**, fostering a broader range of innovative solutions and mitigating the pitfall of 'group think' to the research needs identified in the programme.

Offering a mix of long-term, short-term, large-scale, and small-scale funding options to cater to different research needs and stages will allow for more tailored support, as well as providing attractive means to work together at the European level. Administrative requirement for managing projects need to be pragmatic and appropriate to the size of the project.

Funding targeted R&I programmes (similar to MSCA COFUND and Financial Support for Third Parties projects) which have a stream of smaller-scale research projects could also be a fitting instrument to support student-based innovations.

⁸ In compliance with what was stated already in art. 179 TFEU – “The Union shall have the objective of strengthening its scientific and technological bases by achieving a European research area in which researchers, scientific knowledge and technology circulate freely, and encouraging it to become more competitive (...)”

⁹ Enrico Letta, Much more than a Market, April 2024.



Cross-sector opportunities

Cross-sector collaboration between academia, industry, societal organisations, and public administration can accelerate the translation of research into practical applications and drive economic growth and societal transition. Mobility of research staff amongst academic institutions, and stakeholder organisations, is essential and needs European funding to enable the creation of Smart European Research Ecosystems. The MSCA Staff Exchange is an excellent example of such mobility support, but it is over-subscribed, leading to a huge effort required for assessing proposals that have no chance of being funded. Erasmus+ KA1 Mobility is another good example in supporting academic staff to identify and navigate career paths beyond academia.

ATTACHMENT

In addition to the more strategic and visionary messages shared in the main part of the ECIU FP10 position paper, ECIU also has some specific input on particular programmes.

Pillar 1

We need early-TRL research for innovation and FP10 should be bold and increase available funding for the European Research Council (**ERC**). Bringing investigator-driven frontier research to the market is key. The ERC proof of concept and EIC Transition (pillar three) help bring ideas to the market. Innovation is not a linear process, we need investments throughout the whole TRL-scale.

ECIU supports the recent call for support to the **MSCA** programme. The growth of talent must be intensified and the budget of MSCA increased. Mobility opportunities should be open to all essential actors in Europe's R&I system. The MSCA Staff Exchange instrument could support mobility of research managers and TTO staff independent of a narrow research element. MSCA Doctoral Networks are key to early career innovation – building cross-sector engagement from the beginning of a career.

Pillar 2

The demands of the Pillar 2 calls have become complex, aligned to policy implementation, and the range of peripheral topics that need to be addressed is broad. Therefore, it is no longer straightforward for committed individuals to come together to apply for funding and to invest in developing novel R&I project concepts.

ECIU supports the **Missions**, as they have a potential to execute a challenge-based research concept : solving big societal challenges; activating research and innovation across sectors, actors and disciplines; and creating strategic alignment with regional/national initiatives and funding programmes. Concentrating and delivering on the existing missions creating practical value for citizens is key for their success. The mission approach should enable bottom-up solutions and experimentation to ensure cutting-edge solutions and European leadership. Involvement of research organisations to realise the Mission ambitions by 2030 is absolutely key.

Pillar 3: some instruments are complex

The European institute for Innovation and Technology (**EIT**) must be adapted. The concept of sustainability must be clarified, including clarification of membership requirements. Participation in EIT Knowledge and Innovation Communities (KICs) can be complex and inflexible. Moreover, the EIT, the European Innovation Council (**EIC**) and the European Innovation Ecosystems (**EIE**) should work much more closely together in FP10, avoiding duplication of effort in funding provided and support offered. A common participant portal for EIT management and administration would be valuable. ECIU calls for more funding in the EIE topics, i.e. those that support more collaboration among higher education institutions and the business sector to create innovation.

To overcome the valley of death syndrome, more opportunities to support the transition phase from research to innovation, for example, by expanding the EIC Transition scheme could be considered.

Moreover, the instruments of Pillar 3 could be strengthened with postgraduate and doctoral student-based innovation and also with the results of projects funded by other pillars.

SIMPLIFICATION

Europe must speed-up the needed societal transitions and we must make this as simple as possible. Therefore, cutting red tape where possible is crucial. We are aware of the efforts done by the European Commission to decrease the number of pages for proposals in Horizon Europe, but still the lengths are challenging and applications (and evaluations) of several hundred pages are not always necessary. Accessible and timely *information, simple structure, open to all, bottom-up where possible, and focused on collaboration across sectors and disciplines*, is all we need. ECIU calls for radical simplification, including short proposals, critically reflecting of all the sections required for lump-sum funded actions.

ECIU supports the ongoing efforts to simplify the FP, such as central Horizon Europe and Erasmus+ funding portal and the simplified financial rules. Other suggestions would be:

Application process

Attention to streamlining processes and simplifying application and reporting procedures to make funding more accessible would be welcome.

Best practices and de facto standards have been formed by applicants concerning Communication and Dissemination (C&D) activities and an opportunity for simplification could be to move C&D activity list from Part B to Part A as an opt-out selection list. Applicants could still highlight C&D activities truly specific /innovative and relevant to the proposed project in a free text field.

Lump-sum: All and budget/resources related tables in Part B should be integrated into the Lump-sum Excel spreadsheet to automatically ensure the correct figures are presented and to simplify Part B. In general, any compulsory repetition of information given in the proposal package should be avoided.

Part A - Researchers involved in the proposal: Depending on the targeted use of the information collected by the European Commission, it would be best to automatically display the table only for legal entities registered as higher education institutions and research organisations. Non-research performing organisations (businesses, NGO's, etc) are distracted by the table. On this note: The formation of an extensive person registry without any communication of the intended use (such as tracking of research careers) causes concern.

Evaluation process and report

More descriptive evaluation reports of the proposals would be welcome. There is significant difference amongst the evaluation reports of different evaluators. Transparent evaluation is key for trust in the process and motivation of the applicants.

Rapporteurs and European Commission and Executive Agency staff might be provided with an AI-tool to quickly check any “Shortcoming” markings in the tentative evaluation report against the evaluated proposal to ensure a claimed “Shortcoming” is correct. The Commission should carefully analyse submitted and accepted redresses to pinpoint any clustering of shortcomings.

About ECIU

ECIU is the leading international consortium of 14 research-intensive universities, with collective emphasis on **innovation, creativity, and societal impact**, driving the development of a knowledge-based economy. In this context, ECIU launched initiatives such as the challenge-based research way of working as an opportunity to increase the impact of academic research. Bringing positive change, and supporting the needed transitions in society, backed by a strong R&I programme, is key to ECIU.