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Horizon Europe: Research and Innovation at the heart of competitiveness

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1. Introduction: research and innovation at the heart of competitiveness

Research and innovation (R&I) is a key driver of competitiveness. R&I spurs productivity increases, economic growth and, ultimately, enhances well-being, as the Draghi[1] and Letta[2] reports recently highlighted. Now more than ever, R&I will shape Europe's future. Maintaining Europe's capacity to come up with new ideas, bold research and innovations, and translating them into products and services will boost Europe's competitiveness. President von der Leyen has made clear that "Europe's competitiveness – and its position in the race to a clean and digital economy – will depend on starting a new age of invention and ingenuity. This requires putting research and innovation, science and technology, at the centre of our economy"[3].

This is why the EU has invested in research and innovation for decades and aims to scale up and speed up R&I. Since 1984, the EU's Framework Programmes for R&I have financed groundbreaking ideas and disruptive innovations designed to tackle long-term priorities while boosting the competitiveness and resilience of our industry. The EU Framework Programmes also contribute to advancements in areas such as health, security, and the environment, just to name a few.

Innovation is not sparked overnight. Investment in science can take 20-25 years to reach the market, with little difference between scientific fields. **But this type of long-term investment in strategic priorities is what makes an impact**: it enables the EU to build a broad knowledge base and a strong R&I pipeline, and therefore be able to promote the EU economic competitiveness in the technologies of the present and of the future as well as to respond quickly in times of crises supporting EU socio-economic resilience.

In this context, Horizon Europe, as one of the EU's largest programmes, delivers clear value for money. The interim evaluation[4] estimates that the programme has a significant positive impact on the EU's economy, reaching a GDP multiplier of up to 11 over a 25-year period. In terms of benefit-cost ratio, the evaluation found that one euro of costs associated with the programme brings up to six euro of benefits for EU citizens over the period up to 2045. In its first three years of implementation, Horizon Europe funded over 15 000 projects with a budget of over EUR 43 billion. Only the best projects are selected for funding: the top 16% of all applications were successful. Nearly 7 out of 10 high-quality proposals did not receive funding due to a lack of sufficient budget. In the same period, to fund all the high-quality proposals, Horizon Europe would have needed nearly another EUR 82 billion.

In the recent public consultation on the past, present, and future of the Framework Programme, stakeholders highlighted the importance of Horizon Europe for R&I in Europe. Nearly half of respondents reported that **their R&I project would not have gone ahead without Horizon Europe** funding; 38% of projects would be carried out with a smaller, less international team; and 35% of projects would be substantially reduced in scope. In some research domains, most of the Member States do not have their own R&I programme, and therefore rely exclusively on the EU's Framework Programmes. This is for example the case in civil security research.

The importance of the Framework Programme for Europe is also illustrated by the range of different contributions that the European Commission received for the interim evaluation. These include the public consultation (1 600 responses and 136 position papers), independent evaluation studies, the 'Align, Act, Accelerate' report of the Commission expert group[5], and reports from the European Court of Auditors. In addition, the European Parliament's Resolution on the assessment of the implementation

[1]Draghi, M. (2024), The future of European competitiveness, Part A | A competitiveness strategy for Europe. https://commission.europa.eu/topics/eu-competitiveness/draghi-report_en.

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

[3] European Commission, Political Guidelines for the 2024-2029 Commission, 2024.

[4] SWD number SWD(2025) 110

[5] Heitor, M. et al. (2024), Align, act, accelerate – Research, technology and innovation to boost European competitiveness, https://data.europa.eu/doi/10.2777/9106236.

of Horizon Europe[6], as well as the Council Conclusions on the *ex post* evaluation of Horizon 2020[7], provided further insight. The evaluation also drew on opinions provided by the Committee of the Regions and the European Economic and Social Committee. All this evidence fed into the evaluation of Horizon Europe and will shape its way forward in the three remaining years.

This communication summarises the findings of the interim evaluation of the current Horizon Europe Framework Programme, highlighting its strengths, achievements, and areas for improvement, whilst looking at the long-term effects of the Framework Programme as required by Article 52 of the Regulation of Horizon Europe.[8] It looks at the scope to improve EU-wide coordination and the ongoing simplification effort. It then describes the focus for investment in research and innovation for the next three years and the European Commission's goal to shape a **simpler, more focused and even more impactful programme**.

2. EU support throughout the research and innovation journey

The Framework Programme supports researchers, entrepreneurs, scientific organisations, and companies throughout all stages of the research and innovation journey. This section describes progress towards the objectives of the Programme, and some examples of achievements.

2.1. Scientific and deep tech breakthroughs for future growth

Over the years, the Framework Programmes have **contributed to scientific breakthroughs and advancements** to enhance the EU's competitiveness. The Framework Programme has invested in strategic sectors and technologies, from healthcare, through civil security, to energy, while nurturing groundbreaking ideas to tackle global challenges and the needs of our society.

The European Research Council (ERC) has been the main instrument for excellent frontier research, helping researchers to explore ideas and research results across all fields of science. Since its creation in 2007, the ERC has funded a variety of projects that have contributed to solving significant social, environmental, and economic challenges. Over **80% of ERC projects have led to a scientific breakthrough or major advances in their field**. Stakeholders overwhelmingly agree that Horizon Europe has helped to develop, promote, and advance **scientific excellence** across the EU. To date, Horizon Europe's beneficiaries have reported over 10 000 peer-reviewed and other publications, **79% of which are publicly available online**.

Through the European Innovation Council (EIC), the EU supports deep tech innovators with an integrated set of instruments. So far, under Horizon Europe, the EIC has awarded nearly EUR 2 billion in grants, which is more than any other part of the programme, supporting over **700 startups and SMEs**. Since 2020, its investment arm, the EIC Fund, has crowded in over EUR 2.6 billion of additional investment into EIC-supported companies, with a leverage effect of over EUR 3 for every euro of equity invested by the EU.[9,10]

[6] European Parliament resolution of 11 March 2025 on the assessment of the implementation of Horizon Europe in view of its interim evaluation and recommendations for the 10th Research Framework Programme (2024/2109(INI))

[7] Council conclusions on The ex-post evaluation of Horizon 2020 and future outlook (approved on 23 May 2024)

[8] REGULATION (EU) 2021/695 establishing Horizon Europe – the Framework Programme for Research and Innovation, laying down its rules for participation and dissemination, and repealing Regulations (EU) No 1290/2013 and (EU) No 1291/2013.

[9] EISMEA (2025), Scaling Deep Tech in Europe - European Innovation Council - Impact Report 2025. Available at: https://eic.ec.europa.eu/document/download/7b947b36-66cb-4471-a2d0-158d5ae6770f_en?filename=EIC-Impact-Report-2025.pdf

[10] Considering Horizon Europe beneficiaries only, the EIC Fund crowded in EUR 1.5 billion in additional investments, for a leverage factor of 3.2.

Space applications

- The ERC-funded project **BlackHoleCam**, part of the global Event Horizon Telescope collaboration, achieved the first-ever image of the event horizon around a supermassive black hole. The black hole is in the galaxy Messier 87 (M87), an elliptical galaxy located 53 million light-years from Earth. No single telescope on its own has the observational power to capture the supermassive black holes believed to be at the centre of all galaxies. This project created an opportunity to measure the fabric of space and time with unprecedented precision.
- The EIC-funded **E.T.PACK-F** is developing a flight-ready deorbit device under Horizon Europe, building on a previous project funded under Horizon 2020.

Furthermore, as part of Horizon Europe, the Marie Skłodowska-Curie Actions (MSCA) have become the main instrument to promote researchers' careers through doctoral and postdoctoral training and mobility. Under Horizon 2020 alone, the MSCA have supported 65 000 researchers and **Horizon Europe is on course to replicate this success**. Looking ahead, the **MSCA has the potential to further contribute to EU competitiveness** through *Choose Europe*, a new pilot initiative that builds on the recommendations from the 'Align, Act, Accelerate' report of the Commission expert group. This new co-funding initiative addresses the precarity and attractiveness of researchers' careers and offers more favourable and stable career prospects to **retain most promising young talents** in Europe, and to **provide an attractive perspective for top researchers from other parts of the world who want to move to the EU**. Through the selected talent recruitment programmes submitted by the applicants, researchers will be able to gain a deeper and more diverse set of research-related, academic, and transferable skills and competences, leading to greater autonomy in and outside academia. Alongside this, by offering excellent working conditions and career opportunities to researchers, participating host institutions will increase their global attractiveness, visibility, and reputation.

This contributes to the ambition of building a *Union of Skills* – one of the key initiatives of this Commission's mandate. In this context, the European institute of Innovation and Technology (EIT) and its EIT KICs are managing several EU Skills Academies in strategic sectors for EU competitiveness, in particular those covered by the Net-Zero Industry Act, i.e. batteries, raw materials, solar, wind, and hydrogen.

Horizon Europe aims to attract, nurture, and retain the best research talent in Europe. This goes hand in hand with the aim to promote gender equality. **Women hold leading roles in Horizon Europe projects** and over 50% of the experts in advisory and evaluation panels are women. The share of women-led consortia has risen from 24% to 31% in less than four years, indicating a positive trend for the future. In addition, 95 156 researchers are benefiting from upskilling activities; of these, 44% are women.

In addition, the Joint Research Centre (JRC), which undertakes the direct non-nuclear R&I actions of Horizon Europe, supports Union policy priorities with high-quality independent scientific evidence and research. The JRC's added value is demonstrated for example by, e.g., its interdisciplinary research capacity and ability to translate research for policymakers, where its independence, neutrality and networks help achieving solutions at EU level and where it represents EU interests in international fora[11].

2.2. Investing in and pooling resources for competitiveness through collaborative research and innovation

Collaboration is at the core of the Framework Programme. The programme involves organisations from different countries, at a wider scale and with a larger scope than would be possible at national or regional level in any Member State. For participating researchers, scientific organisations and companies, Horizon Europe offers unmatched collaboration benefits. International and cross-sectoral cooperation and mobility possibilities, access to world-class research infrastructures, an emphasis on excellence and

[11] Heuer, R.-D., et al., Interim evaluation of the activities of the Joint Research Centre under Horizon Europe and Euratom 2021-2025 - Final report of the evaluation panel, Publications Office of the European Union, 2023.

the variety of research topics are key aspects of the added value provided by the Framework Programme. **The scale of collaboration fostered by the Framework Programme is unique in the EU** – and in the world.

Collaboration is a key driver of excellence. By creating EU-wide competition for research funding, **the Framework Programme selects the most promising projects from the largest possible pool of applicants**. In turn, this minimises the risk of duplication of research efforts within the EU.

One vehicle of collaboration is the **European Partnerships.** They align and pool R&I investments across EU, national and regional institutions and between industry and academia. This close collaboration facilitates market uptake. By linking up with the Strategic Research and Innovation Agendas, the European Partnerships promote a coordinated approach to the EU's priorities.

European industries need collaborative research and innovation to modernise. The automotive sector is a prime example. In the recent Automotive Action Plan[12], the Commission announced the launch, without delay, the European Connected and Autonomous Vehicle Alliance, building on the preparatory work done in the European Vehicle of the Future Initiative, and three Horizon Europe automotive-related European Partnerships. It will also support the whole EU value chain of next generation batteries in close cooperation with partnerships in advanced manufacturing and advanced materials. Horizon Europe will make available EUR 1 billion for the automotive sector for the period 2025-2027. In the future, partnerships tailored to specific activities could be brought together in a joint undertaking specific to the automotive sector, bringing together Member States and industry and covering the entire innovation chain. This is without prejudice to the next MFF proposal's package.

Building partnerships in key sectors for economic competitiveness: hydrogen

Between 2007 and 2023, the EU allocated over EUR 2.9 billion to hydrogen research and development under the Framework Programme 7, Horizon 2020, and Horizon Europe.

- With over 67 'hydrogen valleys' in development, Europe is leading the way in electrolyser capacity deployment across the whole value chain. When they become operational, the hydrogen valleys will have the combined potential to produce around 5 million tonnes of clean hydrogen, or 40% of all global installed capacity.
- The Clean Hydrogen Joint Undertaking has been instrumental in advancing electrolyser technology and scaling at capacity, from 100 kW in 2011 to 10 MW by 2017 and 30 MW in 2023.
- EU-funded projects such as **JIVE** and **JIVE2**, have already made it possible for **fuel cell electric buses to be running in 22 European cities**. This has enabled the EU to maintain its leading role in hydrogen fuel cell buses and refuelling infrastructure.

Although the Framework Programme has achieved considerable results, the evaluation highlights that collaborative activities are complex to navigate. Under Pillar II, there are currently 60 European Partnerships, six clusters and five EU Missions. The Horizon Europe 'main' work programme contains 1 060 topics and actions described in over 3 000 pages. The priority for the coming years is to reduce this complexity and promote the quality of collaborations, as described below in the relevant simplification section.

To tap the full potential of collaboration under the Framework Programme, the Commission will launch **cross-cutting calls for proposals**. These will be a key measure to support the **priority policy areas** set out by the political guidelines. The calls for proposals will be essential to support **the Clean Industrial Deal** and other priorities where it is crucial to achieve critical mass.

[12] COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS Industrial Action Plan for the European automotive sector COM(2025) 95 final.

Horizon Europe mobilises investment in R&I from both the public and private sectors. To date, halfway through implementation of the Horizon Europe programme, **participants have already mobilised over EUR 10 billion in co-investment**. This is a considerable increase compared to the same stage of the Horizon 2020 programme, when participants had co-invested just over EUR 5 billion. Overall, the economic effects are considerable due to the programme's ability to aggregate investment in R&I at a much broader level than any national or regional programme could.

The Framework Programme gives a significant boost to companies' financial performance

Companies that received Horizon 2020 funding saw an average increase of 30% in total assets and revenues in the three years following the grant, along with a 20% increase in employment compared to similar companies that did not receive EU R&I funding. Companies participating in the Framework Programme also showed a higher propensity to invest in intangible assets than applicants that did not receive funding.

Valorisation measures

In order to truly reap the benefits of R&I investment and ensure that the knowledge generated by research flows through to innovations, **there is a strong need to improve knowledge valorisation**. Only about a third of the patented inventions registered by European universities or research institutions reach the market. The evaluation indicates that there is still room to improve the process of dissemination and uptake of Horizon Europe outputs. Bridging instruments such as Proof-of-Concept grants have helped bring ERC-funded ideas from the laboratory and academia to the business world. So far, nearly half the successful EIC Transition projects originate from these grants.

Measures will be implemented under the 'main' work programme for 2026-2027 to strengthen the valorisation and market take-up of Horizon Europe results and translate research outputs into **tangible societal and economic outcomes**. This is essential to unlock the full potential of the programme, in particular under Pillar II. When relevant, this could take the form of a certain percentage of each research action being reserved for technology transfer measures; and by fostering **contacts between entrepreneurs and academia with a view to creating university spin-offs**.

International cooperation

Alongside its economic impacts, the Framework Programme is a tool to forge international relations and has fostered science diplomacy and cooperation worldwide. Horizon Europe has received applications from 194 countries overall and **brought in a new wave of associated countries, 19 to date**. For the EU accession countries – all of which are associated to the programme – Horizon Europe offers a unique opportunity to strengthen their R&I ecosystems and build R&I capacity for the long-term.

The programme also attracts non-EU countries with strong R&I ecosystems. Horizon Europe is, together with Copernicus, one of the first two EU programmes for which the United Kingdom sought associated country status after Brexit. Switzerland will become an associated country to Horizon Europe in 2025. Canada, the Republic of Korea, and other countries with strong R&I systems have also concluded association agreements, creating opportunities for European researchers to expand their collaboration networks beyond the EU. The combined operational contribution of associated countries over 2021-2024 is over EUR 4 billion, resulting in a substantial increase in the funding for R&I activities under Horizon Europe. Importantly, association to Horizon Europe can be based on the criterion of restricted or conditional participation, should economic and research security concerns occur.

In this regard, R&I is vulnerable to foreign interference, security risks and hybrid threats. Therefore, in line with the Council recommendation on enhancing research security[13] and as announced in the

[13] Council Recommendation on enhancing research security: https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=OJ:C_202403510.

European Preparedness Union Strategy[14], the Commission will establish a European Centre of Expertise on Research Security that collects evidence and provides support to Member States and R&I actors.

2.3. Tackling global challenges

Some of the challenges that Europe faces are so vast and complex that solutions can only be found through large-scale investment in R&I. The Framework Programme's strong strategic vision makes it possible to focus efforts on the challenges that matter the most.

Climate and environment

One of the clearest examples of the EU's leading role in addressing global challenges are R&I investments to tackle climate change, biodiversity loss, increasing levels of pollution, and the circular economy. The Intergovernmental Panel on Climate Change identified the EU's previous two Framework Programmes – Framework Programme 7 and Horizon 2020 – as the second most frequently acknowledged funding sources (after the US National Science Foundation) of the research referenced in the 6th Assessment Cycle reports, with over 4 500 publications cited. Horizon Europe is on course to achieve similar results. The Framework Programmes similarly supported the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and the International Resource Panel (IRP).

On top of this, the EU is a world leader in green infrastructures in the fields of climate change, energy and environment. Sustained R&I support is key to maintain this leadership and ensure that new clean technologies and solutions reach the markets. The EU's role is becoming even more important at a time when other world powers are scaling back environmental commitments and research.

Supporting the European Green Deal and the Clean Industrial Deal

- The project **CONSTRAIN** focused on reducing uncertainty in climate projections by improving understanding of how natural and human factors affect regional climate change over the decades. These insights produced better near-term climate projections to feed into policy decisions.
- **CISUTAC** is increasing circularity and sustainability in the textiles and clothing sector. It does so by demonstrating the feasibility and value of repair and disassembly, as well as sorting for reuse and recycling, and the creation of circular garments through 'fibre-to-fibre' recycling and design for circularity (polyester and cotton).
- **REVaMP** generated retrofitting technologies that enable older industrial plants – such as those in the metal, cement and ceramics industries – to operate more efficiently using new, circular materials. By upgrading existing infrastructure, the project demonstrated how industries can cut energy use, reduce emissions and modernise production without building entirely new facilities. This approach supports a more sustainable and cost-effective transition to greener manufacturing.

Health

Long-term investments in R&I under successive Framework Programmes have led to life-changing innovations, which are now delivering tangible impacts.

[14] JOIN(2025) 130 final

Treating deadly bacteria and viruses

- A prime example is a new drug combination for fighting infections caused by multidrug-resistant Gram-negative bacteria, which causes 25 000 deaths in the EU every year. This product, which is available as of 2025, was funded by Framework Programme 7 through COMBACTE-CARE in 2015, and is one of the very few new antibiotics that is effective against these hard-to-treat infections to reach the market in three decades.
- One of the key achievements is the Global Health **EDCTP3** Joint Undertaking, which contributes to the response to the spread of mpox by funding research into the virus and potential treatments.

By setting out a strong long-term vision, the Framework Programme is equipped to respond to sudden crises. **Horizon Europe and its predecessor Horizon 2020 funded research into understanding COVID-19, containing its spread and treating infections.** The EU rapidly became the third most frequently acknowledged funding source for COVID-19 research in the world, after the US Department of Health & Human Services and the National Natural Science Foundation of China. Research funded through the Framework Programme has helped to understand more clearly the link between the various types of pollution and health and to find innovative solutions to prevent and fight against pollution.

Civil security

In times of increasing climate-extreme events and hybrid threats, EU investment in civil security research has been crucial to making the EU prepared for crises. For example, in their efforts to counter both accidental damages to and deliberate hostile acts against energy and telecoms cables, authorities can draw on innovative technologies developed under by Horizon projects, including technologies for underwater sensing, automatic detection of abnormal vessel behaviour, and real-time awareness. In this domain in particular, it is paramount to ensure that economic and research security are upheld at all times.

Protecting undersea infrastructure

- **PROMENADE** will develop new technologies to provide national border management authorities with a toolkit for automatic vessel detection, tracking and behavioural analysis. These technologies will be based on AI and machine learning applied to maritime surveillance reporting systems, databases, and other information sources.
- Projects **SMAUG** and **UNDERSEC** will improve the security of ports and their entrance routes by utilising AI and an integrated system that can provide data on threat detection and analysis between ports security infrastructure, advanced underwater detection, and systems surveillance vessels.

Digital and artificial intelligence

Artificial intelligence (AI) is another focus area for EU R&I, since it is a crucial driver of competitiveness and one of the fields with vast untapped potential for innovation. So far, Horizon Europe has allocated EUR 6.4 billion of funding to AI.

Expanding the frontier of digitalisation

- **AI4LIFE** is creating user-friendly platforms that make AI tools and data sets accessible even to those with no expertise in computational sciences. These platforms will facilitate the analysis of biological images such as microscopy scans of tissue samples. The project particularly focuses on FAIR (Findable, Accessible, Interoperable and Reusable) principles for AI-ready image data sets and models.
- **DataPorts** brought together the expertise of 15 partners from across Europe to set up the Cognitive Ports Data Platform. This single connected system enables safe and seamless data exchange across European seaports. Using AI modelling, the platform was also able to predict vessel arrival, departure, and berth times, optimise logistics, and track containers within ports.

AI will fundamentally change the way research is conducted. The European Commission will propose a **Strategy for AI in Science** in 2025 to empower the scientific community to adopt AI in their research. The European Commission has also launched the **InvestAI initiative** to mobilise EUR 200 billion for investment in AI, including a new European fund of EUR 20 billion for AI gigafactories. The Commission's initial funding for InvestAI will come from existing EU funding programmes that have a digital component, such as the Digital Europe Programme, Horizon Europe, and InvestEU.

The **European High Performance Computing Joint Undertaking** (EuroHPC JU) also demonstrates the strength of collaboration in Horizon Europe by pooling action by the European Commission with Member States, associated countries, and the private sector. EuroHPC, which has also received support from Connecting Europe Facility and the Digital Europe Programme, has been instrumental in helping the EU gain a **prominent position as a world power in supercomputing.** With EuroHPC, the EU has adopted a coordinated strategy and has pooled together resources to develop state-of-the-art exascale supercomputers. This is another step in the direction of technological sovereignty.

EU Missions

EU Missions are a new feature in Horizon Europe. They provide support for Europe's transition to a greener, healthier, more inclusive and resilient continent, including action to tackle the UN Sustainable Development Goals and other major social challenges.

The evaluation found positive public support for EU Mission projects, but also an overly cumbersome and complex governance system, lack of coherence with the European Partnerships and an incomplete monitoring system. Systematic reporting on the funding leveraged by EU Missions was not available for the evaluation and it noted a limited degree of distinctiveness compared with other parts of the of the 'main' work programme.

The Commission takes note of the new approaches suggested in the European Parliament's Resolution and the 'Align, Act, Accelerate' report, which both call for further examination of the EU Missions. In particular, the 'Align, Act, Accelerate' report suggested that EU Missions should be placed under a suitable level of political ownership, and only their R&D&I component should be part of the Framework Programme. For the last three years of Horizon Europe, further actions on EU Missions will be included in the work programmes.

2.4. Closing the innovation gap

To overcome the EU's longstanding weakness in bringing its excellent research to the market, Horizon Europe set up the European Innovation Council (EIC). The EIC supports disruptive innovation to Proof-of-Concept, technology transfer, and the financing and scaling up of start-ups and SMEs.

To avoid high-risk research and innovation getting lost in the 'valley of death' between innovation and commercialisation, Horizon Europe actively supports market deployment. In the short time since it was created, the EIC Fund has become one of the EU's biggest venture capital investors in deep tech start-ups and SMEs. This has the potential leverage investments up to EUR 20 billion until 2027. The next

step is to extend the success to support scale-ups, to help companies grow on the EU market and become global champions.

Under Horizon Europe, the EIC Transition calls allow the EIC to cover the entire spectrum of technology readiness, from research to commercialisation. Alongside this, the EIC Accelerator provides companies with grants, equity or blended finance (a combination of the two). This is where the EIC is unique in the Framework Programme and in the wider EU programme landscape.

In the period 2018-2024, the EIC and EIC Pilot supported over 70 companies that achieved 'centaur' status (companies valued at above EUR 100 million). Of these, 6 are valued at over EUR 500 million. Some of the main projects that received EIC funding are in key areas such as AI, quantum technologies and semiconductors, advanced materials, biotechnology and biomanufacturing, energy generation and storage solutions.

- The **SER** project developed a tool for conducting endovascular surgeries remotely and without X-rays.
- The **CatQubit** project is developing a new type of self-correcting quantum hardware. The company behind the project recently raised a EUR 100 million Series B investment round.

There has been an increasing focus on streamlining the path for results achieved in Pillar II with the innovation support available under Pillar III of Horizon Europe, especially with the EIC Transition calls. The evaluation found that there is potential to further streamline support under the remaining work programmes of Horizon Europe.

In the meantime, demand for funding under the main EIC calls for proposals (Pathfinder and Accelerator) has increased significantly since the start of Horizon Europe. This has led to a drop in success rates, which were approximately 5% in 2024. Therefore, there is a need to fund more of the excellent projects submitted as proposals, including through the uptake of the Seal of Excellence scheme by Member States.

The EIT KICs also contribute to generating innovation-based growth through development of innovative products and services, starting and supporting new companies, and training a new generation of entrepreneurs.

Venture capital funding for start-ups

Although the EIC has been very effective in attracting additional investment into companies selected under the Accelerator scheme, there is still a major gap in venture capital funding for technology-based start-ups in Europe. The EIC Trusted Investor Network was inaugurated in 2024 and today includes 100 European investment funds pledging to further co-invest with the EIC Fund in European companies. The EIC has also launched a new STEP call under which it will provide **up to EUR 30 million in investment for scale-ups in critical technology areas.** The aim is to catalyse investment rounds of up to EUR 150 million. This is only a first step in closing the market gap in financing scale-ups in Europe, where Horizon Europe can play a key role.

Further measures will be put forward under the Start-up and Scale-up Strategy, the European Innovation Act, and under the remaining EIC work programmes. These will complement the positive impact of InvestEU on developing a well-functioning venture capital ecosystem in Europe by providing indirect support to private venture capital funds.

3. Creating a Research and Innovation Union

In line with the ERA objectives, the Framework Programme plays a role in closing the investment gap between Member States and in ensuring that all EU Member States have strong R&I systems. Horizon Europe is working towards this goal by targeting Widening Member States.

The success rate of Widening Member States has improved since Horizon 2020 and their share of the overall programme funding has increased from 9% to 14%. **Five Widening Member States now have success rates similar to the EU average (20%)**. The share of collaborative projects involving Widening Member States has increased since Horizon 2020 from 47% to 58% at this stage of the programme.

Building centres of excellence and promoting long-term collaboration

The project **FunGlass** is developing novel glass and ceramic-based materials as well as other advanced technologies crucial for the green transition. By teaming up excellent research institution actions, the project secured Horizon 2020 investment of EUR 10 million in premises and state-of-the-art research infrastructure in Trenčín, Slovakia, to create the Centre for Functional and Surface Functionalised Glass.

With partners from Germany, Italy and Spain, the Centre focuses on cutting-edge research in glass with special functional properties. The investment has helped increase scientific output, with over 50 publications annually, new competitive funding for 30 national and 9 transnational research projects, and several patent applications.

The Framework Programme can also play a key role in aligning research and innovation policies at EU and national level by **showing a clear direction for strategic investments**. For this reason, the new work programmes will have a clearer focus on key policy priorities. This means that the work programmes will contain **fewer but more strategic topics**, with the aim to achieve critical mass in the most strategic areas by focusing resources on substantially fewer topics. Topics will also be described in a less prescriptive way with more 'open' topics, to encourage the widest range of creative proposals.

Coherence between EU and national investment

Nevertheless, there are limits to what the Framework Programme can do alone. **Horizon Europe represents around one tenth of public funding for R&I in the EU**. The remainder of R&I public funding comes from the Member States. This results in a fragmented and insufficiently targeted R&I investment landscape, which hinders the EU's ability to focus on strategic priorities.

It is crucial to improve the coordination of public R&D expenditure across Member States to boost innovation in the EU and to reach the 3% target for R&D expenditure.

4. Simplification

While much has already been done to simplify the Framework Programme, the European Commission is committed to going further. Far-reaching simplification work will begin immediately and will tangibly improve the experience of applicants and beneficiaries.

In the evaluation survey, applicants and beneficiaries indicated that time and efforts to prepare a proposal were not always proportionate to the level of funding, number of partners or complexity of the project.

The expert group's 'Align, Act, Accelerate' Report also considered excessive the 'time-to-grant', i.e. the time between the deadline for a call for proposals and the European Commission signing the grant. However, recent Horizon Europe data shows that the time-to-grant is in line with its target of 245 days. This aspect improved significantly over the previous financial period: under Horizon 2020, 90% of grants were signed on time, compared to 41% under Framework Programme 7.

Yet, the European Commission remains committed to facilitate quicker support to beneficiaries. In this context, it will take further action to make the process even simpler and faster. It will assess the process leading up to grant signature to identify whether it can be simplified, for example **by shortening proposal forms and reducing even further the overall time-to-grant**. The 'main' 2025 work programme will feature **29 two-stage calls for proposals**. These will allow applicants to first submit a

shorter summary proposal and only submit a full proposal if successful at the initial stage. Around 20 of these two-stage calls will be evaluated blindly to collect additional evidence for a sound assessment of **the blind evaluation** methodology. In addition, it will revise several **non-financial obligations** (such as the approach to the 'do no significant harm' principle and the check on the robustness of AI tools), to produce a **shorter proposal form**.

Lastly, **lump sum funding has been thoroughly assessed as part of this interim evaluation.** The findings revealed that this type of support reduces the reporting burden on beneficiaries (saving them administrative costs). Lump sum grants help avoid financial errors while safeguarding the EU's financial interest, and help shift the focus during the implementation stage from financial controls to the project's content. Lump sum funding is particularly attractive to SMEs and newcomers who have less experience with the programme and fewer resources to navigate the complexity of financial reporting.

At this stage of interim programme evaluation, **lump sum funding is estimated to have generated savings for beneficiaries of between EUR 49.8 and 63.4 million over the project lifetime.** In the 'main' 2025 work programme, lump sum grants will form over 35% of the budget. By 2027, the intention is to **fund at least 50% of the budget through lump sum funding**, depending on the suitability of the funded projects. The European Commission is committed to continuously monitoring and evaluating the use of lump sums to uphold quality and integrity.

5. Conclusion

The EU's Framework Programme has built a strong project pipeline that, through collaboration and scientific excellence, has proven able to generate solutions to tackle some of the most pressing global challenges and bring about impactful disruptive innovation. R&I is at the core of the EU's competitiveness drive.

Over the coming months, the European Commission will work to **make R&I funding simpler, more focused and even more impactful**. Immediate measures in the upcoming work programmes will make the application and project implementation process more user-friendly.

Targeted investment will provide even more support for researchers and entrepreneurs designed to attract, nurture and retain talent in the EU. Collaboration will be enhanced to foster links between different stakeholders, including businesses, and to boost knowledge valorisation.

As part of the work on the forthcoming start-up and scale-up strategy, the Commission will look into **options to expand Horizon Europe's Pillar III** given its potential to help bridge the innovation gap, including in the scale-up of innovative companies, by optimising the resources available under the programme.

The Commission will continue to create the conditions for researchers and innovators to thrive. **To this end it will work to expand the ERC and the EIC**. In this context, in line with the White Paper for European Defence – Readiness 2030, the Commission will also ensure that the EIC will invest in dual-use technologies.

Lastly, the European Commission will tackle the barriers for startup and the scale-up of innovative companies that require regulatory action by bringing in changes via the European Innovation Act.