



**Euro-CASE**

Academies of Engineering Sciences

## **Shaping Europe's Sustainable Future: Euro-CASE Statement on the 10<sup>th</sup> European Framework Programme for Research and Innovation (FP 10)**

The member Academies of Euro-CASE are dedicated to promoting scientific and technological excellence and seeking innovative solutions in response to the collective global challenges of our society, in dialogue with European institutions and stakeholders, and in connection with the entire European research community. We are committed to responsible innovation<sup>1</sup>, ensuring that technological changes consider all social, environmental and economic impacts.

Europe's scientific and technological leadership is a key factor in the competitiveness of its industry and economy and an essential component of its global independence. Responsible research-based innovation not only encourages the emergence of new industries, such as deep-tech start-ups, but continually feeds the development of existing industries and the economy at large. Ex-post evaluation of the Horizon 2020 (FP 8) framework programme<sup>2</sup> has estimated that, for every euro invested in the European framework programme by 2020, European citizens will reap at least five euros of concrete benefits by 2040. This innovation not only brings economic benefits but is also an urgent necessity for the ecological, digital and energy transitions lying ahead of us.

Euro-CASE believes that **the EU must go beyond Horizon Europe toward a more ambitious FP 10 programme committed to leading-edge research and innovation**. The European continent remains the world's largest producer of scientific knowledge and a major actor in global technological research, but world-wide competition is growing and cannot be ignored as described very clearly both in the recent Draghi Report<sup>3</sup> and in the report of the Commission Expert Group on the interim evaluation of Horizon Europe<sup>4</sup>. Confronted with the enormous budgets currently invested in scientific and technological research in other parts of the world, and in particular in China and the United States, the European Research & Innovation (R&I) system will struggle to remain at the leading-edge (in both the public and private sectors) if it is not supported by an attractive and well-financed framework programme. For these reasons, Euro-CASE fully endorses the proposal of the out-going EU Parliament to **substantially increase the framework programme budget**, in order to guarantee sufficient FP 10 funding for the highest ranked proposals.

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<sup>1</sup> *Responsible innovation*: contributing to the UN Sustainable Development Goals (SDG) and being appropriate and appropriable. "As high tech as you need, as simple as you can".

<sup>2</sup> [https://research-and-innovation.ec.europa.eu/knowledge-publications-tools-and-data/publications/all-publications/final-evaluation-horizon-2020\\_en](https://research-and-innovation.ec.europa.eu/knowledge-publications-tools-and-data/publications/all-publications/final-evaluation-horizon-2020_en)

<sup>3</sup> *The future of European competitiveness*: Report by Mario Draghi :

[https://commission.europa.eu/topics/strengthening-european-competitiveness/eu-competitiveness-looking-ahead\\_en](https://commission.europa.eu/topics/strengthening-european-competitiveness/eu-competitiveness-looking-ahead_en)

<sup>4</sup> European Commission: Directorate-General for Research and Innovation, *Align, act, accelerate – Research, technology and innovation to boost European competitiveness*, Publications Office of the European Union, 2024,

<https://data.europa.eu/doi/10.2777/9106236> : Report of the Commission Expert Group on the Interim Evaluation of Horizon Europe

**Europe must support its entire research and innovation ecosystem**, including fundamental research, technological research and market transfer. Euro-CASE strongly supports maintaining the current three-pillar structure that provides a clear and readily understandable picture of the framework programme. FP 10 must nurture the subtle continuum from basic research to the dissemination of innovative research-based technologies by **maintaining a balanced approach among the three pillars** and ensuring that all links in the research and technological development value chain are adequately covered. Pillar 2 (Global Challenges and European Industrial Competitiveness), including collaborative pre-competitive academic-industrial technological research, is essential to provide a bridge between public research and industry to fuel the innovation cycle. Funding instruments must be constructed to encourage more private investment in technological research and offer stronger incentives for the transfer of knowledge from public research into the innovation ecosystem.

**Europe must be more agile in order to address new risks and challenges.** The future FP 10 programme, in particular in its second and third pillars for technological research and innovation, must be capable of quickly adapting to new developments and challenges in order to remain at the forefront of research-based innovation. Governance of the programming process must involve high-level scientists and technologists from both academia and industry and be careful to encourage creativity and **not over-constrain collaborative pre-competitive academic-industrial research initiatives through excessive top-down thematic priorities**. Open support, without narrow thematic priorities, for promising research-based entrepreneurial projects at low and medium technology readiness levels should be the rule. Excessive top-down prioritisation at early stages should be avoided, since it can lead to overlooking weak signals in high-potential areas.

In this connection, Euro-CASE supports implementation of streamlined application and reporting processes, as well as fast-track application procedures for high-potential projects. Enhanced coordination between FP 10 and national/regional initiatives should also be strengthened.

**Europe must increase attractiveness for venture-capital investment in research-based innovation.** The capacity to translate research results into commercial market success remains a chronic weakness of the European Union in comparison to North America and Asia. Euro-CASE encourages therefore much **stronger coordination of FP 10 with European industrial policy**. In particular, in order to boost venture-capital investment in research-based innovation, Euro-CASE advocates a more ambitious derisking strategy aimed at creating a more attractive investment environment in terms of profitability. Mechanisms for guarantees and insurance in certain cases to limit potential losses should be explored.

**Europe must revitalise its science and technology communication.** Euro-CASE is convinced that information on science and technology in Europe should be improved through bidirectional engagement of all actors in the research and innovation community and the media, in order to ensure better understanding by all European citizens of the importance of science and technology, including the ethical dimensions of research and innovation, and to increase interest among future generations for careers in science and engineering. For this purpose, specific support is required to **develop the necessary human capital at the interface between the research and innovation community and the media** (including journalists with a scientific background and scientists and engineers experienced in journalistic and media practice). FP 10 must dedicate a **significant part of its budget** to support this necessary human capital development through ambitious **residency programmes** and innovative approaches for the presentation of information in **science media centres** across Europe.

**Recommendations:** Euro-CASE proposes the following key recommendations:

1. **Promote open pre-competitive industrial-academic collaboration.** Pre-competitive collaborative research is at the heart of all research-based innovation and requires joint efforts between industry and academia at the earliest stages of development. FP 10 should be open to all project proposals in broad topical areas, and avoid over constraining initiatives by excessive top-down priority outcomes. Selection of projects for funding should be made by panels of high-level scientists and technologists with broad sectorial experience. Selection criteria should be framed to **encourage high-risk / high-gain projects and breakthrough approaches**, and systematic integration of analysis of the potential social, environmental and economic impacts of the research, both positive and negative, should be included in all projects, as part of a truly responsible approach to innovation.
2. **Support non-targeted subsidies for promising research-based start-ups in emerging sectors.** In a similar manner to collaborative technological research, support for research-based start-ups should be determined by panels of experienced scientists and technologists open to **detection of weak signals, early indicators and emerging trends** for future potential development and competitiveness. Funding should be available without thematic restriction to allow for maximum opportunity.
3. **Encourage growth of private venture capital in Europe.** A larger and more attractive private venture-capital industry in Europe is an urgent necessity. The FP 10 funding programmes for innovation should be interfaced with other regulatory, fiscal and economic incentives (including removal of barriers to investment between EU member states) to provide a **substantial increase in attractiveness for venture-capital investment on the European level at all stages of entrepreneurial development**. The utilisation of FP 10 funding for possible derisking initiatives (insurance or guarantees) aimed at improving the profitability of venture-capital investment in Europe for research-based innovation should be explored.
4. **Enhance bidirectional communication flow between the research and innovation community and the media.** The need to ensure quality and reliability in science and technology information to the European public, both through traditional media and social media, is widely recognized but has not been adequately addressed. Euro-CASE believes that research-based innovation for future sustainability will not be possible without better understanding and dialogue among all stakeholders on the basis of evidence-based information, ethical thinking and practice, and a more open cultural mindset. Action in this connection is an urgent necessity both for effective sustainable development and for the preservation of European democratic institutions. Given its importance, Euro-CASE advocates **dedicating at least 1% of the FP 10 budget to this objective**, with particular emphasis on the following measures:
  - Short-term residency programmes both for immersion of journalists and media actors in scientific and technological research environments<sup>5</sup> and, conversely, for immersion of doctoral and post-doctoral researchers in media environments
  - Longer-term residency programmes (similar to Marie Skłodowska-Curie fellowships<sup>6</sup>) for young researchers interested in possible careers in journalism and the media
  - Increased support for science media centres across all of Europe and in particular in countries that do not currently have such centres.

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<sup>5</sup> The current Frontiers project could inspire such an initiative: <https://frontiers.media/>

<sup>6</sup> <https://marie-sklodowska-curie-actions.ec.europa.eu/actions/postdoctoral-fellowships>