

Advanced Innovation Challenge: for a competitive and sovereign Europe

An Advanced Innovation Challenge: a necessity to meet tomorrow's challenges

Udice has reviewed the proposal to implement an Advanced Innovation Challenge (AIC) and welcomes this initiative enthusiastically. However, questions remain regarding the scope and modalities that will govern this pilot project. Aware of the stakes and expectations surrounding such a program, Udice highlights key points of attention through its recommendations, which it considers critical for the success of this pilot.

The creation of the AIC is part of a broader reflection on the definition of the next framework programme (FP10). Despite the documents circulated on the competitiveness fund and Horizon Europe, the question of how to effectively align with the competitiveness fund remains unresolved. Depending on its scope and mission, the AIC could contribute to this alignment, especially since the European Competitiveness Fund aims to converge funding around European priorities and must therefore exercise strategic governance. Udice believes the AIC could be one of the instruments supporting this logic.

Contexte

The members of Udice are actively contributing to the ongoing collective reflection on what a European ARPA (Advanced Research Projects Agency) could look like. Currently referred to as the Advanced Innovation Challenge (AIC), this initiative aims to accelerate the emergence and advancement of high-impact economic solutions through increased Technology Readiness Levels (TRLs). Echoing the conclusions of the Draghi and Heitor reports on the necessary reform of the European Innovation Council (EIC), this initiative is part of a broader ambition to bridge the gap between fundamental research and breakthrough innovation. It also serves as a strategic policy tool to ensure Europe's industrial and strategic autonomy.

To this end, the European Commission proposes the creation of an Advanced Innovation Challenge (AIC) within the EIC. This pilot project would partly emerge from the merger of existing instruments—namely, Pathfinder and Transition. Its purpose is to foster the development of disruptive technologies and to effectively support the transition from low TRLs to higher ones (TRL 5/6). Once the so-called “Valley of Death” is crossed, the goal is for start-ups to successfully scale up and enter the market while sustaining their activities within Europe.

At this stage, the Advanced Innovation Challenge (AIC) will be integrated into the European Innovation Council (EIC), with a pilot launch planned for 2026. Key features include:

- Focus on TRL progression: support and accelerate the development of disruptive technologies from Technology Readiness Levels (TRL) 1 to 6.
- Targeted technological domains: prioritize key and cross-cutting sectors, with initial emphasis on: Digital technologies: Artificial Intelligence (AI), microprocessors, quantum computing, Health innovations: Non-animal testing methods, advanced health technologies,
- Multi-actor funding model: enable the financing of multiple stakeholders pursuing shared objectives through diverse modalities.
- Agile project management: Deploy a dedicated team of Project Managers to: Ensure close monitoring of project trajectories, Implement go/no-go decisions, Facilitate strategic convergence between actors when appropriate

This initiative would represent an annual investment of €29 million (€4 million for Stage 1 and €25 million for Stage 2), structured around the principle of aligning national agency policies with those of the EIC. One of its aims is to reduce inefficiencies caused by programmes that are too often designed and deployed in silos.

Udice's Recommendations

A) Operations – toward a strategic and agile innovation ecosystem

→ Integrated European technological ecosystem

Recommendation 1. The AIC will serve as a catalyst for creating value chains in key European technological sectors, particularly in critical areas such as quantum, AI, defence, space, biotechnology, energy, etc. The goal is to support high-potential disruptive projects from TRL 1 to 6. The AIC should act as an interface between upstream research results and pre-industrial applications, relying on existing innovation ecosystems..

→ Bilateral synergy with national agencies

Recommendation 2. Strengthened coordination between national agencies (Bpifrance in France, SPRIN-D in Germany, CDTI in Spain, etc.) and European initiatives would enable scaling while anchoring technologies in local ecosystems.

→ Dual civil/defence approach

Recommendation 3. Aligned with its strategic sovereignty objectives, Europe now clearly supports dual-use within FP10 and the ECF. This new interconnection must be clarified to allow universities to position themselves.

→ Expanded competencies for the technological strategic council (EIC Board)

Recommendation 4. The AIC Board should include an interdisciplinary technology foresight unit capable of identifying scientific and technological breakthroughs, particularly via national agencies, in connection with sovereignty, competitiveness, and security issues.

→ Coordination with existing instruments

Recommendation 5. A coordinated governance between the AIC and Pathfinder through a shared strategic interface would maximize programme complementarities.

Recommendation 6. Coordination between the AIC and results from collaborative research or ERC projects could complement the ERC SYNERGY scheme and enhance synergies with the competitiveness fund, thereby maximizing impact.

B) Governance – Strategic structuring in three tiers

Recommendation 7. A three-level governance model to address strategic autonomy challenges:

- a) **A multi-year political roadmap:** defined at the start of the framework programme (and revised mid-term), co-constructed by the European Commission, Member States, Regions, Directorates-General, and specialized agencies. It identifies priority technological domains.
- b) **Thematic strategic committees:** bringing together subgroups of researchers, industry leaders, investors, and EU institution representatives to ensure roadmap execution and early identification of emerging/innovative domains.
- c) **Dedicated programme managers:** similar to the EIC model, experts recruited to manage targeted portfolios with agility and autonomy, facilitating access to funding while streamlining administrative processes, under a framework of enhanced accountability.

c) Funding – A lever for impact, agility, and scalability

→ Gradual but ambitious scaling

Recommendation 8. Should the pilot prove successful, the Stage 1 & 2 funding model should foresee a budgetary acceleration starting in 2027, with an ambitious target by 2030 aligned with the Draghi report.

→ Clarified role of private investors and access to scale-up Funding (>€100M)

Recommendation 9. An ambitious investment policy:

- a) Increased solicitation of private investment through “de-risking” measures, such as creating mixed public-private seed funds dedicated to AIC projects.
- b) Creation of a strategic European scale-up fund (public/private) capable of investing beyond €100M.
- c) Development of additional instruments or incentives to complement the current Trusted Investment Network (TIN).

D) ENSURING OVERALL COHERENCE TO SUPPORT AIC SUCCESS

The effectiveness of the proposed AIC measures depends on ensuring overall coherence in the implementation strategy.

Recommendation 10. The European Commission, together with Member States, should create a coordinated “European pre-order” mechanism, similar to the U.S. model, to secure strategic market outlets (cybersecurity, clean tech, space, defence, health, etc.).

Recommendation 11. Advancing reflections on the “28th regime” (Draghi & Letta reports) would allow companies to benefit from simplified regulations (patents, R&D taxation, sandbox environments), facilitating their development and long-term viability in Europe. This regime could benefit fast-growing tech start-ups and AIC-labelled projects. These measures should be embedded within a reinforced European capital markets Union.

Recommendation 12. The European Investment Bank’s mission is constrained by its status as a bank, while expectations grow for its role in financing strategic innovations. Should it establish autonomous subsidiaries dedicated to equity participation and monitoring of innovative companies? Or should a new entity be created to fulfil this role?

Formée en octobre 2020, Udice porte la voix de dix universités françaises à forte intensité de recherche, œuvrant pour une recherche d'excellence, la performance de l'enseignement supérieur, et le développement d'écosystèmes d'innovation attractifs. Universités-membres : Aix-Marseille Université, Sorbonne Université, Université Claude Bernard Lyon 1, Université Côte d'Azur, Université de Bordeaux, Université de Paris Cité, Université de Strasbourg, Université Grenoble Alpes, Université Paris-Saclay, Université Paris Sciences et Lettres.

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