

Research. **Connect.** Lead

From lab to leadership: bridging Europe's research-to-impact gap

KEY ARGUMENT

Europe's competitiveness is held back not by a lack of research excellence, but by structural weaknesses that prevent low-carbon energy innovation from scaling from lab to market. EERA Innovation Hubs are proposed as the framework to close this gap.

MAIN TAKEAWAYS: 5 STRUCTURAL CHALLENGES

- 1 Lack of strategic investment and de-risking**

Public support schemes operate in isolation, lacking coordination at national and EU levels. European startups face barriers to securing growth capital, limiting their ability to scale within the Single Market. While the EU's share of global patents remains high, only a third are exploited commercially.
- 2 Regulatory and market barriers**

Inconsistent testing rules, certification requirements and IP policies across Member States create uncertainty. Technologies stall at the pilot phase, trapped by legal uncertainty rather than technical limitations. Complex regulations are a key reason European scale-ups relocate outside the EU.
- 3 Skills misalignment**

Significant skills shortages in key green energy and digital sectors. Fragmented national approaches and slow adaptation of vocational training systems compound the problem.
- 4 Limited access to research and technology infrastructures**

SMEs and startups lack the financial and administrative capacity to access essential research and technology infrastructure, especially across borders. Fragmented access schemes, administrative burdens and insufficient coordination slow the scaling of technologies from laboratory to market.
- 5 Fragmented innovation policy landscape**

Innovation strategies evolve independently within Member States, creating overlapping initiatives and inefficient use of public funds. Internal market barriers are equivalent to internal trade barriers of 45-110%. Excellence is concentrated in a few economic poles, leaving large parts of Europe underrepresented.

THE EERA RESPONSE: Innovation Hubs

What they are

Mission-driven, networked catalysts. Neutral, pan-European platforms linking research, industry, finance and policy to accelerate technology transfer, de-risk investments and strengthen Europe's technological sovereignty.

What the concept entails

- Bridges the 'innovation valleys of death' between TRL 1-4 (laboratory), TRL 5-7 (demonstration) and TRL 8-9 (industrial deployment).
- Provides an operational interface between public and private actors.
- Consolidates pilot infrastructure and demonstration facilities under shared missions.
- Offers policymakers evidence-based insights into technological readiness and investment gaps.

Policy recommendations to materialise the proposal

- Build an integrated, end-to-end innovation financing and de-risking architecture, and align FP10 funding calls to support the whole TRL spectrum, from early research to deployment.
- Institutionalise research-industry-finance collaboration through mission-driven platforms.
- Strengthen the enabling ecosystem: skills, infrastructures and knowledge transfer, including the creation of a long-term one-stop-shop mechanism for transnational access to research infrastructures.

Europe's competitiveness deficit does not stem from a lack of ideas, but from the weak conversion of knowledge into industrial strength.