

EDIHs + TEFs

EDIHs & TEFs Collaboration Guidelines

**Powering AI innovation in
European industry**

EU vision for AI innovation in European industry

*The European Union has placed **artificial intelligence (AI)** and digital transformation at the core of its strategy for competitiveness, resilience, and technological sovereignty. In this context, ensuring that innovation moves efficiently **from research to deployment** has become a central policy priority.*

The European Commission's Apply AI Strategy envisions a comprehensive support ecosystem for deploying trustworthy AI solutions across Europe, positioning EDIHs and TEFs as core pillars of the continent's AI innovation landscape. Increasingly, EDIHs are emerging as AI Experience Centres – one of the key entry points that guide European companies in accessing and navigating EU AI ecosystem resources. TEFs provide sector-specific environments for testing and validating AI solutions. To this end, structured **collaboration between EDIHs and TEFs becomes essential** to accelerate the uptake of reliable AI across European industry and the public sector.

Why EDIHs?

- **Regional one-stop shops** supporting companies and public sector organisations in their digital transformation journey.
- **Ecosystem connectors**, linking users with EU AI initiatives – TEFs, AI Factories, AI Regulatory Sandboxes (AIRS), and the AI-on-Demand (AIoD) Platform to ensure a seamless innovation pathway – and other relevant actors such as technology providers, research centres, investors, etc.
- **Digital Transformation service offering**, including “test before invest”, skills development, access to finance, and innovation networking.

How EDIHs and TEFs collaborate to support AI innovation in European industry

European Digital Innovation Hubs (EDIHs) and AI Sectorial Testing & Experimentation Facilities (TEFs) cooperate to support **AI providers in testing and deploying AI solutions**, and this collaboration may follow a structured user journey. The figure below illustrates one of the pathways a user may follow to get into contact with TEFs through EDIHs, which are intended to serve as one of the access points to the European AI ecosystem. Hence, TEFs maintain their own entry points and carry out independent awareness-raising activities, particularly targeting innovators with technologies at TRL 6–8, i.e. in the stage before products reach the market.

Why TEFs?

- **Physical and virtual testing environments**, allowing technology providers to experiment with AI software and hardware under real-world conditions.
- **Sector-focused expertise**, supporting innovation in key areas: health, manufacturing, agri-food, and smart cities and communities.
- **End-to-end experimentation support**, including integration, testing, validation, and demonstration of AI solutions.
- **Bridging research and market**, enabling companies to move from development to deployment with greater speed and confidence.
- **Building trust and scalability**, improving the reliability, performance, and uptake of AI technologies across the European Single Market.

ENTRY

SME / Public Entity / Customer
Needs AI /
Digital transformation support

TRIAGE

EDIH
TBI / Guidance

No

Does the customer need
large-scale real-world AI testing?

Yes → TEF referral

TEF reports back to EDIH

SERVICES

AI Sectorial TEF: large-scale testing

Real-world / close-to-real environments, sector expertise, TRL 6-8 validation

TEF Health

AI MATTERS
Manufacturing TEF

Agrifood TEF

CitComAI
Smart Cities & Communities

Technical services

Performance benchmarking • Robustness & safety testing • Integration trials • Conformity assessment support • Notified body access (AI Act §145)

Evidence generated

Risk documentation & technical files • Data governance / cybersecurity report • Human oversight assessment • CE marking pre-assessment evidence • Sandbox entry documentation

SCALE-UP

Post-service Digital Maturity Assessment (T1)
Understand TEF services impact

Additional EU AI ecosystem support needed?

Yes

No

OUTCOME

EU AI Innovation Ecosystem

TEF evidence used as: (1) entry documentation to AIRS, (2) initial admission to AI Factories, (3) reliability label / publicity in the AIoD Platform, etc.

EU Single Market

Trustworthy AI - compliant, safe, & market-ready

Optional

EDIH: post-deployment
Scaling, financing, skills

EDIH supports client throughout



TEF services



EDIH services



AI innovation Ecosystem



Market outcome

EDIHs & TEF collaboration examples

DigiHealth (Portugal) & TEF Health

Market challenge-based collaboration

Context and challenge

Hospitals often struggle to identify innovative AI and digital health solutions that concretely address operational or clinical challenges, while SMEs and startups face difficulties accessing real healthcare needs and validation opportunities. Both TEF Health and EDIH DigiHealthPT sought to create a structured mechanism to connect hospital demand with innovation supply.

Practice implemented

For the second consecutive year, TEF Health and EDIH DigiHealthPT are jointly organizing the Hospital Innovation Challenge, culminating in the presentation of six selected SME/startup solutions during the Innovating Health Together Conference 2026 in Lisbon. TEF Health mobilises its network of partner hospitals to collect real-world clinical and administrative challenges, while DigiHealthPT supports the subsequent Call for Solutions and the identification of suitable technological responses from innovative SMEs and startups.

Results and impact

The initiative creates a concrete matchmaking pipeline between hospitals and innovators, increasing visibility for selected SMEs while enabling healthcare providers to explore validated digital health solutions aligned with their needs. The repeated organization of the challenge demonstrates sustained collaboration and growing ecosystem engagement.

Key takeaways

A challenge-based cooperation model provides a practical framework for aligning EDIH innovation support services with TEF testing and validation capacities. The approach is highly replicable across sectors where end-user organisations can articulate concrete operational challenges that SMEs are invited to address through structured open calls.

EDIHs & TEF collaboration examples

AI5production (Austria) AgrifoodTEF

Joint Test Before Invest and alumni referrals

Context and challenge

AI5production in Austria identified that some innovation projects supported through the EDIH required testing and experimentation capacities that could not be provided internally. At the same time, after delivering more than 150 Test Before Invest (TBI) services, the hub aimed to establish stronger continuity pathways to help supported companies further mature and validate their technologies in real operational environments through collaboration with AgriFood TEF.

Practice implemented

The collaboration developed through two complementary approaches. One focused on a joint Test Before Invest activity related to a livestock tracking solution, where AgriFood TEF provided access to field-testing environments involving cattle and sheep — capacities that the EDIH could not replicate internally. This enabled the company to validate its solution under real operational conditions.

In parallel, AI5production carried out a structured review of all the over 150 Test Before Invest services internally implemented to identify technologies with potential applications in the agricultural sector. Approximately 10 companies were identified as possible candidates for collaboration with AgriFood TEF, and the EDIH proactively facilitated connections between them and the TEF.

Results and impact

The collaboration resulted in an active joint Test Before Invest service and contributed to the establishment of a more structured pipeline connecting EDIH-supported companies with TEF opportunities. The cooperation also strengthened continuity in the client journey by enabling companies to move from initial experimentation support towards validation in real operational environments.

EDIHs & TEF collaboration examples

Key takeaways

The experience highlighted that Test Before Invest alumni represent a valuable and often underused resource for EDIH-TEF cooperation. EDIHs with extensive Test Before Invest experience already possess a pool of companies with tested and relatively mature technologies that may be ready for advanced experimentation and validation in real environments through TEFs. The systematic portfolio review approach therefore offers a practical and replicable model for strengthening collaboration pathways between EDIHs and TEFs.

InnDIH (Spain) & CitCom.ai

EDIHs-TEFs cooperation agreements

Context and challenge

InnDIH in Spain identified that companies completing a proof of concept (PoC) within the EDIH often required a next step involving validation in real production environments — capacities that the EDIH itself could not provide. At the same time, the hub sought to create clearer and more structured pathways enabling companies to progress from early experimentation towards advanced testing and validation services offered by TEFs.

Practice implemented

To address this challenge, InnDIH established formal cooperation agreements with several TEFs, including CitCom – the AI sectorial Testing & Experimentation Facility focusing on Smart Cities & Communities. The collaboration was built around a clear division of roles between the EDIH and the TEFs. Within this model, the EDIH focuses on company diagnosis, early experimentation, and initial proof of concept development, while the TEFs become the natural continuation point when companies require validation in real production environments. Examples include the use of the Valencia urban sandbox for projects related to traffic management and green corridor solutions.

EDIHs & TEF collaboration examples

The cooperation is further supported through periodic alignment meetings enabling both sides to exchange information on ongoing projects, pilot environments, and available experimentation capacities.

Results and impact

The collaboration contributed to the creation of a functional referral pathway between the EDIH and TEFs, while also strengthening mutual understanding of the respective services and experimentation capacities available on each side. According to the hub, the cooperation improved awareness of “what they offer, what pilots they have,” facilitating more targeted referrals and collaboration opportunities.

Key takeaways

The experience demonstrates that formalising the division of roles through cooperation agreements can help reduce ambiguity and establish clearer collaboration pathways between EDIHs and TEFs. At the same time, the hub highlighted that the transition funnel from EDIHs to TEFs remains relatively narrow in practice, as it is not always easy to identify companies whose needs are sufficiently advanced and specific to require TEF involvement. Improving conversion mechanisms and identifying companies with appropriate maturity levels therefore remains an important area for further development.

InnovAction (Italy) & AI-MATTERS TEF

SME EDIH to TEF referral

Context and challenge

An SME developing an AI-enabled industrial solution may initially benefit from EDIH support for concept development, prototyping, and early-stage validation. As the solution matures, however, the company may require more advanced testing, software engineering validation, and structured performance assessment than the EDIH alone typically provides—particularly when moving from a proof of concept (PoC) towards a solution ready for deployment and external scrutiny.

EDIHs & TEF collaboration examples

Practice implemented

In this type of pathway, the EDIH can support the SME through technical advisory and experimentation services, such as Model-Based Design (MBD), helping the company refine and optimise its solution in realistic operational scenarios. Building on these initial results, InnovAction EDIH may then facilitate access to AI-MATTERS, enabling the company to benefit from specialised infrastructures and services for advanced validation, testing, and engineering process assessment, thereby strengthening the solution's readiness for industrial deployment and scaling through services like "Software Engineering process revision for AI applications in Manufacturing".

Results and impact

A concrete "EDIH - TEF" pathway is in place. For instance, InnovAction enables the proof of concept and de-risks the concept; AI-MATTERS is engaged to provide the next-step testing/validation and process maturity support needed for market readiness.

Key takeaways

The EDIH-TEF handover works best when framed as a stepwise maturity journey, EDIHs accelerate design and proof of concept, while TEFs provide the structured validation and engineering/process strengthening required to move toward deployment. This pattern is replicable across sectors wherever companies need to transition from "demonstrated concept" to "validated, market-ready solution."

Reach out to

EDIH

Not sure where to start? The DTA Helpdesk will guide you.



TEF

Any questions? Reach out through CoordinaTEF Helpdesk.



European Digital Innovation Hubs and Testing & Experimentation Facilities

SUPPORTING YOUR DIGITAL TRANSFORMATION

**EDIHs
+ TEFS**