

Innovative Technologies for Research Infrastructures Expected Outcomes & Project Scope

**R&D for the next generation of scientific instrumentation, tools, methods,
digitalisation and solutions for research infrastructure upgrades**

*(Based on Horizon Europe
INFRA-TECH call 2026–2027 draft)*

Response to the next InfraTech Call

Expected Outcomes

Project results are expected to strengthen the European research ecosystem by:

Enhancing	 Enhancing scientific competitiveness of European Research Infrastructures (RIs)
Expanding	 Expanding RI capacity to address major research challenges and EU policy priorities
Improving	 Improving greening and resilience — reducing environmental footprint, improving energy efficiency
Increasing	 Increasing efficiency through digitalisation, automation, and smart data workflows

Expected Outcome

Broader Innovation and Collaboration Impact

Fostering	 Fostering collaboration with universities, research organisations, and industry
Driving	 Driving innovation ecosystems — enabling new companies, startups, and spin-offs
Promoting	 Promoting technology transfer and co-development of advanced tools with industry
Integrating	 Integrating RIs into local, national, and global innovation systems
Encouraging	 Encouraging entrepreneurial culture and uptake of innovations beyond science



Scope of The Call

Objective: Deliver **innovative scientific instrumentation, tools, digitalisation, and methods** that:

- Advance the state-of-the-art of RIs
 - Enable **transformative operations** and **new research areas**
 - Expand the **user community**, including **industrial users**
 - Support **EU policy objectives** and **societal challenges**
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Key Implementation Aspects

Projects should include:

-  **R&D of new instrumentation and digital tools**
-  **Technology validation and prototyping** (from TRL 4 for RI use cases; TRL 3–4 for broader applications)
-  **Training for RI staff** and skill development to industrial standards
-  **Industrial and societal innovation potential**, including proof-of-concept for SMEs/startups
-  **Greening and resilience considerations** — energy, materials, sustainability

Participation & Collaboration Requirements

Consortium composition:

≥3 **Research Infrastructures**, each an **ESFRI Landmark**, **ERIC**, or other **European RI organisation**

Collaboration with **industry, SMEs, startups,** and **technological partners** encouraged

Use of **Pre-Commercial Procurement (PCP)** possible to stimulate competitive development of novel solutions

Ensure **complementarity** with previous Horizon **INFRA-TECH** projects (2022–2024)

💡 **Gender dimension** not mandatory but encouraged when relevant

Key Takeaways



Focus on innovation and digital transformation of research infrastructures



Strengthen collaboration across academia, industry, and RIs



Address sustainability and resilience in RI operations



Support EU policy objectives and societal challenges



Foster innovation ecosystems and industrial engagement

Proposal preparation strategy



Targeted R&D: Consultation process will identify and prioritise high-impact R&D (also addressing greening and digitalisation).



Strategic consortium building: Leverage RadioNet network to assemble a robust consortium, ensuring the participation industrial partners early in the process

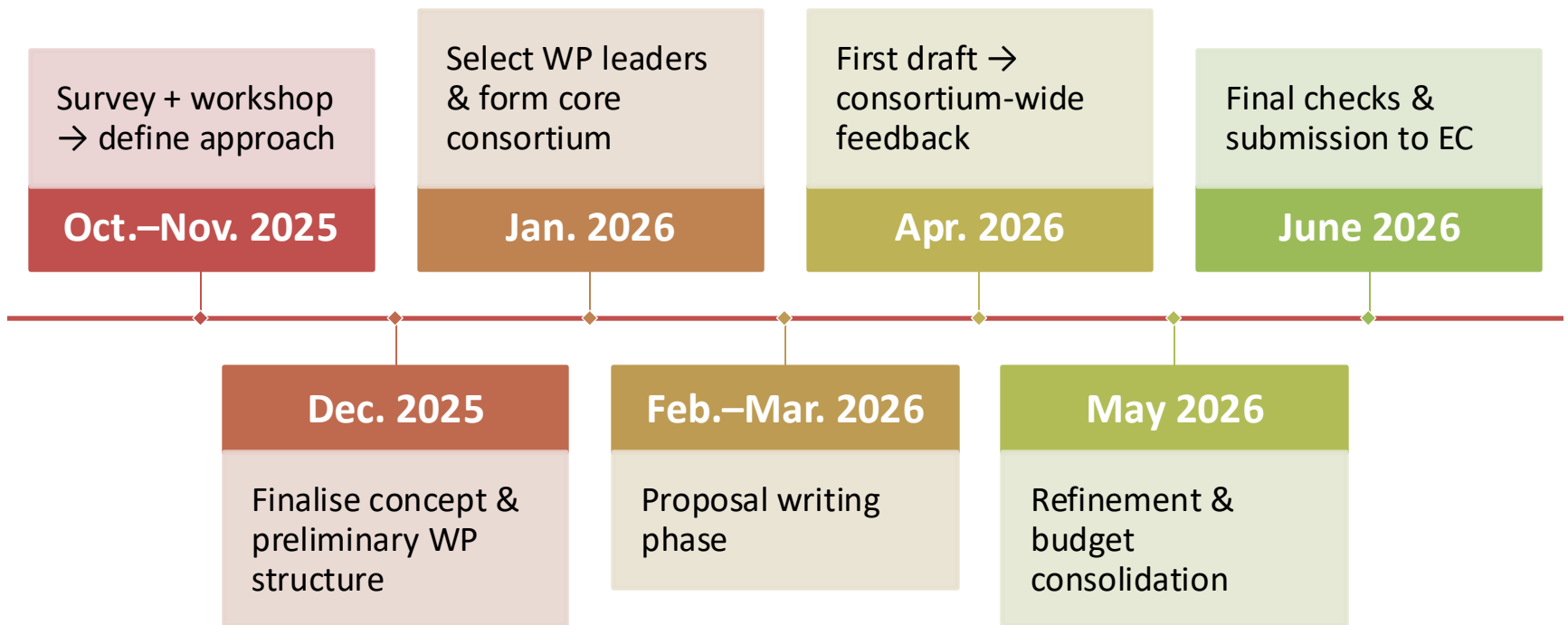


Ensuring complementarity: A workshop to explicitly map proposed ideas against previously funded actions



Building a unified vision: Inclusive process designed to build consensus and deliver the single proposal the community requires

Indicative Timeline



Project results are expected to contribute to several of the following expected outcomes:

- enhanced scientific competitiveness of European research infrastructures;
- enhanced research infrastructure capacity to address research challenges and EU policy priorities;
- increased greening and resilience of research infrastructures;
- increased efficiency of research infrastructures through digitalisation;
- increased collaboration of research infrastructures with universities, research organisations and industry, fostering an innovation ecosystem that provides the foundations for the development of innovative companies and startups while considering EU technological sovereignty;
- fostering the uptake of innovation outside the scientific research market, through co-development with industry of advanced technologies for research infrastructures;
- integration of research infrastructures into local, regional, national and global innovation systems and promotion of entrepreneurial culture.

Scope

- Scope: The aim of this topic is to deliver innovative scientific instrumentation, tools, digitalisation, methods and solutions which advance the state-of-art of research infrastructures (RIs) in the EU and Associated Countries and show transformative potential in RIs operation. The related developments, which underpin the provision of improved and advanced services, should lead RIs to support new areas of research and/or a wider community of users, including industrial users.
- Cutting-edge technologies will also enhance the potential of RIs to contribute to addressing EU policy objectives and socio-economic challenges.
- Proposals should be complementary with actions funded under topics HORIZON-INFRA-2022-TECH-01-01 and HORIZON-INFRA-2024-TECH-01-01, targeting different instrumentation, tools, methods, digitalisation, and solutions. The complementarity with previous actions should be clearly explained in the proposal.



Outlook after Radioblocks

- **How will our results be implemented after the project?** We have built a strong foundation for our technology to be adopted by radio astronomy facilities, and our Industrial Advisory Board is exploring pathways to new markets.
- **How do we see the Radioblocks collaboration continuing?** The project has successfully brought together experts and strengthened the foundation for future collaboration on radio astronomy instrumentation.
- **Should we continue with a similar project?** Our work on common building blocks has proven effective and provides a strong case for follow-up initiatives to continue advancing European technological innovation.
- **Is it possible to involve more industries and AI?** Yes, expanding our industrial partnerships and further integrating AI are key goals, supported by our advisory board and the successful application of AI in the project so far.

09/10/2025

RADIOBLOCKS In-person meeting, Schiphol (NL)

