

# HORIZON-INFRA-2024-TECH-01-01

**HORIZON-INFRA-2024-TECH-01-01: R&D for the next generation of scientific instrumentation, tools, methods, solutions for RI upgrade**

- 5 to 10 MEuro
- Research and development of new scientific instrumentation, tools and methods for research infrastructures taking into due account resource efficiency (e.g. energy consumption) and environmental (including climate-related) impacts
- technology validation and prototyping
- training of RI staff for the operation and use of these new solutions
- innovative potential for industrial exploitation of the solutions and/or for the benefits of the society

Consortia must be built around a leading core of at least 3 world-class research infrastructures, being ESFRI infrastructures, European Research Infrastructures Consortia (ERICs) and/or other world-class research infrastructures of European interest 55 and can include a wider set of RIs. Other technological partners, including industry and SMEs, should also be involved, thus promoting innovation and knowledge sharing through co-development of new technical solutions for research infrastructures.

# LEAPS & HE-INFRA-TECH-2024-01-01

LEAPS (CB & GA) agreed:

- Preparation for **one** LEAPS Proposal
- WP proposals on instrumentation developments & opportunities for innovation, partnerships, industrial impact
- Potential topics selection (~6-7 WPs, 1.5M€ each, max)
- Selection procedure: a competitive process (LEAPS WGs)
- Suggested timeline for WG feedback: Nov 22 to June 23

LEAPS considerations:

- Potential topics: from LEAPS-INNOV continuation, DIGITAL LEAPS, previous not funded proposals,... other / new topics
- Consideration of “political/scientific hot topics” / grand challenges & instrumentation developments plus opportunities for innovation, partnerships, industrial impact

Suggestion: for each Workpackage:

- 1 industry partner as beneficiary or PCP,
- 1 university partner,
- 1 partner from applied Science (e.g. Fraunhofer / Leibniz) as a minimum requirement

# LEAPS & HE-INFRA-TECH-2024-01-01

Possible topics at time (see details HE-INFRA-2024-TECH-01-01\_1st-proposals-RDB-26012023.pdf)

## WG1.2 – Optics and beamline instrumentation

- Supercurve (building on LEAPS-INNOV Superflat)
- Optics contamination mitigation and coating degradation
- Wavefront correction

## WG1.4 - fel

- Spatial diagnostics to optimize FEL/synchrotron performance
- Advanced codes/AI/Virtual diagnostics

## WG2 – photon sources

- PermaLIC 2.0
- HarmonLIP
- HighBri
- ARA
- Virtual Diagnostic
- LPS - Longitudinal Phase Space

## SG2 – strategy group

- Compact EUV/soft x-ray spectrometer with polarization analysis