



THE EU RESEARCH & INNOVATION PROGRAMME 2021 - 2027

# **AGENDA**

09:00-09:15 – Welcome, policy context and Research Infrastructure Work Programme

09:15-10:05— DESTINATION INFRADEV - Consolidation and evolution of the European Research Infrastructure landscape

10:05-10:55 – DESTINATION INFRAEOSC - Enabling an operational, open and FAIR EOSC ecosystem

10:55 – 11:20 Virtual coffee break

11:20-12:05 – DESTINATION INFRASERV - Research infrastructures services to support health research, accelerate the green transition and the digital transformation, and advance frontier knowledge

12:05 – 13:05 Virtual lunch break

13:05-13:50— DESTINATION INFRATECH - Next generation of scientific instrumentation, tools, methods, and advanced digital solutions of research infrastructures and foster innovation and cocreation with industry

13:50-14:45 – Management of the Research Infrastructures calls and information on Submission and Evaluation

# **Work Programme 2025 overview**

**INFRADEV - Consolidation and evolution of the European Research Infrastructure landscape**, to develop an **integrated** European **ecosystem** of research infrastructures, including single-sited facilities, distributed facilities and networks of facilities providing joint services.

**INFRAEOSC - Enabling an operational, open and FAIR EOSC ecosystem**, to contribute to a web of FAIR (Findable, Accessible, Interoperable, Reusable) research data and provide a trusted and secure federated system of research data and services (EOSC Federation) for researchers in the EU and Associated Countries to store, share, process and reuse within and across disciplines and borders FAIR research outputs and tools for research, innovation and educational purposes.

INFRASERV - Research infrastructures services to support health research, accelerate the green transition and the digital transformation, and advance frontier knowledge, to support transnational access to state-of-the-art facilities for researchers, relevant for a large research domain or in support of societal challenge and EU priorities.

INFRATECH - Next generation of scientific instrumentation, tools, methods, and advanced digital solutions of research infrastructures and foster innovation and co-creation with industry, to support research infrastructure needs for technology development to maintain and upgrade their services and to create new ones, and to support the Destination Earth initiative.

# For questions



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# **HORIZON-INFRA-2025-01-DEV-01:**

# Training and up-skilling of research infrastructures technical staff





 Coordination and Support Actions (CSA)



# **INDICATIVE BUDGET**

- EUR 10 million
- Expected EU contribution per project: EUR 1-1.5 million



## **OTHER CONDITIONS**

- Indicative number of projects expected to be funded: 8
- Eligible costs will take the form of a lump sum
- JRC may participate



- Call opening:15 May 2025
- Deadline:18 September2025



# Training and up-skilling of research infrastructures technical staff

# **Expected Outcome**

- Enhanced expertise and knowledge of technical staff working in research infrastructures, for an optimal functioning of the infrastructure.
- Enhanced mobility and career opportunities throughout Europe for technical staff, including across research infrastructure domains as well as across sectorial careers.
- 'One-stop-shop(s)' of training services dedicated to technical staff that meet the needs of different domains.



# Training and up-skilling of research infrastructures technical staff

# Scope

- This action will support structuring the offer of training activities dedicated to enhancing skills and career profiles of technical staff working in research infrastructures.
- This would cover activities such as:
  - The development of new training programmes addressed to cover specific needs of research infrastructures.
  - Training programmes that promote mobility and career opportunities throughout Europe (for example through staff exchange) or that create training opportunities (for example through summer schools or workshops).
  - Programmes to improve skills in a single RI or in a single domain / across RI domains (common needs such as research data management, AI or remote access)
- Proposals should include efforts to collaborate with other projects in this topic aligning, sharing or publicizing their respective training activities.
- Proposals must include at least one ESFRI / ERIC (or legal entity hosting ERIC facilities/services, with a declaration of ERIC support)

# HORIZON-INFRA-2025-01-DEV-02:

# Early phase implementation of ESFRI Projects that entered the ESFRI Roadmap in 2021









### TYPE OF ACTION

 Coordination and Support Action (CSA)

## **INDICATIVE BUDGET**

- EUR 16.5 million
- Expected EU
   contribution per
   project: EUR 1 1.5
   million

## **OTHER CONDITIONS**

- Indicative number of projects expected to be funded: 11
- Eligible costs will take the form of a lump sum

- Call opening:15 May 2025
- Deadline:18 September2025



# Early phase implementation of ESFRI Projects that entered the ESFRI Roadmap in 2021

# **Expected Outcome**

- Faster and larger implementation of the ESFRI Projects that entered the ESFRI Roadmap in 2021.
- Enhanced ERA excellence and attractiveness through the availability of additional capacities from the targeted ESFRI Projects.
- Solid Member States/Associated Country engagement in pan-European research infrastructures, leading to their full implementation.
- Long-term perspective for investments in research infrastructures.
- Synergies and complementarities between new and existing research infrastructures.



# Early phase implementation of ESFRI Projects that entered the ESFRI Roadmap in 2021

## Scope

- This topic targets the research infrastructure **projects that entered the ESFRI Roadmap in 2021**. Proposals must explicitly state which of these 11 ESFRI Projects\* they target.
- Support can be provided for activities, such as:
  - Enlargement of the membership.
  - Establishment of the governance structure and legal entity.
  - Securing the funding.
  - Finalisation of the distributed architecture.
  - Development of ICT and data management solutions.
  - Development of access policies and users' strategies.
  - Consolidation of the international dimension.
  - Consolidation of the service offer.
  - Assessing possible expansion to new user communities/new needs.
  - Addressing staff and procurement related issues.
- Proposals should focus on activities addressing identified bottlenecks.

<sup>\*</sup>ESFRI projects eligible for support: EBRAINS, SLICES, SoBigData++, MARINERG-I, EIRENE RI, ET, EuPRAXIA, GGP, GUIDE, OPERAS, RESILIENCE

# HORIZON-INFRA-2025-01-DEV-03:

Consolidation of the RI landscape – Individual support for evolution, long-term sustainability and emerging needs of pan-European research infrastructures





 Research and Innovation Action (RIA)



# **INDICATIVE BUDGET**

- EUR 30 million
- Expected EU
   contribution per
   project: EUR 3 4
   million



#### **OTHER CONDITIONS**

- Indicative number of projects expected to be funded: 8
- At least one ESFRI Landmark / ERIC
- 80% funding rate



- Call opening:15 May 2025
- Deadline:18 September2025



# Consolidation of the RI landscape – Individual support for evolution, long-term sustainability and emerging needs of pan-European research infrastructures

## **Expected Outcome (several)**

- Better structured and strengthened European Research Infrastructure (RI) landscape.
- **New services** available to a wider user community, including participants in other parts of Horizon Europe, allowing to better tackle scientific and societal challenges.
- Increased capacity to address EU policy priorities and/or socio-economic challenges.
- Reinforced global competitiveness of the European Research Area;
- Reduction of environmental (including climate-related) impacts as well as optimisation of resource and energy consumption integrated through the full life cycle of research infrastructures.
- Increased long-term sustainability of European research infrastructures.



# Consolidation of the RI landscape – Individual support for evolution, long-term sustainability and emerging needs of pan-European research infrastructures

## Scope

Consolidation of the EU RI landscape through the support, together with the countries that are members of the RIs, to the strengthening, long-term sustainability, reorientation or evolution of ESFRI Landmarks or European Research Infrastructure Consortia (ERICs).

Proposed action should justify the specific objectives and focus on activities that are critical for the sustainability and optimised use of the ESFRI Landmarks or ERICs, such as activities aiming at several of the following objectives:

- Enlargement of the membership or broadening of the base of participating countries.
- Reinforcing international cooperation.
- Revision of business/funding plan.
- Development of managerial and technical skills for RI staff.
- Structuring and strengthening of national nodes.
- Extension of remote and/or virtual access.
- Management of research data according to the FAIR principles.
- Reorientation or evolution of the RI scope.
- Addressing critical aspects raised following an assessment or monitoring exercise, e.g. in the context of ESFRI activities.
- Development, update and or implementation of **impact assessment** of the RI.

(further aspects such as: filling gaps in the RI landscape – EU initiatives and priorities – greening – industry/SMEs – innovation ecosystems)



# **HORIZON-INFRA-2025-01-DEV-04:**

# Support to the European Strategy Forum on Research Infrastructures









### TYPE OF ACTION

 Coordination and Support Actions (CSA)

## **INDICATIVE BUDGET**

- EUR 3 million
- Expected EU
   contribution per
   project: EUR 1.5 3
   million

## **OTHER CONDITIONS**

- Indicative number of projects expected to be funded: 1
- JRC may participate

- Call opening:15 May 2025
- Deadline:18 September2025



# Support to the European Strategy Forum on Research Infrastructures (ESFRI)

## **Expected Outcome:**

- Enhanced efficiency, impact and visibility of ESFRI strategy and actions.
- Better structured and strengthened European research infrastructure ecosystem.
- Reinforced global competitiveness of the European Research Area.
- Coordination and alignment of EU and national priorities for research infrastructures.
- Impact assessment of ESFRI.



# Support to the European Strategy Forum on Research Infrastructures (ESFRI)

# Scope:

- Provide administrative support to the ESFRI Chair and the ESFRI Executive Board, and in particular, support ESFRI, the ESFRI working groups and other ESFRI bodies in carrying out all of the following activities:
  - Development and publishing of the ESFRI Roadmap and Landscape Analysis.
  - Effective evaluation of new ESFRI Roadmap applications and ESFRI project monitoring after 2026, using also external expertise.
  - Strengthening ESFRI's analytical capacity, including through the use of external expertise.
  - Effective evaluation and monitoring of research infrastructures on the ESFRI Roadmap.
  - Development and implementation of the ESFRI communication and outreach strategy.
  - Fostering cooperation, exchange of experiences and good practices between the research infrastructures, their managers and stakeholders, as well as the funding bodies, including managing authorities of Cohesion policy programmes and policy makers.
  - Ensuring cooperation of ESFRI with ERA related groups and initiatives, with the EOSC initiative as well as with any other relevant initiatives, bodies and stakeholders at European or international level, including via the ESFRI Stakeholder Forum.
  - Calling on third party/ies to carry out an impact assessment of ESFRI.
- The project should organise its workplan in a sufficiently flexible way so as to be able to adapt to changing support
  needs of ESFRI. A mechanism with ESFRI should be foreseen to ensure optimal adaptation to ESFRI's needs over the
  course of the project.
- The ESFRI Workplan (<a href="https://www.esfri.eu/esfri-workplan">https://www.esfri.eu/esfri-workplan</a>) indicates support needs of ESFRI.



# HORIZON-INFRA-2025-01-DEV-05:

Preparatory actions exploring future frameworks for research infrastructures investment plans and funding streams, for integrated and sustained scheme for access and for joint technology development









### TYPE OF ACTION

 Coordination and Support Action (CSA)

## **INDICATIVE BUDGET**

- EUR 4.5 million
- Expected EU
   contribution per
   project: EUR 1 1.5
   million

#### **OTHER CONDITIONS**

- Indicative number of projects expected to be funded: 3
- Eligible costs will take the form of a lump sum
- JRC may participate (Area 2)

- Call opening:15 May 2025
- Deadline:18 September2025



# Preparatory actions - Area 1: Strengthening research infrastructures investment plans and diversifying funding streams

## **Expected Outcome (all)**

- RIs, stakeholders, funders have more robust **knowledge to develop strategies, coordinate and align future actions** in support of an effective ecosystem of cutting-edge European research infrastructures. (All areas)
- RI managers benefit from an overview of funding sources at national, regional and EU level.
- RI managers and funders are better prepared to develop **synergies** among **complementary funding** instruments that fit their specific needs and objectives.
- Funders have a better picture of the **financial impact** of the priorities and strategies around research infrastructures, covering both **day-to-day operations** and **long-term investments**.

## Scope

- Mapping of main funding sources used for the preparation, construction and operation of ESFRI Projects and Landmarks, ERICs and other world-class European research infrastructures.
- Identification of established or potential synergies across funding sources and different financial instruments (including loans), at national/regional and EU level such as EIB funding instruments, structural and investment funds, Recovery and Resilience Facility funds, and funds under the Neighbourhood, Development and International Cooperation Instrument.
- Better understanding of the specific costs and challenges in financing different phases of the research infrastructures life cycle such as construction, operation and necessary upgrades to address greening and digitalisation challenges.
- Case studies of **distributed research infrastructures** on different approaches in identifying the nature and level of costs and best practices for long-term planning.

Foresee possible cooperation with projects selected under Area 2 (on funding models for access)



# **Preparatory actions - Area 2: Preparatory action to explore a more integrated and sustainable scheme for access to research infrastructures**

### **Expected Outcome:** (all)

- **Proposal for a new EU access scheme** addressed to Research Infrastructure stakeholders (research infrastructures funders, research infrastructures managers, research infrastructures user communities), ensuring effective, flexible and seamless access to world-class scientific services and resources in all science and technology fields, accommodating the diverse nature of research infrastructures and their evolving needs, and overcoming the and disruptive effects of an approach based on short-term projects.
- Analysis of how research infrastructures user communities, including from Widening countries, will benefit from a new EU access scheme that enable wider, simplified and more efficient access so as to boost breakthrough and leading-edge research.
- Better **understanding** by research infrastructure stakeholders of the **governance options**, **funding and implementation** aspects of a future access scheme.

**Scope:** The action will identify **novel approaches and operational steps** towards a longer-term, cross-domain integrated access scheme, promoting the vision of a '**one-stop-shop**' for access to research infrastructures, their services and resources.

Build on experience (INFRAIA, INFRASERV, best practices, position papers, ESFRI work). Funding bodies, research infrastructure managers and user communities, including from Widening countries, should be involved.

Representative of all large scientific domains; **preferably at least one ESFRI/ERIC in each large domain**; role for national funders; consultation scientific communities and potential users including from industry and public authorities.

#### Identify options for:

- Governance of the access scheme, advisory bodies (such as scientific boards and users' representatives);
- Funding models, underpinned by an initial core EU funding complemented by other funding streams (institutional, national);
- Access policies including mechanisms ensuring appropriate balance among large domains, scientific fields and techniques best addressing key scientific challenges and the needs of users.



# **Preparatory actions - Area 2: Preparatory action to explore a more integrated and sustainable scheme for access to research infrastructures**

**Scope (continued):** The proposed action is expected to deliver on all the following points

- Concept for a new EU access scheme aiming at wider, simplified, seamless and more efficient access for researchers, including from Widening countries, to the best research infrastructures available.
- Scenarios for governance, co-funding and implementation of the access scheme.
- Promoting breakthrough and leading-edge research enabled by advanced research infrastructure services made available to a wider user community, while ensuring sustainability of the research infrastructures themselves (including by increasing their visibility and attractiveness, and creating incentives for expanding their membership).
- Recommendations on access policies, adopting the principles of the European Charter on Access to Research Infrastructures.
- Good practices on access call conditions, agreements between research infrastructures and selected users, access modalities, selection of users, support to users.
- Proposals for design of possible pilot(s) to be implemented under Horizon Europe calls for improved and harmonised RI services and broader use of RI resources, e.g. in specific domains.
- Outline of a communication plan and **key components for a single-entry point portal** including opportunities under complementary national or institutional access schemes.

Proposals should foresee possible cooperation with project selected under Area 1 with regards to funding models for access.



# Preparatory actions - Area 3: Framework for joint research infrastructure technology developments

# **Expected Outcome (all)**

- More stable framework for joint technology developments avoiding duplication, promoting pooling of resources and appropriate support mechanism.
- Research infrastructure innovation ecosystems are further developed, and overlaps are identified. They underpin the technology developments needed by research infrastructures including the implementation of research infrastructure technology roadmaps.
- A virtuous circle for early involvement of industry, including SMEs, and development or update of joint research infrastructure technology roadmaps is created.
- Mechanisms to ensure the openness of research infrastructure technology innovation ecosystems, which must be able to integrate new EU players.



# Preparatory actions - Area 3: Framework for joint research infrastructure technology developments

# Scope:

- Include at least two different RIs as beneficiaries each of them being an ESFRI Landmark a European Research Infrastructure Consortium (ERIC) or another research infrastructure that is an international European research organisation.
- Involve RIs, covering a maximum of ESFRI domains, and, where relevant, user organisations and key industry and SME players.
- RI technologies also cover, where applicable, areas such as sample environments, support facilities, and software.
- Address all of the following aspects:
  - Identification of:
    - technology overlaps and building blocks relevant for multiple domains and infrastructure types.
    - further roadmapping needs, covering both transversal and domain-specific needs.
    - standardisation and interoperability needs.
    - possible training and coordination needs, from technical to management staff.
  - Exploration of funding mechanisms, best adapted to the needs of different research infrastructure technology innovation ecosystems.
  - Identification of optimal interaction modes between research infrastructures and industry, including SMEs, depending on the research infrastructure technology innovation ecosystem.





# QUESTIONS AND ANSWERS





# For questions



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# HORIZON-INFRA-2025-01-EOSC-01:

# EOSC Nodes with federating capabilities for the EOSC Federation









### TYPE OF ACTION

 Research and Innovation Actions (RIA)

## **INDICATIVE BUDGET**

- EUR 30 million
- Expected EU contribution per project: EUR 6 - 8 million

## **OTHER CONDITIONS**

- Indicative number of projects expected to be funded: 4
- Eligible costs will take the form of a lump sum
- Financial Support to Third Parties (FSTP)

- Call opening:15 May 2025
- Deadline:18 September2025



# **EOSC Nodes with federating capabilities for the EOSC Federation**

# **Expected Outcomes:**

Project results are expected to contribute to the following outcomes:

- The EOSC federation will be established as a distributed system of systems, comprising of independently managed EOSC nodes that collaborate to augment their contribution to EOSC users whilst ensuring resilience of the interconnected systems by supporting the common federating capabilities.
- Researchers will benefit from unified support aimed at integrating their research environments with the EOSC federation and this coordinated assistance will streamline the alignment of research practices with the EOSC ecosystem.



# **EOSC Nodes with federating capabilities for the EOSC Federation**

# Scope:

The call aims to further develop the cross-domain EOSC system of systems, building upon the results of the previous INFRAEOSC calls. The focus is on developing and expanding the EOSC federation through a network of nodes as baseline elements of the federation model.

- The proposals should focus on all of the following aspects:
  - Satisfy the minimal node requirements as defined by the EOSC tripartite governance.
  - Capacity to contribute to and/or take-over the EOSC federating capabilities.
  - Adoption and integration of the EOSC federation rules and policies, and further refinement and practical adaptation of best practices.
  - Support to effectively monitor and report the activities of the services provided.
  - Integrate and offer EOSC core federating capabilities pioneered by the EOSC EU Node.
  - Contribute to a robust and coordinated strategy for evolving and sustaining the federated governance model for EOSC.
  - Enrich the existing guidelines and best practices for the onboarding and enrolment processes.
  - Evolve and refine the EOSC federation specifications to drive the evolution across governance, operations, sustainability and technical interoperability.
  - Designate and train the EOSC node operators, especially those offering federating capabilities, for high level of responsibilities within the EOSC federation.
  - Develop and run community engagement and support programmes around the EOSC nodes and the surrounding ecosystem.



# HORIZON-INFRA-2025-01-EOSC-02:

# FAIR Integration for Enhanced Research Data in the EOSC ecosystem and beyond









#### TYPE OF ACTION

 Research and Innovation Action (RIA)

# **INDICATIVE BUDGET**

- EUR 16 million
- Expected EU contribution per project: EUR 5-8 million

#### **OTHER CONDITIONS**

 Indicative number of projects expected to be funded: 2

- Call opening:15 May 2025
- Deadline:18 September2025



# FAIR Integration for Enhanced Research Data in the EOSC ecosystem and beyond

## **Expected Outcomes:**

- Improved findability, accessibility, interoperability and re-usability ("FAIRness") of research data and other digital research outputs.
- Wider uptake of and compliance with FAIR data principles and practices by national and European research data and metadata providers, repositories and databases.
- Operationalisation of the concept of FAIR digital objects throughout the entire research data lifecycle.
- Enhanced and mainstreamed technical specifications for FAIR digital objects to facilitate the creation of digital objects that are FAIR-by-design.



# FAIR Integration for Enhanced Research Data in the EOSC ecosystem and beyond

# Scope:

Advancing the interoperability and integration of research data within the EOSC.

- Proposals should cover all of the following areas and activities:
  - FAIR-by-Design digital objects creation.
  - Automated standardisation and data quality assessment.
  - Operational data services specification.
  - Interoperability and training to promote the uptake of open standards.
  - Collaboration and alignment with Common European Data Spaces.
  - Interoperability demonstration and content integration.
  - Cross-Sector data utilisation.
- Proposals are expected to cooperate and align with activities of the EOSC Partnership, to coordinate with relevant initiatives and projects (HORIZON-INFRA-2023-EOSC-01-04, HORIZON-INFRA-2024-EOSC-01-05, HORIZON-INFRA-2025-01-EOSC-01) and leverage outcomes from FAIR-IMPACT and FAIRCORE4EOSC.



# HORIZON-INFRA-2025-01-EOSC-03:

# Advancing Al-readiness and Machine-Actionability in the EOSC Ecosystem









### TYPE OF ACTION

 Research and Innovation Action (RIA)

# **INDICATIVE BUDGET**

- EUR 15 million
- Expected EU
   contribution per
   project: around EUR
   7.5 15 million

#### **OTHER CONDITIONS**

 Indicative number of projects expected to be funded: 2

- Call opening:15 May 2025
- Deadline:18 September2025



# Advancing Al-readiness and Machine-Actionability in the EOSC Ecosystem

# **Expected Outcomes:**

Project results are expected to contribute to the following outcomes:

- EOSC will be advancing Al-readiness and Machine-Actionability (MA) in the ecosystem by offering Al-ready federated **infrastructure** and easy-to-use **platform** services for EOSC, in order to respond to one of the main challenges of research infrastructures for Al in science, namely the lack of interoperability between Al/ML solutions.
- EOSC will focus on integrating machine-actionable repositories within the ecosystem and demonstrating their reliability and effectiveness by collaborating with repository owners and service providers to **implement MA tools and protocols**, ensuring seamless integration with the EOSC EU Node.



# Advancing Al-readiness and Machine-Actionability in the EOSC Ecosystem

# Scope:

The use of Al/ML can significantly help in the process of FAIRification, data curation and data quality assurance, close to the source of the data. EOSC shall promote actions that give incentives to further advance Al-readiness and Machine-Actionability in the EOSC federation for FAIRification and to support their application.

- The proposals should focus on all following aspects:
  - Develop and prototype tools to drive machine-actionability in repositories, data, and services, establishing a network of trusted repositories linked to the EOSC EU Node
  - Provide federated infrastructure services for serving AI models integrating horizontal and thematic EOSC nodes
  - Provide access to an easy-to-use technology platform offering reference implementations and recipes to quickly get started working with AI/ML with limited engineering overhead
  - Establish and/or provide access to existing AI/ML model repositories and services to serve models for retraining of generic models for specific needs for future predictions and reproducibility
  - Establish an EOSC AI/ML competency centre for the pooling of expertise and coordinated support on AI/ML use of data, compute infrastructure and AI/ML models for the upskilling and technical support of EOSC users and research operators, as a strategic asset that will enable a new paradigm for science production.

# **HORIZON-INFRA-2025-01-EOSC-04:**

# Data stewards, skills and training for Open Science and FAIR practices









### TYPE OF ACTION

 Coordination and Support Actions (CSA)

## **INDICATIVE BUDGET**

- EUR 8 million
- Expected EU contribution per project: EUR 5 - 8 million

#### **OTHER CONDITIONS**

 Indicative number of projects expected to be funded: 1

- Call opening:15 May 2025
- Deadline:18 September2025



# Data stewards, skills and training for Open Science and FAIR practices

## **Expected outcome:**

- Definition of consistent core curricula for data stewards throughout Europe, fostering the adoption of Open Science and FAIR principles.
- Enhanced data steward skills, enhancing their ability to manage and interpret complex data.
- Advancement of Open Science education throughout all research career stages. Creation and standardisation of open science curricula tailored to researchers at all career stages, promoting consistency and collaboration in Open Science practices.
- Expansion and strengthening of existing competence networks, broadening their scope across countries and disciplines and improving their readiness to support the uptake of Open Science and of EOSC. Development of a sustainable coordination network model to support synergies and continued growth.
- Mainstreaming transparent, aligned, and interoperable Open Science practices and promoting efficiency and trustworthiness in the management of FAIR digital objects.



# Data stewards, skills and training for Open Science and FAIR practices

# Scope:

The objective of this topic is to foster a stronger culture of Open Science and to address gaps related to the professionalisation of data stewards and to the acquisition and recognition of open science and data management skills at all career levels.

Proposals are expected to cover the following activities:

- Coordinating European-level actions to make data steward curricula management consistent and to propose mechanisms to monitor their suitability and possible evolution.
- Enhancing data steward and researcher curricula with Open Science and FAIR practices, ensuring adaptability at the different contexts, levels and scientific domains of applicability.
- Addressing diverse data steward levels, including support staff and researchers.
- Collaborating with existing competence centres to foster Open Science and FAIR networks.
- Leveraging national networks and related institutional initiatives for European-level coordination.
- Launching outreach programs targeting early-career researchers and less-structured communities.
- Offering support to countries and institutions that are underrepresented and bolstering national competence centre networks.

Proposals should also seek for synergies with the activities of the Coalition for Advancing Research Assessment (CoARA)

# HORIZON-INFRA-2025-01-EOSC-05: Using Generative AI (GenAl4EU ) for Scientific Research via EOSC









#### **TYPE OF ACTION**

 Research and Innovation Action (RIA)

## **INDICATIVE BUDGET**

- EUR 37.5 million
- Expected EU
   contribution per
   project: EUR 7.5 10
   million

### **OTHER CONDITIONS**

- Indicative number of projects expected to be funded: 4
- Eligible costs will take the form of a lump sum

- Call opening:15 May 2025
- Deadline:18 September2025



## Using Generative AI (GenAI4EU) for Scientific Research via EOSC

## **Expected Outcomes:**

Project results are expected to contribute to the following outcomes:

- EOSC will make available the high-quality machine-readable scientific datasets to be consumed by machine-driven Generative Al applications at the service of science in line with the GenAl4EU initiative and other key EU initiatives, like the Apply Al strategy
- EOSC will facilitate the pooling and sharing of high-value data sets originated from EOSC and other data spaces identified as priorities (including, but not limited to, public sector, health, climate, environmental, manufacturing, agriculture, energy, financial and mobility data). The large-scale actions supported by EOSC will include the creation of common data platforms enabling secure and compliant sharing and reuse of sensitive, confidential, proprietary and personal data, as well as large-scale experimentation based on Generative AI, in line with the GenAI4EU initiative and other key EU initiatives, like the Apply AI strategy.

## Using Generative AI (GenAI4EU) for Scientific Research via EOSC

## Scope:

The scope of this call is to **demonstrate and foster the use of Generative AI** for Scientific Research, in line with the GenAI4EU initiative and other key EU initiatives, like the Apply AI strategy, throughout the research data lifecycle supported by EOSC.

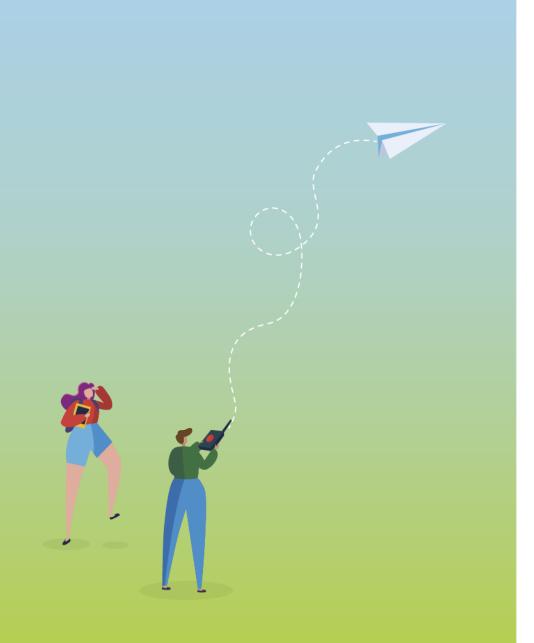
- The proposals shall focus on all following aspects:
  - Enrich the EOSC federation with Generative AI tools for evaluating research data quality, ensuring trustworthiness across the European network of trusted repositories, accessible by humans, machines, and Generative AI services: formulate protocols and policies to facilitate effortless data access, processing, and provenance updates within EOSC's repository and service network.
  - Support European research infrastructures to improve the FAIRness of their data, so that they are ready to be combined with data of infrastructures in scientifically neighbouring domains, in order to provide Generative AI-ready data.
  - Run community engagement and support programmes for implementing Generative AI in scientific workflows via EOSC
- The proposals are expected to deliver on one or more of the following:
  - Develop, promote and support real-life use cases for Generative AI models in scientific research domains, in line with the GenAI4EU initiative and other key EU initiatives, like the Apply AI strategy, such as: Biology, Environment, Materials, Health, Physics, Chemistry, Ecology, etc.



## QUESTIONS AND ANSWERS







# VIRTUAL COFFEE BREAK until 11:20



## For questions



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## HORIZON-INFRA-2025-01-SERV-01:

# Research infrastructure services to enable R&I addressing main challenges and EU priorities related to the health domain









#### TYPE OF ACTION

 Research and Innovation Action (RIA)

## **INDICATIVE BUDGET**

- EUR 30 million
- Expected EU
   contribution per
   project: around EUR
   10 million

### **OTHER CONDITIONS**

- Indicative number of projects expected to be funded: 3
- Eligible costs may take form of unit costs for transnational and virtual access to research infrastructures
- JRC may participate

- Call opening:15 May 2025
- Deadline:18 September2025



## **Expected Outcomes:**

Innovative, customised RI services enhancing society's long-term problem-solving capacity & evidence-based policy making related to the health domain.

## Scope:

TNA to integrated & customised RI services in each of 3 areas related to the health domain.

Includes ad hoc users' training & scientific & technical support.

Main goal, access provision to existing services, should be clearly reflected in activities & allocated resources.

Improvement, optimisation & development of new services, also supported

Grants awarded to highest ranked proposals within each area, provided attain all thresholds.



Area 1: research infrastructure services to support research and development of medical countermeasures for epidemic response:

## **Expected Outcomes:**

- Identify, characterise & mitigate the effects of existing & emerging pathogens & development tools against emerging pathogens. Provide long-term sustainability concept for RI network supporting epidemic research.
- Catalogue of RI services to tackle infectious diseases epidemics

- Access to RI services targeting: i) research on pathogens with epidemic potential, ii) development of prevention and/or intervention tools & measures.
- Within one-Health concept, services supporting research on transmission of pathogens from animals to humans (or vice versa). Ensure Operational links established within the ISIDORe project & with epidemics risk assessment & management bodies.
- Alignment with the Pandemic Preparedness partnership. FAIR & usable results enabling further research on pathogens and disease.

Area 2: research infrastructure services for improving clinical research in the paediatric area:

## **Expected outcomes:**

- Advancement paediatric medicines & therapeutic & diagnostic approaches to markets & clinical use;
- Competitiveness European industry & biotech SMEs: paediatric medicines, treatment & diagnostic devices;
- Facilitate paediatric research in the context of EU regulatory environment;
- Innovative tools to conduct paediatric clinical trials, re-use of population & historical data

- Support clinical R&I projects addressing therapeutic, diagnostic & prevention measures for paediatric disease management & help meet regulatory requirements for licensing & clinical use of paediatric medicines & medical devices.
- Innovative trial designs & novel monitoring tools.
- Wider international collaboration beyond Europe, including with Low-to-Middle-Income Countries.



Area 3: research infrastructure services to enable research linking environmental factors to human health:

## **Expected Outcomes:**

- Better risk assessment tools to anticipate & mitigate -ve environmental implications on human health;
- Evidence for public health bodies on assessment & management of human health environmental risks;
- Wider access to RI services, underpin competitiveness of European industry including SMEs.
- Link with environmental research on exposure to other living organisms within One-Health concept.

- Integrate & give access to wide range of monitoring & experimental RI services to investigate effect of environmental exposure. Services to user projects to characterise environmental risk factors and/or to develop innovative tools & methods for deciphering causal pathways & the prevention of associated diseases. Integration of data using One-Health approach.
- Links with ongoing initiatives & resources



## **HORIZON-INFRA-2025-01-SERV-02:**

## Research infrastructure services to enable R&I addressing main challenges and EU priorities









#### TYPE OF ACTION

 Research and Innovation Action (RIA)

## **INDICATIVE BUDGET**

- EUR 20 million
- Expected EU
   contribution per
   project: around EUR
   5 million

## **OTHER CONDITIONS**

- Indicative number of projects expected to be funded: 4
- Eligible costs may take form of unit costs for transnational and virtual access to research infrastructures
- JRC may participate

- Call opening:15 May 2025
- Deadline:18 September2025



## SERV-02. Research infrastructure services to enable R&I addressing main challenges and EU priorities - All areas

## **Expected Outcome:**

• Provision of innovative, customised and efficient research infrastructures services enhancing and increasing society's long-term and consistent problem-solving capacity and evidence-based policy making.

**Scope:** This topic aims at providing trans-national access (on-site or remote) and/or virtual access to integrated and customised research infrastructure services for challenge-driven research and innovation in each of the areas listed below, offered by a wide range of complementary and interdisciplinary top level research infrastructures.

ad hoc users' **training** and scientific and technical **support** - facilitate and integrate the **access procedures** - improve, customise and harmonise the **services** (<u>offered under the action</u>) - further development of new or improved services (<u>for use within 2-3 years</u>) when duly justified (e.g. ESFRI Landscape Analysis, SRIAS Horizon Europe Missions or Partnerships) – **Data management**, interoperability, **EOSC** – take due account of major **European or international initiatives**.

access providers: as beneficiaries, affiliated entities, third parties, or external providers of purchased services.

At least one ESFRI Landmark/ERIC (distributed ERIC: declaration if a legal entity that is hosting ERIC facilities, resources or related services is an alternative beneficiary)

## Area 1: research infrastructure services for advanced biotechnology and biomanufacturing

## **Expected Outcomes (all):**

- Reinforced support for breakthrough research and innovation for advancing industrial biotechnology.
- Wider access for academic and industrial researchers to enhanced and further integrated research infrastructure services in the field.
- Cross-fertilisation and wider sharing of knowledge and technologies across the relevant scientific disciplines and sectors.
- Harmonisation and development of standards, and sharing of best practices ensuring scientific reproducibility in the field.
- Enhanced and further integrated research infrastructures capacities in support of the European Green Deal objectives, the EU's objectives for open strategic autonomy and resilience and the actions and priorities of the Commission communication "Building the future with nature: Boosting Biotechnology and Biomanufacturing in the EU

**Scope:** a more productive use of relevant research infrastructures must be facilitated with specific attention to accelerating the use of the Industrial Biotechnology Innovation and Synthetic Biology Accelerator (**EU IBISBA**) as a trusted digital repository and service network for the sector. ... higher and more interdisciplinary level of integration to offer access, through a single entry point, to a **coherent and complementary set of services**... Users should benefit from the harmonisation of **standards**, share of best practices... **access to bioprocess data**.

## Area 2: research infrastructures services for access to novel radionuclides and facilities

## **Expected Outcomes (all):**

- Research in radionuclides facilitated, contributing to the development of medical treatments and to the underlying required supply of stable or radio-isotopes for these treatments.
- Contribution of research infrastructures and scientific services to the EU action plan to support the safe, high
  quality and reliable use of radiological and nuclear technology in healthcare.

- Build on the work carried out by the PRISMAP project in establishing a network of world-leading European facilities, including nuclear reactors, accelerators and radiochemical laboratories, offering a broad catalogue of radionuclides for medical research. The network must offer researchers access to radionuclides and to the complementary biomedical facilities.
- Offer services for: 1) the production and delivery of **high purity radionuclides**; 2) associated research in **biomedical facilities**; 3) **supporting translational research and preclinical research techniques**, either self-service or fully performed as a service.
- Investigating towards the development of upscaling of the production of these novel radionuclides, in the form of novel production technology, new purification methods, and proof-of-concept investigations showing the development of new treatments from test bench to patient care.
- Monitoring and engagement with other initiatives supporting the EU SAMIRA action plan, in particular as regards
  the supply of novel (stable or radio-) isotopes and the development of innovative production methods, based on
  existing or new facilities.
- Proposals could consider the inclusion of the JRC research infrastructure (PAMEC, FMR)

## Area 3: RI services to improve the understanding and prediction of future climate changes and their impact

## **Expected Outcomes (all):**

- Reinforced support for cutting-edge research and innovation in understanding and predicting future climate changes and their impacts
- Wider, user-friendly and coordinated access for researchers to enhanced and further integrated state-of-the-art **Earth system models**, including high resolution or high complexity models and relevant high-performance computing resources
- More robust evidence underpinning the assessments of the Intergovernmental Panel on Climate Change (IPCC)
  about the state of scientific, technical and socio-economic knowledge on climate change, its impacts, risks and
  response options.
- More effective climate policies in the context of the implementation of the European Green Deal, the European Climate Law, and the Paris Agreement.

**Scope:** Access to a wide portfolio of world-class and complementary services in the field of **Earth climate system modelling**, such as models, software, high-performance computing resources, and data **to enable efficient production**, **evaluation**, **and exploitation of model simulations**, as well as rapid and reliable **exchange of knowledge** across multiple projects, models, and modelling communities in Europe and globally, and also with policymakers, planners, and climate services.

Proposals should ensure appropriate links with relevant European and international initiatives such as projects supported under Horizon Europe Cluster 5 Destination 1 "Climate sciences and responses for the transformation towards climate neutrality", the EU Mission on Adaptation to Climate Change, and Destination Earth.

JRC (MARIab)

## Area 4: research infrastructures services for New Aviation Fuels and Combustion Technologies

## **Expected Outcomes (all):**

- enabling R&I in the field of new aviation fuels and combustion technologies to support European scientific and industrial competitiveness, including on adaption and expansion of existing test combustion capabilities to use new fuels (in particular biogenic and synthetic sustainable aviation fuels, liquid hydrogen) for future propulsion systems, referee-test rigs for the assessment of the potential and characteristics of sustainable aviation fuels in respect to safety and reliability (in contrast to Jet A1 using application-oriented combustion system including concept and design work based on known referee-rigs), test rigs that support the approval and qualification of SAF candidates entering ASTM D4054 (Tier 2.5)
- wider access for academic and industrial researchers to enhanced and further integrated RI services for fostering the testing of sustainable fuels to address emerging socio-economic needs;
- enhanced competitiveness of European aviation industry in the field through access to the broadest spectrum of advanced research tools and providing resources and services for research communities to conduct research and foster innovation in the field;
- positioning the top-level research infrastructures in the field as reliable innovation partners for world-wide researchers and European innovators
- where relevant, test beds may be used beyond research, e.g. for education and training.

### Scope:

Context: ReFuelEU Aviation - enlarge the array of sustainable feedstocks and applications and push further the use of new aviation fuels and combustion technologies for finding effective solutions.

## HORIZON-INFRA-2025-01-SERV-03:

## Research infrastructure services advancing frontier knowledge









## **TYPE OF ACTION**

 Research and Innovation Action (RIA)

## **INDICATIVE BUDGET**

- EUR 20 million
- Expected EU
   contribution per
   project: around EUR
   10 million

## **OTHER CONDITIONS**

- Indicative number of projects expected to be funded: 2
- Eligible costs may take form of unit costs for transnational and virtual access to research infrastructures
- 80% funding rate

- Call opening:15 May 2025
- Deadline:18 September2025



## Research infrastructure services advancing frontier knowledge

## **Expected Outcomes (all):**

- Wider, simplified, and more efficient access to the best research infrastructures available to researchers to conduct curiosity-driven research, irrespective of location;
- Breakthrough and leading-edge research enabled by advanced research infrastructure services, including from emerging facilities, made available to a wider user community, including in emerging areas of research;
- Improved and harmonised research infrastructure services and broader and more balanced use
  of research infrastructure resources across the EU and Associated Countries deriving from the
  exploitation of synergies and complementarities;
- A new generation of researchers trained to optimally exploit all the essential tools for their research;
- Cross-disciplinary fertilisations and a wider sharing of information, knowledge and technologies
  across scientific fields fostered by closer interactions between researchers active in and around
  research infrastructures;
- Better management, including implementing FAIR data principle, of the continuous flow of data collected or produced by research infrastructures.

## Research infrastructure services advancing frontier knowledge

**Scope:** This topic aims at providing trans-national access (on-site or remote) and/or virtual access to integrated and customised research infrastructure services for curiosity-driven research in wide scientific domains, offered by a wide range of **complementary and interdisciplinary top level research infrastructures**.

- Area 1: Environment: atmospheric chemistry and dynamics.
- Area 2: Physical sciences and engineering: hadron physics.
   (fully exploit transversal links to and identify common developments with neighbouring communities
   within the field of particle and nuclear physics building on the work of recent Horizon projects where applicable)

Main goal is access provision to existing services.

ad hoc users' **training** and scientific and technical **support** - facilitate and integrate the **access procedures** - improve, customise and harmonise the **services** (offered under the action) – **Data management**, interoperability, **EOSC** – take due account of major **European or international initiatives**.

access providers: as beneficiaries, affiliated entities, third parties, or external providers of purchased services.

At least one ESFRI Landmark/ERIC (distributed ERIC: declaration if legal entity that is hosting ERIC facilities, resources or related services)



## **HORIZON-INFRA-2025-01-SERV-04:**

## Research infrastructure services advancing frontier knowledge (bottom-up)









### TYPE OF ACTION

 Research and Innovation Action (RIA)

## **INDICATIVE BUDGET**

- EUR 20 million
- Expected EU
   contribution per
   project: around EUR
   5 million

## **OTHER CONDITIONS**

- Indicative number of projects expected to be funded: 4
- Eligible costs may take form of unit costs for transnational and virtual access to research infrastructures
- 80% funding rate

- Call opening:15 May 2025
- Deadline:18 September2025



## Research infrastructure services advancing frontier knowledge (bottom-up)

## **Expected Outcomes (all):**

- Wider, simplified, and more efficient access to the best research infrastructures available to researchers to conduct curiosity-driven research, irrespective of location;
- Breakthrough and leading-edge research enabled by advanced research infrastructure services, including from emerging facilities, made available to a wider user community, including in emerging areas of research;
- Improved and harmonised research infrastructure services and broader and more balanced use
  of research infrastructure resources across the EU and Associated Countries deriving from the
  exploitation of synergies and complementarities;
- A new generation of researchers trained to optimally exploit all the essential tools for their research;
- Cross-disciplinary fertilisations and a wider sharing of information, knowledge and technologies
  across scientific fields fostered by closer interactions between researchers active in and around
  research infrastructures;
- Better management, including implementing FAIR data principle, of the continuous flow of data collected or produced by research infrastructures.

## Research infrastructure services advancing frontier knowledge (bottom-up)

**Scope:** This topic aims at providing trans-national access (on-site or remote) and/or virtual access to integrated and customised research infrastructure services for curiosity-driven research in wide scientific domains, offered by a wide range of complementary and interdisciplinary top level research infrastructures.

address one domain and must explicitly state which domain (and sub-domain if appropriate) they address among the scientific domains not covered by Horizon Europe Research Infrastructures part of Work Programme 2023 to 2025, curiosity- driven INFRASERV topics\*

\*Therefore, excluding the following domains/sub-domains: Environment/Biosphere: terrestrial biodiversity and ecosystems, including forest; Physical sciences and engineering/Astronomy and Astroparticle physics; Arts and Humanities; Environment / atmospheric chemistry and dynamics; Physical sciences and engineering:/ particle and nuclear physics.

ad hoc users' training and scientific and technical support - facilitate and integrate the access procedures - improve, customise and harmonise the services (offered under the action) - Data management, interoperability, EOSC - take due account of major European or international initiatives.

access providers: as beneficiaries, affiliated entities, third parties, or external providers of purchased services.

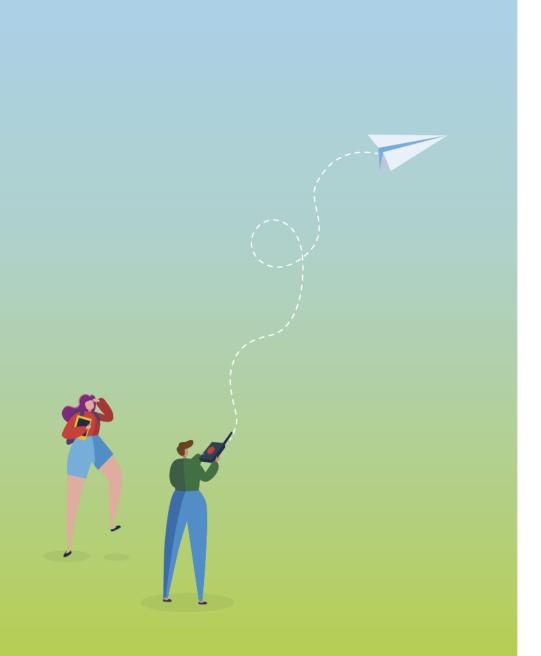
At least one ESFRI Landmark/ERIC (distributed ERIC: declaration if legal entity that is hosting ERIC facilities, resources or related services)



## QUESTIONS AND ANSWERS







## VIRTUAL LUNCH BREAK



## HORIZON-INFRA-2025-01-TECH-01:

## New technologies and solutions for reducing the environmental and climate footprint of research infrastructures









## **TYPE OF ACTION**

 Research and Innovation Action (RIA)

## **INDICATIVE BUDGET**

- EUR 25 million
- Expected EU
   contribution per
   project: around EUR
   5 million

#### **OTHER CONDITIONS**

- Indicative number of projects expected to be funded: 5
- At least two RIs ESFRI Landmark / ERIC / IERO\*
- Eligible costs will take the form of a lump sum
- JRC may participate

- Call opening:15 May 2025
- Deadline:18 September2025



<sup>\* &#</sup>x27;international European research organisation' means an international organisation, the majority of whose members are Member States or associated countries, whose principal objective is to promote scientific and technological cooperation in Europe

## New technologies and solutions for reducing the environmental and climate footprint of research infrastructures

## **Expected Outcomes (all):**

- reduction of environmental (including climate-related) impacts;
- optimisation of **resource and energy consumption** integrated through the full **life cycle** of research infrastructures;
- increased long-term sustainability of the European research infrastructures ecosystem.

**Scope:** The aim of this topic is to deliver **innovative technologies and solutions** which generate a **step change** in reducing the environmental and climate footprint of research infrastructures through the full life cycle of research infrastructures. Proposals should identify **common methodologies**, among the concerned research infrastructures, to **assess environmental impact** and **strategies to reduce** it, as well as efficiency gains in the broader ecosystem.

Consortia should be built on a **leading core** of **at least two** different world-class research infrastructures, each of them being an **ESFRI** infrastructure, a European Research Infrastructure Consortium (**ERIC**) or another research infrastructure that is an **intergovernmental organisation of European interest**, and can include a wider set of research infrastructures, and other technological partners.

Proposals should explain any synergies and complementarities with any related previous or current EU grants, including grants funded under other parts of Horizon Europe or Horizon 2020. Where relevant, proposals should ensure complementarity with actions funded under the 2023 call topic HORIZON-INFRA-2023-TECH-01-01 and clearly justify that different technologies and solutions are targeted.

## New technologies and solutions for reducing the environmental and climate footprint of research infrastructures

## **Scope (continued):**

- new technologies and solutions for research infrastructures enabling transformative resource efficiency (e.g. reduced energy consumption) and reduction of environmental (including climate-related) impacts, including, when relevant, more sustainable and efficient ways of collecting, processing and providing access to data;
- validation and prototyping;
- training of research infrastructures staff for the operation and use of the new solutions;
- action plans to deploy new developments at wider scale and ensure their sustainability;
- measures to ensure an environmentally effective integration of the solutions in the local contexts;
- **societal engagement** to harvest and incorporate solutions from other relevant ecosystems and or to foster acceptance of the solutions in the **local and regional communities**.



# HORIZON-INFRA-2025-01-TECH-02: Implementing research infrastructure technology roadmaps









## **TYPE OF ACTION**

 Research and Innovation Action (RIA)

## **INDICATIVE BUDGET**

- EUR 45 million
- Expected EU
   contribution per
   project: around EUR
   10 million

### **OTHER CONDITIONS**

- Indicative number of projects expected to be funded: 4
- At least two RIs ESFRI Landmark / ERIC / IERO\*
- Beneficiaries may provide financial support to third parties. The support to third parties can only be provided in the form of grants.

- Call opening:15 May 2025
- Deadline:18 September2025

<sup>\* &#</sup>x27;international European research organisation' means an international organisation, the majority of whose members are Member States or associated countries, whose principal objective is to promote scientific and technological cooperation in Europe



## Implementing research infrastructure technology roadmaps

## **Expected Outcomes: (contribute to several)**

- enhanced scientific and technological competitiveness of European research infrastructures;
- enhanced research infrastructure capacities to address research challenges and EU policy priorities;
- increased technological level of European industries through the co-development of advanced technologies for research infrastructures and creation of potential new markets;
- increased availability of research infrastructure component manufacturing capabilities currently not available in Europe;
- long-term integration of research infrastructures into local, regional and global research and innovation ecosystems;
- strengthened foundations for the development of innovative companies in Europe.



## Implementing research infrastructure technology roadmaps

- Projects should implement significant parts of, or entire existing research infrastructure technology roadmaps through co-creation with industrial partners from the earliest possible stage. These roadmaps should be the result of a community or cross-community effort already undertaken, and they should not be the result of an isolated effort.
- The technological solutions developed should respond to the needs of several research infrastructures, and in some cases the needs of different types of research infrastructures.
- Involve research infrastructures and industrial partners, including SMEs or other technological partners.
- Build on results from past/ongoing projects and avoid overlap with them.



## HORIZON-INFRA-2025-01-TECH-03:

## Al-powered impact simulations in support of the Destination Earth initiative









#### **TYPE OF ACTION**

 Research and Innovation Action (RIA)

## **INDICATIVE BUDGET**

- EUR 30 million
- Expected EU
   contribution per
   project: EUR 7 10
   million

### **OTHER CONDITIONS**

- Indicative number of projects expected to be funded: 3-4
- Eligible costs will take the form of a lump sum

- Call opening:15 May 2025
- Deadline:18 September2025



## Al-powered impact simulations in support of the Destination Earth initiative

## **Expected Outcomes:**

- Generate AI-powered local impact assessments, based on the scenarios provided by the Digital Twins integrated with fusion of real time data feeds. Ensure alignment with GenAI4EU initiative and other key EU initiatives, like Apply AI strategy.
- Develop novel interfaces that address the needs of non-technical users. These interfaces translate the non-technical requirements of the users into concrete scenario assessments tailored for local needs.
- Help establish new best practices and guidelines on impact assessment of Digital Twins simulations and Al-powered analysis.



## Al-powered impact simulations in support of the Destination Earth initiative

- Demonstrate the innovative use of AI to setup and manage impact assessments assisted by simulation activities across RIs. They should ensure efficient selection of data and modelling resources to support the decision-making process.
- Exploit the advances in modelling, observations, digital technologies and ML/AI, ensuring that European leadership in this field is maintained.
- Link to existing DestinE Digital Twins and services to cover unexplored areas/domains and explore joining the overall DestinE ecosystem and service offering.
- Allow for more informed decision-making by non-technical experts and policy makers through assistance of generative Al models enabling user requirements analysis and narrowing down vast amounts of data and information into actionable and understandable scenarios.

## HORIZON-INFRA-2025-01-TECH-04:

## Al-generated digital twins for science









### TYPE OF ACTION

 Research and Innovation Action (RIA)

## **INDICATIVE BUDGET**

- EUR 40 million
- Expected EU
   contribution per
   project: EUR 8 10
   million

## **OTHER CONDITIONS**

- Indicative number of projects expected to be funded: 4-5
- Eligible costs will take the form of a lump sum

- Call opening:15 May 2025
- Deadline:18 September2025



## Al-generated digital twins for science

## **Expected Outcomes:**

- Setup and manage highly complex AI-powered modelling and simulation activities across different research infrastructures (RIs). Ensure alignment with GenAI4EU initiative and other key EU initiatives, like Apply AI strategy.
- Establish new best practices and guidelines for model generation and setup, including simulation and simulation-observation data fusion.
- Develop new applications and use cases for Al-generated Digital Twins.



#### Al-generated digital twins for science

#### Scope:

The aim is to use generative artificial intelligence (AI) to deliver digital twins of complex real-world systems that advance the state-of-art of European research infrastructures.

The focus is on key impact sectors, such as healthcare (including mental health), transportation, agriculture, environment or manufacturing, or other fields related to the Clean Industrial Deal, in line with the European objectives seeking to leverage AI to address societal challenges, improve public services and drive inclusive economic growth.

The proposed work is expected to benefit from recent advances in various Al areas, like Foundation Models (e.g. Large Language Models (LLMs)), Federated Learning and link to relevant European Al initiatives, such as the European Al factories, GenAl4EU initiative, Apply Al strategy.





# QUESTIONS AND ANSWERS



## Planning of the Research Infrastructures (INFRA) call



15 May 2025

Call opening

18 Sept. 2025

Call closure

Oct. 2025 - Jan. 2026

Evaluation phase

Feb. 2026

Evaluation results externalised



## Submission of a proposal – good practices

#### **Key elements**



The proposed work must be within the scope of a work programme topic. **Read the WP carefully**. Keep close to topic objectives and indicated budget.



Use guidance available in proposal template and call page in Funding and Tenders Portal – Get help: contact your NCPs, Research Inquiry Service (RES), IT Helpdesk.



Use the templates – fill out tables as required – follow instructions in submission page. Read yellow warnings – They do not prevent submission, but maybe critical alerts.



Respect the page limit as mentioned in the proposal template. Excessive pages are blackened out and not evaluated.



You can re-submit your proposal as many times as you wish, up until the deadline. Plan final submission 48 hours before deadline to avoid congestion and errors.





## **Application form (proposal template)**



#### The proposal contains:

- Part A (web-based forms) is generated by the IT system. It is based on the information entered by the participants through the submission system in the Funding & Tenders Portal.
- Part B is the narrative part that includes three sections that each correspond to an evaluation criterion. Part B needs to be uploaded as a PDF document following the templates downloaded by the applicants in the submission system for the specific call or topic.
- Additional annexes for lump sums, FSTP, declarations, or engagement letters or other forms of endorsement.



# Eligibility / Admissibility

#### **INFRA Proposals (Part B) page limit**

- Standard RIAs : limit is 45 pages
- Standard CSAs: limit is 30 pages
- Lump Sum RIAs : limit is 50 pages
- Lump Sum CSAs: limit is 33 pages
- INFRASERV RIAs: limit is 100 pages

Annexes are not included in the page limit. Check appropriate format (PDF, Excel) before submitting.





## **Taxonomy for INFRA calls**

- Applicants must select min 3 max 5 descriptors.
  - Discipline: Research Infrastructures
  - Subdiscipline (to choose from the 7 thematic areas)
  - Descriptors
- Please select the descriptors that fits more closely the activities of the proposal.
- The descriptors can be across different subdisciplines (multi-disciplinary projects).

For topics DEV-01, DEV-02, DEV-05, SERV-01, SERV-02, SERV-03 and SERV-04, applicants must specify in Part A the primary area/domain/project that will be used for final ranking, ensuring a balanced portfolio distribution.

Administrativ	e forms		
Proposal ID	PARC .		
Acronym =			
1 - General information			
			Fields marked * are mandatory to fill.
Topic HORIZ	ZON-INFRA-	Type of Action	HORIZON-
Call HORIZ	ZON-INFRA-	Type of Model Grant Agreement	HORIZON-
Acronym *			
Proposal title *	et-		
	Note that for technical reasons, the following characters are not accepted in the Proposal Title and will be removed: < > " &		
Duration in months	Я		<u> </u>
Fixed keyword 1 Word or words that best describe(s) the subject of your project.			



# Admissibility

#### Specific admissibility conditions, <u>READ THE WP CAREFULLY</u>.

**SERV (all topics)**: "The conditions are described in General Annex A. The following exceptions apply:

• Applicants are not required to include in their proposal a plan for the exploitation and dissemination of the results as the main objective of these actions is the service provision."

Other admissibility and eligibility conditions detailed in the WP.



# Financial specificities

#### Financial specificities, READ THE WP CAREFULLY.

**EOSC (2 topics), TECH (1 topic)**: "Beneficiaries may provide financial support to third parties (FSTP)." (template available in the download package)

DEV (1 topics), SERV (2 topics): "The funding rate is 80% of the eligible costs."

DEV (4 topics), EOSC (3 topics), TECH (3 topics): "Eligible costs will take the form of a lump sum."

**SERV (all topics)**: "Eligible costs may take form of unit costs for trans-national and virtual access to research infrastructures."

Legal specificities and additional access rights detailed in the WP.





## **Evaluation (award) criteria**

#### Three award criteria



- Excellence
- Impact
- Quality and efficiency of the Implementation

#### Additional award criteria:

- INFRASERV 'Excellence' criterion
  - The extent to which the access activities (trans-national and/or virtual access) will offer access to the state-of-the-art infrastructures of European interest in the field, high quality services, and will enable users to conduct excellent research.
  - The extent to which the project will contribute to facilitating and integrating the access procedures, to improve the services the infrastructures provide and to further develop their on-line services.

#### INFRAEOSC – 'Impact' criterion

The following additions to the general award criteria apply: The
extent to which the proposed work incorporates the necessary
coordination efforts and resources with other relevant projects
and the EOSC governance structure in the context of the EOSC
Partnership will be taken into account for Impact.

# **Lump sum**

- Applicants use the standard Horizon Europe proposal template Part B and the Excel lump sum template provided in the download package.
- Lump sums simplify the management of grants since there is no need to report actual costs and resources. It reduces the administrative burden, making program access easier, especially for small organizations and newcomers.
- Proposal is inadmissible in case of a home-made budget table, an empty Excel file
  or a different Excel file with budget data that are not linked to the proposal.
- The applicants may split work packages with a long duration into shorter work packages across reporting periods, enabling payment for the relevant activities at the end of each period. However, work packages should still be effective and support the project (a single task is not a work package).
- The budget table contains cost estimations for all project participants. The costs must be plausible, reasonable, necessary for and justified by the activities proposed. However, they cannot be accurate in the way costs can be accurate after they have been incurred.
- Guidance on lump sums (quick guide, videos and best practices): <a href="https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/programmes/horizon/lump-sum/guidance">https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/programmes/horizon/lump-sum/guidance</a>



# Legal Validation & Financial Capacity Assessment



### **Presentation Outline**

REA Central Validation Service Registration of Participants

Legal validation and LEAR

Communication

Financial capacity assessment

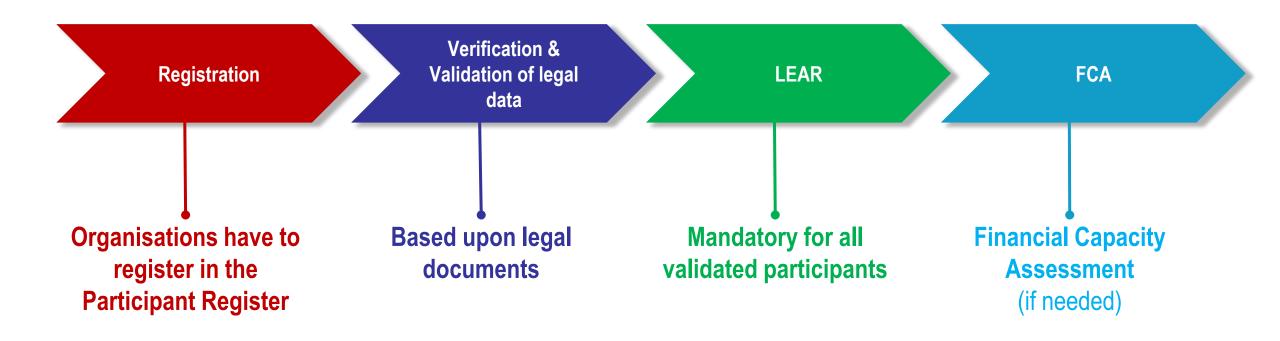


# REA Central Validation Service (REA CVS)

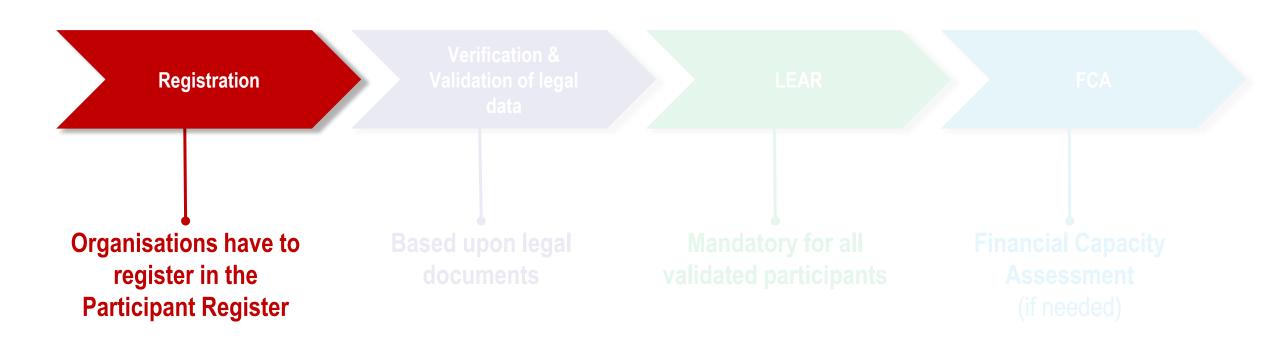
- Verifies legal existence and legal statuses of entities
- Validates the appointment of Legal Entity Appointed Representatives (LEARs)
- Validates legal changes of validated entities
- Assesses universal takeovers (UTROs) of validated entities
- Encoding Bank Account requests
- Prepares the Financial Capacity Assessment
- Performs ownership control assessments for specific programmes
- Performs ex-post status verifications (e.g. SME & MID cap status checks)



#### Validation Process Overview

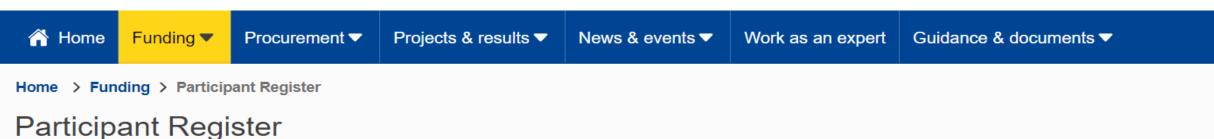


#### Validation Process Overview



## Registration of an organisation (at proposal stage)





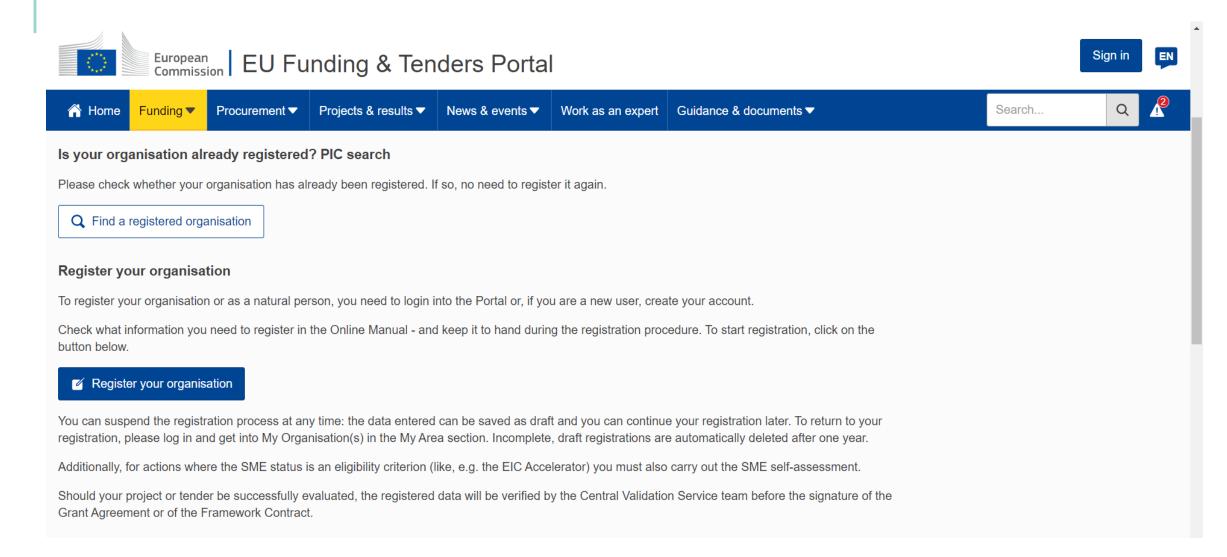
ñ

The participant register is now multilingual! Select your preferred language from the top right corner of the Portal.

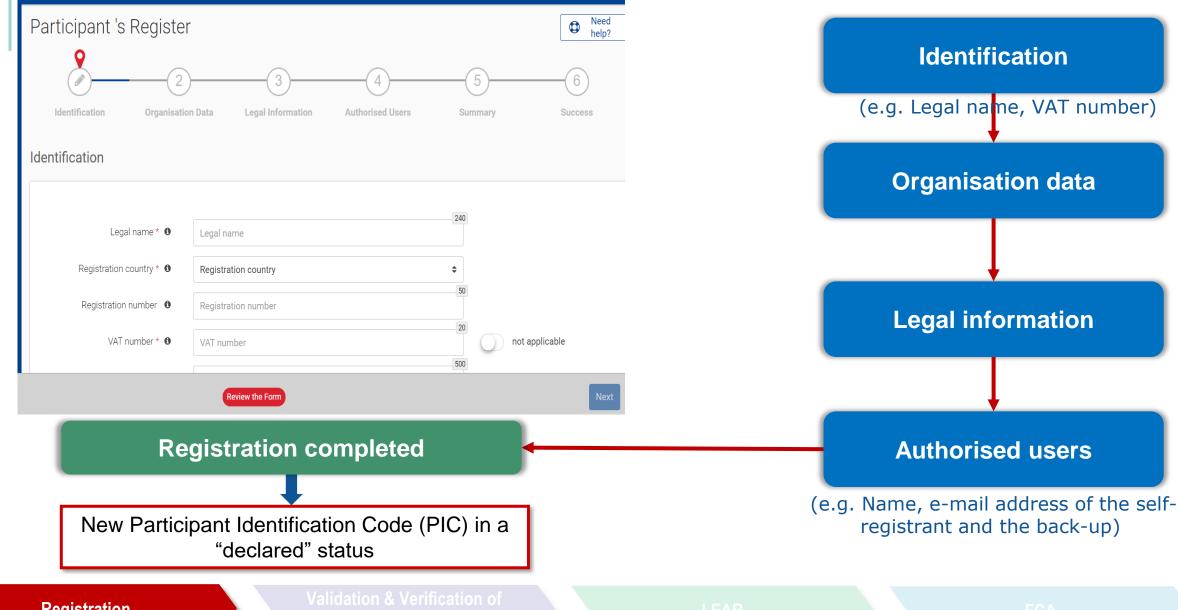
If you want to participate in a call for proposals or in a call for tenders with eSubmission, your organisation needs to be registered and have a 9-digit Participant Identification Code (PIC). Please quote your PIC in all correspondence with the Commission.

The register contains all participants of EU programmes.

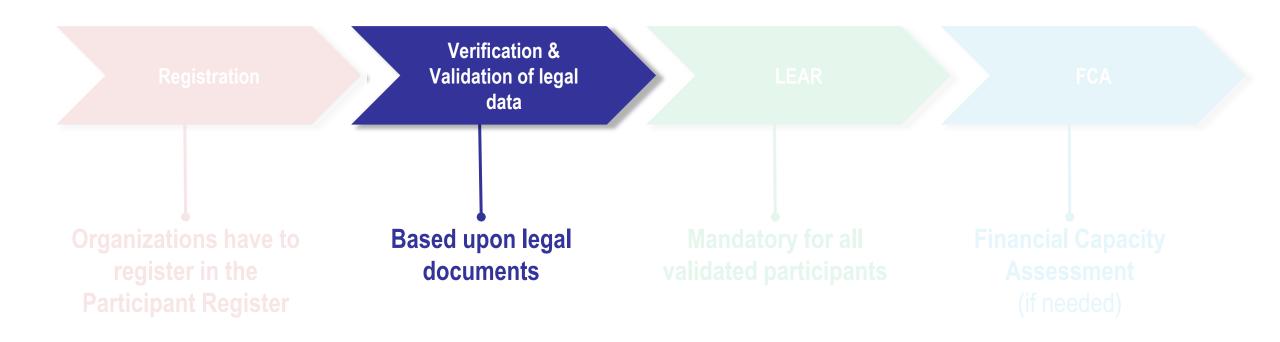
# Registration of an organisation (at proposal stage)



# How to register in the Participant Register



#### Validation Process Overview



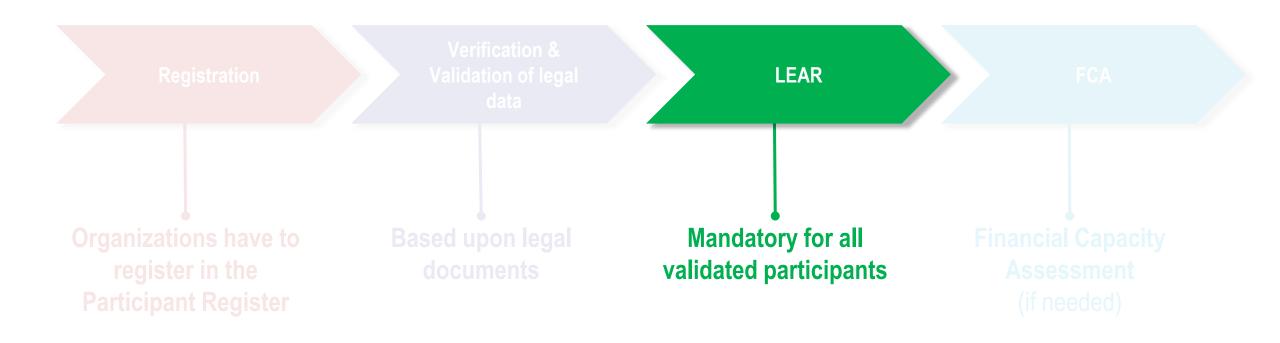
## Legal validation

- Registration data is verified by the REA Central Validation Service before the signature of the first Grant Agreement or Contract
- The legal validation of a participant in the Single Electronic Data Interchange Area (SEDIA) is done once
- It is *reused* for future participations in EU grant, procurement actions and contribution agreements

## Legal validation documents

- ✓ **Legal entity form** (template to be completed, dated, stamped and signed)
- ✓ VAT extract (< 1 year)</p>
  - ✓ If not registered for VAT proof of VAT exemption
- ✓ Registration extract (< 1 year) for private law bodies</p>
- ✓ Law/decree/decision for public law bodies
- ✓ Treaty for international organisations
- ✓ Statutes for non-profit organisations

#### Validation Process Overview



COMMUNICATION VIA PARTICIPANT REGISTER

# LEAR roles and duties

#### The Legal Entity Appointed Representative (LEAR):

- Notifies the EU of changes in legal data/status
- Submits legal and financial documents if required
- Manages access rights of persons in the organisation (but not at the project level)
- Nominates 'Account Administrators' and individuals authorised to sign:
  - ✓ Contracts/grant agreements and their amendments (Legal signatories, i.e. LSIGN)

**LEAR** 

✓ Financial statements (Financial signatories, i.e. FSIGN)

# LEAR appointment documents

- 1. LEAR appointment letter (duly signed by both the legal representative and the LEAR)
- 2. Official proof of identity (ID-card/passport with photo and signature) of the legal representative and the LEAR

**LEAR** 

3. Proof of empowerment of the legal representative

**Scanned version** of these documents shall be uploaded in the Participant Register. **Original of 1** must be kept in the entity's premises.

#### Communication

(e.g. request to submit legal documents or to appoint a LEAR)

#### All communication is exclusively managed through the Participant Register

European Commission <EC-NO-REPLY-GRANT-MANAGEMENT@nomail.ec.europa.eu>

to me -

#### **Europa / Funding & Tenders Portal notification**

Dear User,

You have been granted the role of Self Registrant for the organisation arquicios.

In order to access your organisation data on the Funding & Tenders Portal/Supplier portal, you need to log in on the F&T Portal/Supplier Portal. If you did not have an EU Login yet, it was launched automatically for a separate e-mail with a hyperlink to finalise your account.

For more information on the Funding & Tenders Portal roles, please refer to the <u>Online Manual</u> if you participate in the <u>programmes managed on the Funding & Tenders Portal</u>.

For more information on the roles for e-Procurement, please refer to the e-Procurement wiki page, if you participate in a tender call.

With kind regards,

EU Single Electronic Data Interchange Area - F&T Portal team

This email has been auto-generated. Please do not reply to this account. Your email will not be read. For any inquiries please contact the Grants Procurement Systems Support +32 (2) 29 71063 or <a href="mailto:EC-FUNDING-TENDER-SERVICE-DESK@ec.europa.eu">EC-FUNDING-TENDER-SERVICE-DESK@ec.europa.eu</a>.

**Messages are notified via e-mail** to the contact person (i.e. self-registrant or the appointed LEAR)



## Access lost to a <u>declared</u> or <u>valid</u> PIC

#### **Declared PIC**

 In case the self-registrant left the organisation, and no one has access to a declared PIC – a new PIC needs to be created, and REA CVS informed

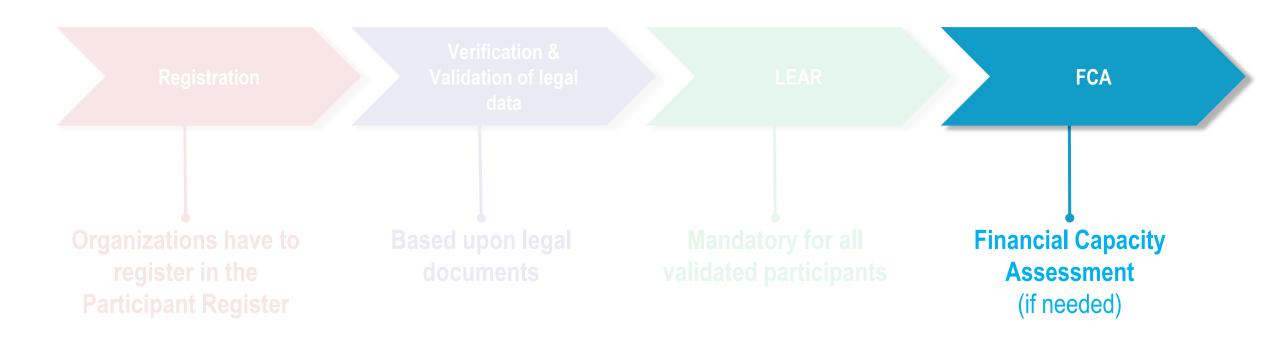
#### **Valid PIC**

 If the LEAR is not available anymore, and there are no Account Administrators, a new LEAR needs to be appointed – LEAR recovery procedure

https://ec.europa.eu/research/participants/urf/lear-recovery/request/



#### Validation Process Overview



COMMUNICATION VIA PARTICIPANT REGISTER

## Financial Capacity Assessment (FCA)

#### Legal basis







Financial Regulation (2024 / 2059) (articles 199 and 201)

Rules on Legal Entity Validation, LEAR
Appointment and Financial Capacity
Assessment for EU Grants and Tenders.

#### Call for Proposals

("7. Financial & operational capacity and exclusion")

## Financial Capacity Assessment (FCA)

#### When is the FCA needed?

✓ all beneficiaries, except for:

public bodies (including local, regional or national authorities)

individual grant requests of less than 60,000 EUR

✓ may be requested for other beneficiaries/ affiliated entities

(via Participant Register)

✓ Balance sheet

#### **Balance Sheet**

- ASSETS
- LIABILITIES
- EQUITY

(via Participant Register)

✓ Balance sheet

✓ Profit and loss account

**Balance Sheet** 

Profit & Loss account

- REVENUES
- EXPENSES
- Net result

(via Participant Register)

- ✓ Balance sheet
- ✓ Profit and loss account
- ✓ Explanatory notes and/or annexes (if available)

**Balance Sheet** 

Profit & Loss account

**Explanatory** notes

Annexes to the FS

Details on accounts

Breakdown on items

Additional explanations

- ✓ Balance sheet
- ✓ Profit and loss account
- ✓ Explanatory notes and/or annexes (if available)
- ✓ Financial audit report

if the requested EU-contribution exceeds EUR 750.000 (art. 199 FR)

# Financial Audit report

#### **Opinion**

- Unqualified
- Qualified
- Adverse
- Disclaimer

Profit & Loss
account
Explanatory
notes
Annexes

to the FS

(via Participant Register)

- ✓ Balance sheet
- ✓ Profit and loss account
- ✓ Explanatory notes and/or annexes (if available)
- ✓ Financial audit report

...or <u>Self Declaration</u> on the accounts

if the requested EU-contribution exceeds EUR 750.000 (art. 199 FR)

# Financial Audit report

#### **Opinion**

- Unqualified
- Qualified
- Adverse
- Disclaimer

# Self Declaration on the accounts

I, the undersigned declare that the accounts are:

- VALID
- no audit required

**LEAR** 

Signed

# Profit & Loss account Explanatory notes Annexes

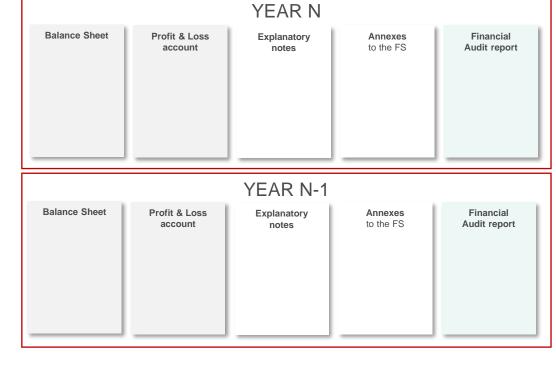
to the FS



- ✓ Profit and loss account
- ✓ Explanatory notes and/or annexes (if available)
- ✓ Financial audit report



- ✓ Balance sheet
- ✓ Profit and loss account
- ✓ Explanatory notes and/or annexes (if available)
- ✓ Financial audit report



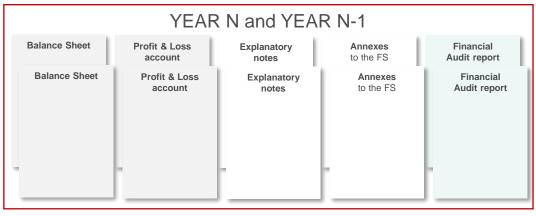
# For the 2 most recent closed and approved financial years

- official language (for EU languages)
- unofficial translation (for non-EU languages)
- dated
- signed

- ✓ Balance sheet
- ✓ Profit and loss account
- ✓ Explanatory notes and/or annexes (if available)
- ✓ Financial audit report

#### Newly established entities

✓ Business plan



# For the 2 most recent closed and approved financial years

- official language (for EU languages)
- unofficial translation (for non-EU languages)
- dated
- signed

#### **Business plan**

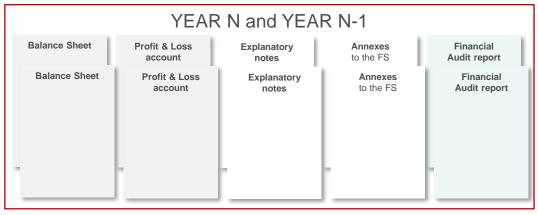
#### Forecasts on:

- Sales
- Expenses
- Investments
- Financing

7.....

sources

- ✓ Balance sheet
- ✓ Profit and loss account
- ✓ Explanatory notes and/or annexes (if available)
- ✓ Financial audit report



# For the 2 most recent closed and approved financial years

- official language (for EU languages
- unofficial translation (for non-EU languages)
- dated
- signed

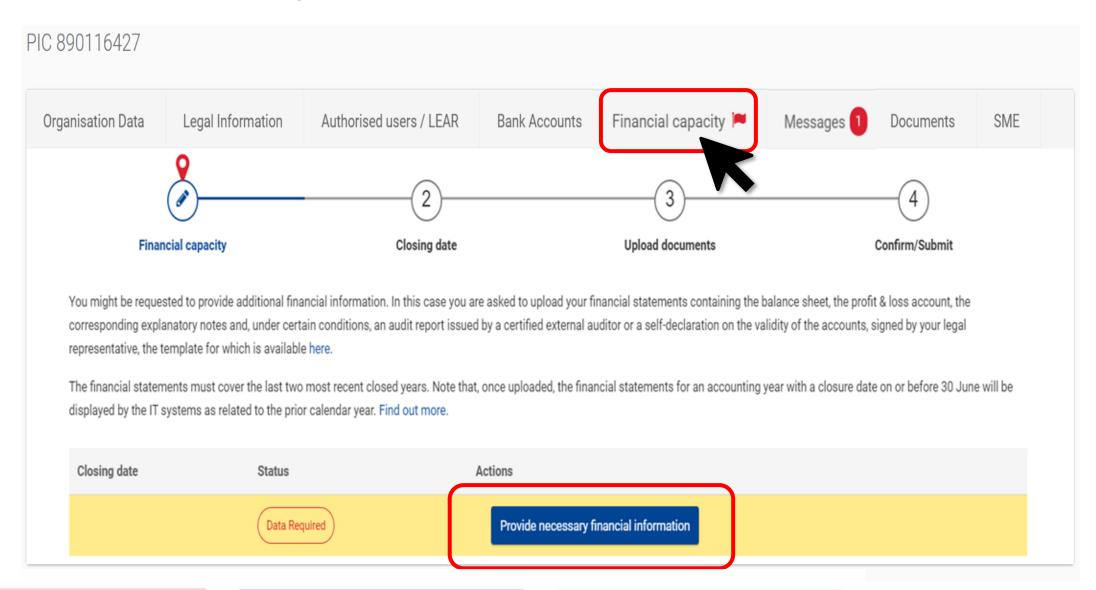
Newly established entities

✓ Business plan

# Once completed, the assessment is valid for 18 months from the closing date

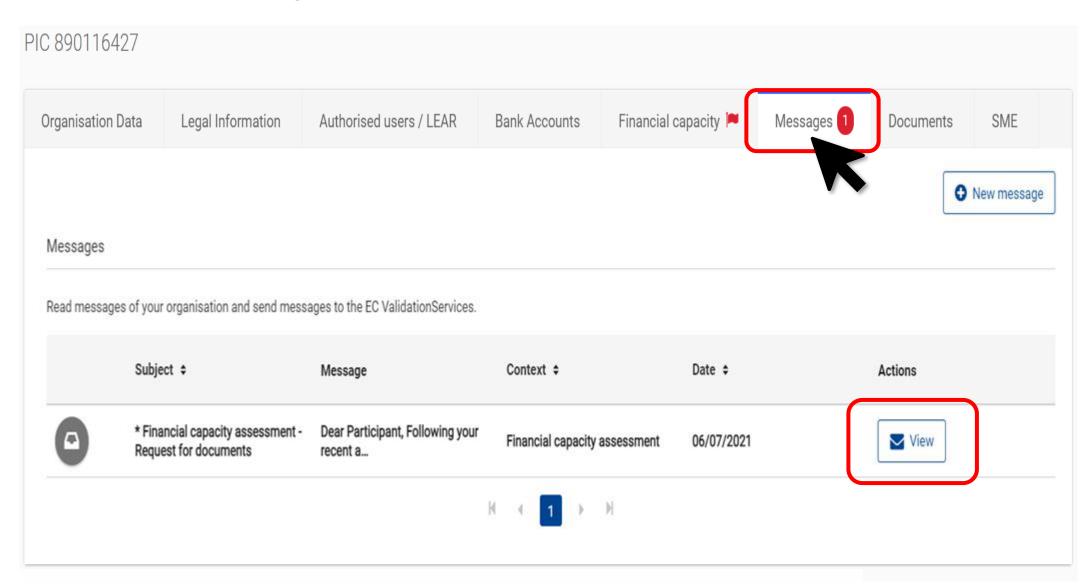
## Financial Capacity Assessment:

Requests in Participant Register



## Financial Capacity Assessment:

Requests in Participant Register



#### Guidance documents



Rules on Legal validation, LEAR appointment and financial capacity assessment <a href="https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/rules-lev-lear-fca\_en.pdf">https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/rules-lev-lear-fca\_en.pdf</a>



How to register in the Participant Register
<a href="https://webgate.ec.europa.eu/funding-tenders-opportunities/display/OM/Online+Manual">https://webgate.ec.europa.eu/funding-tenders-opportunities/display/OM/Online+Manual</a>



Online Manual, IT How to, RES Helpdesk, specific FAQs on the Tenders Portal <a href="https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/support/support">https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/support/support</a>



Legal notice on the Funding and Tenders Portal <a href="https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/support/legalnotice">https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/support/legalnotice</a>





# QUESTIONS AND ANSWERS



## **Research Enquiry Service**

For questions about EU research funding programmes, you can contact the Research Enquiry Service via the webform:

Research Enquiry Service (europa.eu)





\*In case of contradicting provisions between slides and Horizon Europe Work Programme RI 2025, only Horizon Europe Work Programme 2025 is the binding text.



# Follow us



