



### Research Infrastructures info day

6 December 2022



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#HorizonEU









2021 - 2027

RESEARCH INFRASTRUCTURES

**CARMEN MARCUS** 

Research Infrastructures Info Day

6 December 2022



### Research Infrastructures in Horizon Europe



European Research Council

Marie Skłodowska-Curie Actions

Research Infrastructures EUR 2,4 bn

#### Pillar 2

**Global Challenges and European Industrial Competitiveness** 

- Health
- · Culture, Creativity and Inclusive Society

- Φ Civil Security for Society
   Digital, Industry and Space
   Climate, Energy and Mobility
   Food Biograph
  - Food, Bioeconomy, Natural Resources, Agriculture and Environment

Joint Research Centre

#### Pillar 3 **Innovative Europe**

**European Innovation Council** 

**European innovation** ecosystems

**European Institute of Innovation** and Technology

#### Widening Participation and Strengthening the European Research Area

Widening participation and spreading excellence

Reforming and Enhancing the European R&I system

### Research Infrastructures in Horizon Europe

#### Overall objective

Empower Europe through an integrated ecosystem of world-class and accessible national and pan-European Rls, which help covering the continuum of needs from fundamental knowledge creation to technology deployment and support the implementation of Open Science policies as well as European technology leadership.

#### Key priorities (1)

- Consolidate existing capacities and develop new RIs to support scientific breakthroughs and respond to new challenges, notably in the field of health and for the twin transition;
- Provide ERA with an effective and sustainable RIs landscape, which will make it increasingly attractive for researchers and talents from all over the world.
- Upsurge resilience of RIs, particularly in the context of recovery from COVID-19 pandemic and the energy crisis;
- Contribute to Open science & data policies through a trusted virtual environment (European Open Science Cloud - EOSC)
- Offer high-speed connectivity to researchers (GEANT).

#### Key priorities (2)

- Address global environmental, social and economic challenges, in line with the renewed ERA;
- Contribute to local and regional development by supporting, inter alia, the implementation of Smart Specialisation Strategies;
- Develop cutting-edge technologies for RIs and foster innovation;
- Reinforce the international dimension of European Rls.

#### **Destinations**

> INFRADEV: Developing, consolidating and optimising European RIs landscape, maintaining global leadership

➤ INFRASERV: RI services to support health research, accelerate the green and digital transformation, and advance frontier knowledge

> INFRATECH: Next generation of scientific instrumentation, tools and methods and advanced digital solutions

> INFRAEOSC: Enabling an operational, open and FAIR EOSC ecosystem

> **INFRANET:** Network connectivity - enabler for collaboration without boundaries

#### Main novelties

- Preparation of common strategies for future development of RIs technologies and services within broad RIs communities;
- Co-Fund action for access;
- Greening the research infrastructures technologies;
- Advancing the challenge-driven approach complementary to the bottom-up, excellence-driven approach.

#### In a nutshell

- > 5 Destinations: packages of actions contributing to specific objectives with expected impacts
- > 7 calls: 4 calls in 2023 (deadline: 09/03/2023), and 3 calls in 2024 (deadline: 12/03/2024)
- > 27 topics
- > Other actions:
  - 5 grants for identified beneficiaries: ERIC monitoring, EOSC monitoring, 2 presidency events, enhanced depositing services;
  - 1 SGA to the FPA for Research and Education Networks;
  - External expertise: reviewers; individual experts; ERICs evaluators.

~654 M€ total budget: ~320 M€ on topics/actions 2023, ~334 M€ on topics/actions 2024









# RESEARCH & INNOVATION PROGRAMME

2021 - 2027

RESEARCH INFRASTRUCTURES

#### **ANDREAS HOLTEL**

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#### HORIZON-INFRA-2023-DEV-01-01:

# Concept development for a research infrastructure to manage, integrate and sustain large medical cohorts









#### TYPE OF ACTION

 Research and Innovation Action (RIA)

#### **BUDGET**

- Total indicative budget for the topic: EUR 3 million
- Expected EU
   contribution per
   project: EUR 1 3
   million

#### **OTHER CONDITIONS**

- Indicative number of projects expected to be funded: 1
- Eligible costs for lump sum reimbursement

- Call opening:7 December 2022(tbc)
- Deadline:9 March 2023



# Concept development for a research infrastructure to manage, integrate and sustain large medical cohorts

#### **Context:**

 Numerous medical cohort studies both at national and EU level require major resource investments to be set up, mature and serve research queries over long period of times. The research potential of sufficiently compatible cohorts can be scaled up through harmonisation and integration of their data sets. A research infrastructure should ensure sustainability of cohorts, provide the technical platform for integrated data analysis and ensure appropriate data access governance.

#### **Expected Outcomes:**

- Support planning and decision making at national and EU level for a future research infrastructure to manage, integrate and sustain large medical cohort studies;
- Facilitate long-term availability of data and samples of large medical cohort studies;
- Strengthen and integrate existing capacities in the field;
- Make available new services and access opportunities to better tackle medical challenges.

# Concept development for a research infrastructure to manage, integrate and sustain large medical cohorts

#### Scope:

- Support the development of new concepts for a research infrastructure (RI) at European level to manage, integrate and sustain large medical cohort studies;
- Expanding the scope of already existing infrastructures and/or integrate existing pan-European and national capacities should be seen as a first option;
- Exploitation of past investments by EU or other EU funders in medical cohorts by enabling upscaling, cross-cohorts queries and long-term availability of data and tools;
- Tackle technical and conceptual feasibility of an effective RI service offer at EU level;
- Piloting harmonization of few European strategic cohorts for long-term data use possible, synergies to be sought with EU-funded trials & cohort network projects in Pandemic Preparedness and Response research (HORIZON-HLTH-2023-DISEASE-03-05).







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# THE EU RESEARCH & INNOVATION PROGRAMME

2021 - 2027

RESEARCH INFRASTRUCTURES

#### **DOMINIK SOBCZAK**

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#### HORIZON-INFRA-2023-DEV-01-02:

# Early phase implementation of ESFRI Projects which entered the ESFRI Roadmap in 2018









#### TYPE OF ACTION

 Coordination and Support Action (CSA)



- Total indicative budget for the topic: EUR 7.50 million
- Expected EU contribution per project: EUR 1.0-1.5 million

#### **OTHER CONDITIONS**

 Indicative number of projects expected to be funded: 5

- Call opening:7 December 2022(tbc)
- Deadline:9 March 2023



# Early phase implementation of ESFRI Projects which entered the ESFRI Roadmap in 2018

#### **Context:**

 New RI initiatives included on the ESFRI Roadmap have 10 years to reach the implementation phase. This call aims to facilitate this process by providing support to overcome the challenges and bottlenecks remaining after the Preparatory Phase. ESFRI Projects eligible under this call are: DiSSCo, EHRI, eLTER, EU-IBISBA and METROFOOD-RI.

#### **Expected Outcomes:**

 Additional RI capacities in Europe; Solid MS/AC engagement in the five RIs leading to their full implementation.

#### Scope:

 Addressing the remaining challenges and bottlenecks to implementation, in particular related to: sufficiently broad membership, national commitments, securing funding for investments and operation, setting up governance structure and legal entity, ICT and data management solutions, access policies and user strategies, service offer and broadening user communities, staff and procurement, etc.

#### HORIZON-INFRA-2023-DEV-01-03:

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









#### TYPE OF ACTION

 Research and Innovation Action (RIA)



- Total indicative budget for the topic: EUR 40 million
- Expected EU contribution per project: EUR 3.0-4.0 million (80% funding rate)

#### **OTHER CONDITIONS**

 Indicative number of projects expected to be funded: 10

- Call opening:7 December 2022(tbc)
- Deadline:9 March 2023



# Consolidation of the RI landscape – Individual support for evolution and long-term sustainability of pan-European RIs

#### **Context:**

Target: ESFRI Landmarks and other ERICs to support their further development and sustainability.

#### **Expected Outcomes:**

• Stronger European RI landscape; New services available to wider user community; increased capacity to address EU policy priorities and/or support industry; Reduction of environmental impacts & optimisation of resource and energy consumption; increased long-term sustainability.

#### Scope:

- Activities aimed at ensuring long-term sustainability (e.g. enlargement of membership & broadening participation, international cooperation, revision of business/funding plan, development of RI staff, structuring and strengthening of national nodes).
- Recovery from COVID-19 consequences (e.g. extension of remote and virtual access).
- Evolution / development of the RIs (e.g. fill gaps in the RI landscape, addressing new challenges, serving new user communities, increasing and improving service capacity and/or integrating new resources/facilities).
- Specific attention: greening of RI technologies and methodologies, fostering innovation potential.

#### **HORIZON-INFRA-2023-DEV-01-04:**

# Consolidation of the RI landscape – development of complementarities, synergies and/or integration between a set of pan-European RIs









#### **TYPE OF ACTION**

 Research and Innovation Action (RIA)

#### **BUDGET**

- Total indicative budget for the topic: EUR 20 million
- Expected EU contribution per project: EUR 2.0-5.0 million

#### **OTHER CONDITIONS**

 Indicative number of projects expected to be funded: 5

- Call opening:7 December 2022 (tbc)
- Deadline:9 March 2023



# Consolidation of the RI landscape – development of complementarities, synergies and/or integration between a set of pan-European RIs

#### **Context:**

Consortia must include at least 2 ESFRI Landmarks and/or other ERICs.

#### **Expected Outcomes:**

- Stronger European RI landscape; New services available to wider user community; increased capacity to address EU policy priorities and/or support industry; Reduction of environmental impacts & optimisation of resource and energy consumption; increased long-term sustainability.
- Increasing collaboration among European RIs and efficiency of RI operation.

#### Scope:

- Operational integration: development of complementarities and/or synergies (e.g. service level agreements for the sharing of horizontal/common services/tools), sustainable and long-term integration of services and resources (e.g. common horizontal services, joint scientific services), joint staff development programmes (e.g. staff exchanges among the participating RIs).
- Exploring merger between infrastructures: developing the concept of the merged infrastructure in all its dimensions, including governance, legal form and operation, and define the operational steps and the financial forecast for the actual merging process.

#### HORIZON-INFRA-2023-DEV-01-05:

# Preparation of common strategies for future development of RI technologies and services within broad RI communities









#### TYPE OF ACTION

 Coordination and Support Action (CSA)

#### **BUDGET**

- Total indicative budget for the topic: EUR 12.5 million
- Expected EU contribution per project: EUR 1.5-2.5 million

#### **OTHER CONDITIONS**

 Indicative number of projects expected to be funded: 5

- Call opening:7 December 2022 (tbc)
- Deadline:9 March 2023



# Preparation of common strategies for future development of RI technologies and services within broad RI communities

#### **Context:**

• Fostering a more coherent and coordinated development of the RI landscape in Europe requires stronger collaboration of RIs to identify future needs, technologies and service gaps.

#### **Expected Outcomes:**

 More effective RI landscape in Europe; Increased capacity of European RIs to respond to emerging needs; More comprehensive analysis of RI services available to European scientists; Analysis of technology needs and service gaps in European RIs; Common long-term strategies for development of technologies and services; Better integration of the RI communities.

#### Scope:

- Analysis of long-term scientific developments and trends in wide scientific domains and how to enhance research capacities to support them; Identification of future RI needs for technology or innovation, as well as service gaps; Definition of common plans or roadmaps for future RI technology and services.
- Thematic consortia of research infrastructures in close collaboration with and involvement of ESFRI clusters and related research infrastructures; development of synergies and complementarities with the other projects under this topic; engagement with stakeholders.





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PATRICIA POSTIGO MCLAUGHLIN

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#### HORIZON-INFRA-2023-DEV-01-06:

# Strengthen the bilateral cooperation on research infrastructures with Latin America









#### **TYPE OF ACTION**

 Coordination and Support Action (CSA)

#### **BUDGET**

- Total indicative budget for the topic: EUR 3,75 million
- Expected EU contribution per project: EUR 0,75 1,5 million

#### **OTHER CONDITIONS**

 Indicative number of projects expected to be funded: 3

- Call opening:7 December 2022(tbc)
- Deadline:9 March 2023



### Strengthen the bilateral cooperation on research infrastructures with Latin America

#### **Context**

• The EU-CELAC dialogue includes a RI working group. This group, through H2020 grant RESINFRA, has identified some areas mature for inter-regional collaboration: energy, health, biodiversity and climate change, food security and communication technologies.

#### **Expected Outcomes**

 General RI policy coordination / Establishment of specific collaborations amongst laboratories in both regions, aimed at the long term.

#### Scope

- Policy coordination (estimated 0,75m). Aimed at improving framework conditions for RI collaboration between EU and CELAC. Exchange of best practices via workshops, study visits, staff exchanges, or training programmes.
- Cooperation in strategic areas (1m -1,5m, extra eligibility criteria). Aimed at enhancing RI performance and impact in both regions; such as joint initiatives in management, developing new services (in particular remote access), sharing data or supporting reciprocal access.

#### **HORIZON-INFRA-2023-DEV-01-07:**

# Strengthening the international dimension of ESFRI and/or ERIC research infrastructures









#### **TYPE OF ACTION**

 Coordination and Support Action (CSA)

#### **BUDGET**

- Total indicative budget for the topic: EUR 7,8 million
- Expected EU
   contribution per
   project: EUR 1 1,5
   million

#### **OTHER CONDITIONS**

 Indicative number of projects expected to be funded: 5

- Call opening:7 December 2022(tbc)
- Deadline:9 March 2023



# Strengthening the international dimension of ESFRI and/or ERIC research infrastructures

#### **Context:**

 Societal challenges are global and require global collaboration. A new type of international RI collaboration aimed at pooling environmental observation data.

#### **Expected Outcomes:**

Strengthening position of European RIs; increasing opportunities for developing GRIs; improving ability to address global challenges;

#### Scope:

- The aim is to promote the cooperation of pan-European RIs with their international counterparts, and/or to support ESFRI and ERIC RIs to engage in global research infrastructure initiatives.
- Proposals should describe shared objectives and governance, building on the criteria developed by the G7's GSO. Proposals will look at long-term activities, access/data sharing, reciprocal use, pilot access initiatives... Proposals will also deal with exchanging best practices (harmonization of tests, standards, data handling...)









# THE EU RESEARCH & INNOVATION PROGRAMME

2021 - 2027

#### RESEARCH INFRASTRUCTURES

#### **RENE MARTINS**

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#### HORIZON-INFRA-2023-DEV-01-08:

# Preparatory phase of new ESFRI research infrastructure projects









#### TYPE OF ACTION

 Coordination and Support Action (CSA)

#### **BUDGET**

- Total indicative budget for the topic: EUR 3 million
- Expected EU contribution per project: Around EUR 3 million

#### **OTHER CONDITIONS**

 Indicative number of projects expected to be funded: 1

- Call opening:7 December 2022(tbc)
- Deadline:9 March 2023



# HORIZON-INFRA-2023-DEV-01-08: Preparatory phase of new ESFRI research infrastructure projects

#### **Context:**

 Support for new RI projects on the ESFRI Roadmap 2021, which have never been supported before for their preparatory phase.

#### **Expected Outcomes:**

- Structuring effect on ERA.
- Solid ground for decision making on new infrastructures is available to MS/ACs.
- Consistent RI ecosystem through synergies with new and existing RIs and TIs.

#### Scope:

- Involve all the stakeholders necessary to move the project forward.
- Tackle all key questions concerning legal, financial, and technical issues leading to the
  establishment of a new research infrastructure and ensuring commitment of MS/ACs to
  their longterm operation and use in all fields of science.



# QUESTIONS AND ANSWERS



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### VIRTUAL COFFEE BREAK

We will be back soon





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#### RESEARCH INFRASTRUCTURES

#### **AGNES ROBIN**

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#### HORIZON-INFRA-2023-SERV-01-01:

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









#### TYPE OF ACTION

 Research and Innovation Action (RIA)

#### **BUDGET**

- Total indicative budget for the topic: EUR 105 million
- Expected EU contribution per project: EUR 8 14,5 million

#### **OTHER CONDITIONS**

 Indicative number of projects expected to be funded: 8

- Call opening:7 December 2022(tbc)
- Deadline:9 March 2023



# Research infrastructure services to enable R&I addressing main challenges and EU priorities (all areas)

**Context:** complexity and urgency of the socio-economic and environmental transition requires **interdisciplinary** approaches and **challenge-driven** provision of customised services able to accelerate the pace of the research cycle and the delivery of solutions.

#### **Expected Outcome:**

 provision of innovative, customised and efficient RI services enhancing and increasing society's long-term and consistent problem-solving capacity and evidence-based policy making. + specific outcome per area.

#### **Scope** (please refer to the Work Programme for full information):

- transnational access (on-site or remote) and/or virtual access to integrated and customised RI services for challenge-driven R&I in each of the areas, offered by a wide range of complementary and interdisciplinary top level research infrastructures.(also affiliated entities, third parties, or external providers of purchased services);
- ad hoc users' training and scientific and technical support; <u>limited</u> development of new services; data management, interoperability, EOSC, global standards...
- + specific scope per area.



## Area: RI services to enable research linking environmental factors to human health

#### **Expected Outcome:**

- better risk assessment tools and data evidence to anticipate and mitigate negative environmental implications on human health;
- evidence to inform policy making and public health bodies with respect to assessment and management of environmental risks for human health;
- wider access to specialised RI services to underpin the competitiveness of the European industry and of SMEs active in the field of risk assessment and management of environmental impact on human health.

#### **Scope** (please refer to the Work Programme for full information):

• integrate and give access to a wide range of **monitoring and experimental RI** services to investigate the **effect of environmental exposure**, e.g. collection of samples and data on environmental risk factors, high throughput measurements to quantify substances of concern, access to advanced bioinformatics tools, <u>integration and access to diverse data\*</u> types including human omics, population cohort, environmental factors, etc..



<sup>\*</sup> in line with **One-Health** approach

#### Area: RI services for improving clinical research in the paediatric area

#### **Expected Outcome:**

- advancement of paediatric medicines and other therapeutic and diagnostic approaches for this population group to markets and towards clinical use;
- accelerated availability of solutions and products to paediatric patients in need;
- wider access to rationally designed RI services across Europe to underpin the competitiveness of the European industry and of biotech SMEs developing paediatric medicines and treatment and diagnostic devices;
- joining forces of research infrastructures and paediatric competence networks in EU Member States and Associated Countries, to facilitate paediatric research in the context of pertinent <u>EU regulatory environment</u>;
- availability of innovative tools to conduct paediatric clinical trials, for the re-use of population and historical data, and for enhanced data sharing across actors at different care levels and across regions in Europe.

Scope: integrate and give access to RI services to enable and accelerate R&I towards innovative biomedical products and therapies for children, including new-borns. As paediatric research is often faced with locally dispersed case incidences, wider geographical outreach and international collaboration beyond Europe is strongly encouraged.

### **Area: RI services for climate-change risks**

#### **Expected Outcome:**

- enhanced and integrated cross-disciplinary RI capacities addressing climate relatedrisks in Europe and in particular support relevant R&I objectives of <u>Horizon Europe</u> <u>clusters</u> 5 and 6, or of the <u>mission on climate adaptation</u>;
- harmonisation of data policies and management of IPRs and ethical issues;
   interoperability across disciplines and with risk management platforms;
- researchers in the environment and climate change able to optimally exploit the research infrastructure services relevant for their research.

#### **Scope** (please refer to the Work Programme for full information):

 access to an integrated wide range of RI services to support R&I addressing climaterelated risks in Europe, including their social dimension. Prediction, mitigation and adaptation measures require an integrated and strongly cross-disciplinary approach and access to very diverse research RIs such as observatories, experimental facilities, modelling capacities and data infrastructures.

## Area: RI services for sustainable Arctic/polar regions

#### **Expected Outcome:**

- enabling/facilitating science for understanding and predicting key processes in polar regions in the context of climate change;
- enhanced and further integrated RI capacities in **polar regions** in support of <u>EU Arctic</u> <u>Policy, European Green Deal and international climate initiatives</u>.

#### **Scope** (please refer to the Work Programme for full information):

 building on past integration of access to terrestrial stations, fixed and mobile observing platforms, research vessels operating in Polar Regions including icebreakers, core\* repositories and data infrastructures, proposals should further integrate, customise or combine services and adapt modalities of access to facilitate interdisciplinary research on complex processes in Polar Regions



## Area: RI services for healthy ocean and waters

#### **Expected Outcome:**

- enabling/facilitating R&I for clean oceans and waters, as well as for climate change;
- enhanced and further integrated RI capacities in support of the development phase of the <u>Mission "Restore our Ocean and waters by 2030"</u>, European Green Deal and international climate initiatives.

#### **Scope** (please refer to the Work Programme for full information):

 building on past integration of access to facilities such as marine and freshwater experimental facilities, analytical platforms, fixed and mobile observing platforms, research vessels, proposals should further integrate, customise or combine services and adapt modalities of access to facilitate the development phase of the Mission Restore our Ocean and waters by 2030 and relevant research and innovation activities for clean environment and for climate actions.

# Area: RI services for sustainable aquaculture, fisheries and blue economy

#### **Expected Outcome:**

- enabling/facilitating R&I for sustainable aquaculture, fisheries and the blue economy;
- enhanced and further integrated RI capacities in support of the <u>Common Fisheries Policy</u>, the <u>Farm to Fork Strategy</u>, the <u>sustainable blue economy</u> and the <u>European Green Deal</u>.

#### **Scope** (please refer to the Work Programme for full information):

building on past integration of access to facilities such as aquaculture experimental
platforms, marine biological resources and analytical platforms, relevant marine data and
observing platforms, proposals should further integrate, customise or combine services
and adapt modalities of access to facilitate interdisciplinary research in support of the
Common Fisheries Policy, the Farm to Fork Strategy and the Sustainable Blue Economy
Strategy.



## Area: RI services for renewable energy technologies and systems

#### **Expected Outcome:**

- enabling R&I to increase energy efficiency and foster a wider use of renewable energy, supporting the objective of the <u>European Green Deal</u> of a climate neutrality by 2050, the <u>'Fit</u> <u>for 55' energy targets</u> and the <u>SET-Plan</u> action on integrating renewable technologies in the energy systems;
- wider access for academic and industrial researchers to enhanced and further integrated RI services in support of the green transition.

#### **Scope** (please refer to the Work Programme for full information):

• Building on past experiences, further integrate services provided by key RI in the fields of solar power, hydrogen, biofuels, offshore renewable energy (ORE) and integrated grids, including energy storage. Provided broader access at EU level to services for R&D and testing of renewable energy systems including grid integration, to support the European Green Deal goal of a climate neutrality by 2050 and the 'Fit for 55' energy targets. Services can also be customised and combined for an integrated and interdisciplinary support to R&I, along the entire value chain, from materials, technology development to applications.



# Area: RI services for innovative applications of nanoscience and nanotechnology

#### **Expected Outcome:**

- enabling R&I on innovative nanoscience and nanotechnology applications to support European scientific and industrial competitiveness, including on innovative solid state, biological and soft materials, needed for the green and digital transition:
- cross-fertilisation and transfer of knowledge & technologies across diverse scientific disciplines and material classes;
- wider access for academic and industrial researchers to enhanced and further integrated RI services for fostering the application of nanoscience and nanotechnology to address emerging socio-economic needs;
- enhanced competitiveness of European industry in the field through access to the broadest spectrum of advanced research tools;
- positioning the top-level research infrastructures in the field as reliable innovation partners for world-wide researchers and European innovators;
- enhanced safety of R&D activities on nanomaterials and their use, reducing possible health and environmental risks.

#### **Scope** (please refer to the Work Programme for full information):

• building on past integration of access to facilities such as experimental installations for micro- and nanofabrication, analytical and modelling/simulation facilities, etc., proposals should reach an higher and more interdisciplinary level of integration and offer access to a coherent and complementary set of services, customising and combining them when necessary, to support academic and industrial research teams. Safety issues of nanoparticles to be taken into account.

# Area: RI services to enhance the EU capacity for the development of semiconductors

#### **Expected Outcome:**

- enabling research and innovation in support to the competitiveness and autonomy of the European semiconductor industry and to the <u>European Chips Act</u>;
- wider access for academic and industrial researchers to enhanced and further integrated RI services in the field;
- transfer of knowledge and technologies between academic-research institutions and the semiconductor industry in order to advance further the digital transition.

#### **Scope** (please refer to the Work Programme for full information):

• building on past integration of access to facilities such as (e.g, nano-electronics RI, printing facilities for electronics, ...) integrate and give access to a wider and integrated catalogue of complementary RI services to enable R&D on leading-edge semiconductors and new innovative way to produce them, in support of the new European Chips Act.

## Area: RI services for shaping the future generation society

#### **Expected Outcome:**

- scientific evidence for the successful implementation of <u>Next Generation EU</u>, including the societal dimension of the recovery from the crisis as well as the ongoing economic, social and environmental transformations;
- insight on the ways different societal groups, including the young people, can get actively involved and contribute to the development of <u>EU missions</u>;
- contribution to the definition and support to the development of the <u>EU Youth strategy</u>;
- provision of evidence on specific patterns and skills to foster active inclusion of various societal groups as active citizens and actors of positive change.

#### **Scope** (please refer to the Work Programme for full information):

access to an integrated, wide range of RI services providing insights into the transformation towards
a future European society in line with the goals envisaged by Next Generation EU. RIs, such as
relevant surveys and social data archives, should make available and integrate existing data on
the perceptions of various societal groups of the main problems and challenges facing the EU in the
next decades to help the implementation of the Next Generation EU priorities and contribute to the
dialogue on the EU Youth strategy.

# HORIZON-INFRA-2023-SERV-01-02: Research infrastructure services advancing frontier knowledge





 Research and Innovation Action (RIA)



#### **BUDGET**

- Total indicative budget for the topic: EUR 25,1 million
- Expected EU contribution per project: EUR 8 14,5 million



#### **OTHER CONDITIONS**

 Indicative number of projects expected to be funded: 2



#### **TIMING**

- Call opening:7 December 2022(tbc)
- Deadline:9 March 2023



#### Research infrastructure services advancing frontier knowledge

**Context:** research infrastructures are key players in the generation of **fundamental knowledge** and drivers of **scientific excellence** in Europe, enabling the advancement of **frontier knowledge** in areas complementary to those addressed through a challenge-driven approach.

#### **Expected Outcomes:**

- 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 made available to a <u>wider user community</u>;
- improved and harmonised RI services and broader use of RI resources across the EU and Associated Countries deriving from the exploitation of <u>synergies and complementarities</u>;
- a <u>new generation of researchers</u> trained to optimally exploit all the essential tools for their research;
- <u>cross-disciplinary fertilisations</u> 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 <u>FAIR data principle</u>, of the continuous flow of data collected or produced by research infrastructures.

**Scope:** RI service provision to enable curiosity driven research in 3 domains: **Biosphere**: terrestrial biodiversity & ecosystems, including forest; **Astronomy & Astroparticle physics**; **Arts & Humanities**.



## HORIZON-INFRA-2023-SERV-01-03:

# Research infrastructure services advancing frontier knowledge: co-fund pilots with pan-European RIs and/or national RIs









#### **TYPE OF ACTION**

COFUND

#### **BUDGET**

- Total indicative budget for the topic: EUR 12 million
- Expected EU contribution per project: EUR 2 5 million

#### **OTHER CONDITIONS**

 Indicative number of projects expected to be funded: 3

#### **TIMING**

- Call opening:7 December 2022(tbc)
- Deadline:9 March 2023



# Research infrastructure services advancing frontier knowledge: co-fund pilots with pan-European RIs and/or national RIs

#### **Context:**

 research infrastructures are key players in the generation of fundamental knowledge and drivers of scientific excellence in Europe, enabling the advancement of frontier knowledge in areas complementary to those addressed through a challenge-driven approach.

#### **Expected Outcome:**

- the access programmes to research infrastructures in the EU and Associated Countries enhance their openness at European level, embracing the <u>support</u>, with national funding, to <u>a share of trans-national users in their normal operation</u>;
- same as HORIZON-INFRA-2023-SERV-01-02: Research infrastructure services advancing frontier knowledge.

#### Scope:

 piloting the co-funding, with MS and AC, of programmes of access to research infrastructures at EU level. RI service provision to enable curiosity driven interdisciplinary research in a chosen area.

#### Additional features of co-fund pilots

- Funding rate: 70% of the eligible costs. Proposals must explain how the EU funding will be complemented by other national or international funding sources;
- Access programme to RIs may be implemented <u>either directly</u> by the consortium, with the provision of trans-national / virtual access by beneficiaries, third parties or external providers of purchased services, <u>or</u> through the mechanism of "<u>financial support to third parties</u>" (*cascade granting*);
- national or international access programme managers, including the legal entities of distributed European RI, are expected to be <u>core partners</u> in the consortia;
- Proposals should include the list of services/installations made available by the action for transnational or virtual access and the estimated amounts of units of access made available for users.
- In case of financial support to third parties:
  - ✓ <u>Description of the different types of research infrastructure services</u>, (and ~ quantity of access), that are made available for trans-national or virtual access by the co-funded calls, including a <u>list of examples of existing installations</u> (e.g. those from beneficiaries/affiliated entities);
  - ✓ applicants to access calls: users together with the research infrastructures they need, including nodes of distributed ESFRI or ERIC infrastructures;
  - ✓ if beneficiaries/affiliated entities are recipients of the financial support, proposals must explain how they will ensure that these entities are <u>not</u> involved in the selection procedure of the calls, in order to avoid conflicts of interest and maintain confidentiality.









2021 - 2027

RESEARCH INFRASTRUCTURES

**JOERG NIEHOFF** 

Research Infrastructures Info Day

6 December 2022



## **Programme co-fund actions**

Definition: "A programme of activities established or implemented by legal entities managing or funding R&I programmes, other than EU funding bodies. Such a programme of activities may support: networking and coordination; research; innovation; pilot actions; innovation and market deployment; training and mobility; awareness raising and communication; and dissemination and exploitation. It may also provide any relevant financial support, such as grants, prizes and procurement, as well as Horizon Europe blended finance12 or a combination thereof. The actions may be implemented by the beneficiaries directly or by providing financial support to third parties."

#### In the case of HORIZON-INFRA-2023-SERV-01-03:

- Activity: provision of trans-national access;
- Co-funding in order to pool the necessary financial resources to implement joint calls for the provision of access to research infrastructures;
- Financial support to third parties: allowed, but can only be provided in the form of grants;
- Research infrastructures which are beneficiaries/affiliated entities of the consortia awarded
  may exceptionally also be recipients of financial support to third parties.

## **Programme co-fund actions**

- The grant from Horizon Europe reimburses part of the eligible costs (70% in the case of INFRA-2023-SERV-01-03);
- Consortia can only report the direct costs eligible under Horizon Europe;
- Financial support to third parties (grant amounts paid to the third party (end-beneficiary) is an eligible direct costs, provided that the call has been implemented in line with the applicable provisions for financial support to third parties;
- Those costs can be declared ONLY by the beneficiary providing the financial support;
- The 25% flat for indirect costs does not apply to financial support to third parties;
- The non-reimbursed eligible costs (30% in the case of INFRA-2023-SERV-01-03) represent the co-funding from the consortium;
- The grant reimburses x% of the eligible reported costs of the consortium (within the ceiling defined in the GA). The distribution of the Union contribution among beneficiaries is up to the consortium, and should typically be agreed in the consortium agreement to manage expectations among partners, in particular if not equally distributed.

# Financial Support to third parties I ("Cascading grants")

 Please refer to the relevant parts of General Annexes of the Horizon Europe Work Programme 2023/4 and the annotated Model Grant Agreement!!!

> https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/aga\_en.pdf

- For the costs to be eligible under the action, they must be compliant with Article 6.2.D.1 of the HE MGA, which requires in particular that the beneficiaries set and respect the criteria and procedures for giving financial support;
- Considering that these criteria and procedures should respond to the objectives set out in the call conditions, it is for the consortium to elaborate on them and to implement them.
   This includes ensuring that the recipients fulfil the conditions, and paying the recipients;
- All calls for third parties and all calls that are implemented by third parties must be published on the Funding & Tenders Portal, and on the beneficiaries' websites'.

## Financial Support to third parties II

- Proposal must detail the conditions which will apply for providing financial support to third parties;
- Call conditions must ensure objective and transparent selection procedures and include at least the following (for grants or similar):
  - i. the maximum amount of financial support for each third party ('recipient'); this amount may not exceed the amount set out in the Data Sheet (see Point 3)30 or otherwise agreed with the granting authority
  - ii. the criteria for calculating the exact amount of the financial support
  - iii. the different types of activity that qualify for financial support, on the basis of a closed list
  - iv. the persons or categories of persons that will be supported and
  - v. the criteria and procedures for giving financial support



## Financial Support to third parties III

- The consortium has to describe in their proposal who amongst themselves will be responsible for organising the calls for financial support to third parties;
- It is up to the consortium to define the template for the agreements between the HE beneficiaries and third parties receiving financial support;
- Beneficiaries/affiliated entities of the consortia awarded may exceptionally also be recipients of financial support to third parties:
- Proposals must explain how they will ensure that such beneficiaries/affiliated entities are not involved in the selection procedure of the calls, in order to avoid conflicts of interest and maintain confidentiality:
- The HE beneficiaries have to provide a commitment on the availability of funds when submitting the results of the calls to the Commission;
- The costs reported have to fulfil the general conditions for actual costs to be eligible (i.e. incurred during the action duration, necessary, linked to the action, etc
   → the underlying projects / financial support to third parties has to be finalised
  - and paid within the duration of the HEU GA.



# QUESTIONS AND ANSWERS



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#HorizonEU



#### THE EU RESEARCH & INNOVATION PROGRAMME

2021 - 2027

#### RESEARCH INFRASTRUCTURES

#### **AGNES ROBIN**

Research Infrastructures Info Day 6 December 2022

Research and Innovation

## **HORIZON-INFRA-2023-TECH-01:**

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









#### **TYPE OF ACTION**

 Research and Innovation Action (RIA)

#### **BUDGET**

- Total indicative budget for the topic: EUR 25 million
- Expected EU contribution per project: around EUR 5 million

#### **OTHER CONDITIONS**

 Indicative number of projects expected to be funded: 5

#### **TIMING**

- Call opening:7 December 2022 (tbc)
- Deadline:9 March 2023



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

Context: European Green Deal priorities as well as issue of rising energy prices

#### **Expected Outcomes:**

- 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 European research infrastructures.

#### Scope:

- delivering innovative technologies and solutions which reduce the environmental and climate footprint of RIs through the full life cycle of research infrastructures
- identifying common methodologies, among the concerned RIs, to assess environmental impact and strategies to reduce it
- R&I activities, including technology validation and prototyping
- training of RI staff for the operation and use of new solutions
- At least 3 world-class RIs: ESFRI RIs, ERICs and/or other world-class Research Infrastructures of European interest



# QUESTIONS AND ANSWERS



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# VIRTUAL LUNCH BREAK

We continue the agenda at 14:00