Research Infrastructures under Horizon Europe

Horizon Europe launch in Brazil
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European Commission

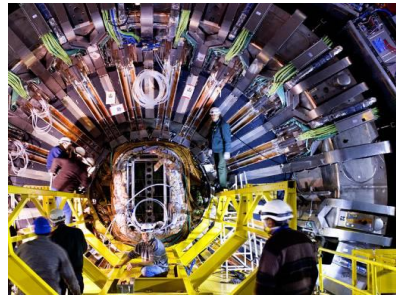# Research Infrastructures

Research infrastructures are facilities providing resources and services for the research communities to conduct research and foster innovation (single site, distributed, virtual). They provide access to external users.
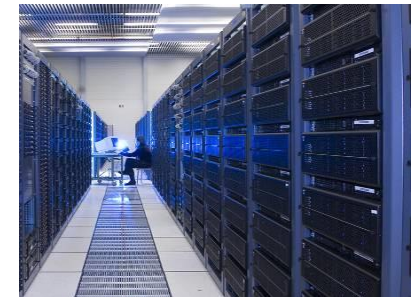
Knowledge-related facilities

Major scientific equipments

ICT infrastructures

e.g.: archives, collections, data infrastructures, telescopes, research vessels, FEL, computing systems, communication networks

Research Infrastructures contribute to:

- ✓ Extend the frontiers of knowledge
- ✓ Train the next generation of top researchers
- ✓ Exchange and transmit knowledge
- ✓ Support industrial innovation

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Horizon Europe structure

Pillar 1
Excellent Science

European Research Council

Marie Skłodowska-Curie Actions

Research Infrastructures
EUR 2,4 billion

Pillar 2
Global Challenges and European Industrial Competitiveness

Clusters
- Health
- Culture, Creativity and Inclusive Society
- Civil Security for Society
- Digital, Industry and Space
- Climate, Energy and Mobility
- 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

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HE RI WP 2021-2022

➢ **5 Destinations:** packages of actions contributing to specific objectives and expected impacts

➢ **10 calls:** six 2021 calls - *deadlines: **23/9/2021** (4 calls), 2/9/2021 and 20/1/2022* and four 2022 calls - *deadlines: **20/4/2022** (3 calls) and 21/9/2022*

➢ **29 topics:** 22 in 2021 and 7 in 2022.

➢ **Other actions**:

  ▪ **2 actions implemented without calls for proposal to address public health emergency** (art.195b) on COVID-19 **(early publication)**

  ▪ **2 GIB**: ICRI 2022 Conference, FR Presidency event on ESFRI 20 year anniversary

  ▪ **1 public procurement** for the EOSC core

  ▪ **2 SGAs** for the Research and Education Networks FPA

  ▪ **External expertise**: reviewers; individual experts; ERICs evaluators

➢ **607.7 M€ total budget**: 317.5 M€ on topics/actions 2021, 290.2 M€ on topics/actions 2022

➢ Section **Specific features for RIs**: conditions and requirements on TA and VA provision

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RIs in HE – Five destinations

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

➤ **INFRAEOSC :**   Enabling an operational, open and FAIR EOSC ecosystem

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

➤ **INFRATECH :**   Next generation of scientific instruments, tools and methods and advanced digital solutions

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

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2021 Topics under Destination INFRASERV

- ➤ **Challenge-driven topics:** *RI services enabling research addressing specific challenges*
- ➤ **Curiosity-driven topics:** *RI services enabling research in broad scientific domains*

2021 call	Research Infrastructures Work Programme
	Challenge-driven provision
	- RI services to support research addressing cancer
	- RI services for a sustainable and resilient agriculture and agro-ecological transitions
	- RI services for responding to climate-related risks on the environment
	- RI services enabling the development of materials for a circular economy
	- RI services for sustainable and inclusive Global Value Chain and Europe recovery from socio-economic crises
	- Enabling RI services for better use of imaging data to address challenges in thematic research areas
	Curiosity-driven provision
	- RI services advancing frontier knowledge *(Geosphere, Biosphere, Particle and Nuclear Physics)*

Common features of INFRASERV 2021 topics

- support the **provision by RIs of trans-national and/or virtual access to researchers** as well as **training** for using the infrastructures, and activities to **improve, customise and combine the services** the infrastructures provide, so as to facilitate and integrate the access procedures and to further **develop the remote or virtual provision** of services. ;

- adhere to the guidelines and principles of the **European Charter for Access to RIs**;

- duly address **data management** (and related ethics issues), interoperability, as well as the **connection of digital services** (e.g. data services) **to the EOSC**;

- make available to researchers the **widest and most comprehensive portfolio of RI services** which are relevant for the scope, involving, as beneficiaries or as third parties, the necessary interdisciplinary set of RIs of European interest that provide such services. The **inclusiveness** of the proposal will be taken into account in the Excellence score;

- outreach and engagement plan to actively advertise services to targeted research communities and, if applicable, to relevant industries, including SMEs

- comply with the conditions and requirements in the WP section "Specific features for RIs"

- **RIs from third countries** may be involved when appropriate, e.g. when they offer complementary or more advanced services than those available in Europe;

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Access provision: main features

➢ EU grants **support sets of RI for the provision of access** to researchers (academic and industrial)

➢ EU funds cover the **costs incurred by RIs to provide** access under the grant and **T&S of users** when they need to visit the RI

➢ The grant will **advertise the access offered**, and, for TA only, open **calls for users** and **select** the best users applications through a selection panel

➢ Specific Provisions regulating TA and VA provision and eligibility of related costs (**art. 6.2.D.3, 6.2.D.4 of HE MGA,** and **art. 18 of MGA Annex V**)

➢ **Three ways to report TA and VA costs**: on the basis of unit cost, actual costs, a combination of the two.

➢ **Decision** authorizing the use of Trans-national and Virtual Access unit costs : **unit cost set up** in the proposal on the basis of **historical data** (2 years for TA, 1 year for VA)

Trans-national Access (TA)

➢ **'free of charge' provision of access to a research infrastructure to *selected* researchers or research teams usually working in a country other than the country where the RI is located. TA can be:**

- *in person ('hands-on'), to users visiting the infrastructure, e.g. access to a research vessel, or*

- *remote scientific services, no visit needed, e.g. performance of sample analysis , provision of reference materials, remote access to a high-performance computing facility*

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Virtual Access (VA)

➢ **provision of open and free access to digital resources and services needed for research, without selecting the users to whom access is provided:**

- *OPTIONAL: Objective eligibility criteria (e.g. affiliation to a research or academic institution) are defined for specific users to whom access will be provided under the project*

- *OPTIONAL: Information on the traceability of the users and the nature and quantity of access must be provided by the access providers*

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Other definitions

➢ **Installation**: a part or a service of a *research infrastructure* that could be used independently from the rest. A *research infrastructure* consists of one or more installations.

➢ **Access provider**: a beneficiary, a third party or a provider of purchased services that is in charge of providing access to one or more *research infrastructures* or *installations*, or part of them, as specified in Annex 1 to the grant agreement.

and, for <u>trans-national access</u> only:

➢ **User group**: a research team of one or more researchers, applying for access to the calls opened under the grant and to whom access to the *installation* is given under the grant.

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Third countries in access provision grants

➢ **TC organisations can participate in access provision grants, even as access providers** in particular when they offer complementary or more advanced services than those available in Europe, thus able to attract EU users *(but do not come alone)*

➢ **EU funding can be provided to third country beneficiaries if:**

  ➢ **They are included in the list of the third countries automatically eligible for funding in the Horizon Europe Programme Guide**

  ➢ **They are considered essential or, as mentioned in the WP:**

    ✓ *"Considering the Union's interest to make accessible to its researchers the most advanced research infrastructures, wherever they are in the world, legal entities established in Australia, Brazil, Canada, China, India, Japan, Mexico, New Zealand, Republic of Korea, Russia, Singapore and USA, which provide, under the grant, access to their research infrastructures to researchers from Member States and Associated Countries, are exceptionally eligible for funding from the Union under this topic"*

Trans-national Access eligibility conditions

➢ **A user group is eligible** for TA support under the grant when the majority of users **work in countries different from where the installation is located** (unless the access provider is an IO, the JRC, an ERIC or similar entities), and when it is also allowed to **disseminate the results** it generates under the project.

➢ **User groups** with a majority of users working in **third countries** can be supported on the condition that the access provided to these user groups is **limited to 20%** of the total amount of units of access provided under the *grant*,

  ▪ *a higher percentage can be foreseen in Annex I, if justified;*

➢ Additional rules for the selection of user groups can be requested in the call conditions

User eligibility for TA support

Users from third countries (i.e. working in third countries) are therefore eligible in the following two cases:

➢ they are part of a **EU/AC user group**, i.e. a user group with at least half of the users working in Member States or Associate countries.

➢ they are members of a **TC user group**, i.e. a user group with a majority of users working in a third country, and the **total quantity of access given under the grant to such user groups is within the 20%** of the total quantity of access provided under the grant

It is the country where the user works that must be used for the eligibility criteria, not the nationality. A user with a TC nationality but working in a MS or AC is not considered a TC user while an EU national working in a TC is considered as a TC user.

Some numbers

- ➢ **15 480 TA unique users** served so far under **H2020**
  - *10560 men*
  - *4920 women*
  - ***1430 from 68 third countries*** *(country of work, not including AC)*
    - *America 577 (**63 BR**), Asia 398, Eurasia 309, Africa 108, Oceania 41*

- ➢ **More than 3150 installations opened so far for access under H2020**
  - *2 800 for transnational access,*
  - *350 for virtual access*
  - ***96 from 12 third countries*** *(not including AC)*
    - *America 38, Eurasia 33, Africa 11, Asia 8, Oceania 6*

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www.rich2020.eu/tas_calls

RICH
Research Infrastructures Consortium for Horizon 2020

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Transnational & Virtual Access

The list hereunder includes all the on-going projects funded under FP7 and H2020 RI to open their research infrastructures to transnational/virtual researchers/users. These are the projects funded under the Integrating Activities part of the RI Work programme, some of the ESFRI projects (if access is granted to all researchers no matter if their country is member of the ESFRI RI) and some e-infrastructures (provided services are addressed to researchers and not to RIs or other e-infra).

For each project, a short description of the transnational/virtual activities is given as well as the deadline to submit a proposal to open call and a link to the project website and the TA&VA access webpage. The projects can be filtered by scientific domain and type of access (transnational or virtual).

More information about Transnational Access

RICH: TA & VA Users' Testimonies

Project Acronym

Domain

Engineering and Energy
Environment and Earth Sciences
Life sciences
Material Sciences & Analytical Facilities
Mathematics and Computer Sciences

Type of Access

Transnational

Status

Open

SORT ON DATE

CLEAR

SEARCH

61 RESULTS

Thank you

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