

Access to Research Infrastructures under Horizon 2020 and beyond

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Access to Research Infrastructures under Horizon 2020 and beyond

- ❖ Definition of Research Infrastructures in Horizon 2020
- ❖ Horizon 2020 – Framework Programme for Research and Innovation (2014-2020)
- ❖ Support to access provision: transnational access / virtual access
- ❖ Integrating activities: aim, beneficiaries, mandatory activities, advanced and starting communities, 3rd country participation
- ❖ Transnational access: access provider obligations, user eligibility conditions, 3rd country users
- ❖ Integrating activities: general provisions on data policy and on innovation policy
- ❖ Towards the H2020 Work Programme 2018-2020

Definition of Research Infrastructures in H2020

- ❖ Facilities, resources and services used by the scientific community for conducting research and innovation in their fields
- ❖ They include:
 - major scientific equipment or set of instruments;
 - knowledge-based resources such as collections, archives or scientific data;
 - e-infrastructures, such as data and computing systems, and communication networks;
 - and any other entities of a unique nature......essential to achieve excellence in research and innovation
- ❖ They can be “single-sited”, “distributed” or “virtual” and, when relevant, may be used beyond research and innovation, e.g. for education or public services

Horizon 2020 – Framework Programme for Research and Innovation (2014-2020)

Excellent Science

- European Research Council (ERC)
- Future and Emerging Technologies
- Marie Curie actions
- ***European Research Infrastructures (incl. e-infrastructures): 2.4 billion €***

Societal challenges

- Health, demographic change, wellbeing
- Food security, sustainable agriculture, marine - maritime research, bio-economy
- Secure, clean and efficient energy
- Smart, green, integrated transport
- Climate action, resource efficiency, raw materials
- Inclusive, innovative and reflective societies
- Secure societies
- Spreading excellence & Widening Participation
- Science with and for Society

Industrial leadership

- Leadership in enabling and industrial technologies (ICT, space, nanotechnologies, advanced materials and advanced manufacturing and processing, biotechnology)
- Access to risk finance
- Innovation in SMEs

Support to Access Provision

Transnational and virtual access are supported for three types of projects:

- ❖ ***Integrating Activities*** for both “Advanced Communities” and “Starting Communities”:
 - access provision is a mandatory component of the project;
 - access provision should be implemented in an integrated and coordinated way such as to improve the overall services available, at European level, to the research community
- ❖ ***Individual support*** to ESFRI and other world-class RI projects and ***Cluster projects***
- ❖ ***e-Infrastructures projects*** for the integration and consolidation of e-infrastructures platform (including GEANT)

Transnational access (TNA)

- ❖ ***Free of charge provision of access*** to a RI to *selected* (via a merit-based competitive procedure) researchers/research teams usually working in a country other than the country where the RI is located:
 - in person (“hands-on”), to users visiting the infrastructure, e.g. access to a research vessel or synchrotron beamlines;
 - remote scientific services, no visit needed, e.g. performance of sample analysis
- ❖ ***Third country users***: up to 20% of the access can be provided to user teams with a majority of users working in third countries

EU financial support to TNA will cover the access costs incurred by the access provider for the provision of access to the selected researchers as well as the travel & subsistence incurred to support the visits to the infrastructure of the researchers. The access costs charged will never include capital investments

Transnational access (TNA)

- ❖ First TNA activities funded under FP2 (“Large Installations Plan”, 1989-1992) *to support and facilitate access to large-scale scientific and technical facilities and installations of European interest*
- ❖ Initially access mainly to large & expensive facilities in the field of physics, nowadays access to RIs in all S&T fields (incl. humanities)
- ❖ ERA expert group report (2008): “the existence of and access to leading RIs is and will remain a key determinant of Europe’s competitiveness in both basic and applied research”
- ❖ Since FP6, the transnational access and/or service activities have become a vital part of the funding scheme “Integrating Activities” (IA)

Virtual access (VA)

- ❖ ***Free of charge provision of access*** to widely used resources needed for research that are openly and freely available through communication networks (e.g. databases available via Internet, or data deposition services)
 - No need for a competitive selection of users and therefore no need to set up a selection panel
 - No need to identify users either. However identification is possible when access provision is subject to specific requirements such as registration, authentication and/or authorisation of users (e.g. for access to sensitive data)
 - No need for users to visit the infrastructure to get access

EU financial support to VA will cover the reimbursement of the operating costs incurred by the RI for providing virtual access to resources (incl. S&T user support). The access costs charged will never include capital investments

Integrating Activities

- ❖ ***The aim*** is to bring together, integrate on European scale, and open up key national and regional RIs to all European researchers, from both academia and industry, ensuring their optimal use and joint development
- ❖ An Integrating Activity will mobilise ***a comprehensive consortium of several key RIs*** in a given field as well as other stakeholders (e.g. public authorities, technological partners, research institutions) ***from different Member States, Associated Countries and other third countries when appropriate***, in particular when they offer complementary or more advanced services than those available in Europe

Integrating Activities

An Integrating Activity (IA) shall ***mandatory combine***, in a closely coordinated and synergetic manner:

- ❖ ***Networking activities***, to foster a culture of cooperation between RIs, scientific communities, industries and other stakeholders as appropriate, and to help develop a more efficient and attractive ERA
- ❖ ***Transnational access or virtual access*** activities, to support scientific communities in their access to the identified key RIs
- ❖ ***Joint research activities***, to improve, in quality and/or quantity, the integrated services provided at European level by the RIs

Integrating Activities

❖ *Advanced Communities (AC)*

- Scientific communities whose RIs show an advanced degree of coordination & networking, attained, in particular, through IAs awarded under FP7 & previous H2020 calls
- Targeted approach: strategic topics (multi-annual plan)
- Priorities: contribution & support to other parts of H2020 or/and to breakthrough research; contribution to EU political priorities; coverage of emerging needs
- EU contribution up to 10 M€

❖ *Starting Communities (SC)*

- Have never been supported for the integration of their RIs under FP7/H2020 calls, in particular within IAs
- Bottom-up approach: calls open for all S&T fields
- EU contribution up to 5 M€

Integrating Activities: 3rd countries participation

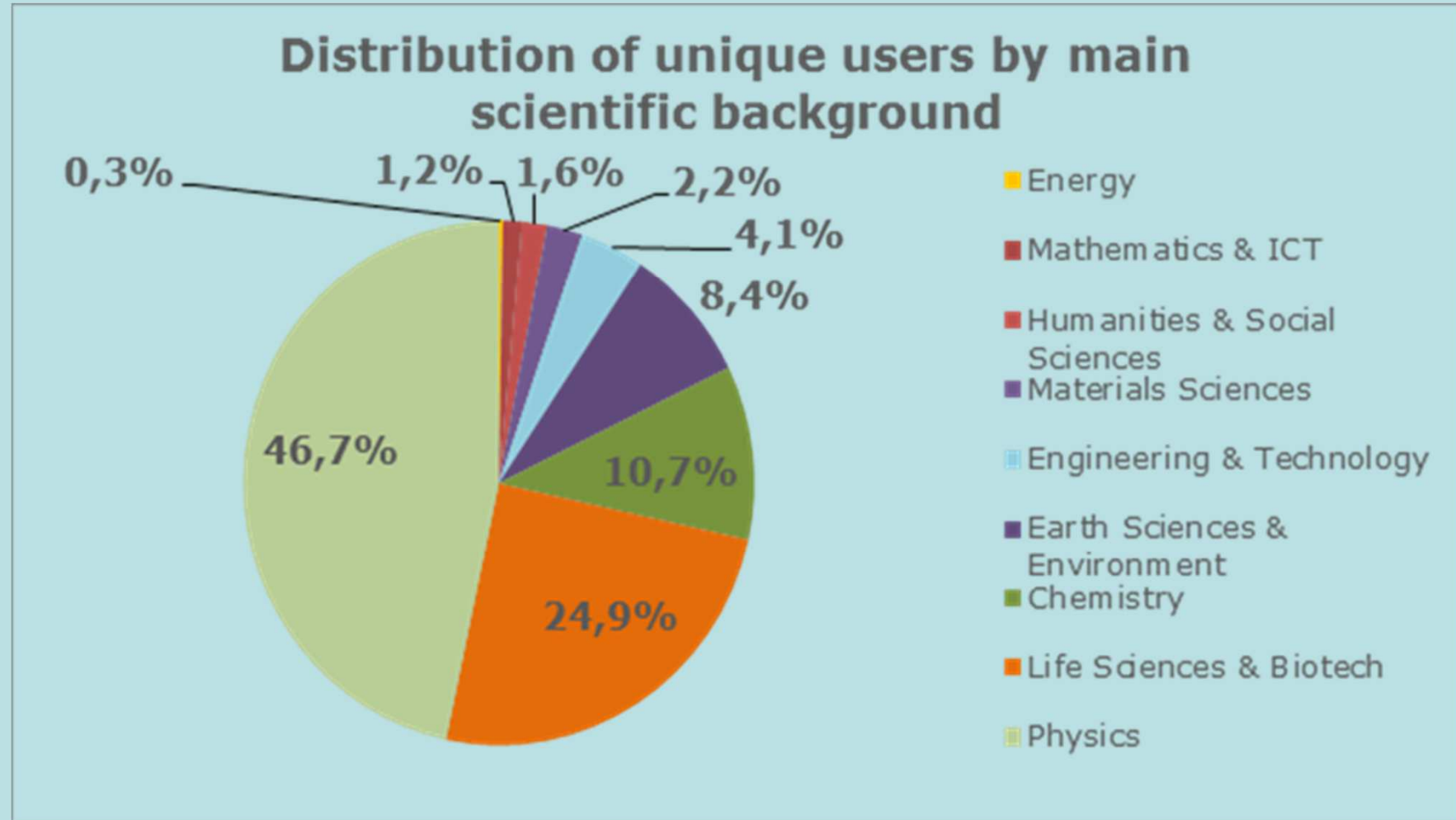
- ❖ Third country organisations can participate in an IA, even as access providers
- ❖ EU funding can be provided to third country beneficiaries in one of the three following cases:
 - They are included in the list of the third countries automatically eligible for funding [in Annex A of the H2020 General Work Programme] (*RU is not on the list*)
 - They fulfil at least one of the three general conditions for eligibility for funding (WP, bilateral agreement, essential RIs)

Organisations established in Australia, Brazil, Canada, China, India, Japan, Mexico, New Zealand, Republic of Korea, **Russia**, or USA, which provide, under the grant, access to their RIs to researchers from Members States and Associated countries are eligible for funding from the EU (for all 3 types of activities)

Integrating Activities under FP7

- ❖ Total budget of 689 M€ allocated for IAs of which 240 M€ for supporting TNA and VA (in average 34 M€ per year)
- ❖ ca. 26,000 researchers (of which ca. 2,000 users from third countries) in 1,100 infrastructures
- ❖ It facilitated cross-disciplinary fertilisations and a wider sharing of information, knowledge and technologies across fields and between academia and industry
- ❖ Ad-hoc training provided fostered the emergence of a new generation of researchers ready to exploit in the best way all the essential and advanced tools needed for cutting-edge research
- ❖ FP7 Users satisfaction questionnaire in 2016 reflected that 89% of the TNA wouldn't have been possible without EC support and level of provided RI services was rated as very good (71%) and good (25%)

Integrating Activities under FP7



TNA: access provider obligations

- To publicise widely the access offered under the grant agreement and the modalities to apply
- To take into account the gender dimension in advertising the access and defining the support provided to users
- To set up an independent selection panel to select the users to be supported (usually at project level)
- To maintain and provide to EC appropriate documentation to support and justify the amount of access reported (name, nationality and affiliation of users; nature and quantity of access provided to user teams, selection panel members and selection procedure)

TNA: user eligibility conditions

- A user group is eligible for TNA support under the grant when the user group leader and the majority of users work in countries different from where the installation is located

This condition is not necessary when:

- *the access provider is an international organisation, the JRC, an ERIC or other similar legal entities representing different countries;*
- *in case of remote access to a set of installations offering the same type of service and located in different countries*

Additional rules for the selection of user groups can be foreseen in the GA (e.g. no Third Country user-group in Third Country infrastructures)

- Only user groups that can disseminate the results generated under the project are eligible, unless users work for SMEs

TNA: eligibility conditions for 3rd country users

- Supporting user groups with a majority of users working in third countries is now possible under H2020 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 to the GA, if justified

IA: general provisions on data policy

❖ Integrating Activities should :

- Organise the efficient curation, preservation and provision of ***open access to the data collected or produced under the project*** (this obligation may be subject to a limited embargo period)
- Define a data management plan, even when they opt out of the Pilot on Open Research Data
- Address data management, interoperability (definition of metadata and ontologies) as well as advanced data and computing services where relevant.

To this extent, proposals should build upon the state of the art in ICT and e-infrastructures for data, computing and networking, working in cooperation with e-infrastructure service providers

IA: general provisions on innovation policy

- Integrating Activities in particular should contribute to fostering the potential for innovation, including social innovation, of research infrastructures by reinforcing the partnership with industry, through e.g. transfer of knowledge and other dissemination activities, knowledge sharing through co-creation, activities to promote the use of RIs by industrial researchers, involvement of industrial associations in consortia or in advisory bodies

Towards the H2020 Work Programme 2018-2020

Planned calls “INFRAIA”

Topic: *Integrating & opening RIs of European interest*

- ❖ Integrating Activities for AC. Emphasis on:
 - **Widening TNA and VA provision: encouraging participation of relevant RIs from 3rd countries in order to facilitate access by EU researchers and ensure global interoperability**
 - Sustainability + potential clustering of close communities
 - Proper handling of / access to the data generated/collected + implementing the guidelines of the Charter of access to RIs
- ❖ Integrating Activities for SC. Emphasis on:
 - Networking, standardisation and common access procedures
- ❖ Integrating Activity Pilot: to explore new ways to support the provision of integrated RI services at EU level with larger communities of RIs

Thank you for your attention !

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