Integrating and opening research infrastructures of European interest

H2020-INFRAIA-2014-2015

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<u>Topic:</u> Integrating and opening existing national and regional research infrastructures of European interest INFRAIA-1-2014-2015

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Specific challenge:

European researchers need effective and convenient access to the best research infrastructures in order to conduct research for the advancement of knowledge and technology. The aim of this action is to bring together, integrate on European scale, and open up key national and regional research infrastructures to all European researchers, from both academia and industry, ensuring their optimal use and joint development.

Scope:

An Integrating Activity will mobilise a comprehensive consortium of several research infrastructures 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.

Funding will be provided to support, in particular, the trans-national and virtual access activities provided to European researchers (and of researchers from Third Countries under certain conditions), the cooperation between research infrastructures, scientific communities, industries and other stakeholders, the improvement of the services the infrastructures provide, the harmonisation, optimisation and improvement of access procedures and interfaces.

An Integrating Activity shall combine, in a closely co-ordinated manner:

- (i) Networking activities, to foster a culture of co-operation between research infrastructures, scientific communities, industries and other stakeholders as appropriate, and to help developing a more efficient and attractive European Research Area;
- (ii) Trans-national access or virtual access activities, to support scientific communities in their access to the identified research infrastructures;
- (iii) Joint research activities, to improve, in quality and/or quantity, the integrated services provided at European level by the infrastructures.

All three categories of activities are mandatory as synergistic effects are expected from these different components. However, the focus among these categories will differ for 'Starting' and 'Advanced' Communities (see definitions below).

Integrating Activities should, whenever appropriate, give due attention to any related initiatives internationally (i.e. outside the EU), foster the use and deployment of standards, carry out research on impacts of the involved research infrastructures (direct and indirect, on social, environmental and economic levels) as well as of the project itself.

Integrating Activities should also organise the efficient curation, preservation and provision of access to the data collected or produced under the project, defining a data management plan. Data management, interoperability (definition of metadata and ontologies) as well as advanced data and computing services should be addressed where relevant. To this extent, proposals should build upon the state of the art in ICT and e-infrastructures for data, computing and networking, and either work in cooperation with e-infrastructure service providers or include them in the consortium.

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, activities to promote the use of research infrastructures by industrial researchers, involvement of industrial associations in consortia or in advisory bodies. A specific work package on innovation is therefore recommended in all Integrating Activity proposals.

In this work programme, Integrating Activities address two classes of different communities:

(1) 'Starting Communities' whose research infrastructures show a limited degree of coordination and networking at present. The strongest impact for these communities will be expected typically to arise from a focus on networking, standardisation and establishing a common access procedure, which lay the foundation for well-used trans-national and virtual access provision. The Commission considers that proposals requesting a contribution from the EU of up to EUR 5 million would allow this topic to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

In both cases, Integrating Activities are expected to duly take into account all relevant ESFRI research infrastructures to exploit synergies and to ensure that rationally designed, comprehensive and coherent overall concepts for European Infrastructures are being pursued.

As the scope of an integrating activity is to ensure coordination and integration between all the key European infrastructures in a given field and to avoid duplication of effort, at most one proposal per area is expected to be funded.

Further conditions and requirements that applicants should fulfil when drafting a proposal are given in

part D of the section "Specific features for Research Infrastructures". Compliance to these provisions will be taken into account during evaluation.

Following an open bottom-up consultation with stakeholders and the analysis of the collected input by a panel of independent experts, this work programme calls for proposals addressing one or, where appropriate, more of the following areas listed under the different domains:

Research infrastructures supporting rare diseases research. This activity aims at integrating sufficient amounts of information and data concerning patients suffering from rare diseases, in order to enable the study of the aetiology of these diseases, the monitoring of their epidemiology and the development and test of diagnostic tools and preventive and therapeutic interventions. Synergies with relevant ESFRI Infrastructures, such as BBMRI, ECRIN, EATRIS, INFRAFRONTIER, EuroBioImaging, ELIXIR, and EU-OPENSCREEN, should be duly exploited.

Expected impact:

Integrating Activities are the main instrument to realise the Innovation Union flagship initiative's Commitment n. 4: "Opening of Member State operated research infrastructures to the full European user community", with a structuring impact on the ERA and on the way research infrastructures operate, evolve and interact with similar facilities and with their users. In particular:

- Researchers will have wider, simplified, and more efficient access to the best research infrastructures they require to conduct their research, irrespective of location. They benefit from an increased focus on user needs.
- A new generation of researchers is educated that is ready to exploit in the best way all the essential tools needed for their research.
- Operators of related infrastructures develop synergies and complementary capabilities, leading to improved and harmonised services. There is less duplication of services, leading to an improved use of resources across Europe. Economies of scale and saving of resources are also realised due to the optimisation of operation and common development.
- Closer interactions between larger number of researchers active in and around a number of infrastructures facilitate cross-disciplinary fertilisations and a wider sharing of information, knowledge and technologies across fields and between academia and industry.
- Innovation is fostered through a reinforced partnership of research organisations with industry.
- The integration of major scientific equipment or sets of instruments and of knowledge-based resources (collections, archives, structured scientific information, data infrastructures, etc.) leads to a better management of the continuous flow of data collected or produced by these facilities and resources.
- When applicable, the integrated and harmonised access to resources at

European level can facilitate the use beyond research and contribute to evidence-based policy making.

• When applicable, the socio-economic impact of past investments in research infrastructures from the European Structural and Investment Funds is enhanced. Type of action: Research and innovation actions