

Research infrastructure services for rapid research responses to COVID-19 and other infectious disease epidemics (RIA)

Subsidy:	€21M
Funding rate:	100%
Deadline:	6 May 2021
Duration:	No limit; up to 4 years is recommended.
Total budget:	€21M

Consortium:

At least three legal entities established in different Member States or Associated Countries

Scope

Proposals under this action, will integrate research infrastructure services to form a comprehensive and inclusive portfolio to support research in response to infectious disease epidemics or underpinning respective forefront research in the field. As a first immediate challenge, the delivered services should support research targeting newly emerging SARS-Cov-2 variants and addressing the on-going COVID-19 pandemic.

Proposals will support the provision of trans-national and/or virtual access to researchers as well as training for using the infrastructures, and activities to improve, customise and integrate 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.

Access to research infrastructure services will be provided to users to support their research projects targeting the development of new or adapted prevention and/or intervention tools and measures, such as new or adapted diagnostic procedures and therapies, drugs, vaccines, clinical disease management or disease vector control, or evidence-based public health, socio-behavioural and socio-economic measures. Priority should be given to supporting research projects targeting newly emerging virus variants, focusing on their detection, characterisation, surveillance and assessment (changes in transmissibility and disease manifestation) and on the adaptation of intervention and prevention measures (medication, vaccines, public health measures) which likely also requires additional regulatory and clinical trials support.

Following the One-Health concept, services supporting research on transmission of pathogens from animals to humans (or vice versa animals as host reservoir), including vector-borne transmission, should be covered. Research infrastructures dealing with social science should be involved to enable data acquisition enhancing understanding of individual and population perceptions and behaviours in an epidemic setting, including public response to intervention measures such as social distancing, vaccine campaigns, etc., over the course of an epidemic. Flexibility in the provision of services should be properly demonstrated to ensure fast re-orientation and expansion of the portfolio in response to unexpected epidemics situations, including emerging threats posed by new SARS-CoV-2 variants. Effective operational links to epidemics risk assessment and management bodies like ECDC, WHO, OIE, a possible future EU Health Emergency preparedness and Response Authority (EU-HERA) and national authorities are essential. Global standards, relevant data platforms and registries should be used to make user project results openly available and usable, thus enabling further research on pathogens, disease manifestation, behavioural research and other epidemics related social science research.

Appropriate links should be ensured with the European Open Science Cloud (EOSC), the European COVID-19 Data Platform and the newly established Population Health Information Research Infrastructure for COVID-19 (PHIRI). Data management (and related ethics issues) and interoperability should be addressed.

To identify and better exploit related synergies, share results and avoid overlaps, grants awarded under this action should cooperate with those awarded under the Other action "FAIR and open data sharing in support of European preparedness for COVID-19 and other infectious diseases". To this extent, proposals should provide for dedicated activities and earmark appropriate resources.

Pandemics are global challenges and collaboration with relevant international partners should be envisaged.

Proposals should adhere to the guidelines and principles of the European Charter for Access to Research Infrastructures¹.

Proposals should make available to researchers the widest and most comprehensive portfolio of research infrastructures services which are relevant for the scope. To this extent, they should involve, as beneficiaries or as third parties, the necessary

¹ https://ec.europa.eu/research/infrastructures/pdf/2016_charterforaccessto-ris.pdf

interdisciplinary set of research infrastructures of European interest² that provide such services. The inclusiveness of the proposal will be taken into account in the Excellence score.

Research infrastructures from third countries may be involved when appropriate, in particular when they offer complementary or more advanced services, including data, than those available in Europe.

Proposals could consider, for their inclusion in the service portfolio, relevant services and expertise offered by the European Commission's Joint Research Centre (JRC) , and in particular by its Nanobiotechnology laboratories³, on high-end characterisation of therapeutics against pandemics, including antibodies, viral antigens, vaccine nanocarriers, and, more in general, on characterisation of nanomaterials, nanomedicines and advanced materials.

Grants awarded under this action are expected to duly contribute to any future Partnership for Pandemic Preparedness that might be established under Horizon Europe.

Proposals should include an outreach plan to actively advertise its services to targeted research communities and, if applicable, to relevant industries, including SMEs.

Proposals are expected to exploit synergies and to ensure complementarity and coherence with other EU grants supporting access provision.

Proposals will include the list of services/installations opened by research infrastructures for trans-national or virtual access and the amounts of units of access made available for users.

Further conditions and requirements relating to access provisions that applicants should fulfil when drafting a proposal are given in the "Specific features for Research Infrastructures" section of this Work Programme. Compliance with these provisions will be taken into account during evaluation.

² A research infrastructure is of European interest when is able to attract users from EU or associated countries other than the country where the infrastructure is located. This includes ESFRI and ERIC infrastructures.

³ For the participation of the JRC see General Annex B.

Expected Impact:

Proposals should set out a credible pathway to contributing to several of the following impacts:

- Enhancement of EU capacity to identify, characterise and mitigate the effects of COVID-19 virus variants of concern, and future emerging pathogens of public health concern;
- Reinforced research infrastructures capacity to provide at scale and across the EU services to support excellent research to address societal challenges, and Horizon Europe objectives;
- Enhanced and increased society's long-term and consistent problem-solving capacity and evidence-based policy making in areas linked to health, including a better understanding of socio-economic implications, through the provision of innovative, customised and efficient RI services;
- New discoveries and knowledge breakthroughs enabled by access provision to the best and in some cases unique state-of-the-art ris;
- A new generation of researchers trained to optimally exploit all the essential and advanced tools for their research.

Expected outcome:

Project results are expected to contribute to all the following expected outcomes:

- Comprehensive catalogue of research infrastructure services relevant to tackle infectious diseases epidemics is available, including services supporting pertinent social sciences research;
- Fast assembly and provision of innovative, customised and efficient research infrastructure services to support research linked to detecting, assessing and combatting newly emerging SARS-cov-2 variants;
- Challenge driven integration of research infrastructures to better support research addressing infectious diseases and face epidemics, including for use by epidemics risk assessment and risk management bodies (such as the European Centre for Disease prevention and Control (ECDC), the World Health Organisation (WHO), the World Organisation of Animal Health (OIE) and national epidemics management bodies);
- Rapid response to epidemics outbreaks through research infrastructure services underpinning and supporting research aiming to understand causes and development of the epidemic;
- Development of novel/adapted epidemics intervention tools and measures enabled by relevant research infrastructure (RI) services;
- Availability of research data emerging from access provision activities for re-use on common data platforms and registries, according to FAIR principles and compliant with legal provisions under the General Data Protection Regulation (GDPR).