Research Infrastructures Consortium for Horizon 2020

Agnès ROBIN, European Commission

Research Infrastructures in Horizon Europe (energy and climate)

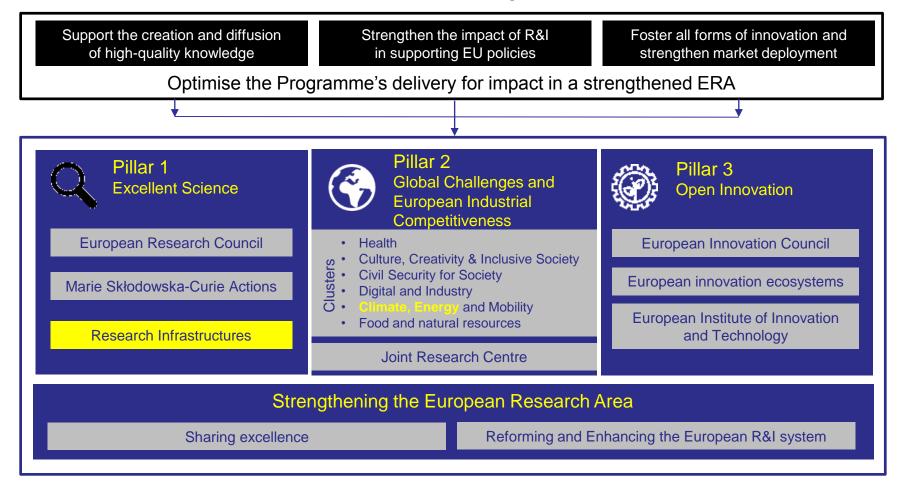


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http://www.rich2020.eu/



Horizon Europe



Research Infrastructures in HE Specific Programme

Four intervention areas

Consolidating and Developing the Landscape of European Research Infrastructures

Opening, Integrating and Interconnecting Research Infrastructures

Budget (Initial Commission proposal of 2018): EUR 2.4 billion

The innovation potential of European Research Infrastructures and activities for Innovation & Training

Reinforcing European Research Infrastructure policy and International Cooperation



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!!!Warning: under discussion!!! Rls to address societal challenges (health research, green & digital transformation), and advance frontier knowledge

Expected impact:

- Boost RIs capacity to provide services to support excellent research to address societal challenges;
- Enhance and increase society's long-term and consistent problem-solving capacity and evidence-based policy making in priority areas;
- Enable **new discoveries and knowledge** through access to the best, in some cases, unique stateof-the-art RIs;
- Educate a new generation of researchers, ready to optimally exploit all the essential and advanced tools for their research;
- Facilitate **cross-fertilisation** and a wider sharing of knowledge and technologies across disciplines and between academia and industry.



!!!Warning: under discussion!!! Main features

- Focus on trans-national access in-person or remote and virtual access
- RI service provision to support challenge driven research and/or curiosity driven research
- Bring together several complementary and interdisciplinary RIs
- Access includes *ad-hoc* training and scientific and technical support to users
- Harmonisation, customisation and virtualisation of RI services also supported
- Adopt the guidelines and principles of the <u>European Charter for Access to Research</u>
 <u>Infrastructures</u>
- Address data management, interoperability and the connection of digital services to the EOSC
- "Specific features for Research Infrastructures" provide specific conditions and requirements relating to access provision
- Type of action: RIA



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!!!Warning: under discussion!!! Next generation of scientific instrumentation, tools and methods and advanced digital solutions

Expected impact:

- Ensure that Europe remains globally competitive and at the forefront of technological excellence in an extremely fast-moving environment
- Enhance the competitiveness of European industry through co-development with industrial actors of advanced RI technologies and technology transfer;
- Pave the way to new areas of research and to the development of new industrial applications/products;
- Develop skills of RI staff to ensure alignment with the advancements of the RI technologies;
- Facilitate cross-fertilisation and a wider sharing of knowledge and technologies across disciplines and between academia and industry;
- Boost the use of AI in research and enhance data-based research across Europe.





- (Mobilising research and fostering innovation) "research infrastructures (Pillar 1) that provide resources and services for research communities to conduct research and foster innovation"
- (co-implementation) "...improving the availability and relevance of data and knowledge, usability of digital tools and services for better understanding of risks and their management."
- Example: Protecting human health and wellbeing "Health risks include morbidity and mortality from for example heatwaves, forest fires, storms, floods but also from air pollution, illnesses from food, vector- and water-borne infectious diseases";...



- European Partnership accelerating farming systems transition: agroecology living labs and research infrastructures
- European Partnership for rescuing biodiversity to safeguard life on Earth
- European Partnership for a climate neutral, sustainable and productive Blue Economy
- European Partnership for an Industrial Battery Value Chain
- European Partnership for Clean Energy Transition



Opportunities and challenges

- Many opportunities under Horizon Europe 1) as access/ scientific service providers, 2) to develop/customise services or 3) expanding/upgrading by integrating and sustaining new data & tools from HE projects but...
- Funding/resources and sustainability remain a challenge despite relevance of many RIs to societal challenges (including energy and climate) – evidencing & measuring impact
- Balancing **openness** and incentives to attract funders
- Balancing agile and fit-for-purpose offer (to address different and interdisciplinary needs, TRLs, sectors) with investments timescales (governance, strategy, priorities, impact...)
- Data, digital transformation