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Slovensko predsedovanje Svetu Evropske unije
Slovenian Presidency of the Council of the European Union

PRESS RELEASE

ESFRI ROADMAP 2021 LAUNCH
7 DECEMBER 2021, 10:00-16:30 CET



Strategy Report on Research Infrastructures
ROADMAP 2021



#ESFRIRoadmap2021

ESFRI
ROADMAP
2021
LAUNCH
online event
07.12.2021



EUROPEAN RESEARCH INFRASTRUCTURES ECOSYSTEM BUILDING NEW CAPACITIES FOR THE EUROPEAN RESEARCH AREA

The sixth Roadmap of the European Strategy Forum on Research Infrastructures will be presented on 7 December 2021, in the framework of the Slovenian Presidency of the Council of the EU events, in a virtual celebratory broadcast from Ljubljana.

<https://www.youtube.com/c/ESFRI-EU/>

The European Strategy Forum on Research Infrastructures (ESFRI), established in 2002, brings together national governments, the scientific community and the European Commission to support a coherent, strategy-led approach to Research Infrastructures (RI) developing science-based solutions to societal challenges in Europe.

Equipping Europe with infrastructures for groundbreaking impactful research is at the heart of the ESFRI Roadmap. The Roadmap identifies European investment priorities and provides directions for their further development, and looks into the future challenges of Research Infrastructure policy and analyses the main features of the RIs landscape in Europe to implement an integrated and interconnected Research infrastructure eco-system as an important element of the **European Research Area (ERA) Policy Agenda**.

'Strengthen sustainability, accessibility and resilience of research infrastructures in the ERA'
ERA Policy Agenda, Action 8

The ESFRI Roadmap 2021 is the sixth edition of the document, which has been influencing the European and national RI strategies, policies and funding since 2006. ESFRI periodically updates its Roadmap to provide a coherent and strategic vision ensuring that Europe has excellent RIs in all fields of science and innovation. The key messages of the 2021 edition of the Roadmap, prepared during the COVID-19 pandemic, clearly underline the importance of world-class RIs in enabling cutting-edge research to address the pressing requests and challenges of our society. This Roadmap, with the highest total cost of pledged investments since the first edition in 2006, also demonstrates the persisting willingness of national governments to invest substantially in improving RI capacities in Europe, as an important element of long-term scientific sovereignty and crisis preparedness.

The ESFRI Roadmap now includes 41 European Research Infrastructures which have already been implemented (Landmarks) and 22 RI Projects that are in their preparatory phase. The total investment in these, often globally unique, facilities will exceed EUR 20 billion.

Key features of the ESFRI Roadmap 2021

- 11 new RI Projects enter the Roadmap with total investment costs over EUR 4 billion. This is by far the highest value of new research infrastructures (RIs) investment plans since the first roadmap in 2006
- 4 RIs receive the Landmark status, signifying their successful implementation
- A revamped Landscape Analysis presents the existing RIs in Europe and identifies scientific needs and gaps as well as collaboration opportunities and directions for strategic investments in the future. It also explores the available RI services of particular relevance for the environmental, economic and social issues, focusing specifically on Sustainable Development Goals, COVID-19 and digital transition

This capacity creates outstanding conditions for European Research & Innovation to be globally competitive, enabling Europe's leadership in a broad range of research fields. RIs included in the ESFRI Roadmap contribute to key EU policy priorities, such as the Green New Deal, Twin Transitions and Health Union. They facilitate the development of science-based solutions to key societal challenges, as illustrated with the COVID-19 platform. The services they offer could play an important role in implementing Horizon Europe Missions and achieving UN Sustainable Development Goals.

The new Projects

[EBRAINS](#) - European Brain ReseArch InfrastructureS. A distributed digital infrastructure at the interface of neuroscience, computing and technology, offering scientists and developers advanced tools and services for brain research.

[EIRENE RI](#) - Research Infrastructure for EnviRONmental Exposure assessment in Europe. The first EU infrastructure on human exposome (environmental determinants of health).

[ET](#) - Einstein Telescope. The first and most advanced third-generation gravitational-wave observatory, with unprecedented sensitivity that will put Europe at the forefront of Gravitation Waves research.

[EuPRAXIA](#) - European Plasma Research Accelerator with Excellence in Applications. A distributed, compact and innovative accelerator facility based on plasma technology, set to construct an electron-beam-driven plasma accelerator in the metropolitan area of Rome, followed by a laser-driven plasma accelerator in European territory.

[GGP](#) - The Generations and Gender Programme. Aiming to provide high quality and cross-nationally comparable longitudinal data to answer pressing scientific and societal challenges on population and family dynamics.

[GUIDE](#) - Growing Up in Digital Europe-EuroCohort. Europe's first comparative birth cohort survey, aiming to support the development of social policies for the enhancement of the wellbeing of children, young people and their families across Europe.

[MARINER*g*](#) - Offshore Renewable Energy Research Infrastructure. Setting out to become the leading internationally Distributed Research Infrastructure in the Offshore Renewable Energy (ORE) sector, with a network of test facilities spread across Europe.

[OPERAS](#) - Open Access in the European Research Area through Scholarly Communication. A distributed RI to enable Open Science and upgrade scholarly communication practices in the Social Sciences and Humanities (SSH) in line with the European Open Science Cloud.

[RESILIENCE](#) - Religious Studies Infrastructure: Tools, Innovation, Experts, Connections and Centers. A unique, interdisciplinary scientific RI for all Religious Studies, building a high-performance platform, supplying tools and access to physical and digital data to scholars from all scientific disciplines.

[SLICES](#) - Scientific Large-scale Infrastructure for Computing/Communication Experimental Studies. An ambitious RI in Digital Sciences, tackling concerns regarding energy consumption and the implementation of the Green Deal.

[SoBigData++ RI](#) - European Integrated Infrastructure for Social Mining and Big Data Analytics. A resource for sharing datasets, methods, research skills and computational resources for supporting the comprehension of social phenomena through the lens of Big Data.

The New Landmarks

The ESFRI Roadmap 2021 further highlights the Landmarks list as a core element of the ecosystem representing the group of implemented RIs that emerged from the ESFRI process. They represent the most advanced undertakings at the global level in their fields, strengthening the competitiveness of European science. The four new Landmarks reinforce the Energy, Environment, and Health & Food domains with strategic long-term investments in research capability and capacity.

Landmarks, which are in operation and accessible to users, offer not only excellent conditions for doing science today, but also provide unique environments for further long-term development of European excellence in Research & Innovation.

Based on the final monitoring reports and taking into account the Projects that have successfully reached the Implementation Phase may be upgraded to the Landmark status, if they are also considered major elements of the competitiveness of the ERA, ESFRI awarded the status of Landmark to [ACTRIS](#), [AnaEE](#), [EU-SOLARIS](#) and [MIRRI](#).

The ESFRI Roadmap 2021 is a vivid demonstration of the high merit of and potential for European collaboration in developing visions and sustainable perspectives for an interoperable Research Infrastructure ecosystem as a key asset of Europe.

The Roadmap is a collective achievement: more than 270 individuals from all over Europe were involved in the Strategic Working Groups, the Forum and the European Commission, which provided knowledge, analysis and discussion to form a collective vision for European Research Infrastructures to inspire European science policy and maximize competitiveness.

'I am convinced that, building on almost 20 years of experience, with strengthened capacity and increased effectiveness, ESFRI can lead the way towards a future where science-based solutions born in an interconnected collaborative research environment surmount not only COVID-19, but also all the other challenges ahead of us.'

Jan Hrusak, ESFRI Chair

The Launch Event – 7 December 2021, 10:00-16:30 CET

The launch event is part of a series of events marking the [Slovenian Presidency of the Council of the European Union](#). It is organized by the [Ministry of Education, Science and Sport](#), in close cooperation with ESFRI and the European Commission.

Among the invited participants are high level EU officials, ESFRI Delegates, representatives of RI projects and policy bodies, national and regional authorities as well as media. Jan Hrusak, the ESFRI Chair, will present the ESFRI Roadmap 2021, and the day will continue with the presentation of the new projects by their coordinators, accompanied by panel discussions on strategic issues of the European Research Infrastructure ecosystem.

Please view the **full agenda** [here](#).

Download or browse the ESFRI Roadmap 2021 online at roadmap2021.esfri.eu (7 December onwards).

Media: To attend the event Press Conference (Zoom), to get an advance view of the roadmap or for any further Media inquiries, please fill in [this form](#).

Twitter: #ESFRIRoadmap2021