WP3 Research Infrastructures 2021-2022

Research infrastructures (RIs), including the European Open Science Cloud (EOSC), and technology Infrastructures (TIs) are crucial enablers of research and technological innovation and drivers of multidisciplinary and data-intensive science.
Europe will benefit from an integrated, inter-operable and effective ecosystem of RIs and TIs that helps covering the continuum of needs from fundamental knowledge creation to technology deployment and supports the implementation of Open Science policies as well as European technology leadership.
Previous European Framework Programmes have made a significant contribution towards a more efficient, open and effective use of national research infrastructures and have developed, with the European Strategy Forum on Research Infrastructures (ESFRI), a coherent and strategy-led approach to policy making and national investments on pan-European research infrastructures. The work with ESFRI triggered, so far, the development of 55 European research infrastructures, of which 37 have already been implemented, across all fields of science, mobilis ing close to €20 billion in investments.
Twenty-one of these research infrastructures have been established as European Research Infrastructure Consortia (ERIC) – a legal form enshrined in EU law and the only EU regulation in the European Research Area (ERA) framework – that enables joint funding and integration of resources from Member States (MSs) and Associated Countries (ACs) and secures their commitment to continuing support. The EU, its MSs and the ACs invest together in the research infrastructures also through the Cohesion Policy, building research capacities at regional/national level with a view to deploy research results into markets.
Europe has a rich landscape of research infrastructures. For the future, smart investments will be required to drive the development of new research infrastructures to fill knowledge gaps, support emerging needs and scientific breakthroughs, and respond to new challenges, notably in the field of health and in the context of the green and digital transitions. At the same time, efforts to optimise and consolidate the existing capacities, avoiding fragmentation and unnecessary duplications, will provide the ERA with a more effective and interlinked and well-functioning research infrastructure landscape. Such RIs landscape and its continuous evolution and upgrade will make the ERA increasingly attractive for researchers and talents from all over the world.