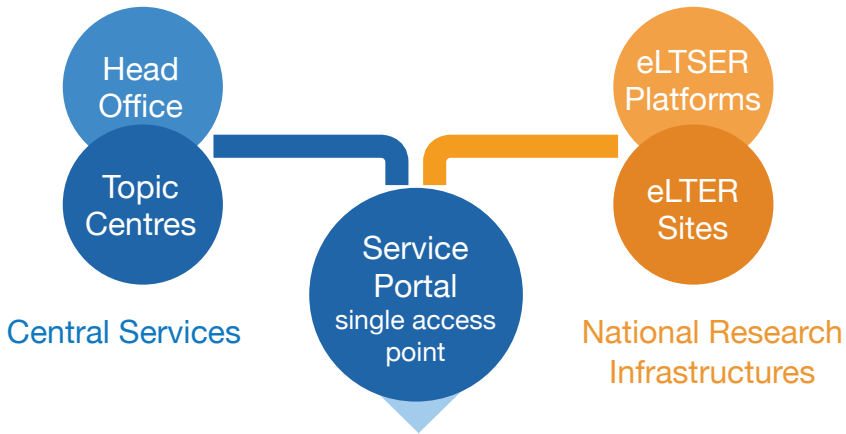


CENTRAL SERVICES

A range of centrally-provided services will make eLTER RI more than the sum of its national networks. These Central Services are expected to consist of:

- **Head office:** coordination, strategic development, outreach. Head office activities are currently hosted by UFZ, Germany.
- **eLTER Service Portal:** access to data and sites
- **Topic Centres:** covering Quality Assurance for Data, Modelling and Analysis Tools, Design and Synthesis, and Technological Innovation and Development.



Services for USERS

- Research site access
- Long-term in-situ data (EEVs; legacy, recent)
- Integration of data from various sources (RS, nat. statistics, modelling, mapping) & analytical tools
- High-level data products tailored to inform policy
- Research project design support
- Research technology/R&D
- Education & training

SUPPORTING PROJECTS

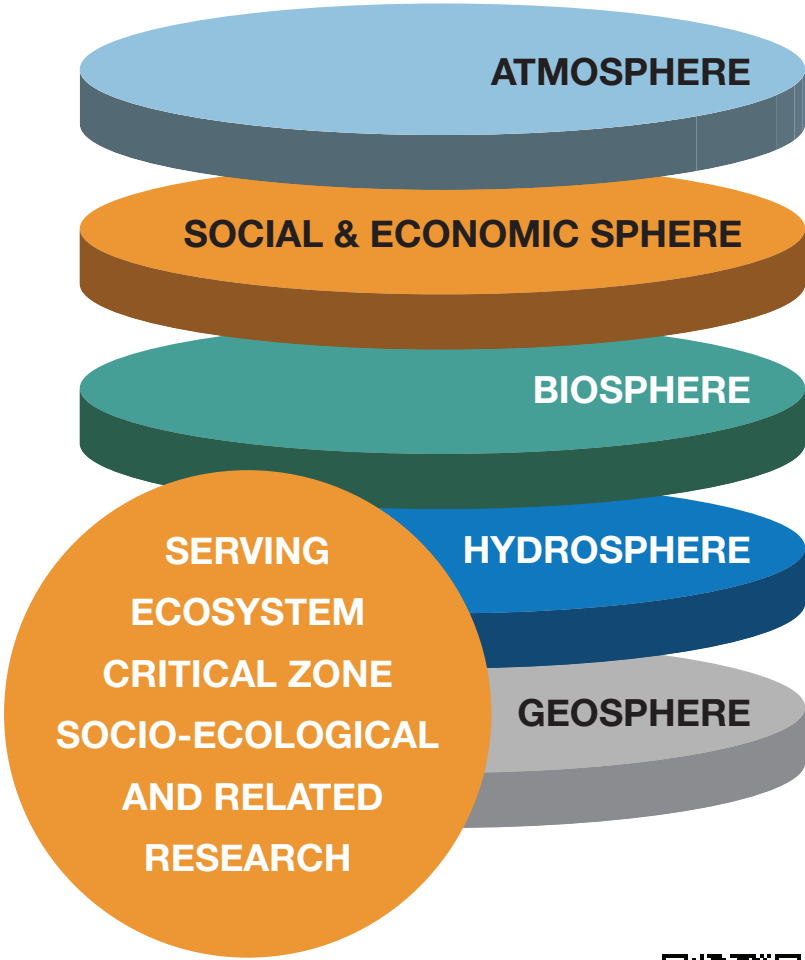
Starting in 2020, the provision, testing and development of the eLTER RI will be supported by two EU-funded large scale international projects:



The eLTER RI will be further developed within the 5-year Preparatory Phase Project (eLTER PPP), coordinated by the Helmholtz-Centre for Environmental Research (UFZ) in Germany. www.lter-europe.net/projects/PPP



The Advanced Community Project, eLTER PLUS, coordinated by the University of Helsinki in Finland, will conduct a performance test of the emerging eLTER RI, challenging, assessing and strengthening its operations through scientific case studies and pilot service developments. www.lter-europe.net/projects/PLUS



SUBSCRIBE TO THE eLTER NEWSLETTER AT:



CONTACT US

Michael Mirtl, eLTER ESFRI Coordinator
Co-chair of ILTER & Chair of LTER-Europe
office@lter-europe.net

Images courtesy of LTER-Europe members



INTEGRATED EUROPEAN
LONG-TERM ECOSYSTEM,
CRITICAL ZONE &
SOCIO-ECOLOGICAL
RESEARCH INFRASTRUCTURE



www.lter-europe.net

INTRODUCING THE eLTER RESEARCH INFRASTRUCTURE



THE CHALLENGE

A NEW EUROPEAN RESEARCH INFRASTRUCTURE ADDRESSING TODAY'S ENVIRONMENTAL CHALLENGES

We live in a world of rapid social, economic and ecosystem change, facing major environmental challenges such as global warming, biodiversity loss and pressures on natural resources. Addressing these topics requires world-class ecosystem research by a well-connected, extensive community of experts, supported by advanced sites and facilities, openly shared and easily accessible data and capacity building programmes. This is the goal of the eLTER Research Infrastructure (eLTER RI).

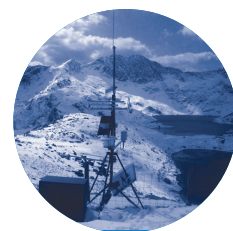
HOLISTIC ECOSYSTEM SCIENCE

INTEGRATED OBSERVATIONS SUPPORTING ECOSYSTEM SCIENCE

eLTER RI will adopt a **fundamentally systemic approach to observe and analyse the environmental system**, encompassing biological, geological, hydrological and socio-ecological perspectives.

eLTER RI will be the first research infrastructure capturing and analysing holistically the integrated impacts of climate change alongside other pressures on a wide variety of European ecosystems.

eLTER RI will comprise **terrestrial, freshwater and transitional water sites**. It will allow in-situ, co-located gathering of Essential Variables ranging from bio-physico-chemical to biodiversity and socio-ecological data. **Ecosystem change** caused by long-term pressures and short-term pulses will be investigated in a **nested design** from the local to the continental scale.



KEY FEATURES OF eLTER RI

- Wide scale and **systematic coverage of major European** terrestrial, freshwater and transitional water **ecosystems** – ca. 250 research sites, selected from a wider pool of ≈ 450 LTER-Europe sites
- Investigation of interactions between abiotic and biotic ecosystem components at **multiple scales**, including **human-environment interactions**
- Research into ecosystem processes influenced by **multiple drivers**, as well as socio-ecological research relating to ecosystem services
- **Integrated, long-term observations** across the critical zone, supporting whole ecosystem science
- **Central Services** provided by: Head office, Service Portal and thematic Topic Centres
- Strong **links with other European environmental RIs** encouraging, for example, co-location of measurements
- **International collaboration** through International LTER (**ILTER**) and the Global Ecosystem Research Infrastructure (**GERI**)

A DISTRIBUTED RESEARCH INFRASTRUCTURE

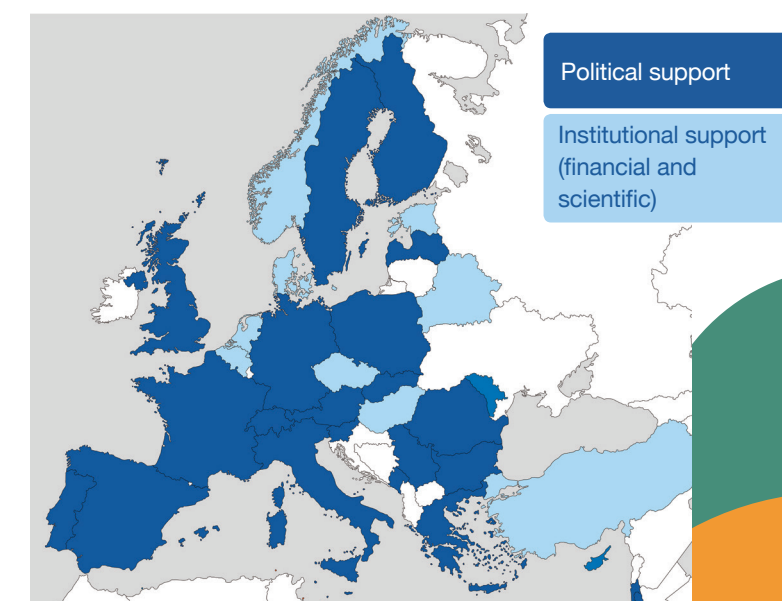
eLTER RI will comprise National Research Infrastructures (NRIs), described below, and European level Central Services (CS), such as data access, training and harmonized methods and parameters.

NATIONAL RESEARCH INFRASTRUCTURES (NRI)

Countries supporting eLTER RI will provide infrastructure in the form of eLTER Sites (focal points for long-term ecosystem observation and research) and eLTER Platforms (large areas facilitating socio-ecological research and exemplary stakeholder engagement). These national building blocks form the in-situ backbone of eLTER RI. Site-based operations will be highly integrated and follow agreed policies. These facilities will be open for research and education via a centralised scheme.

BROAD NATIONAL SUPPORT FOR eLTER RI

eLTER RI is on the 2018 European Strategy Forum on Research Infrastructures (ESFRI) Roadmap and is currently supported by 19 countries providing Expressions of Political Support. The RI has also received 79 Expressions of Financial Commitment, pledging support from organisations, most of whom operate NRIs. Finally, eLTER RI has received 161 Memoranda of Understanding from organisations in 27 countries, signalling support for the scientific objectives of the RI.



Country support for eLTER RI

19 Expressions of Political Support
79 Expressions of Financial Commitment
161 Memoranda of Understanding