A DISTRIBUTED RESEARCH INFRASTRUCTURE WITH CENTRAL SERVICES

eLTER RI will comprise National Research Infrastructures (NRIs) and European level Central Services.

National Research Infrastructures (NRIs)

Partner countries provide the national in-situ building blocks (eLTER Sites and eLTSER Platforms). Distributed site-operations will be concerted (instrumentation, observations) and follow standards (protocols, data flows). Sites and Platforms will be open for research and education via a common access scheme.

Central Services

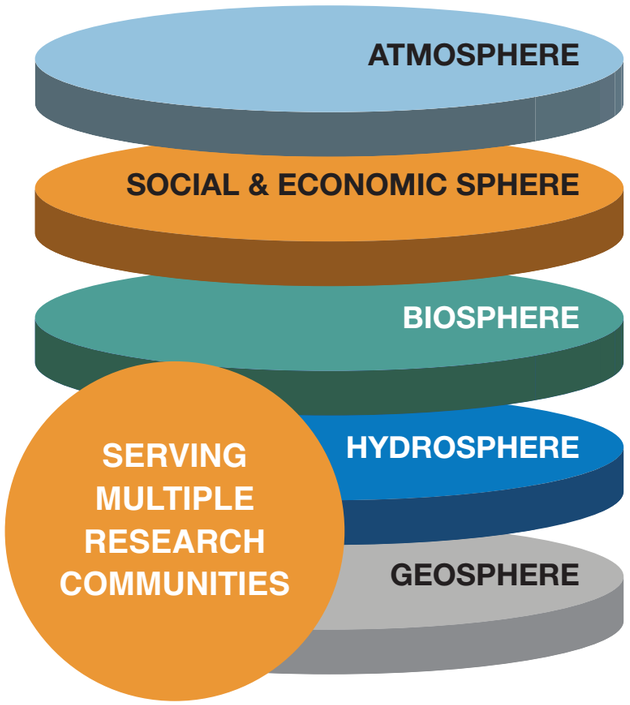
A range of services will make eLTER RI much more than the sum of its NRIs. Service providers will comprise the Head Office (coordination, outreach, strategic development & collaborations, operation of central Service Portal) and Topic Centres. Collectively, the Topic Centres will cover Thematic Service Areas like data management, interoperability, data analysis & modelling, technological innovation, and synthesis of actionable knowledge.

SUPPORTING PROJECTS

Since 2020, the provision, testing and development of the eLTER RI has been supported by two EU-funded 5-year projects involving 27 countries: **eLTER PLUS** is testing the performance of existing components through scientific case studies and is identifying the needs of a wide range of scientific and other user groups (Coordinator: Jaana Bäck, UHEL/Finland). **eLTER PPP**, the eLTER RI Preparatory Phase Project is facilitating the formalisation of eLTER RI as an ERIC (Coordinator: Michael Mirtl, UFZ/Germany).

These projects receive funding from the European Union's Horizon 2020 research and innovation programme under GA No 871126 (eLTER PPP) and GA No 871128 (eLTER PLUS).

The information in this brochure is valid for 2023



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eLTER RI

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

SCIENTIFIC USERS & eLTER COMMUNITY

elter-ri.eu

THE CHALLENGE

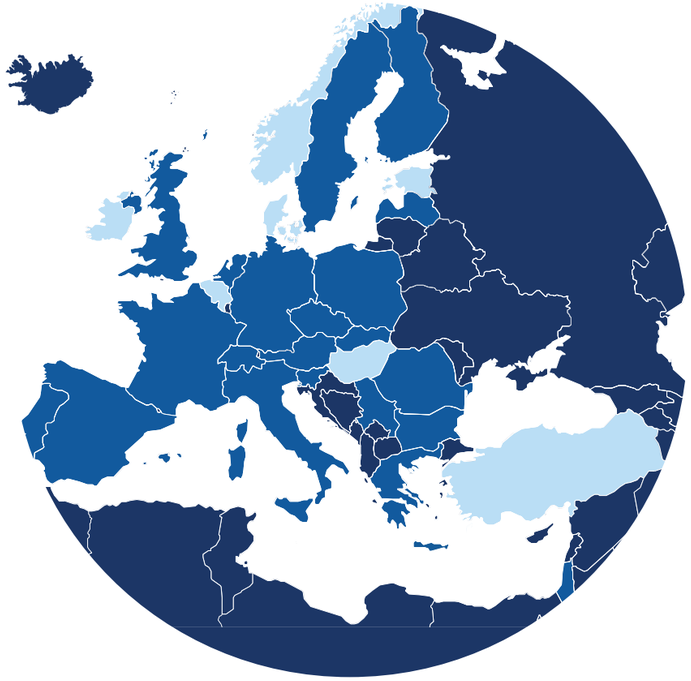
An innovative research environment for the next generation of scientists

We live in a world of rapid social, economic and ecosystem change, facing major challenges such as global warming, biodiversity loss and pressures on natural resources. Addressing these topics requires world-class ecosystem, critical zone and socio-ecological research by communities of experts well-connected across various disciplines.

eLTER RI will catalyse scientific discovery through its state-of-the-art in-situ facilities, open and accessible data, collaborative working culture, transdisciplinary expertise and its demand-driven service portfolio, comprising analytical tools and capacity building activities.

HOLISTIC SCIENCE

eLTER RI will adopt a fundamentally systemic approach to observe and analyse the human-environmental system, encompassing biological, geological, hydrological and socio-ecological perspectives. eLTER RI will be the first research infrastructure holistically capturing and analysing the combined impacts of climate change and other pressures on a wide variety of European ecosystems.



Support for eLTER RI

- Politically supported by 21 countries
- ca. 165 supporting institutions from 28 countries
- Non-eLTER related countries

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 ca. 600 LTER-Europe sites.
- Research into ecosystem processes influenced by multiple drivers, as well as socio-ecological research relating to ecosystem services.
- Integrated, long-term and high quality observations across the critical zone, supporting whole ecosystem science.
- Strong links with other European environmental RIs (e.g., ICOS, AnaEE, LifeWatch) and international collaboration, e.g., global LTER (ILTER), Global Ecosystem Research Infrastructure (GERI).

eLTER RI´S UPCOMING RESPONSE TO THE NEEDS OF SCIENTIFIC USERS AND THE eLTER COMMUNITY

- eLTER addresses the research needs for an improved understanding of the **long-term impacts** of multiple pressures on ecosystems at local, regional and continental scale.
- eLTER improves the capacity to **predict long-term trends** and **system trajectories** and enables upscaling and forecasting of the ecosystem responses to climate change, biodiversity loss, soil degradation, pollution, and over-exploitation on major European ecosystems.
- eLTER integrates in-situ data from ca. 250 Sites and Platforms into ´**Information Clusters**´, providing access to resources across domains, enabling large-scale analyses and interpretation through its one-stop-shop Service Portal.
- eLTER **facilitates access to its Sites and Platforms** and opens their data for new users, ensuring the sustainability of site and platform operations.
- eLTER promotes **excellence in scientific research** by developing and implementing modern tools, standardised observations and innovative, novel methods for ecosystem, critical zone and socio-ecological research.
- eLTER invests in the **current and next generation of European ecosystem scientists** to strengthen their expertise, skills and capacities.