

# 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 eLTER 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.

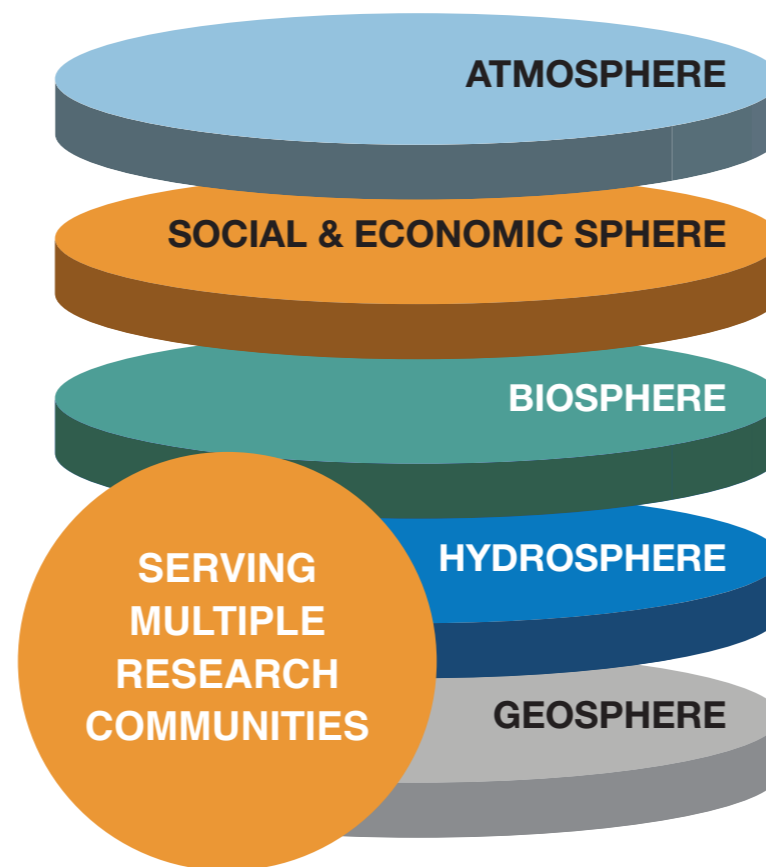
## SUPPORTING PROJECTS



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).



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## CONTACT US

Michael Mirtl, eLTER ESFRI Coordinator, Chair of LTER-Europe  
Jaana Bäck, eLTER PLUS Coordinator  
[office@elter-ri.eu](mailto:office@elter-ri.eu)



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



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## THE CHALLENGE

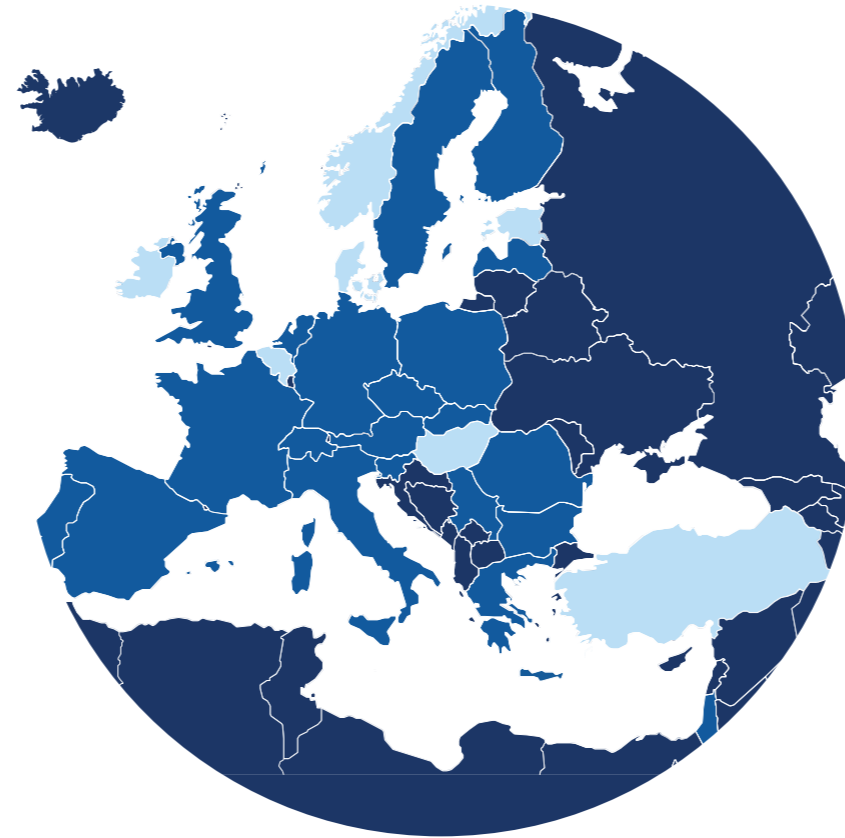
### An innovative research environment for the next generation of scientists

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 DECISION MAKERS' NEEDS

- 🌿 eLTER uniquely explores the **compounded impacts of climate change, biodiversity loss, soil degradation, pollution, and over-exploitation** on major European ecosystems.
- 🌿 eLTER informs **evidence-based decision making** by providing data and information at local, regional and continental scales.
- 🌿 eLTER investigates **socio-ecological systems, their stakeholder interactions and resilience** to explore fair mitigation and adaptation options.
- 🌿 eLTER data can provide insights into how **environmental changes lead to social effects and responses**, and can help determine causation from correlation effects.
- 🌿 eLTER is embedded in **concerted continental and global efforts** in the context of the European environmental RIs, GEO, UNECE WGE, GERI, IILTER, etc.
- 🌿 eLTER's **in-situ network of ca. 250 Sites and Platforms** and its **central service portfolio** are well embedded in the European and global landscape of research infrastructures and EOSC.
- 🌿 The research and data by eLTER RI are relevant for policies regarding the **EU Green Deal** and the **UN SDGs**, including Zero Hunger, Sustainable Cities and Communities, Climate action, Life Below Water and Life on Land (SDG 2, 11, 13, 14, 15).

