



Integrated European
Long-Term Ecosystem
Critical Zone &
Socio-ecological Research
Research Infrastructure

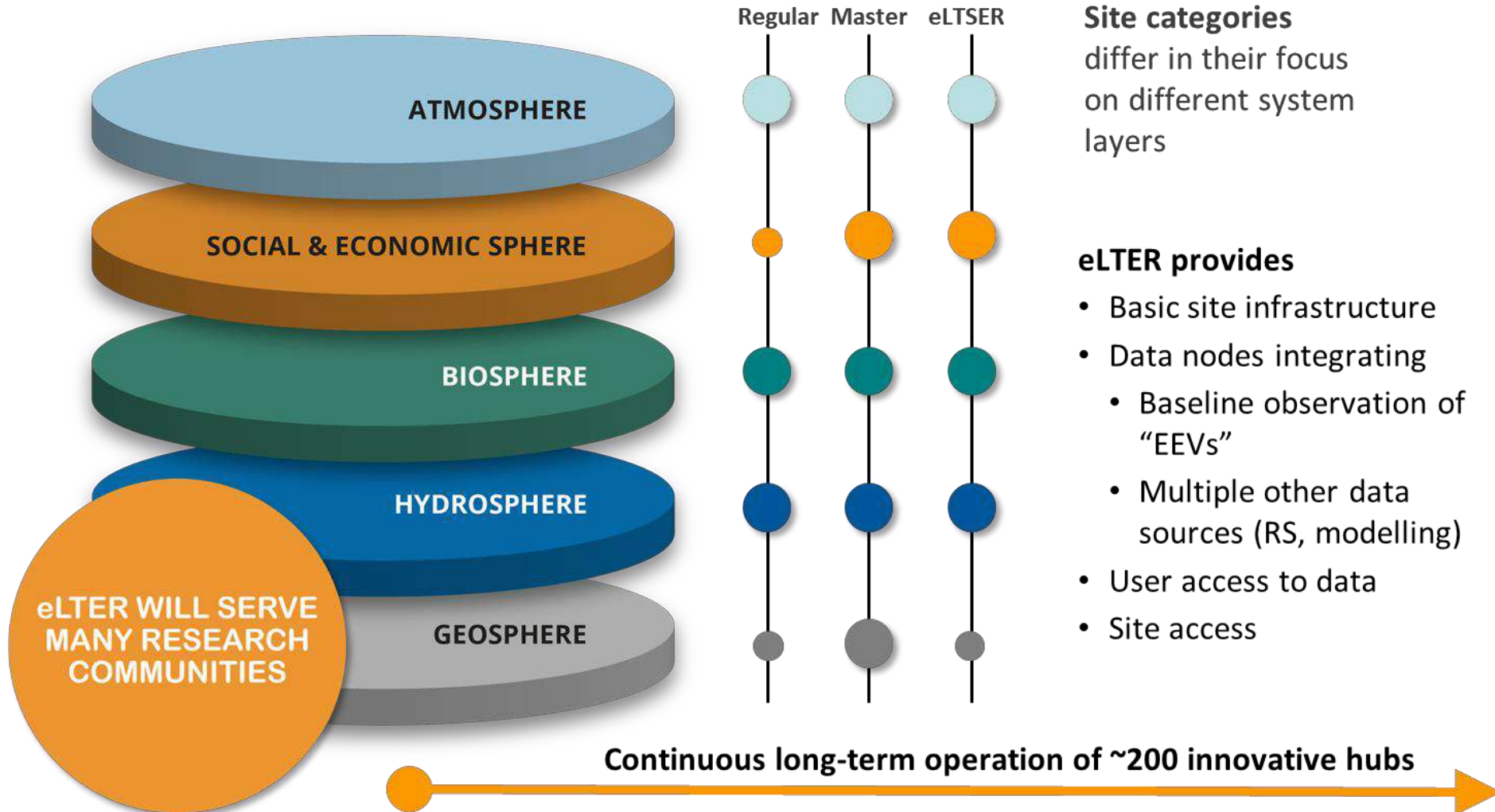
**eLTER – The European Long-Term Ecosystem, Critical
Zone and Socio-Ecological Research Infrastructure**

Steffen Zacharias and the eLTER Team
UFZ/Germany

Filling a critical
gap
for top-class
science at the
continental
scale



„Whole System“-Approach & cross-disciplinarity for the Life Supporting System



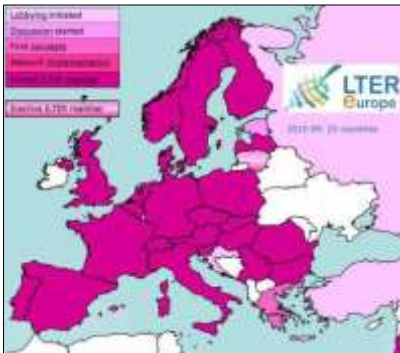
eLTER – European Long-Term Ecosystem and socio-ecological Research Infrastructure



- 19 supporting countries
- ~ 80 EoC: 18 countries
- ~ 160 MoU: 27 countries
- 45/80/130 eLTER Sites
- 5/10/30 eLTSE Platforms



- 2020-2025: 14 Mio €
- 27 countries
- 40 partners
- 200 data providing sites

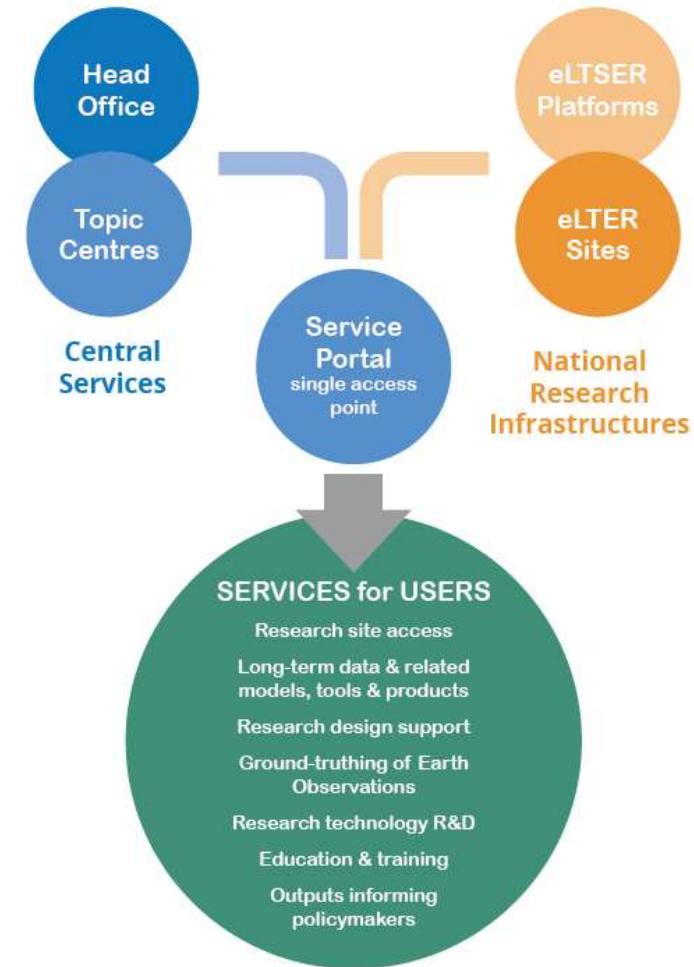


- 25 countries
- 400 LTER Sites
- 35 LTSE Platforms

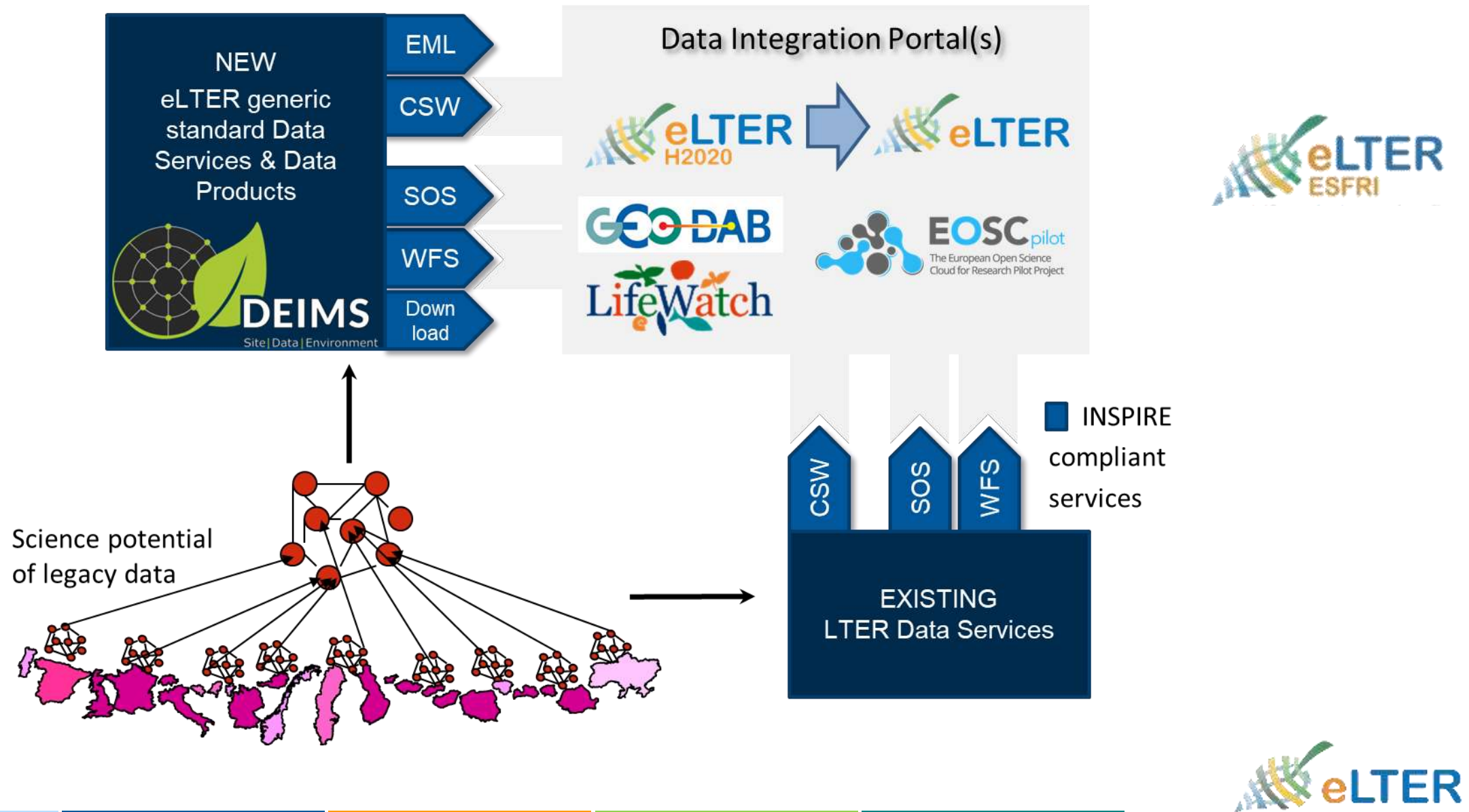


Overview of eLTER services provided through the Service Portal

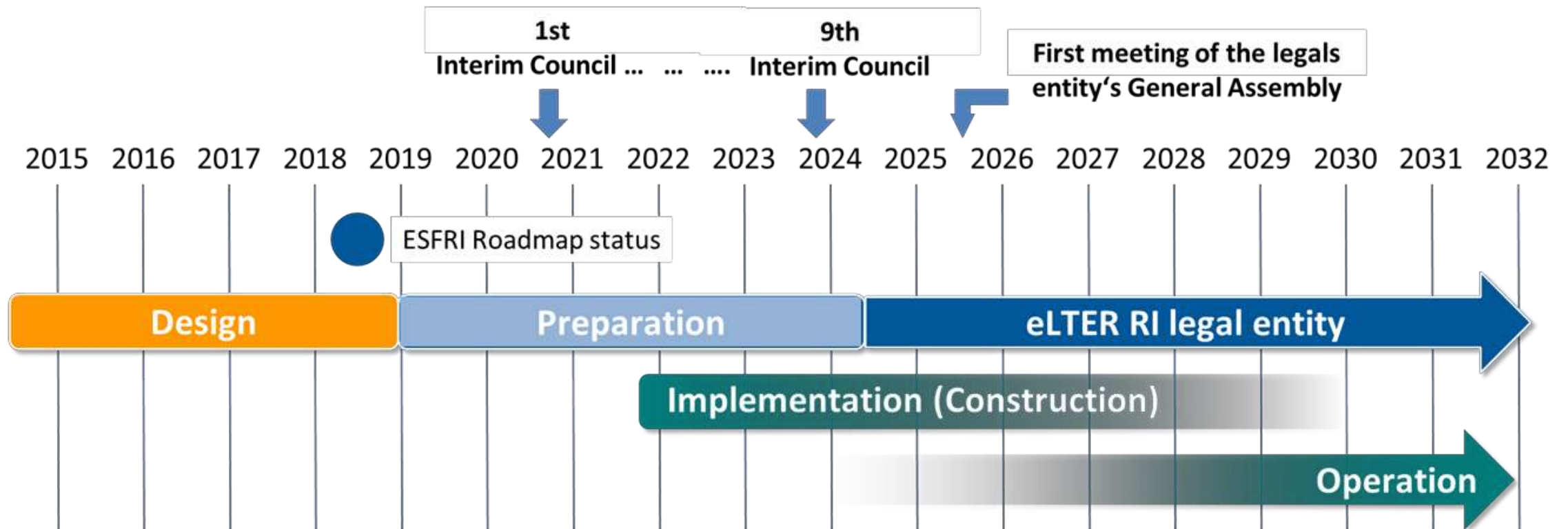
- Research site access
- Long-term data & related models, tools & products
- Research design support
- Ground-truthing of Earth Observations
- Research technology R&D
- Education & training
- Outputs informing policymakers



Ambition for harmonisation and accessibility of legacy data from the various sites

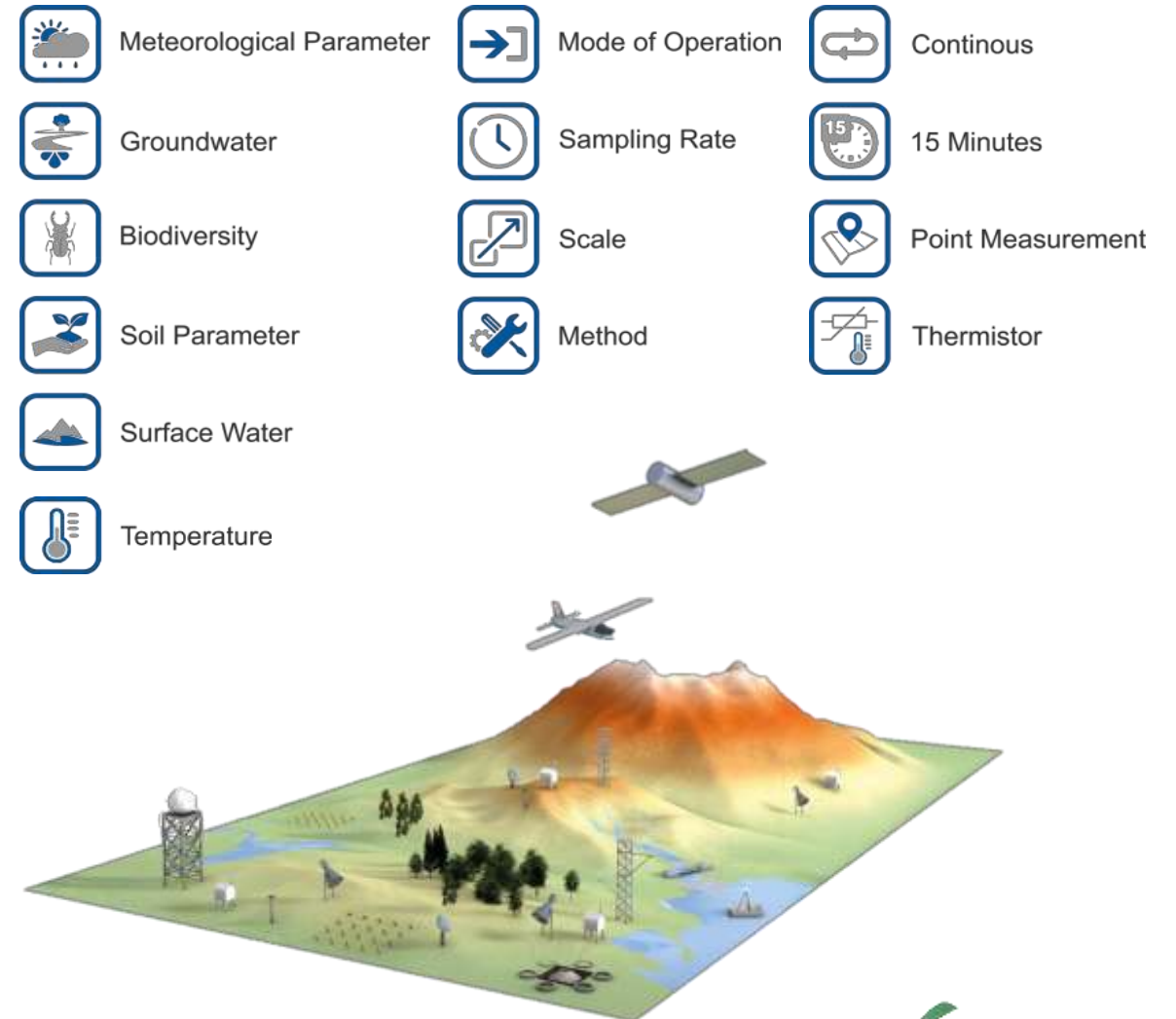


eLTER RI Timeline

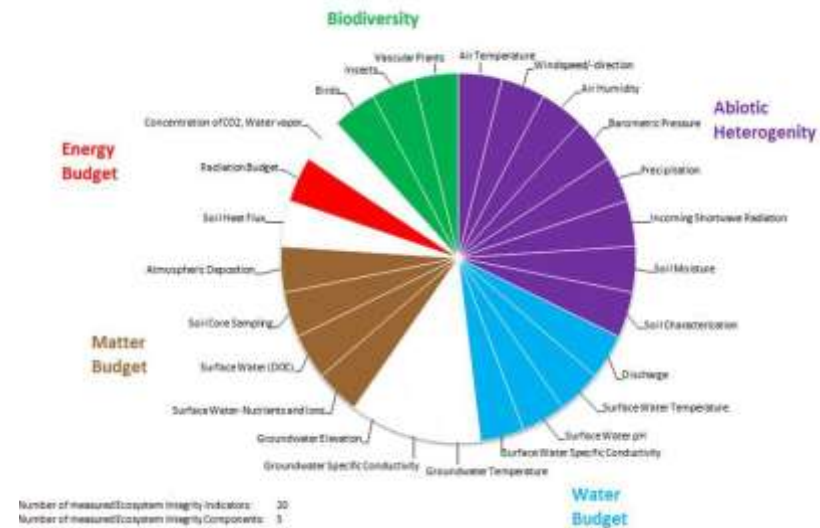
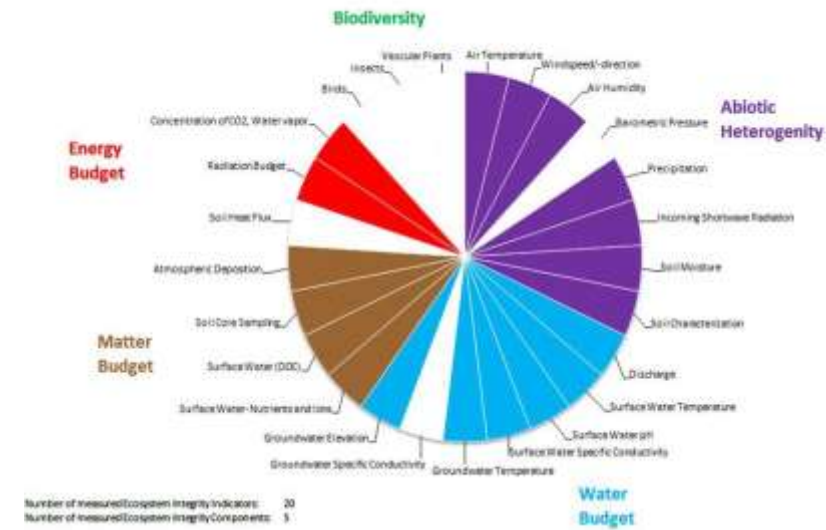
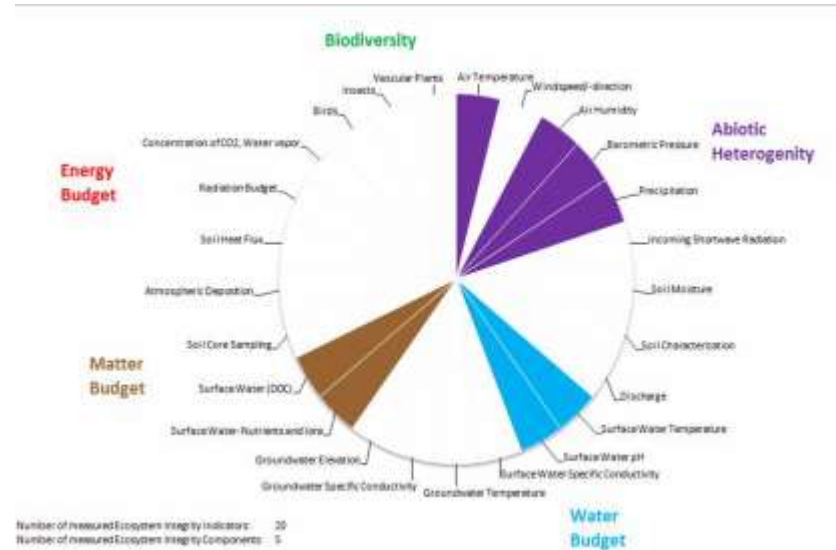


eLTER Framework of Standard Observations (biotic, abiotic)

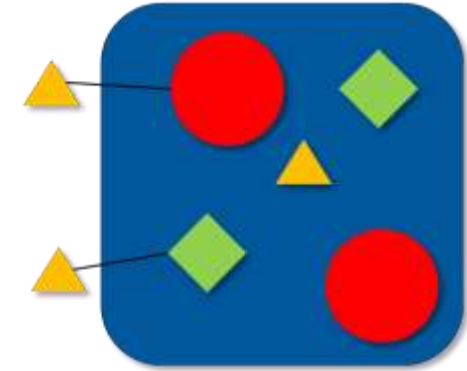
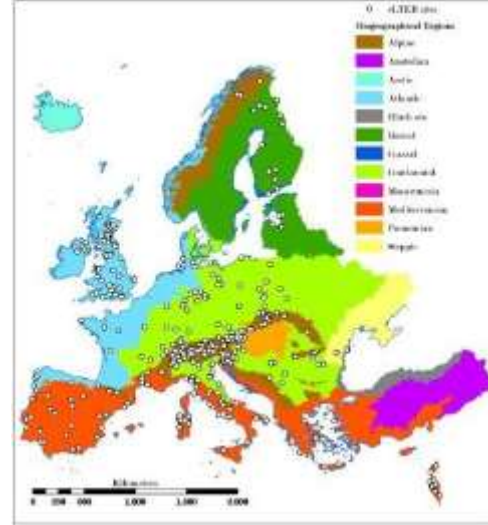
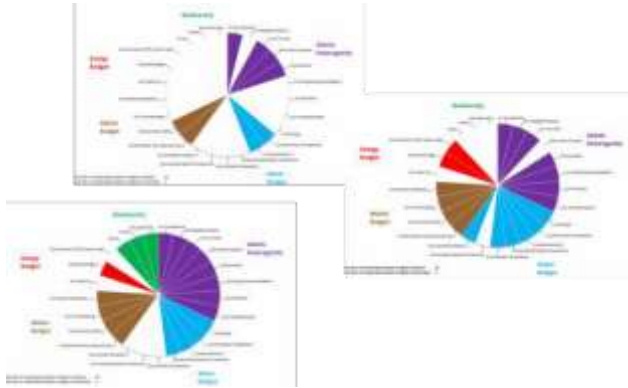
EI components	LTER standard observations
abiotic heterogeneity (climate)	air temperature windspeed & wind direction humidity barometric pressure precipitation incoming shortwave radiation
abiotic heterogeneity (soil)	soil characterization (e.g. texture) soil moisture
abiotic heterogeneity (water)	surface water temperature
water budget (surface water)	discharge surface water pH surface water specific conductivity
water budget (groundwater)	groundwater temperature groundwater specific conductivity groundwater elevation
matter budget	surface water nutrients and ions soil core sampling atmospheric deposition surface water dissolved organic carbon (DOC)
energy budget	soil heat flux radiation budget leaf area index (LAI) concentration of CO ₂ & water vapor
biotic diversity	abundance and identity of birds abundance and identity of insects abundance of vascular plants



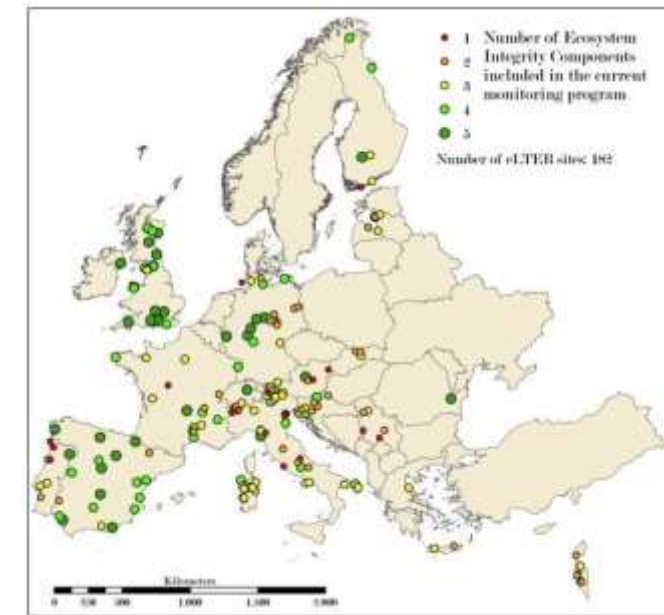
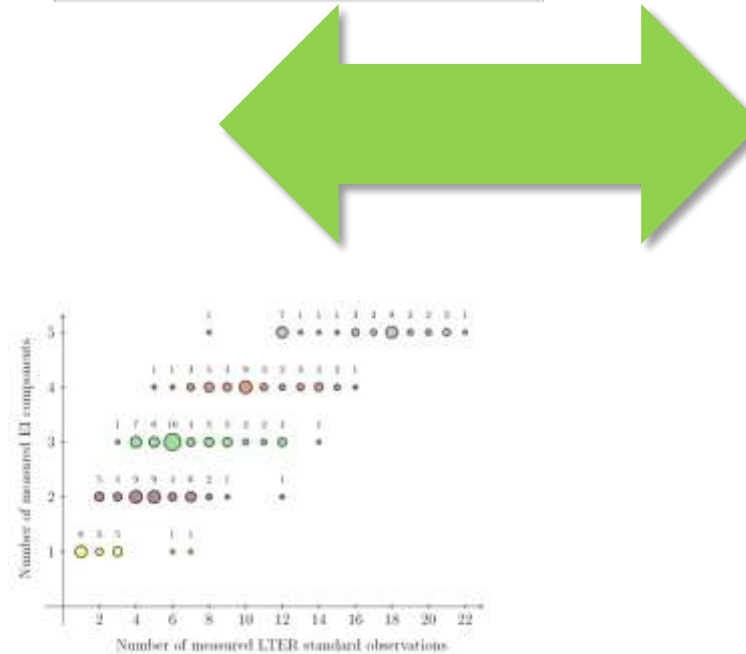
Site-Specific Characterization



eLTER RI – The process of designing a network



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Stand 2021

- Erster **Interim Council** im Dezember 2020 (Geldgeber!)
- **eLTER SPF**: Site-Platform-Forum (offen für alle LTER Gebiete), erstmals 13.01.2021
- **eLTER NC** (nationale LTER Koordinatoren): Abstimmung und Austausch (Dez 2020, Jan 2021)
- **Internetseite eLTER** im Aufbau (online vermutlich Mai 2021)
- **eLTER Preparatory Phase Project Associate Partnership Programme**: <https://www.lter-europe.net/projects/PPP/elter-preparatory-phase-project-associate-partnership-programme>
- **Internetseite LTER-D**: Separate Seite mit eLTER–Anbindung (Angebote, Möglichkeiten) wird demnächst etabliert