

EnvEurope

ENVIRONMENTAL QUALITY AND PRESSURES
ASSESSMENT ACROSS EUROPE: THE LTER NETWORK
AS AN INTEGRATED AND SHARED SYSTEM FOR
ECOSYSTEM MONITORING

THE LONG-TERM ECOSYSTEM RESEARCH

EnvEurope started and is being developed within the European Long-Term Ecosystem Research Network (LTER-Europe) which represents more than 400 sites across Europe. The long-term (multi-decadal) ecological study and monitoring of ecosystems need shared scientific knowledge, a common information management system and the harmonization of parameters and methods at European scale. This will bring to a deeper understanding of ecosystem functioning, to an improved environmental management and to supporting the development of EU environmental policy and conservation planning through the integration of objectives, resources and disciplines.

The project will contribute to the integration and coordination of long-term ecological research and monitoring initiatives at European level, focusing on understanding the status, changes and trends of ecosystems, with an integrated broad-scale and cross-domain (terrestrial, freshwater and marine ecosystems) strategy, combining the efforts of 11 countries and of at least 67 sites belonging to the LTER-Europe network.

One of the starting point is the unifying concept of ecosystem integrity and self-organization, whose focal components are ecosystem structure and processes: based on this theoretical framework the parameters accessible within the network will be integrated into indicators.

EnvEurope has been conceived and structured also to play a role in the conceptual and operative context of the Shared Environmental Information System (SEIS) and in the development of some components of the Global Monitoring for Environment and Security (GMES).

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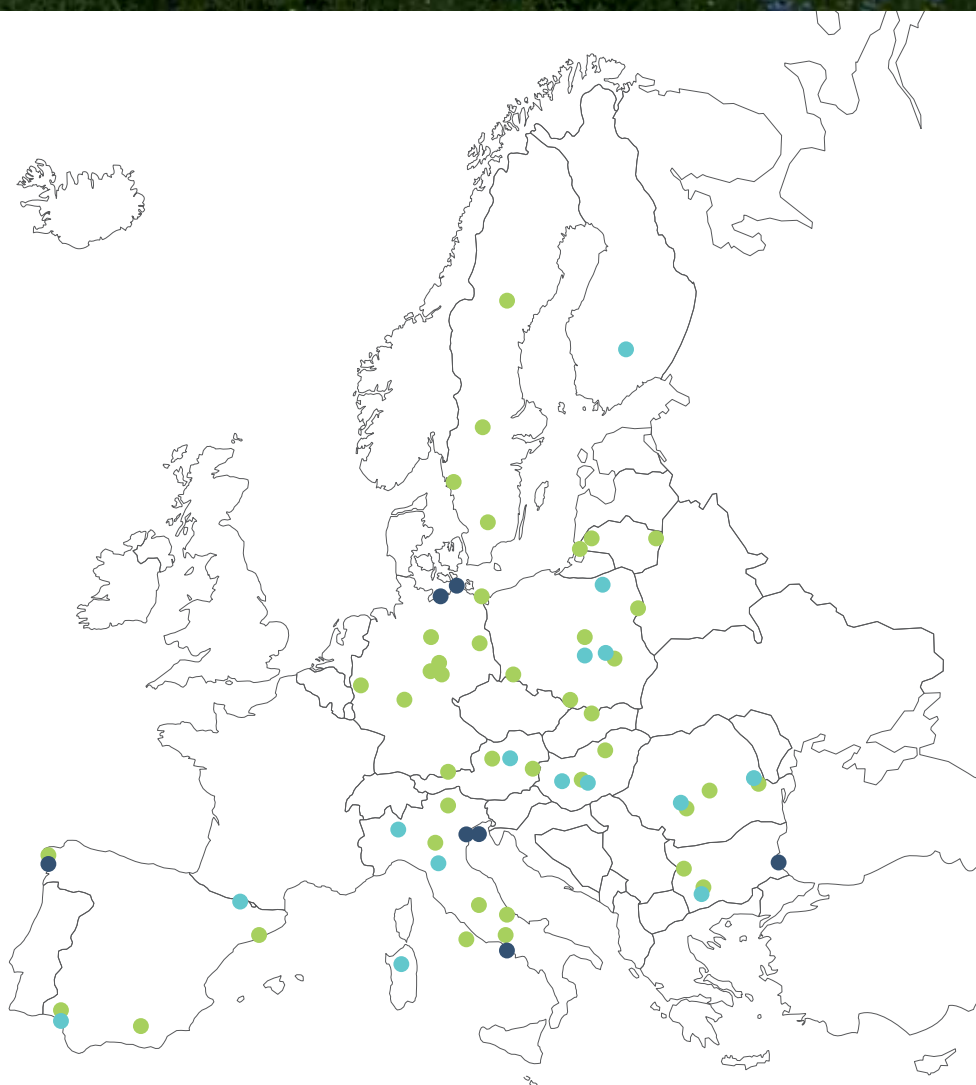
Countries and more than 40
organizations involved around Europe

INVOLVED COUNTRIES

Austria
Bulgaria
Finland
Germany
Hungary
Italy
Lithuania
Poland
Romania
Spain
Sweden

PROJECT SITES

● Freshwater site
● Marine site
● Terrestrial site



67

Sites representing major environmental
and socio-economic gradients of Europe

THE ENVIRONMENTAL QUALITY ASSESSMENT

EnvEurope develops and provides an integrated environmental information management system, thus contributing to the technical components of SEIS. This activity implies semantically consistent metadata and data architectures, accessible not only to the scientific community, but also to policy-makers and stakeholders.

Harmonization of parameters and methods is a major challenge for a large European network of LTER sites. EnvEurope will select, on the basis of multi-annual data series and of newly collected field data, a set of key environmental quality indicators able to characterize ecosystems and sensitive to major natural and anthropogenic stressors. The identification of harmonized parameters and methods, proposed and shared within the whole LTER community, aims also at representing a scientific in situ reference, useful as ground-truth validation for remote sensing and for GMES.

The EnvEurope activity will supply ecological data and information on the status and long-term trends of terrestrial, freshwater and marine ecosystems at the European scale, based on field data gathered at different scales. It will thus contribute to bridge the gap between science and policy and to improve the scientific support to the EU environmental policy and conservation plans.

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Parameters monitored and exploited to
select a set of key environmental quality indicators

PROJECT PARTICIPANTS



Coordinator



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