

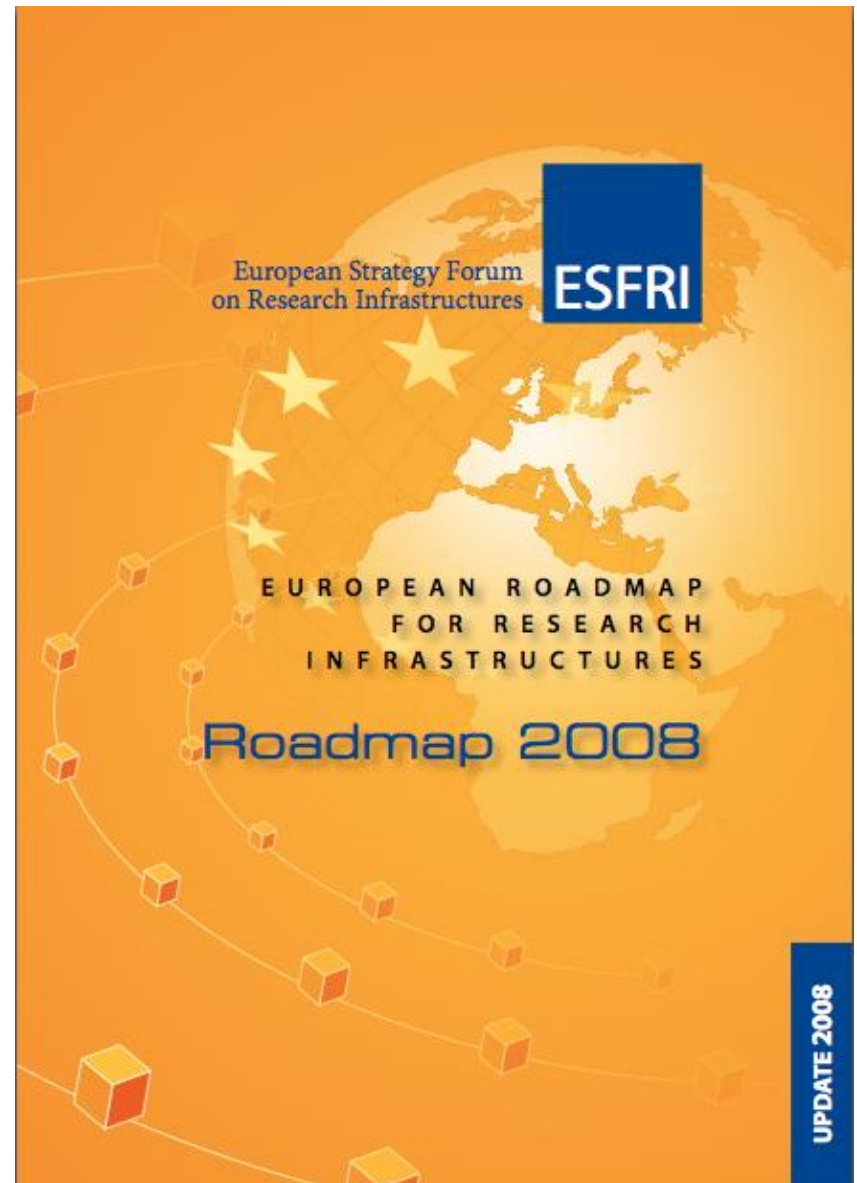
Infrastructure for Biodiversity and Ecosystem Research

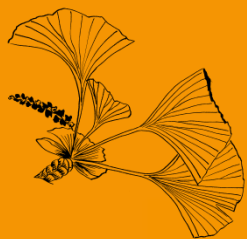


Wouter Los
Acting Director



European Strategy Forum
on Research Infrastructures





ESFRI Projects for Environmental Sciences

EURO-ARGO



SIOS



IAGOS-ERI

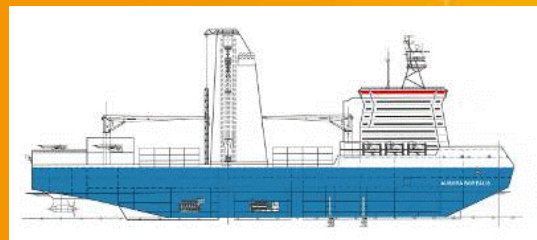


EUFAR-COPAL



Current
status

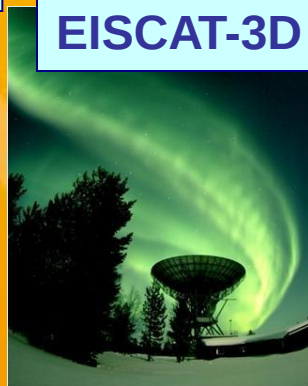
AURORA BOREALIS



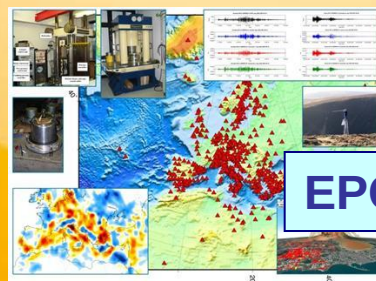
LIFEWATCH



EISCAT-3D



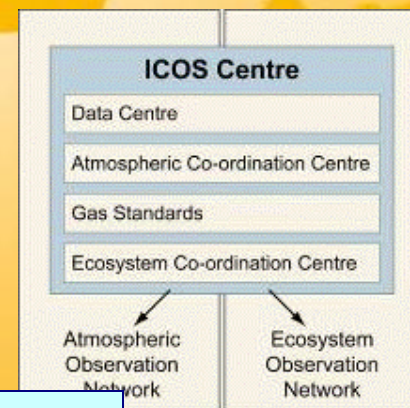
EPOS



EMSO



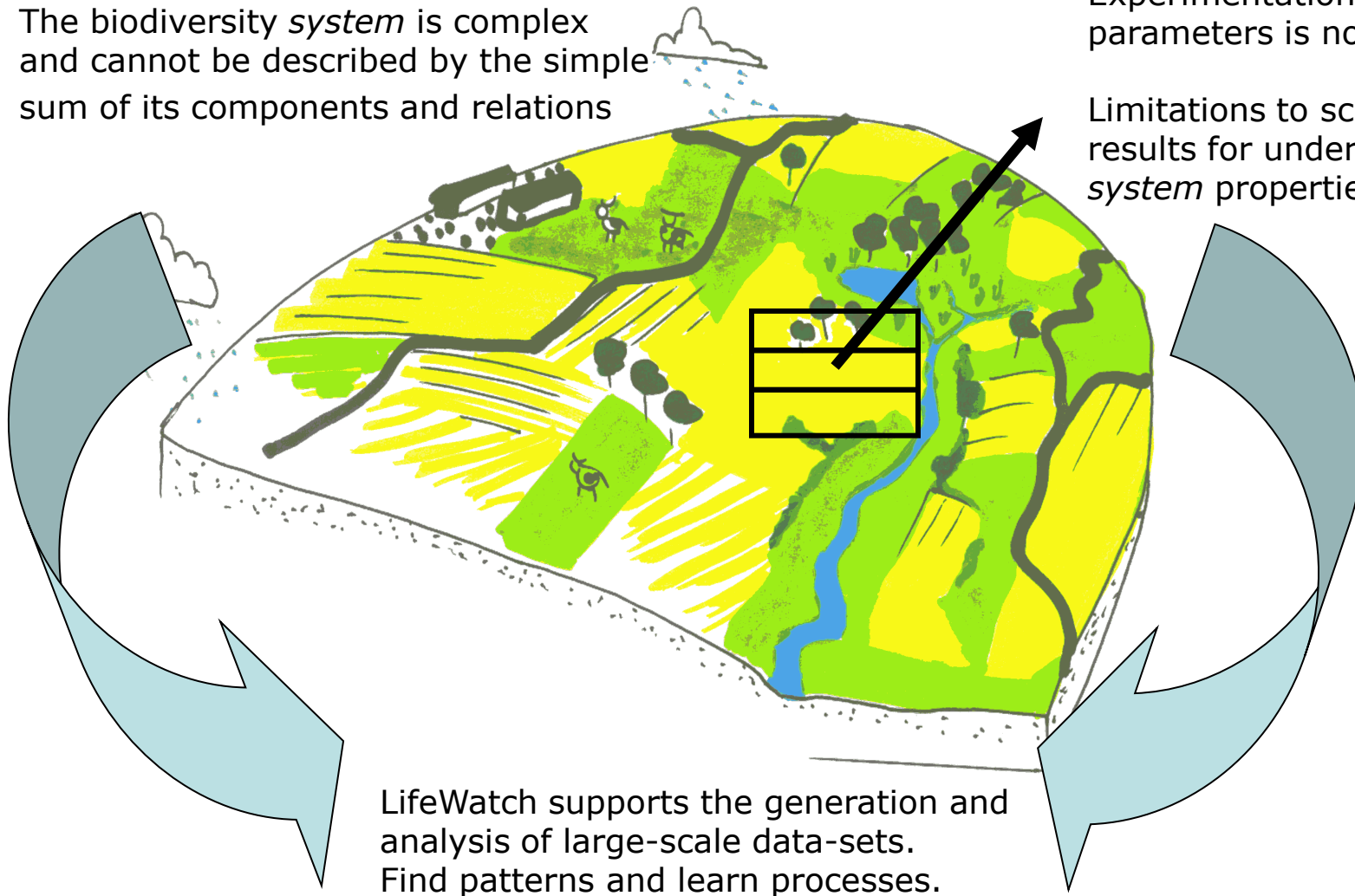
ICOS



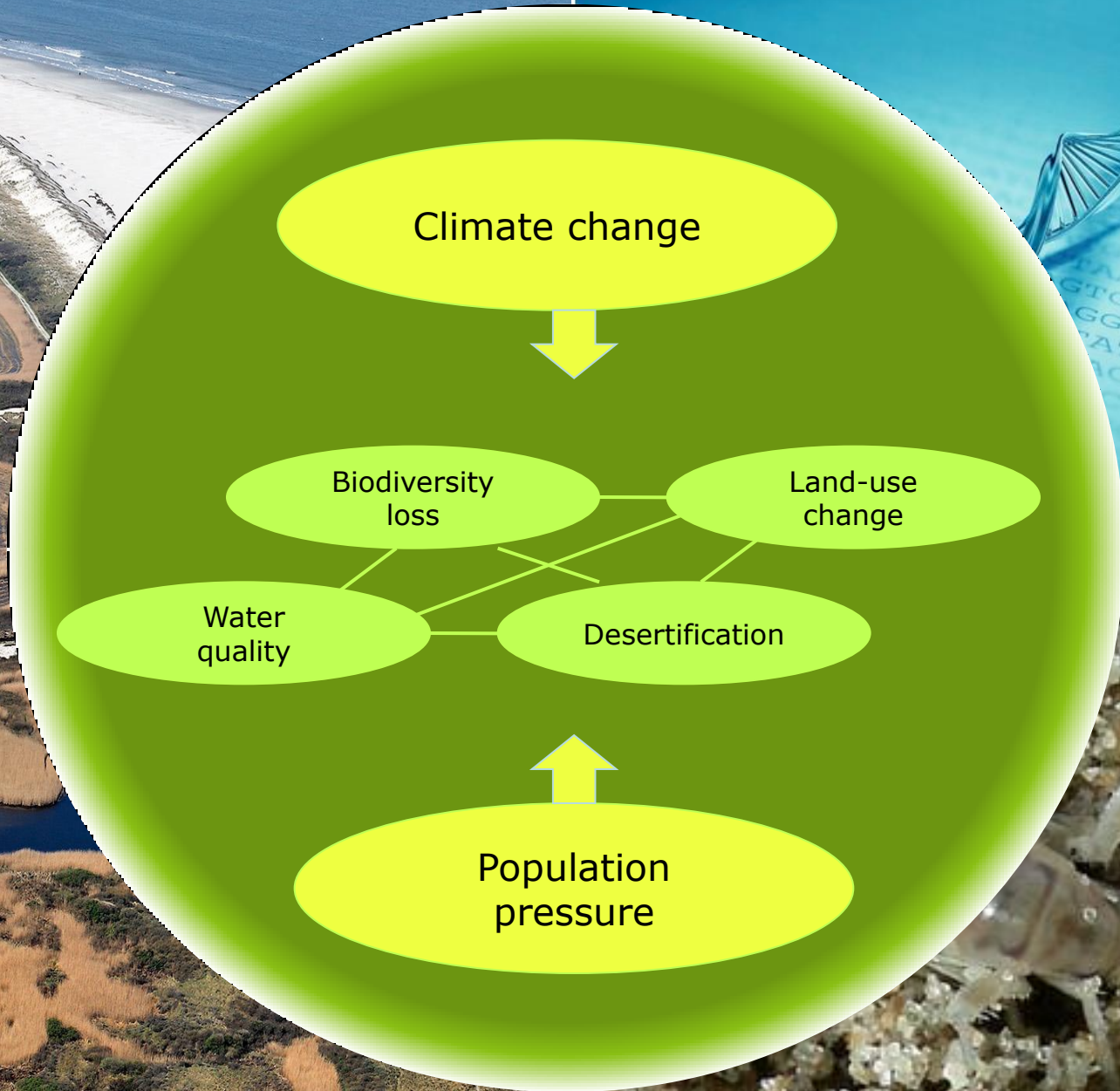
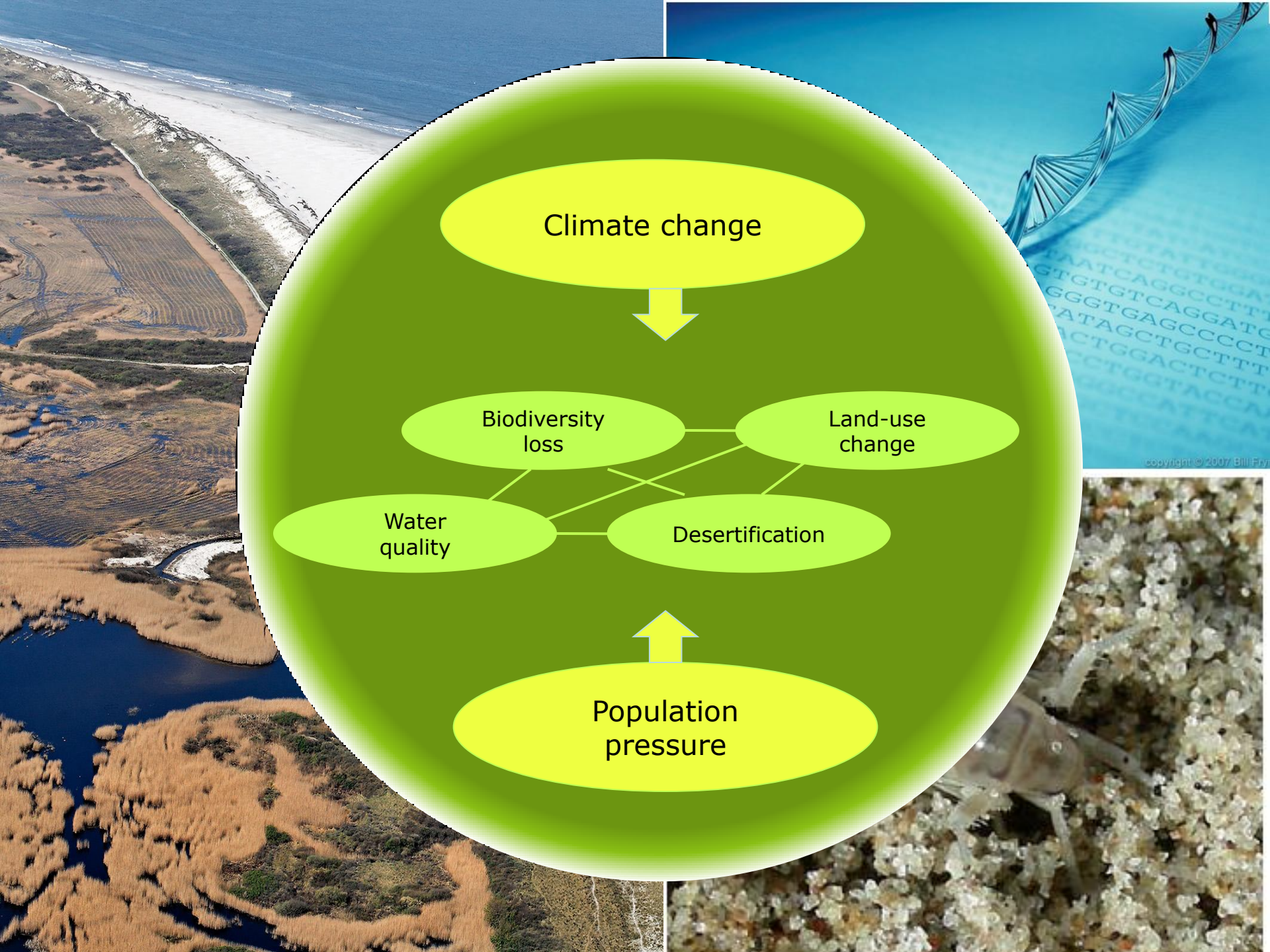
The biodiversity *system* is complex and cannot be described by the simple sum of its components and relations

Experimentation on a few parameters is not enough:

Limitations to scaling up results for understanding *system* properties

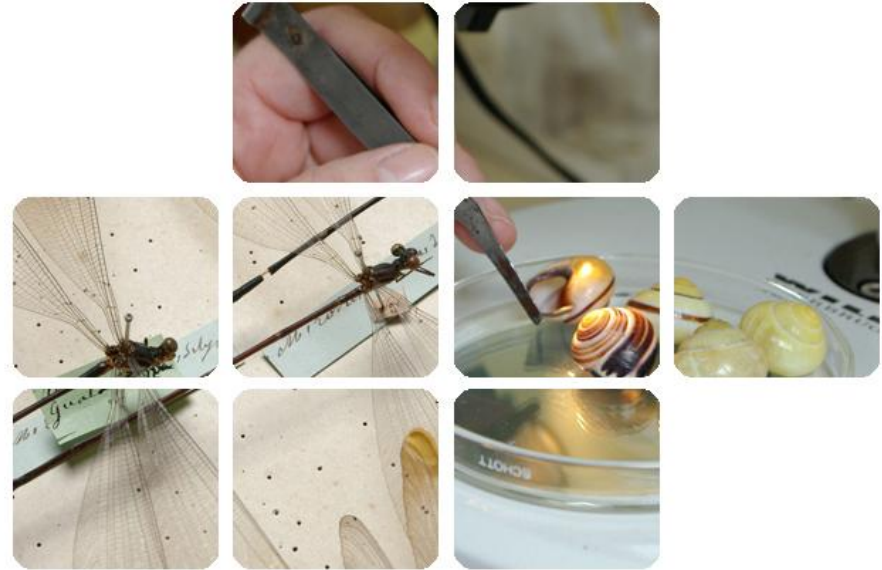


LifeWatch supports the generation and analysis of large-scale data-sets.
Find patterns and learn processes.



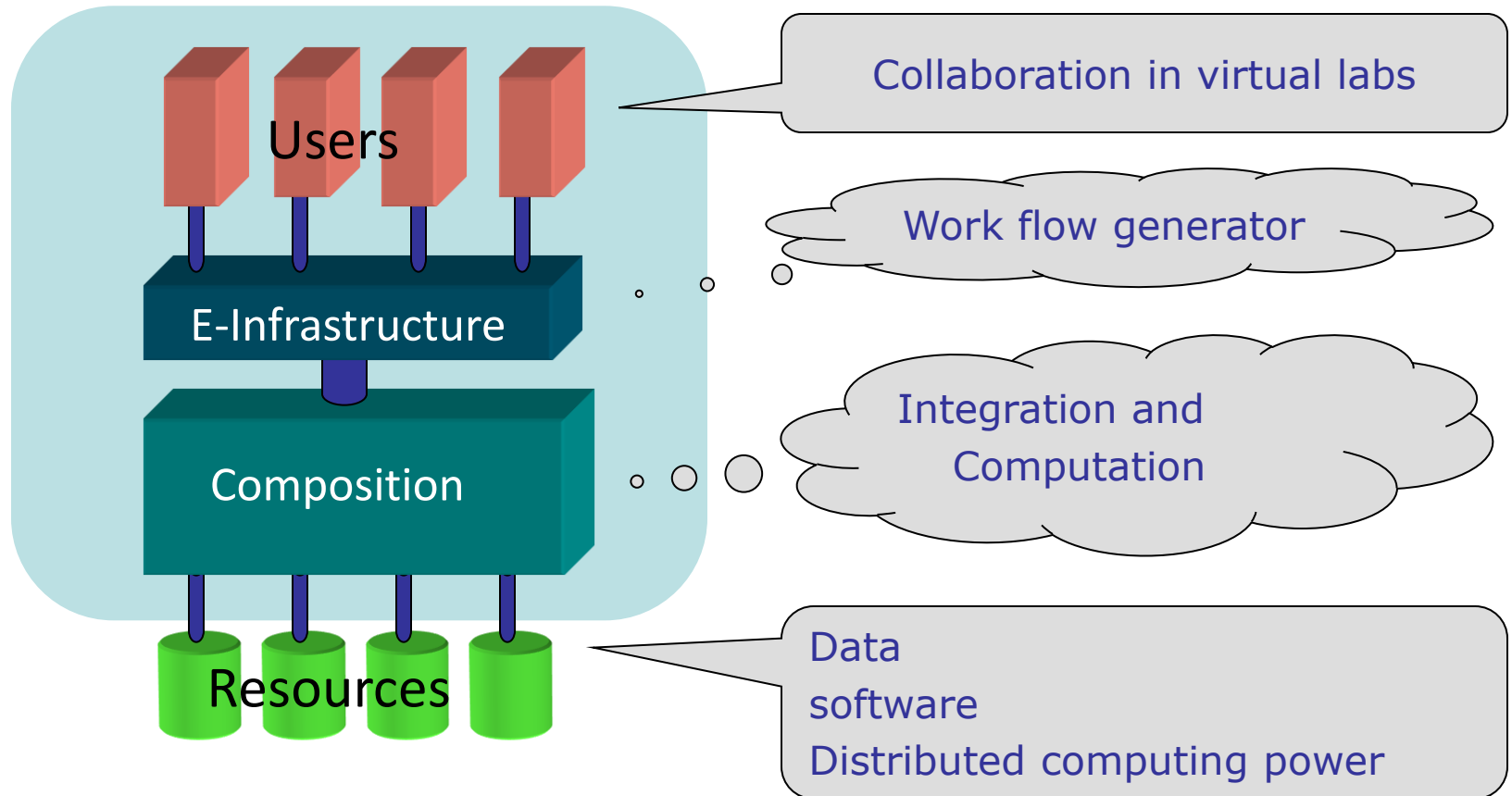
This defines an infrastructure with

- distributed observatories/sensors,
- interoperable databases,
- computational capability,
- and computational capacity.

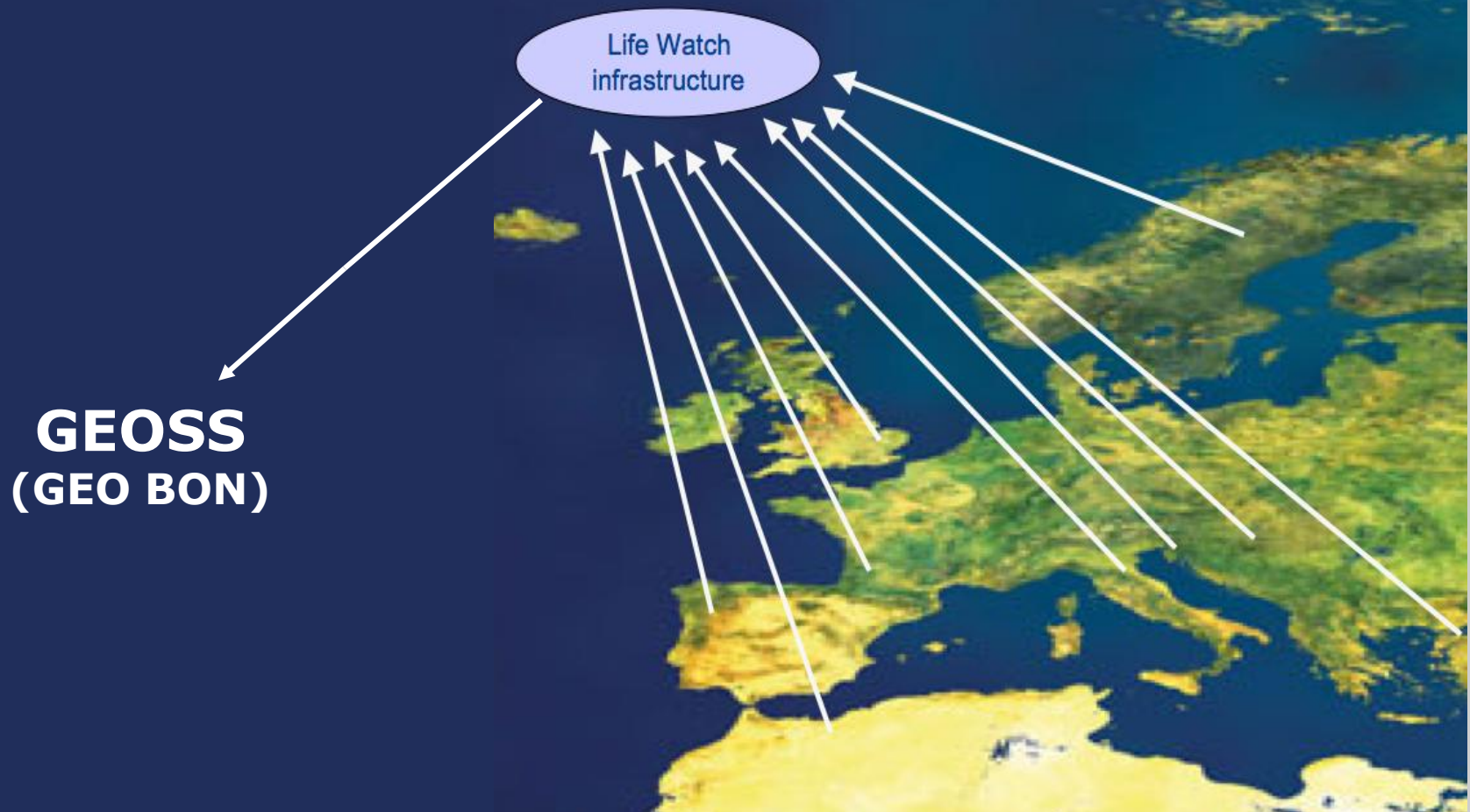


- A single portal for researchers, policy makers, industries and public at large
- Find data and model to analyse statistical relationships
- Accelerate data capture with new technologies
- Structure the scientific community with new opportunities for large-scale projects

Architecture



LifeWatch: a distributed research infrastructure



Connections with other facilities

a few examples



European Long-Term Ecosystem Research Network



MARS Network

The European Network of Marine Research Institutes and Stations



EDIT - European Distributed Institute of Taxonomy



CETAF - Consortium of European
Taxonomic Facilities



free and open access to biodiversity data

GLOBAL BIODIVERSITY INFORMATION FACILITY



ELIXIR

EUROPEAN LIFE SCIENCES INFRASTRUCTURE FOR BIOLOGICAL INFORMATION

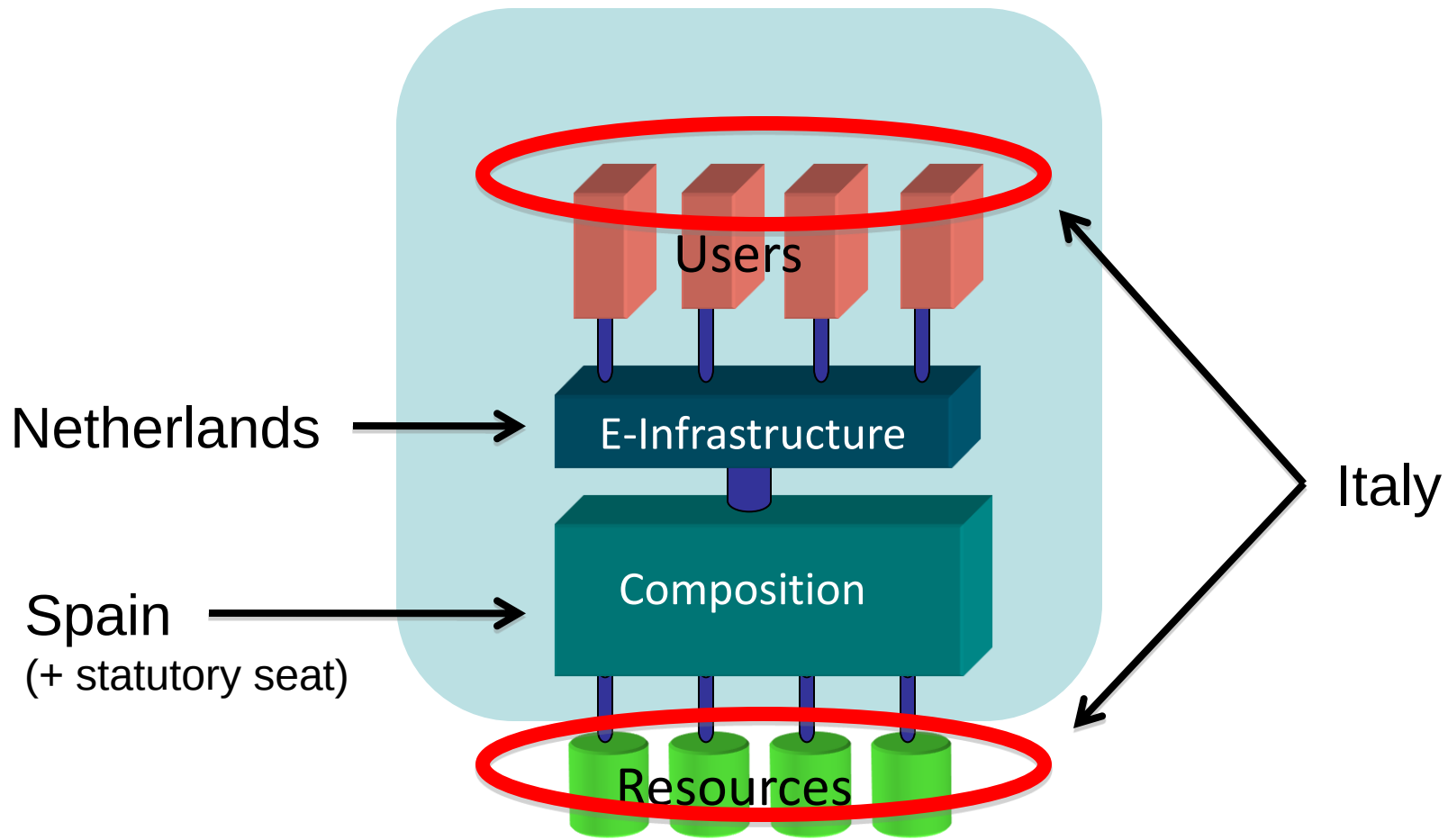


space for europe

European Space Agency

Current status

- Preparatory project was running from 2008 – January 2011
- Construction of the infrastructure is starting now
- Initial start-up funding from 5 countries
- More are following, also with national (distributed) facilities
- Three countries lead the central and common facilities



What LifeWatch can offer GEOSS

- Virtual environments for
 - data storage
 - data integration
 - data analysis
 - modeling
- Personalized virtual labs for individual projects and services
- Sustainable infrastructure, supported by national governments and other stakeholders
- Partnership in innovation
(Semantic interoperability, DNA-based sensors, etc)

LifeWatch and related major ecosystem research infrastructures in other continents are starting to collaborate in a new EU project to promote cooperation and global interoperability in support of GEOSS - GEO BON .

Thank you for your attention

