

LifeWatch & European GBIF nodes

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The origin of LifeWatch



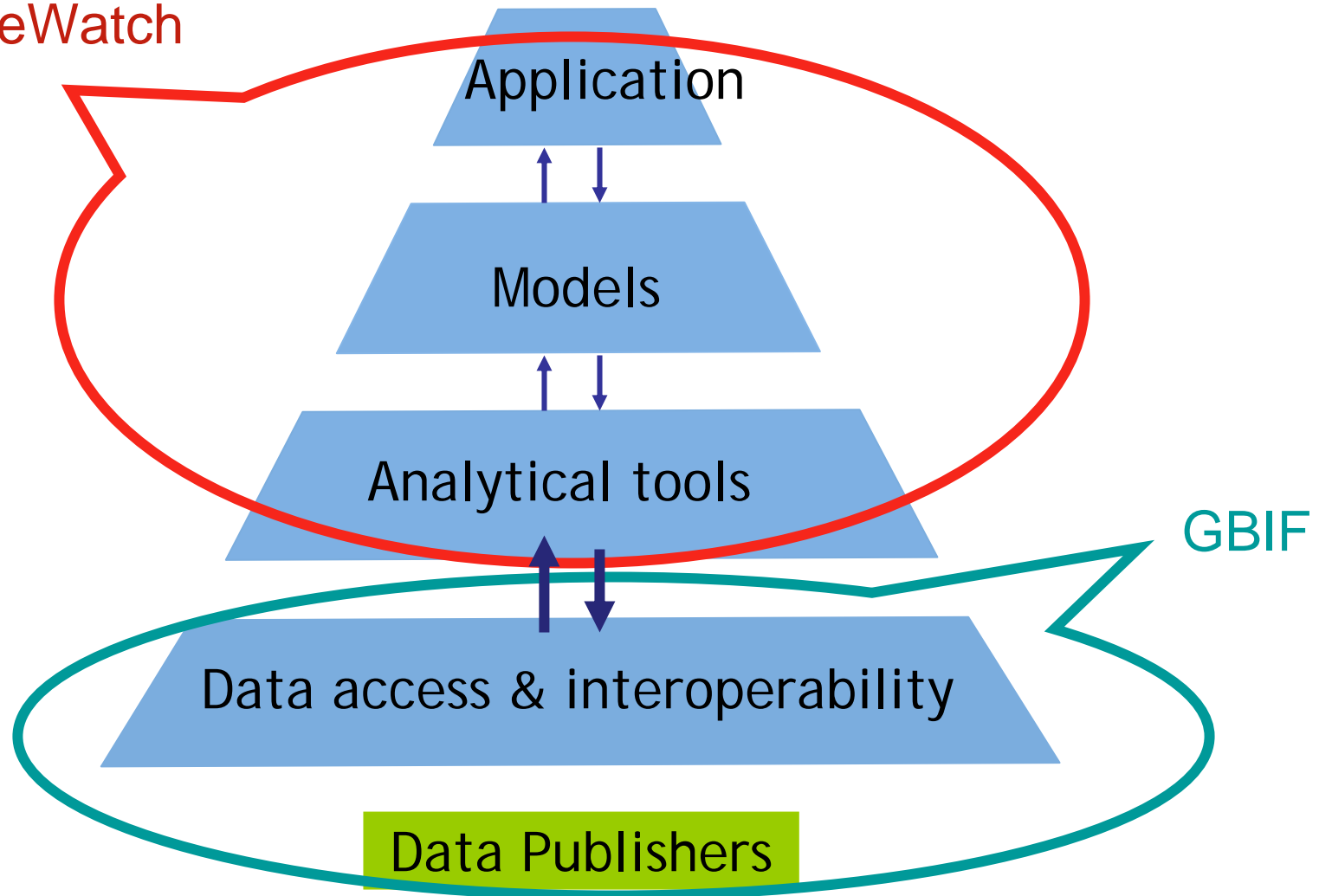
- ENBI (2003-2006) included the partnership of European GBIF nodes.
- ENBI studied various ways to sustain its activities and to keep the partnership of European GBIF nodes alive.
- It was concluded to focus on a new kind of infrastructure.

ENBI's infrastructure plan



- Bring together the (partial virtual) – biological collections - and other data sources with new genomic and IT (e-Bioscience) facilities in an infrastructure environment which allows for advanced data mining and knowledge development.
- The new large-scale infrastructure, together with an array of interpreting methodologies, should operate as an observatory of our environment.
- A possible initiative in the 7th Framework Programme.

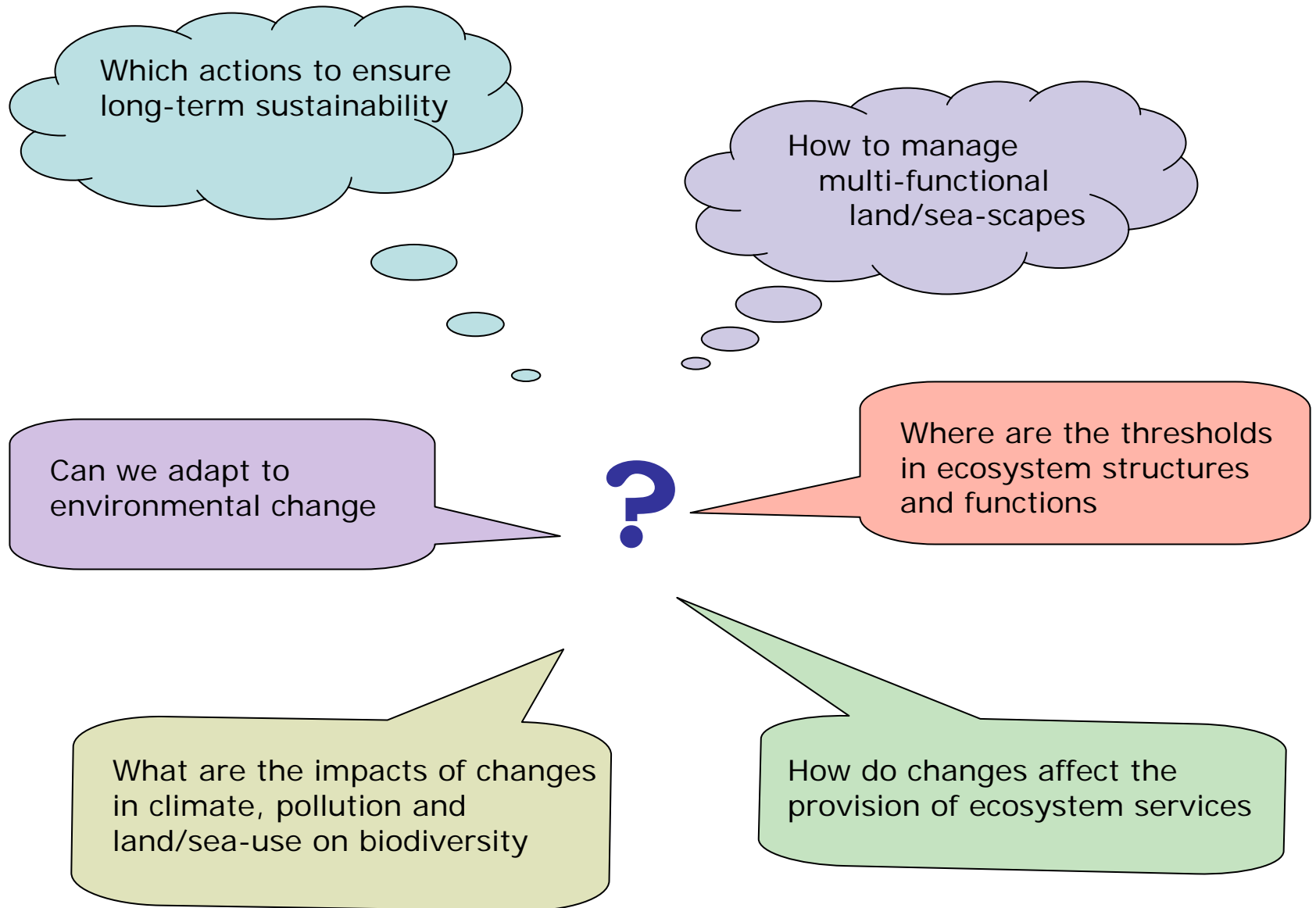
LifeWatch



What causes Species Diversity?

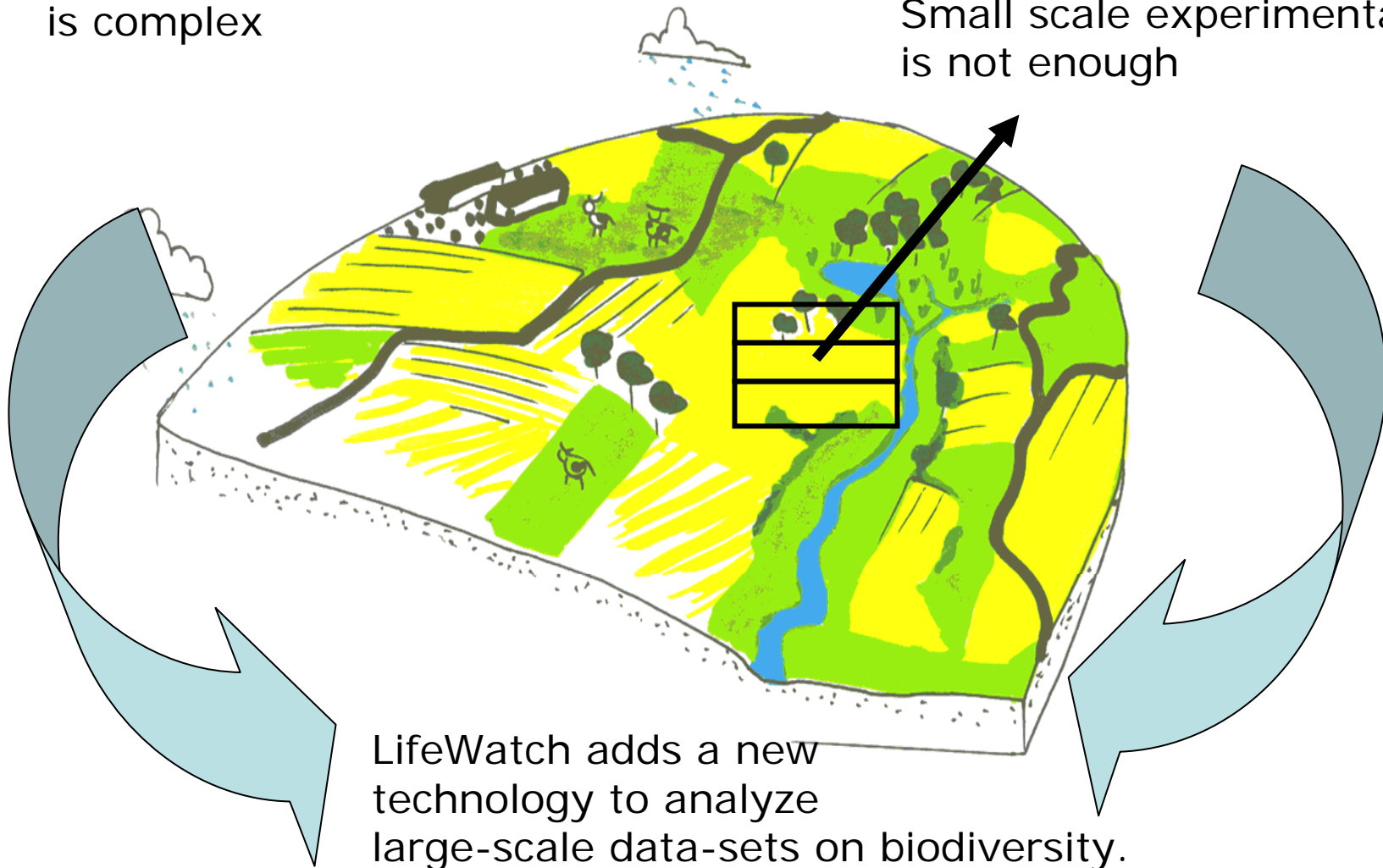
- Theophrastus (student of Aristotle) already asked this question some 2300 years B.P.





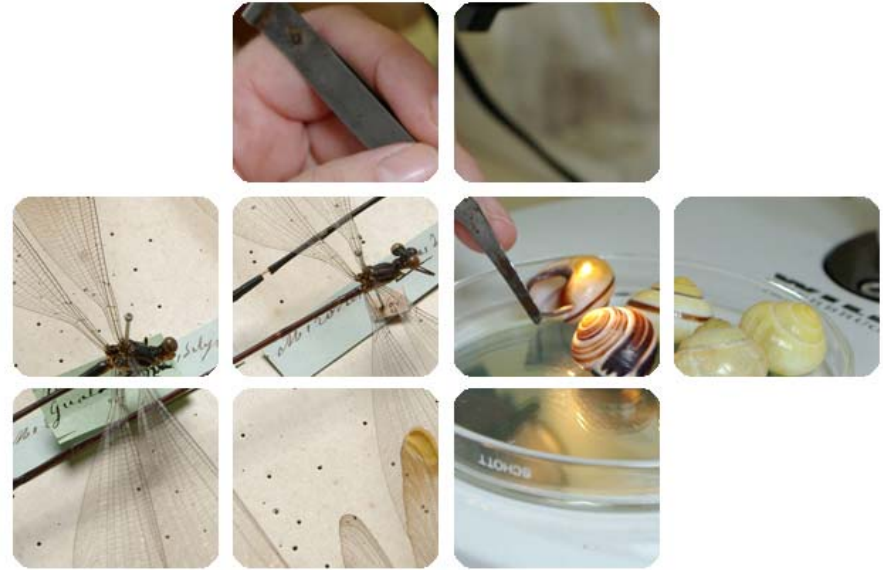
The biodiversity *system*
is complex

Small scale experimentation
is not enough



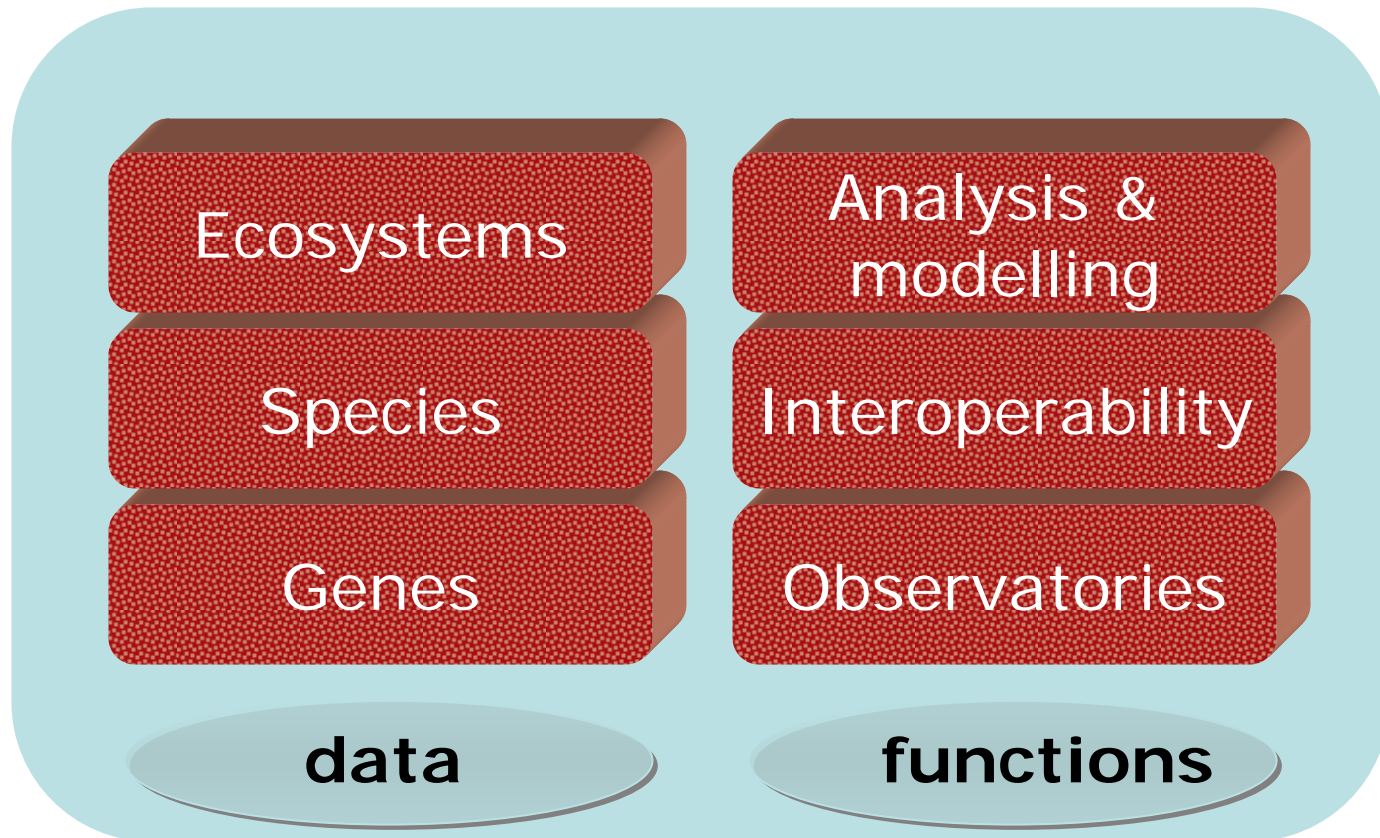
This defines an infrastructure with

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

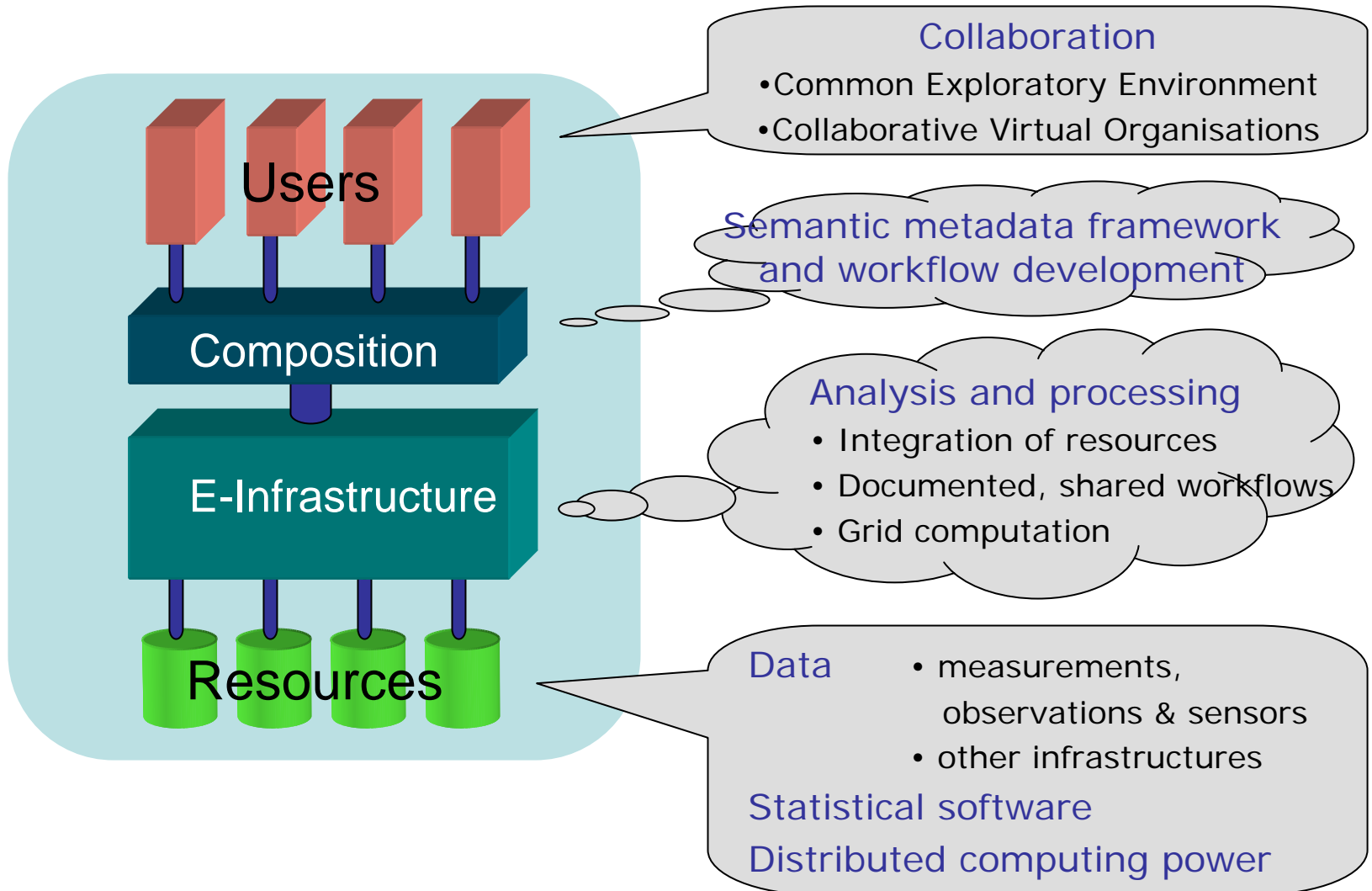


- A single portal for researchers, policy makers, industries and public at large
- Find data and model / analyse relationships
- Accelerate data capture with new technologies
- Structure the scientific community with new opportunities for large-scale projects

Crucial building blocks

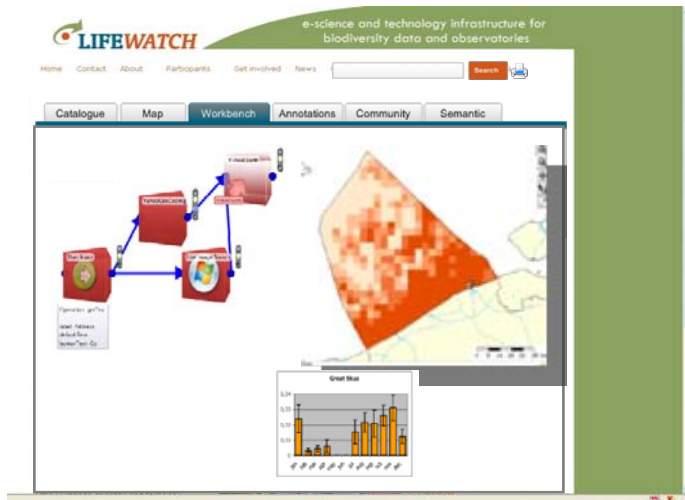
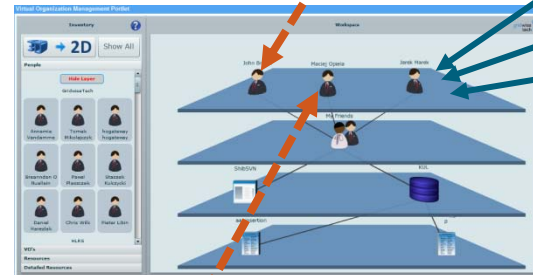
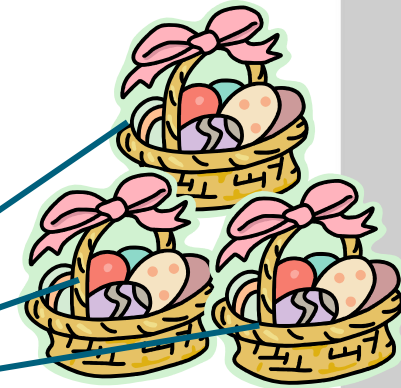


Architecture

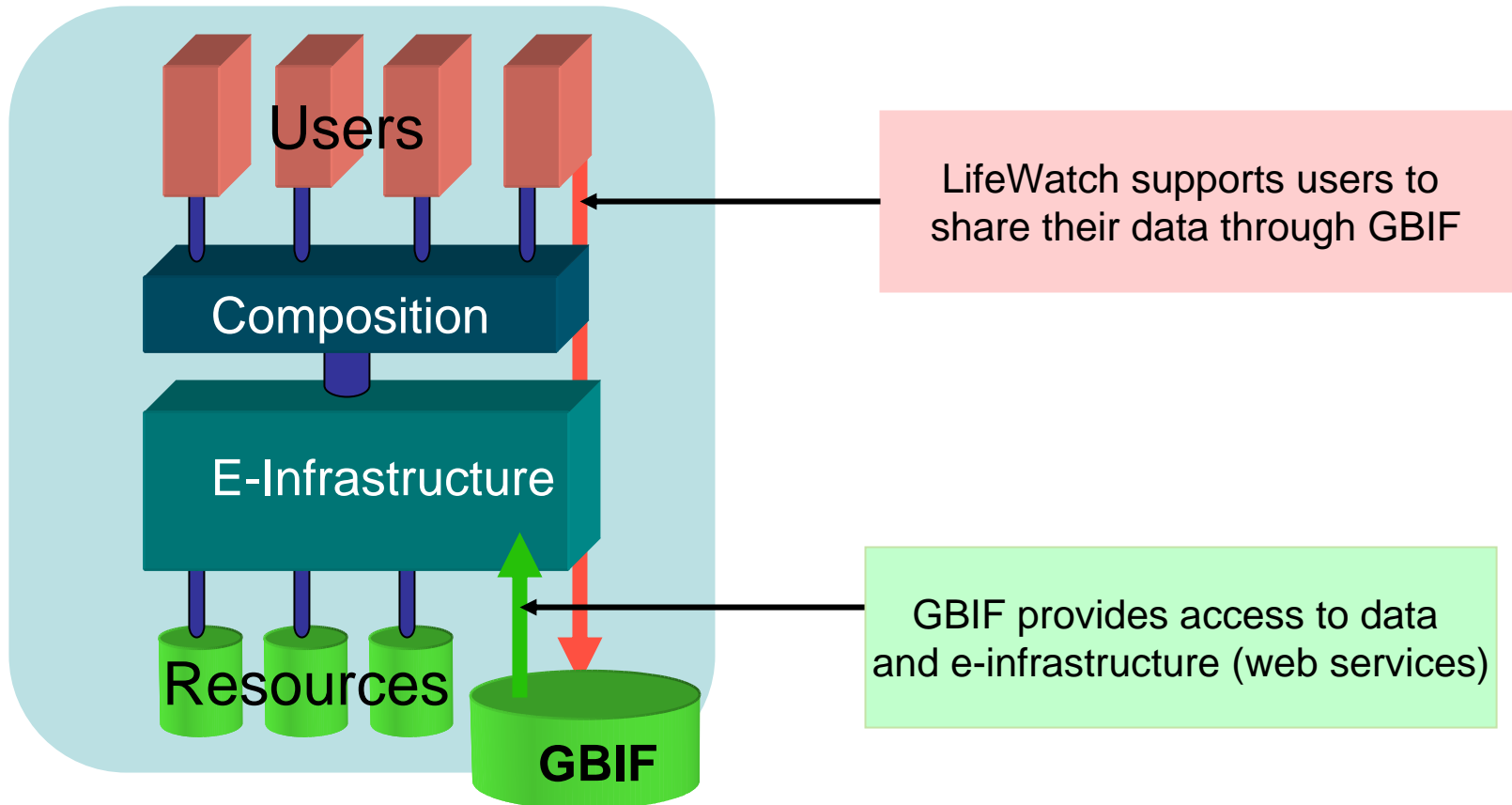


<http://portal.lifewatch.eu/> 

Community



LifeWatch and GBIF: serving each other



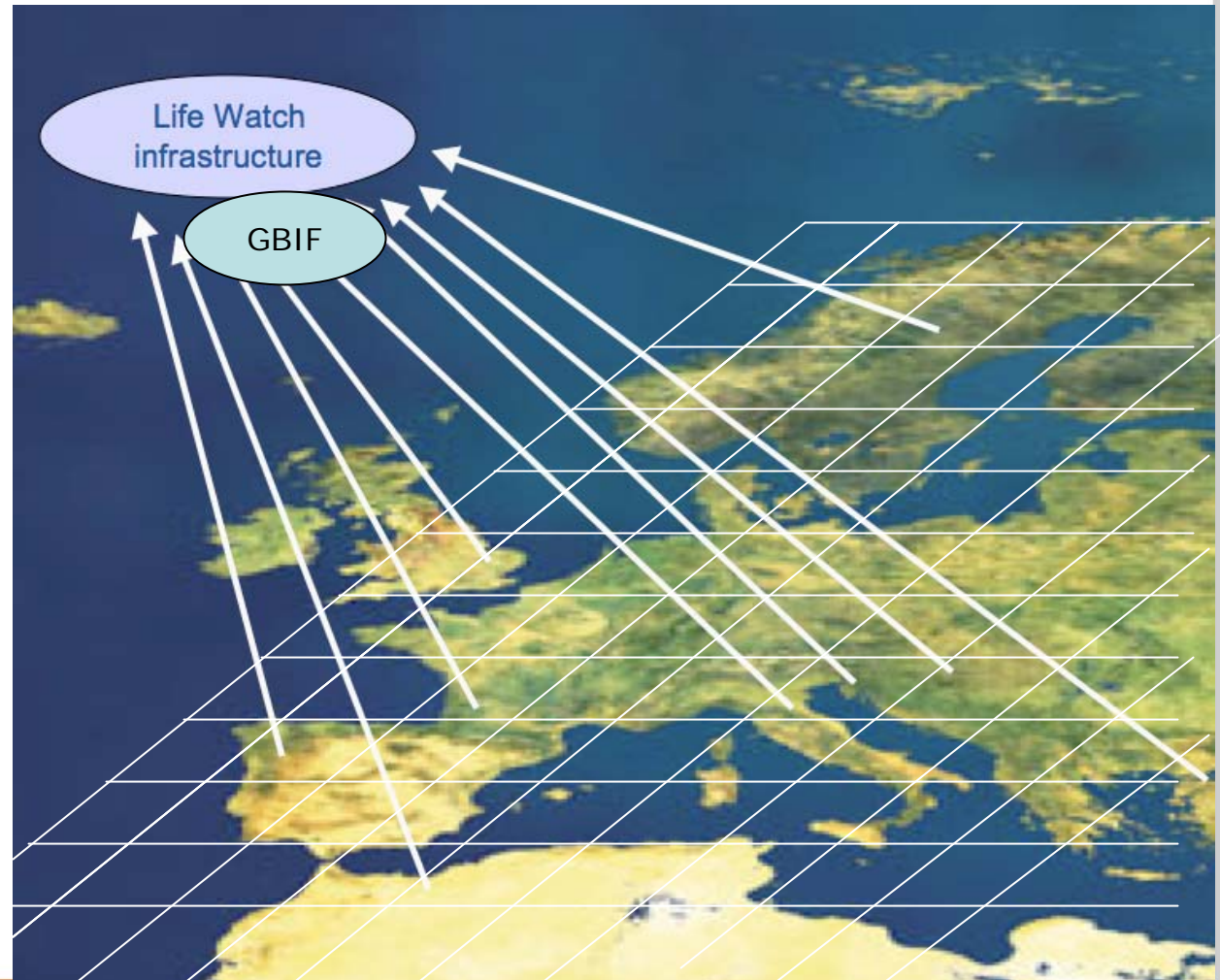
LifeWatch and GBIF as a distributed research infrastructure

Data grid
monitoring sites
sensors
collections

Soft/Middleware grid

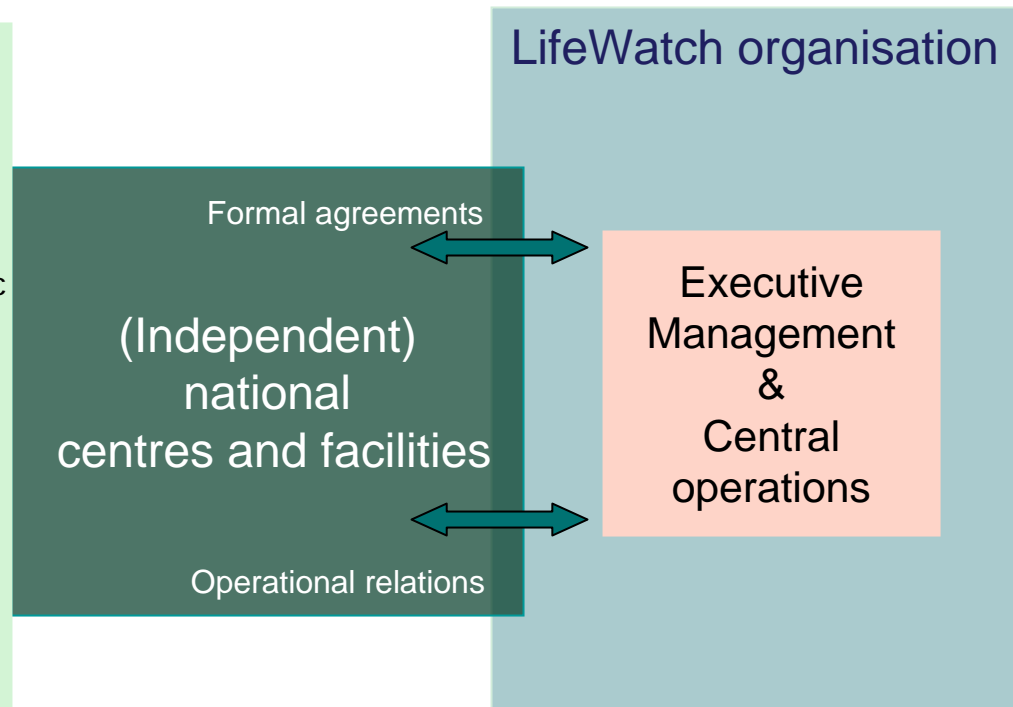
Computing grid

Part of an international
infrastructure grid




Distributed LifeWatch organisation

- Construction of infrastructure components
 - Software / middleware
 - Sensor development, etc, etc
- (Regional) Service Centre
- R&D Centre(s)
- Specific user services
- Targeted data generation
- Computing services
- Relations data facilities
- & LifeWatch (i.e. with GBIF)



Some partners in the 'infrastructure grid'



LTER
Europe

European Long-Term Ecosystem Research Network



MARS Network
The European Network of Marine Research Institutes and Stations



EDIT
European Distributed Institute of Taxonomy

EDIT - European Distributed Institute of Taxonomy



Cetaf
Consortium Of European Taxonomic Facilities

CETAF - Consortium of European Taxonomic Facilities



GBIF

free and open access to biodiversity data

GLOBAL BIODIVERSITY INFORMATION FACILITY



ELIXIR

EUROPEAN LIFE SCIENCES INFRASTRUCTURE FOR BIOLOGICAL INFORMATION



esa
space for europe

European Space Agency

Memorandum of Cooperation (draft) GBIF & LifeWatch

- Common free and open data policy.
- Common standards and protocols (LifeWatch Reference Model)
- Support the use “GBIF data” with LifeWatch capabilities
- Services to assist LifeWatch users in sharing their data through GBIF
- Collaborative projects of value for both
- Sharing and secondment of personnel
- Joint thematic or training workshops

GBIF nodes to be involved in the ESFRI process

- ESFRI (European Strategy Forum on Research Infrastructures) as a facilitator to identify urgent European level research infrastructures.
- LifeWatch is on the ESFRI Roadmap: the selection of preferred research infrastructures.
- LifeWatch is a “distributed” research infrastructure: construction with national and thematic contributions.
- Be involved in your national LifeWatch networks.

Discussion items

1. GBIF-node to operate as (part of) a national LifeWatch support centre?
GBIF-nodes to reach out the national representatives of other LifeWatch data partners?
(i.e. LTER-Europe, Marine Stations network)?
2. Role of LifeWatch to promote GBIF-membership of not yet involved European countries?
3. Do we need a European (EU?) GBIF-node?
What would be the role of LifeWatch as European legal entity?

Thank you
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