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# LifeWatch Scientific Community Meeting

Rome, 27-29 May 2019



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## Plant Data @LW-ITA

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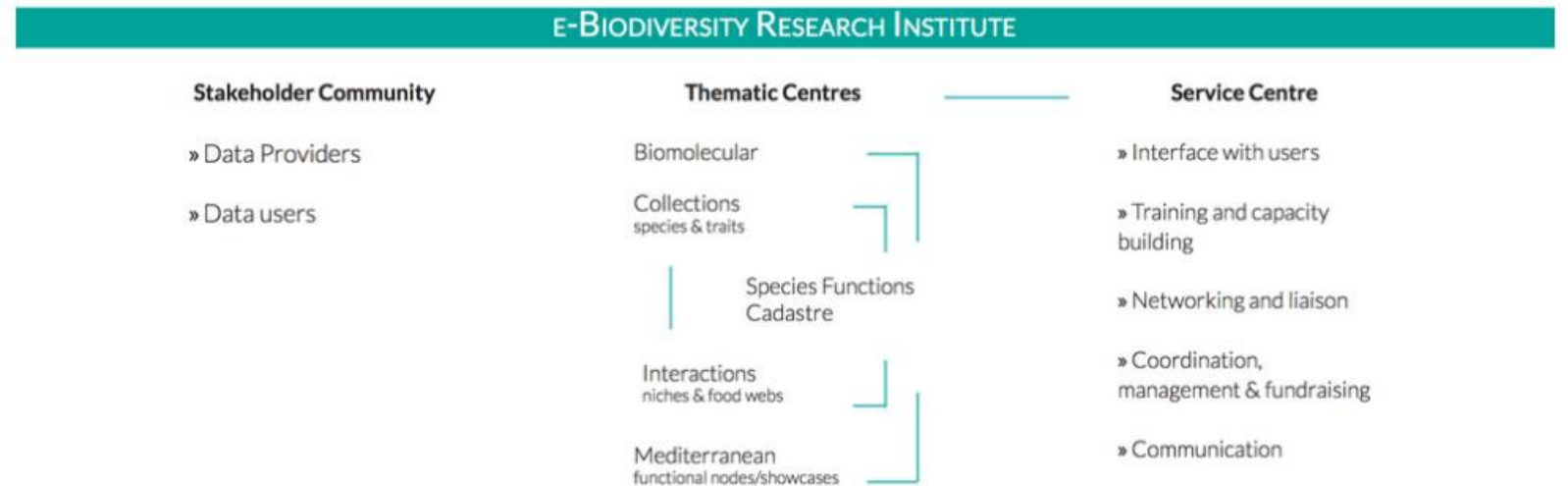
*Alma Mater Studiorum* - University of Bologna

## Structure



The e-Biodiversity Research Institute of LifeWatch-ITA latter has branches distributed throughout Italy, focusing on the construction of a functional backbone, and seeks to reinforce integrated scientific research into biodiversity.

The e-Biodiversity Research Institute of LifeWatch-ITA is organised into four thematic centres: [Biomolecular](#), [Collections](#), [Interactions](#) and [Mediterranean](#), focusing on species, their genetic and phenotypic traits (including behavioural traits), their niches and their interactions.



# LifeWatchPLUS



A proposal for enforcing the infrastructure of LifeWatch Italia was presented by a consortium made up by:

- CNR
- Istituto Nazionale di Fisica Nucleare
- Università del Salento
- Università di Bologna



# VEGETATION dataserver @ UNIBO

**Scopes:** archive, discovery, distribution, analysis & modelling of plant biodiversity data (floristic data, herbarium data, community data; map data, citizen science data).

## Requirements:

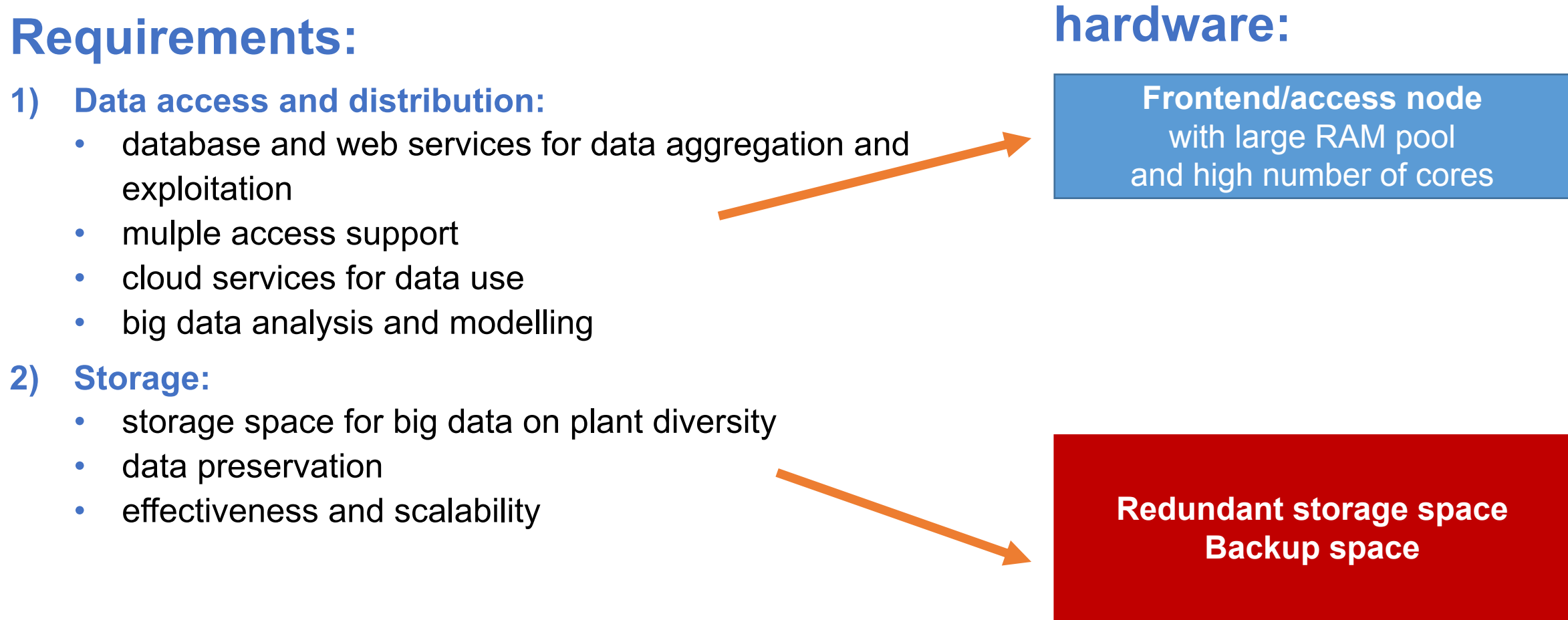
### 1) Data access and distribution:

- database and web services for data aggregation and exploitation
- multiple access support
- cloud services for data use
- big data analysis and modelling

### 2) Storage:

- storage space for big data on plant diversity
- data preservation
- effectiveness and scalability

## hardware:



Frontend/access node  
with large RAM pool  
and high number of cores

Redundant storage space  
Backup space

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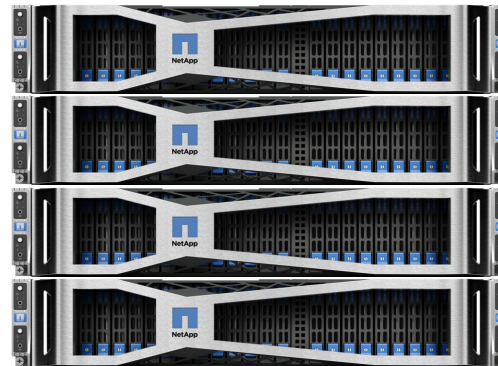
## Configuration:

**Network:**  
Switch Cisco  
Nexus 100Gb



**SW:**  
Hypervisor: VMware vSphere  
Backup Sw: Veritas Netbackup

**Calculus:**  
Netappcompute  
96 core Xeon, HCI C  
2048 GB memory  
5Y support



**Storage:**  
Netapp HCI Storage 22.4 TB  
(8.8 TB ridondante)  
5Y support

**Backup Storage:**  
EMC Datadomain



# Partners of the project



UNIVERSITÀ  
DEGLI STUDI DI TRIESTE



ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA



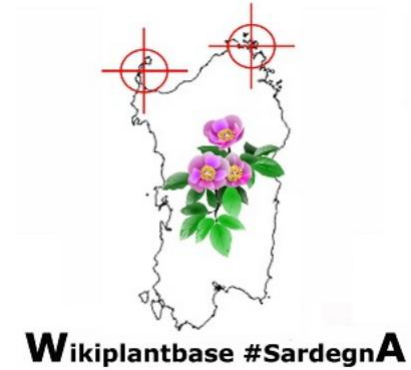
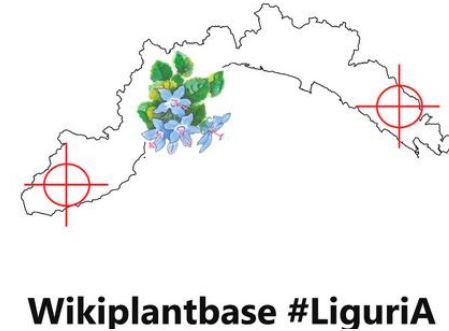
SAPIENZA  
UNIVERSITÀ DI ROMA



UNIVERSITÀ DEGLI STUDI DI PERUGIA  
DAL 1308 COSTRUIAMO IL FUTURO



# Partners' skills and collaborations



European Vegetation  
Archive



**vegitaly**

# Goals

- Improve data storage and accessibility;
- Integrate taxonomy cleaning services across systems;
- Provide virtual labs for data analyses and modelling;
- Provide integration of plant occurrence and community data with other resources;
- Improve data sharing and community projects among various organisations.