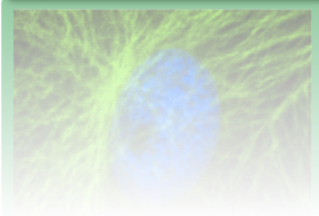
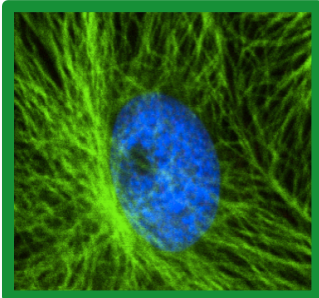


Euro-BioImaging @ OMERO 2015

*02.06.2015
Tanja Ninkovic, EMBL*

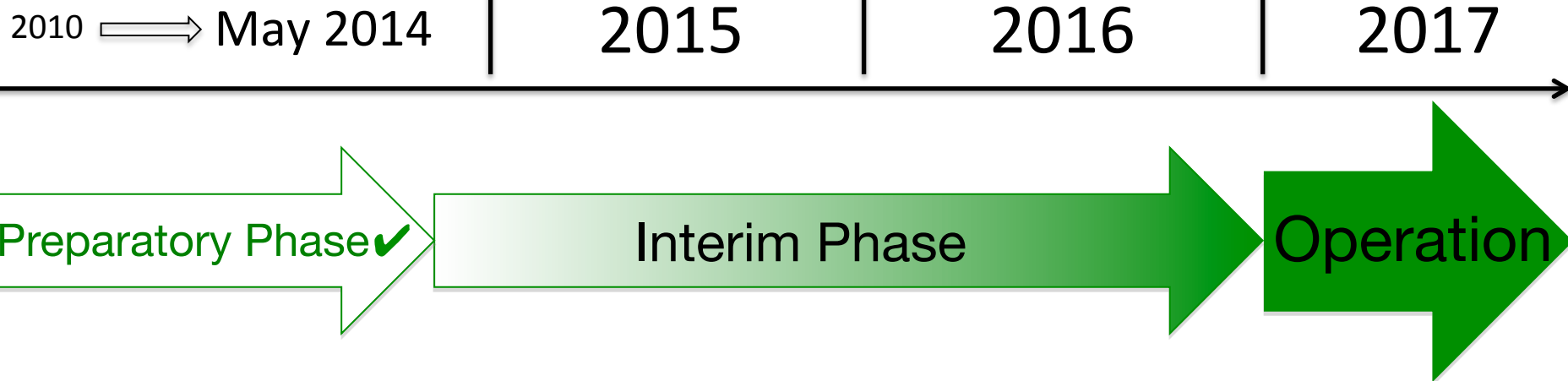




Euro-BioImaging will become a pan-European research infrastructure, which provides:

Open access and services to imaging technologies with high-level user support by expert technical staff.

Timelines towards launch of operation

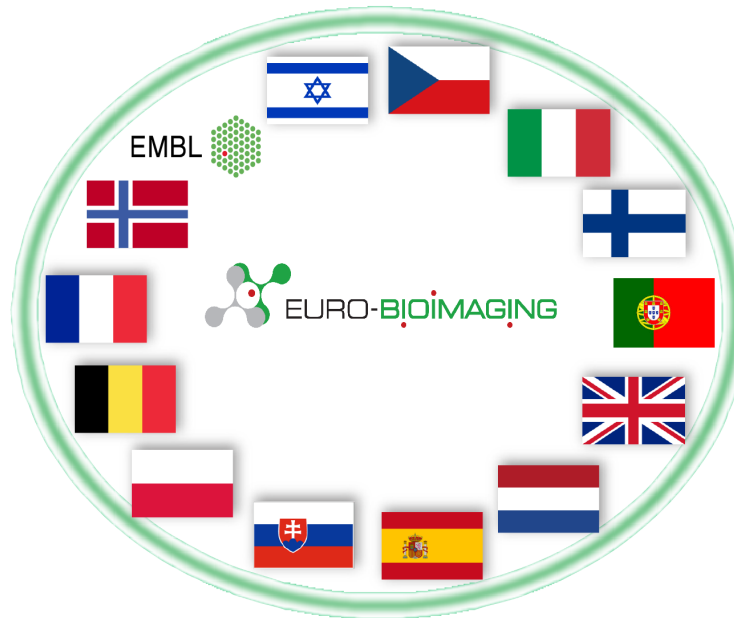


Interim Phase (2014 – 2016):

The EuBI Memorandum of Understanding formally joins
14 European countries and EMBL to implement Euro-BioImaging.

Interim Board

Belgium
Bulgaria
Czech Republic
Finland
France
Israel
Italy
Norway



Portugal
Poland
Slovakia
Spain
The Netherlands
United Kingdom
&
EMBL

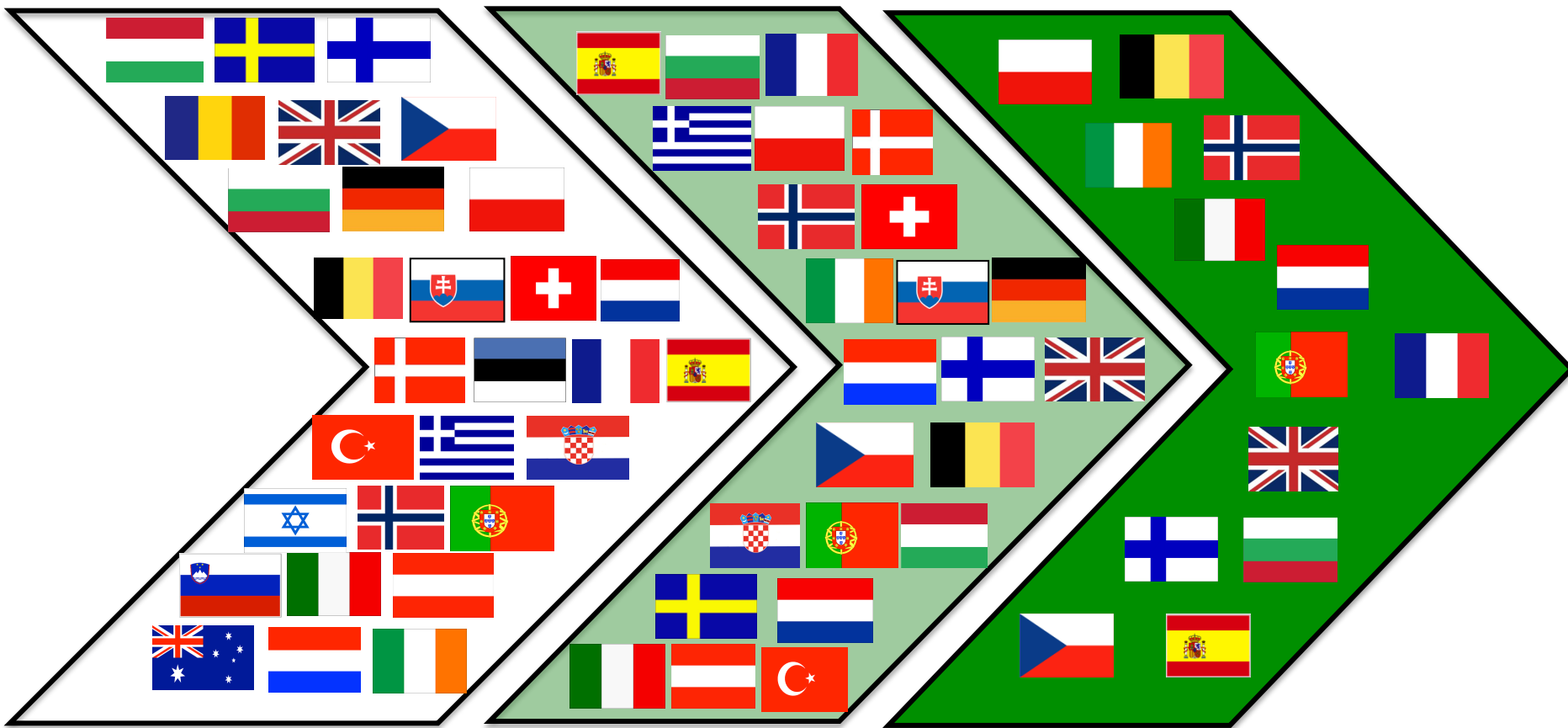
Observers

Austria, Germany (DFG), Hungary, Sweden
Additional countries can join continuously.

> 3000 Stakeholders
from 29 countries

National Bioluminescence
Chapters in 25 countries

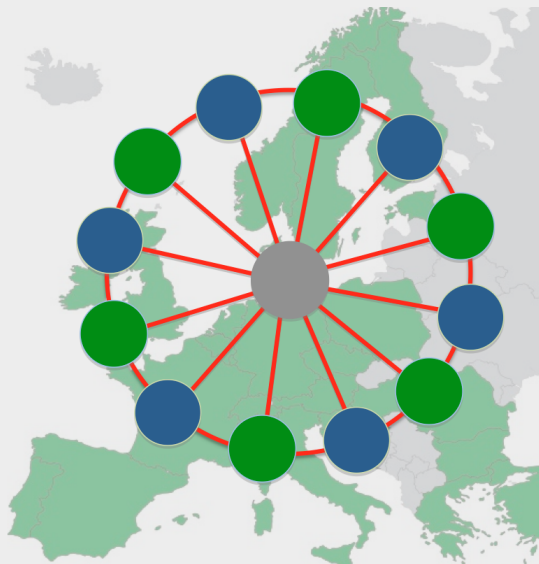
Prioritized, on the national
roadmap of 13 countries



Services to be provided

- **Access** to cutting-edge biological & medical imaging technologies with high-level user support by expert technical staff
- **Image data** repositories and analysis tools
- Advanced **training** for users and providers of imaging technologies

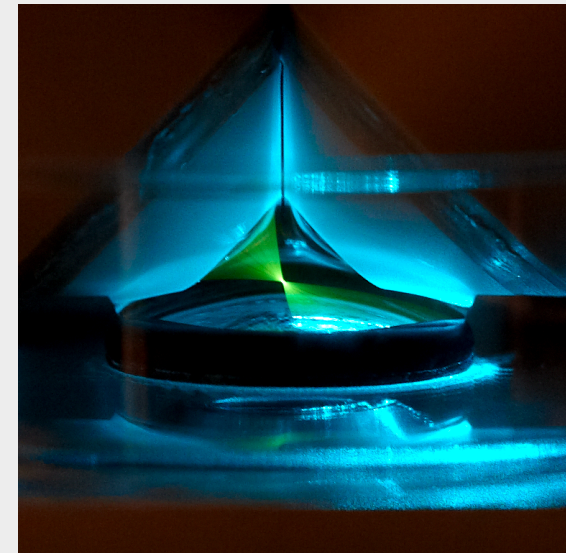
by Hub and Nodes

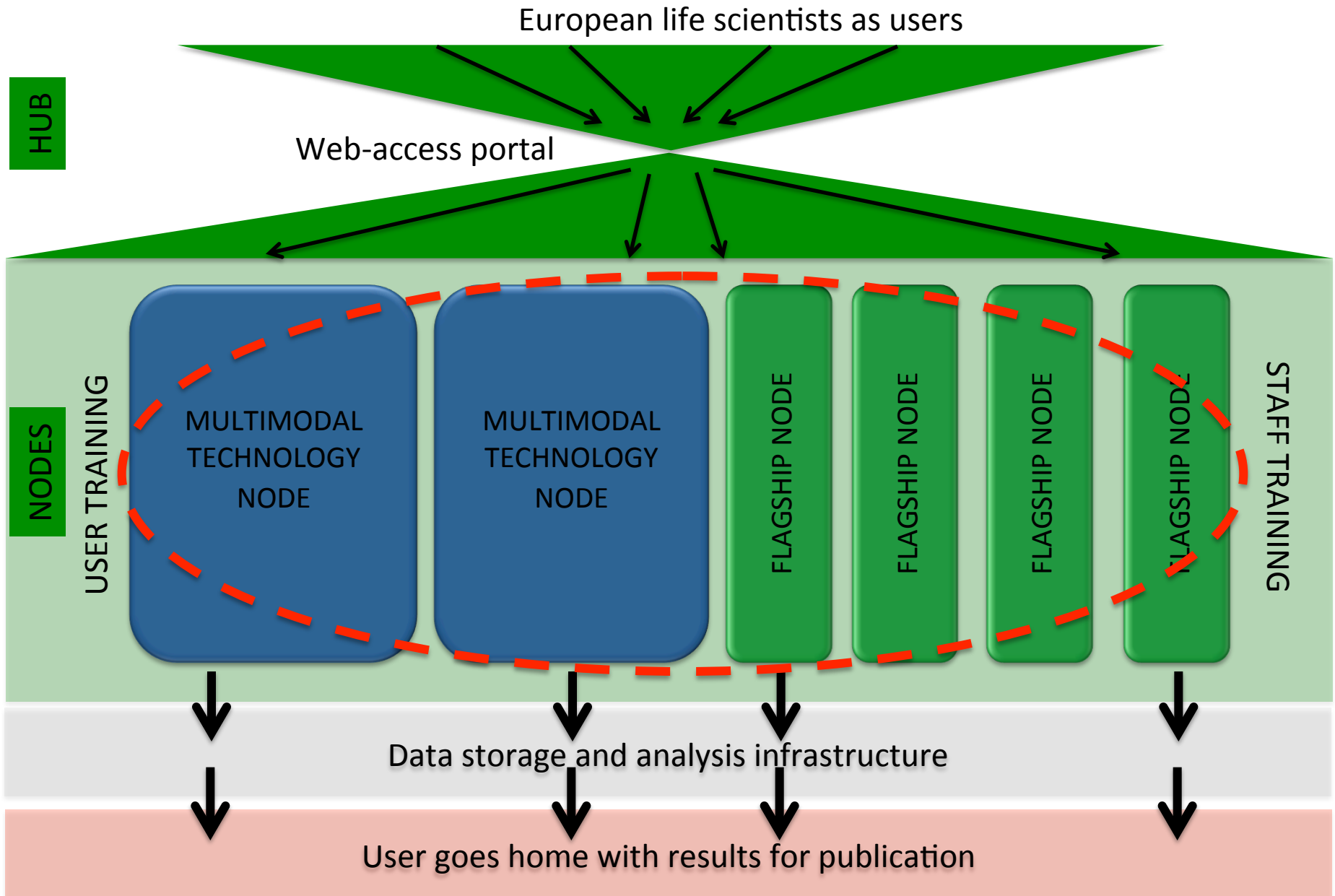


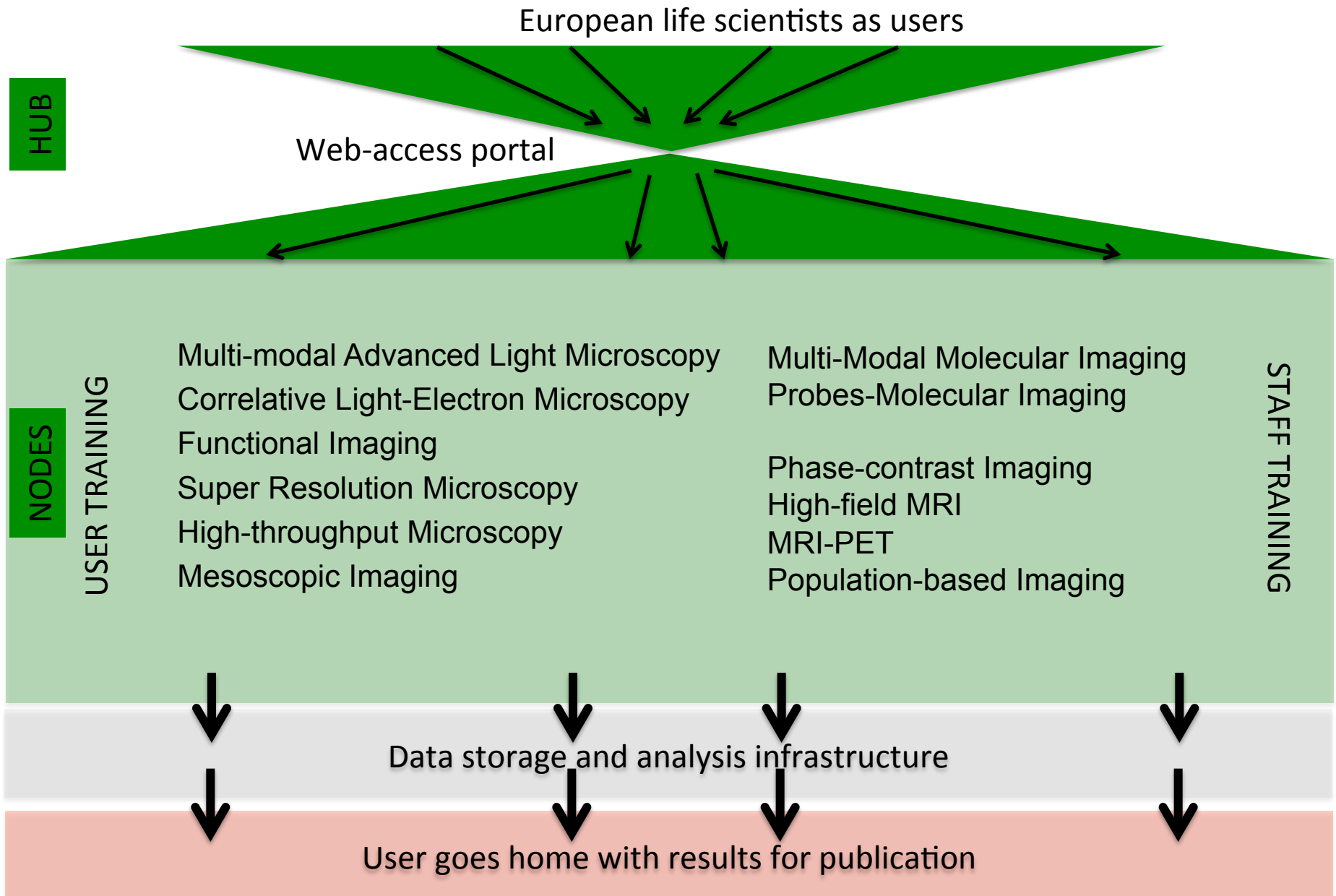
Euro-BioImaging HUB
Coordination & support of access, data, training
European infrastructure management

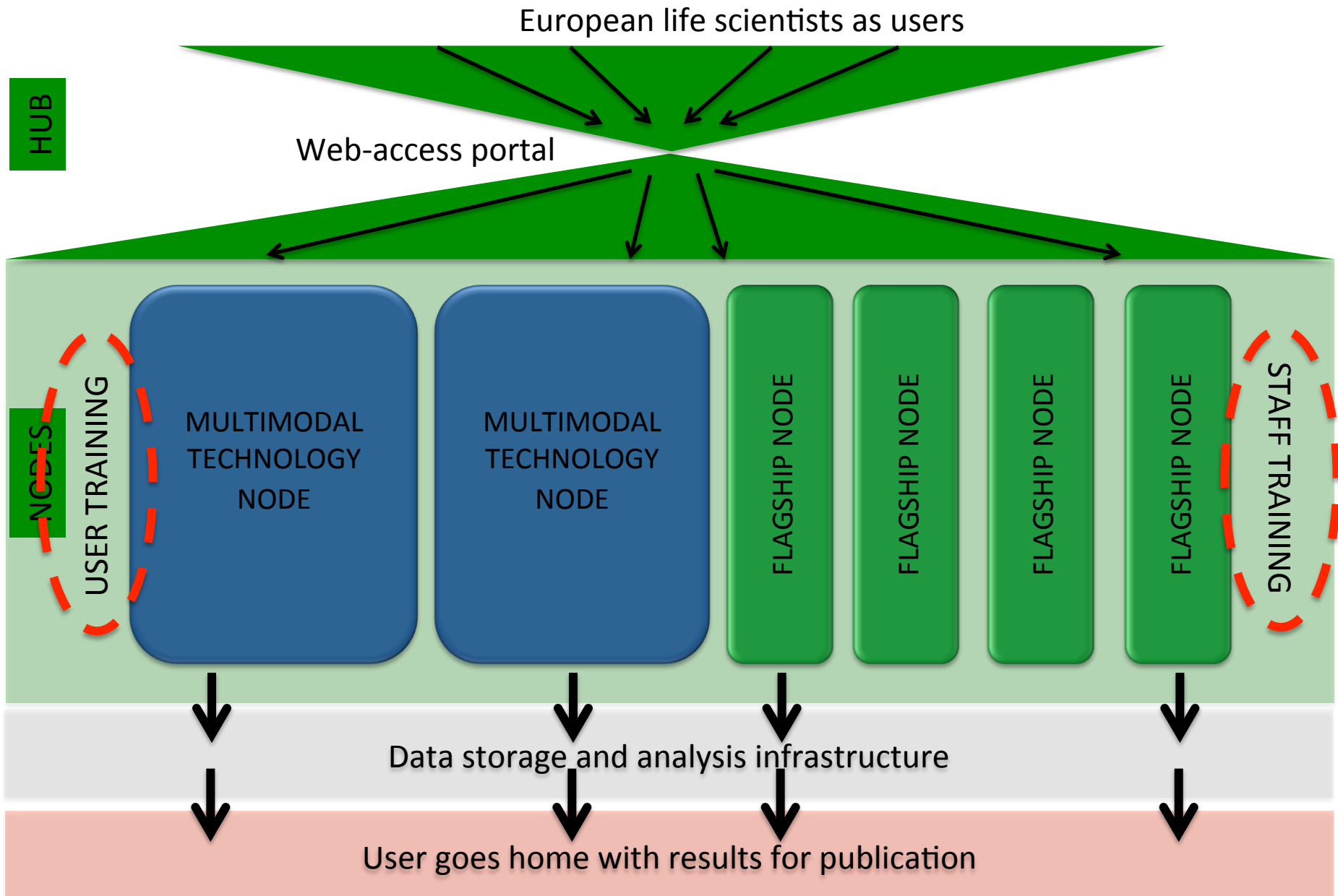
Flagship Technology NODES
Access to unique imaging technology in Europe

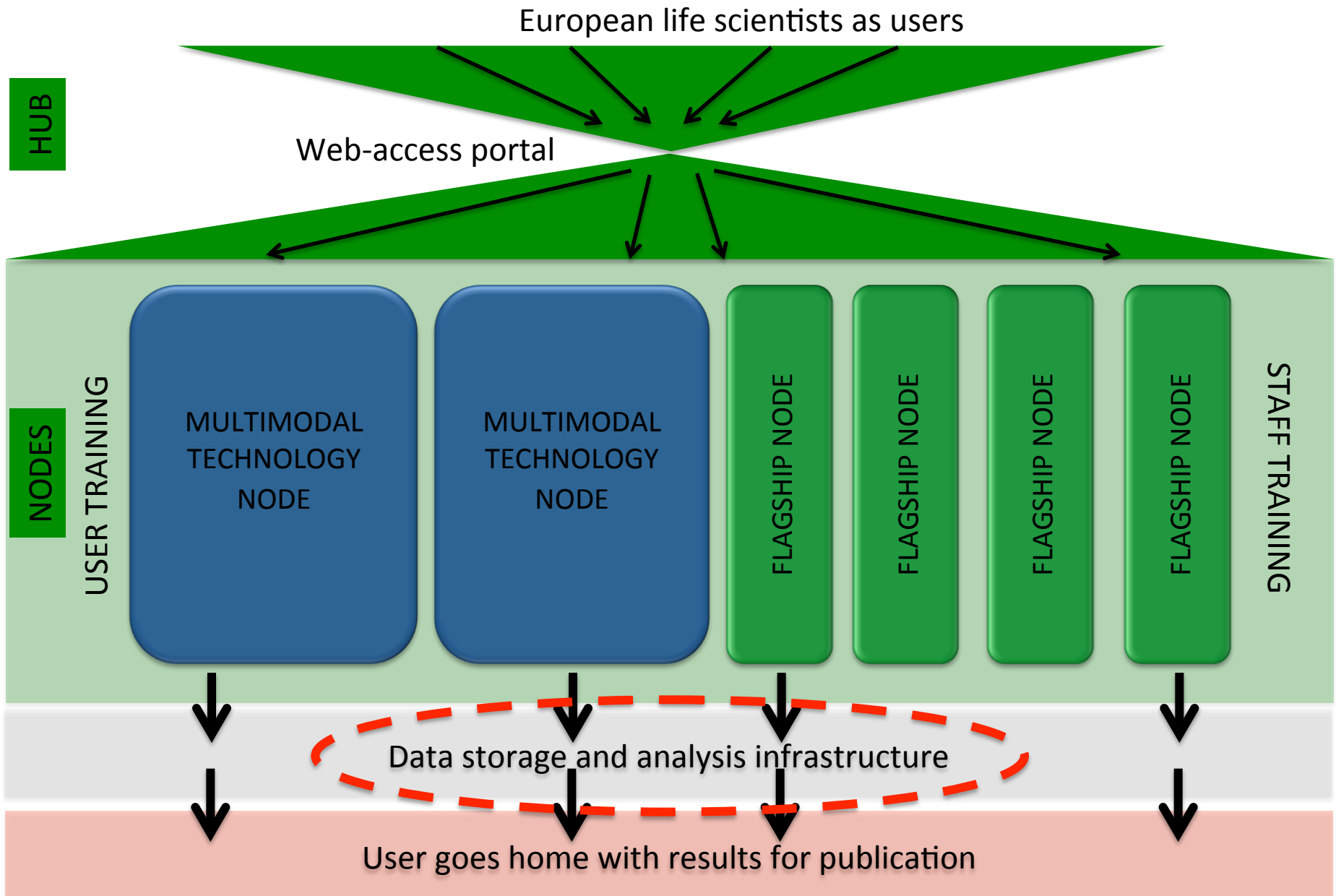
Multimodal Technology NODES
Integrated access to multiple imaging technologies

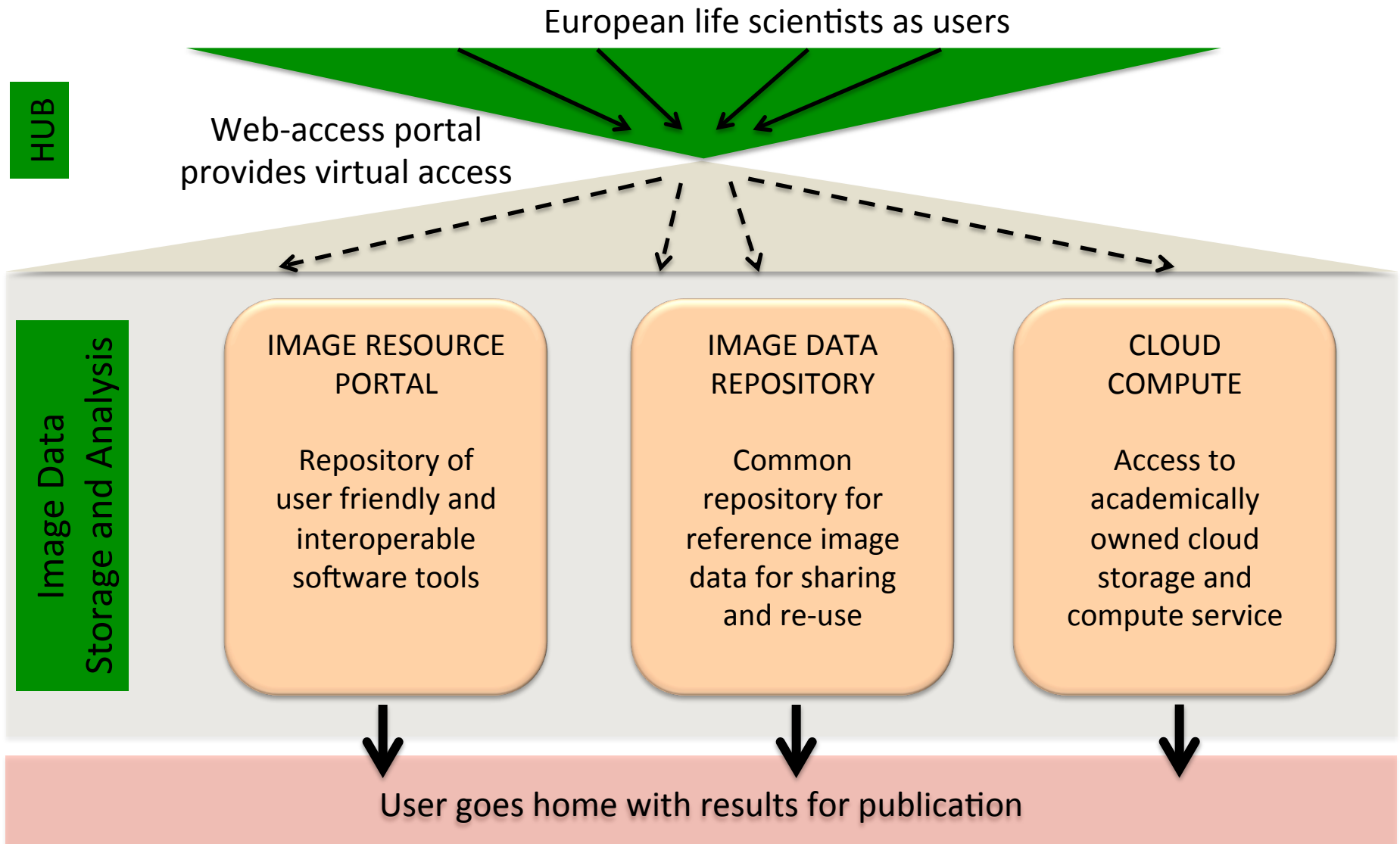












1. AIM -> build a user-facing portal listing the available software tools for image processing and analysis

State of art:

- <http://biii.info>: comprehensive list of tools available for biological and medical image processing and analysis.
- The list will be completed on the taggathon meeting organized by Euro-BioImaging (funding applied for)

Still to be done:

- Build a well-designed user interface for the IRP focusing especially on metadata search and discovery
- Develop and deliver access points for the IRP and IDR datasets in the Euro-BioImaging web site.
- Extend IRP coverage to include institutional and national data repositories holding biological, preclinical and medical imaging data

2. AIM -> Develop and deliver common repositories for reference image data sets for sharing and re-use, linking them to existing biomolecular data

State of art:

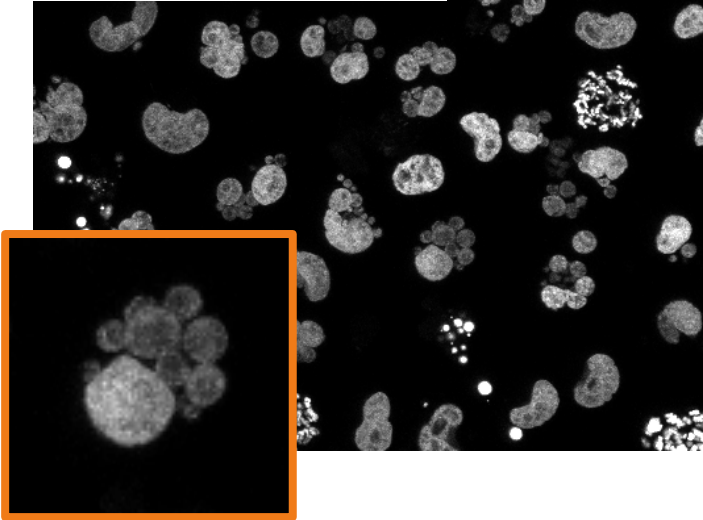
- EuBI signed a Memorandum of Understanding with ELIXIR, to work together on linking imaging with biomolecular data.
- £1.7 million award from the BBSRC to UNIVDUN and EMBL to develop and deploy a public image data repository at EMBL-EBI,
 - building a software based on O<ERO and Bio-Formats
 - Storing and serving genome-wide high content phenotypic screens

Still to be done:

- Build the repository further
- Design, build and deliver web browser-based user interfaces for Euro-BioImaging's Image Data Repository (IDR).
- Test the use of:
 - Experimental Factor Ontology (EFO) for properly describing experimental manipulations
 - Cellular Microscope Phenotype Ontology (CMPO) for comprehensively describing cellular microscopy phenotypes

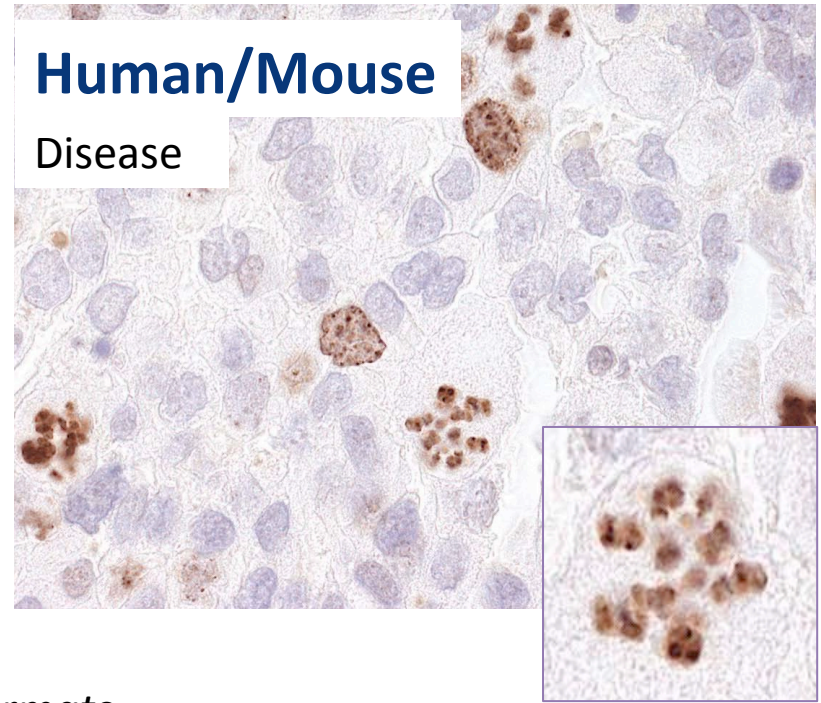
Cell

Gene knockdown



Human/Mouse

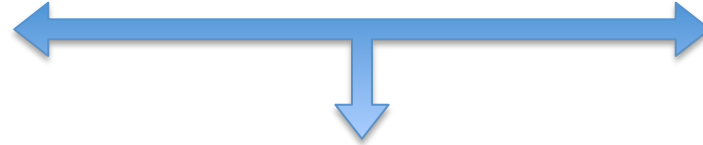
Disease



Integrate file formats

Integrate metadata

Apply phenotype ontology



CMPO term:

graped micronucleus

CMPO_0000156

CMPO term:

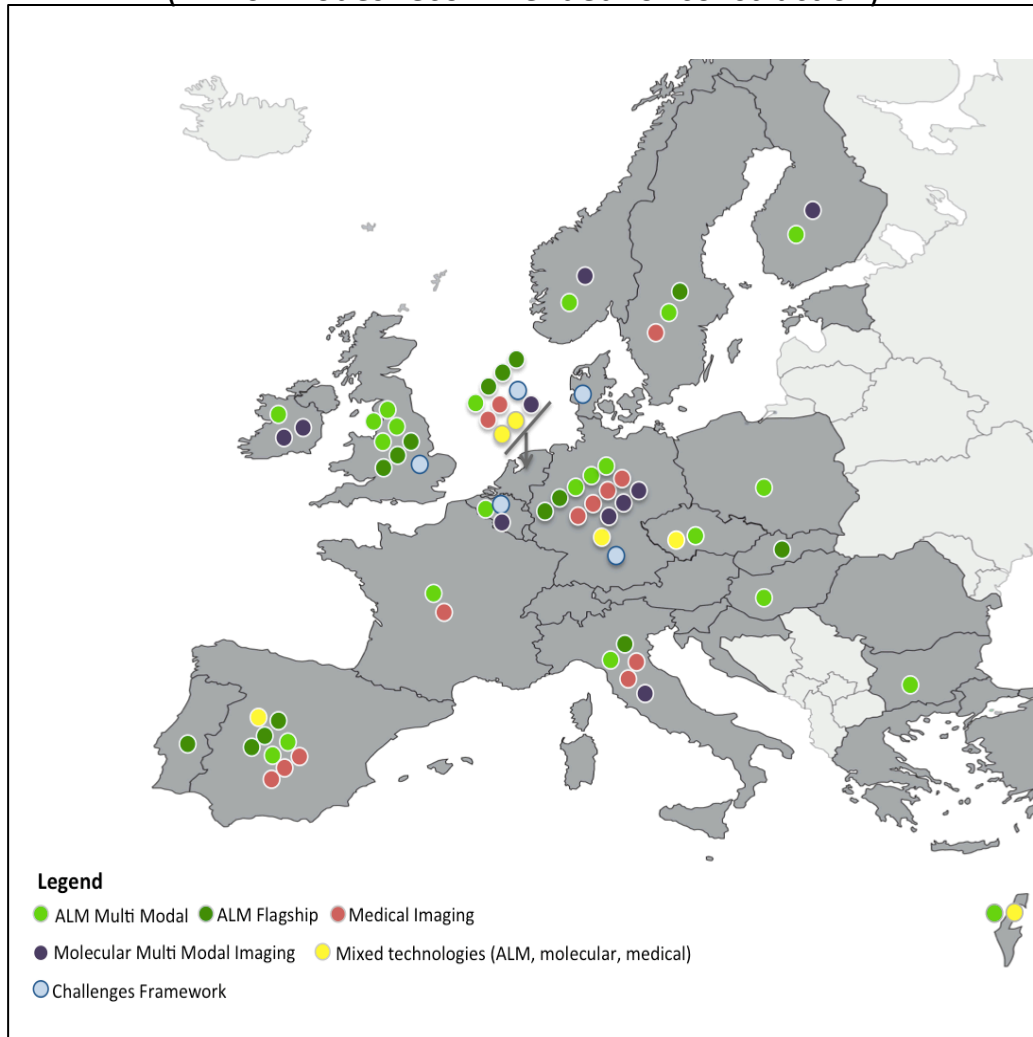
graped micronucleus

CMPO_0000156

Predict disease gene/biomarkers

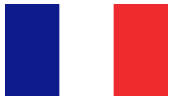
71 Nodes Expressions of Interest

(IEB: 67 Nodes recommended for construction)



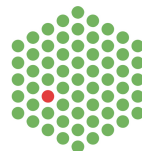
Until July 1st, 2015:

All 15 IB Members are invited to nominate their national Nodes for ratification by the IB as Nodes candidates.

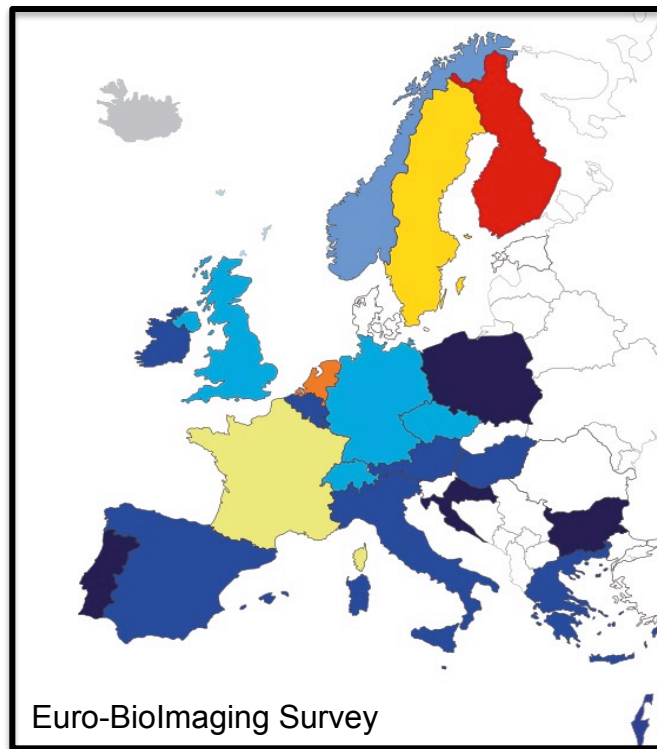


Main milestones

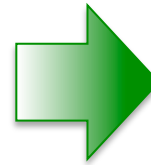
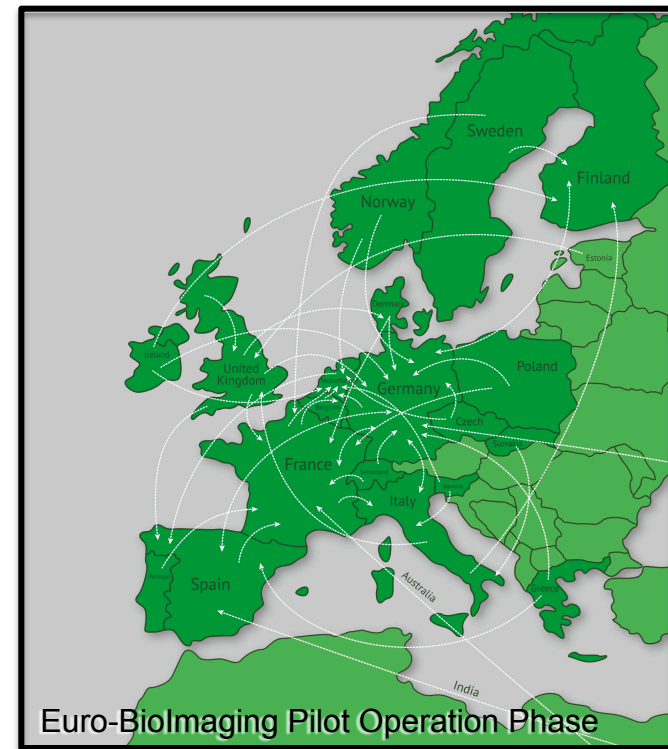
1. EuBI IB has launched the call for **Hub**, decision in Oct 2015.
2. **ERIC** will be the legal framework to establish EuBI by Member States and Intergovernmental Organisations.
3. National financial contribution scheme for Interim budget agreed by IB. Final agreement for long term funding still to be discussed.



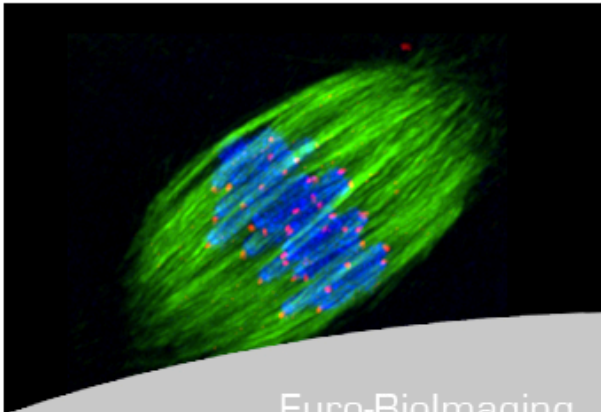
Without Euro-BioImaging



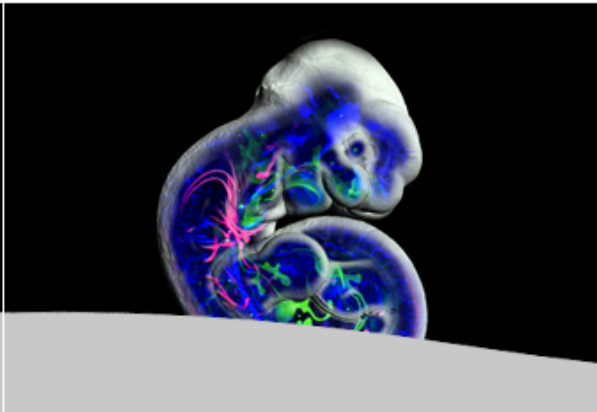
With Euro-BioImaging



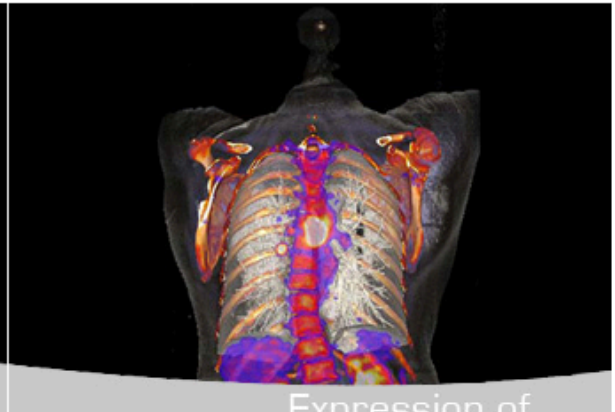
- From closed national to open European imaging facilities
- From heterogenous national infrastructure capacity to European excellence



Euro-BioImaging
Project



Working Groups



Expression of
Interest



EMBL



Biological Imaging

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FOR BIOMEDICAL
IMAGING RESEARCH

Medical Imaging

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