



# DiSSCO

Distributed System of Scientific Collections



## European Loans and Visits System - ELViS

<https://elvis.dissco.eu>

Wouter Addink, [wouter.addink@naturalis.nl](mailto:wouter.addink@naturalis.nl)

 <https://orcid.org/0000-0002-3090-1761>



- Integrated system for Europe to support loans, visits, applications for digitisation on demand, and to track outputs.
- DiSSCo e-Service for access to European collections
- A future service in the European Open Science Cloud (EOSC)
- Developed in SYNTHESYS+ project, EC funded



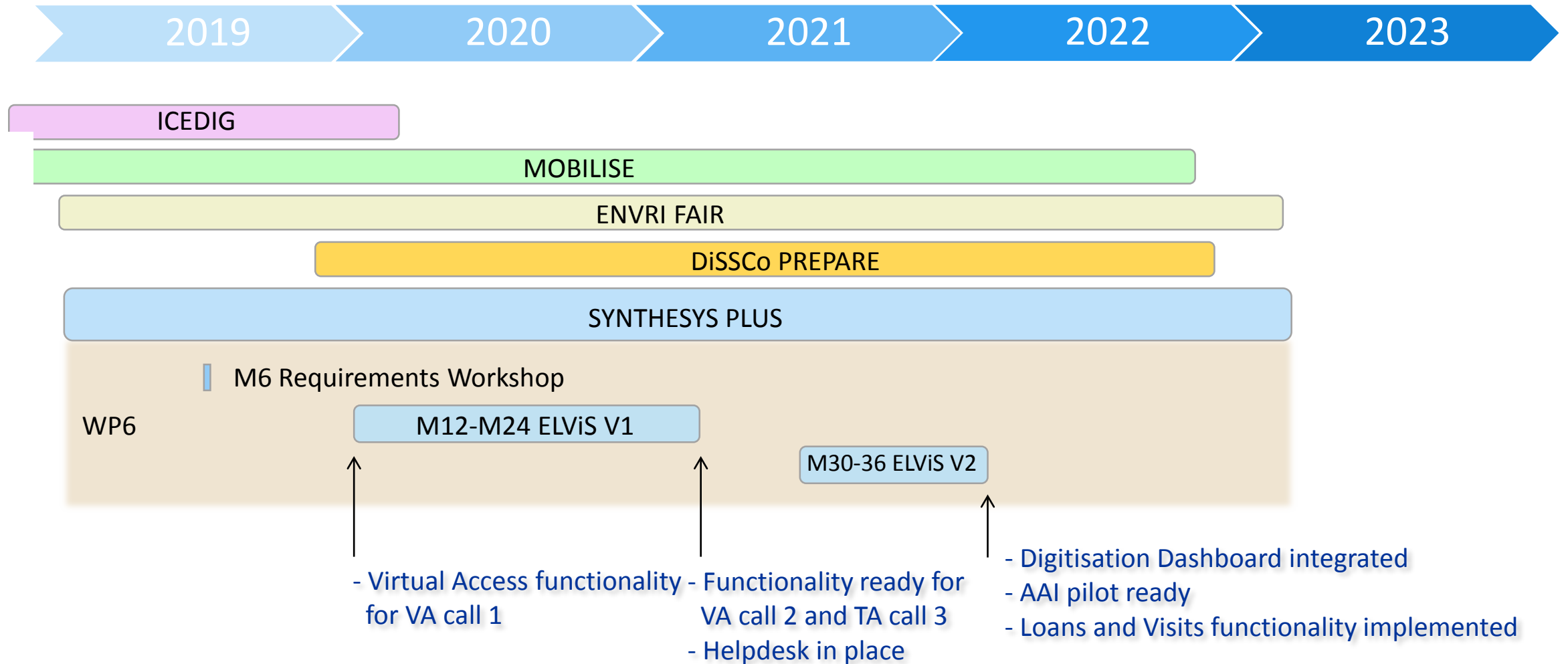
**EUROPEAN OPEN  
SCIENCE CLOUD**



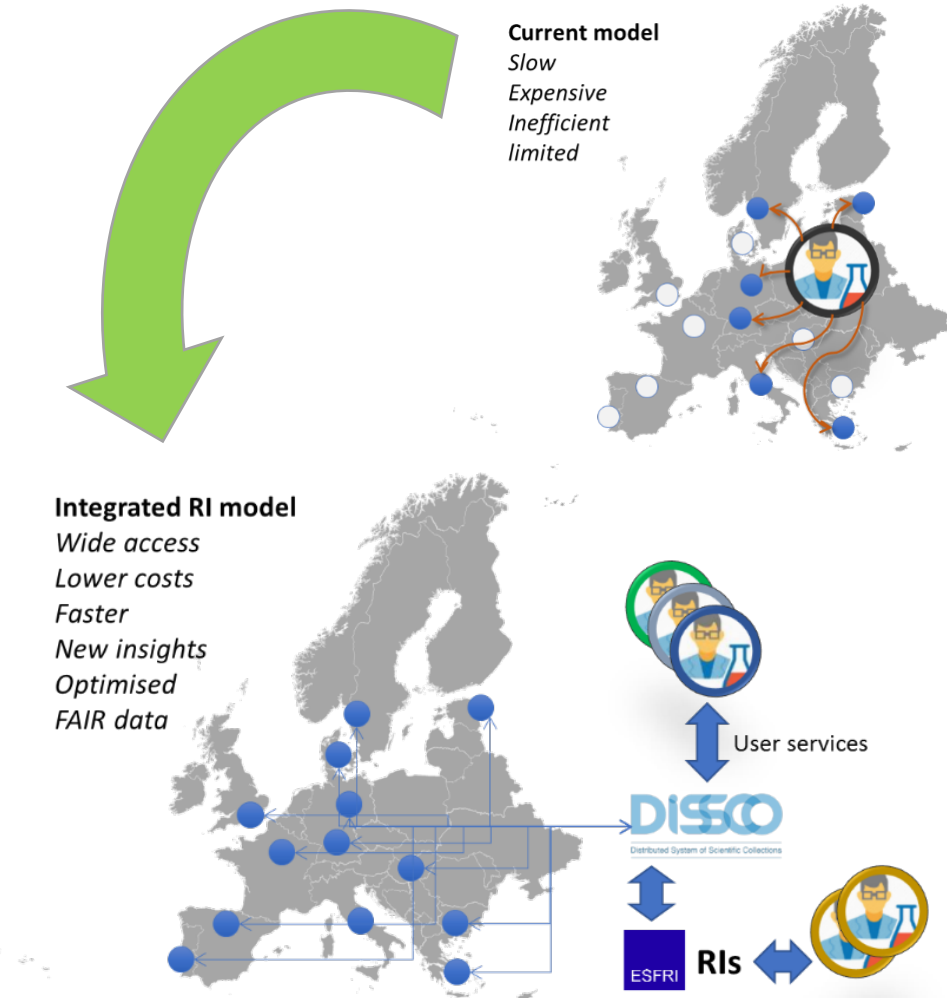
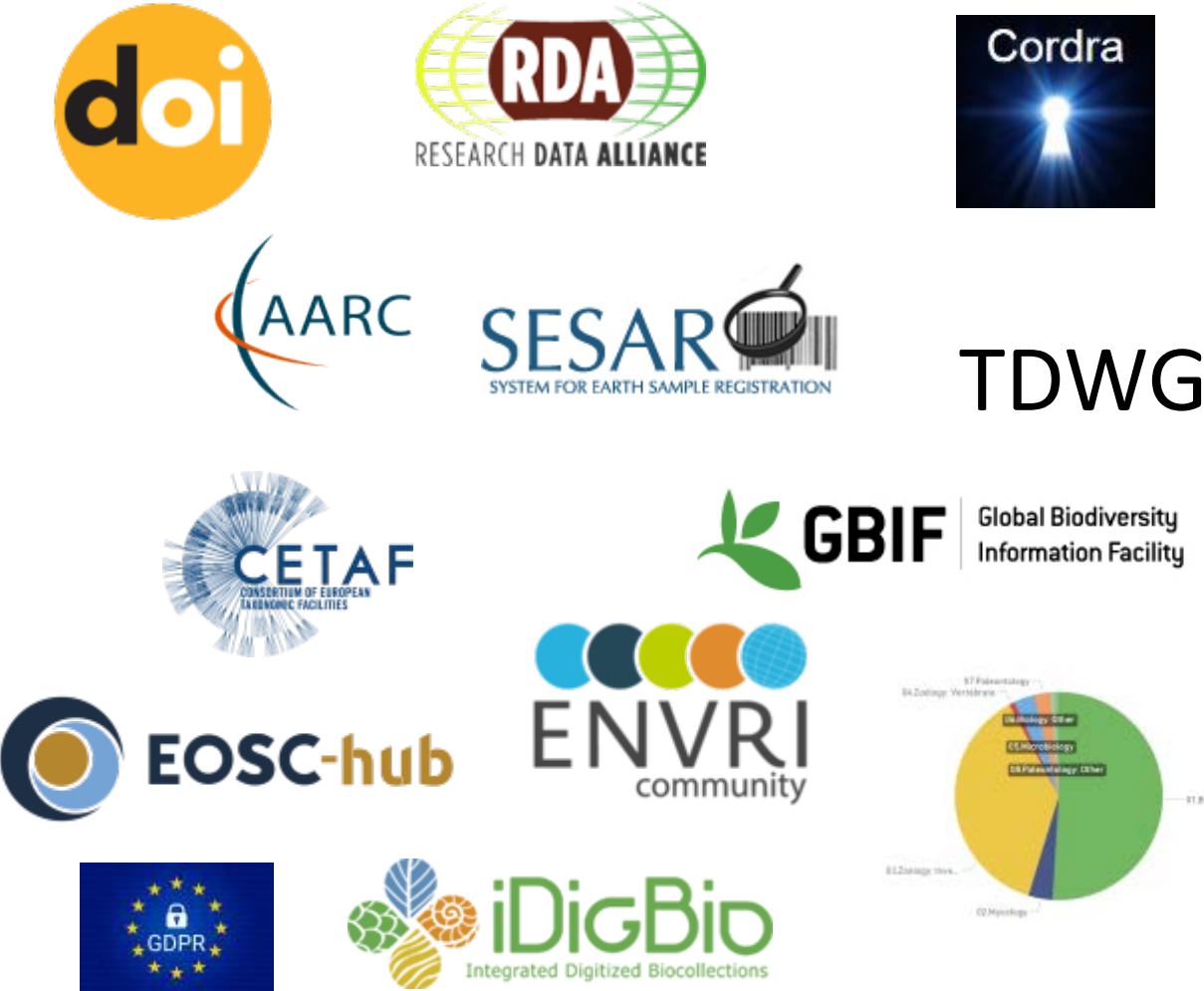
**SYNTHESYS+**  
Synthesis of Systematic Resources  
a DiSSCo project

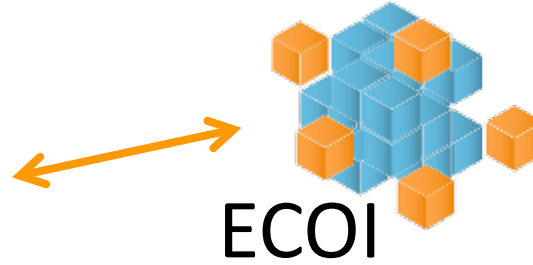


# ELViS Development Roadmap



# Global relevance and context



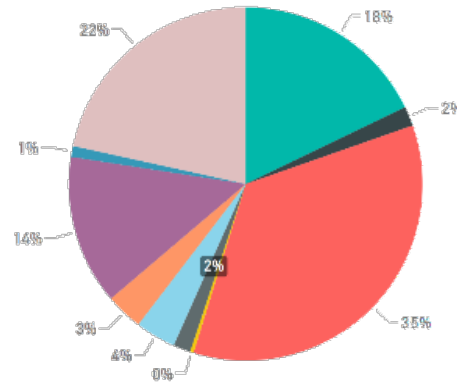


### ELViS Components

- Registration for Virtual Access (VA)
- Registration for Transnational Access (TA)
- Peer Review for TA
- Loans transactions
- Visit transactions
- Digitisation on Demand transactions
- Dashboards
- Reporting
- Helpdesk
- People profiles
- Institute profiles
- Collection catalog
- Authentication and Authorisation Infrastructure (AAI)

*ELViS will facilitate the placement, assessment, prioritisation and monitoring of requests for visits, loans and digitisation.*

The DiSSCo Collection



- Botany
- DNA
- Entomology
- Living
- Microbiology
- Mineralogy
- Mycology
- Paleontology
- Seed
- Zoology

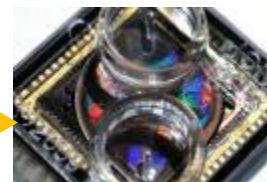




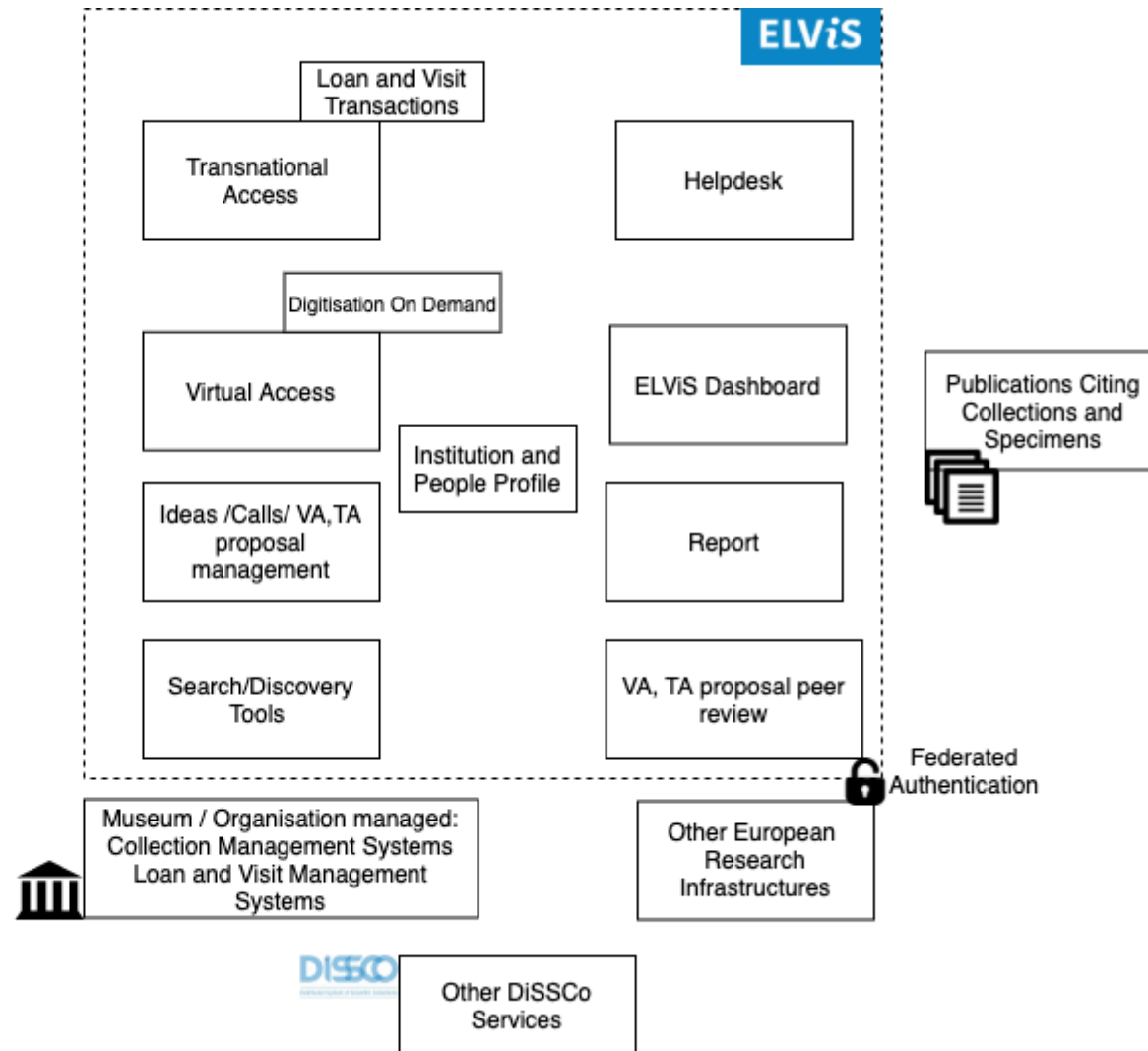
ELViS uses connected data from collections, specimen, institutes, facilities and people to provide efficient access to collection material



ORCID



Various heterogeneous and authoritative data sources about Institution, People, Collections and Specimens

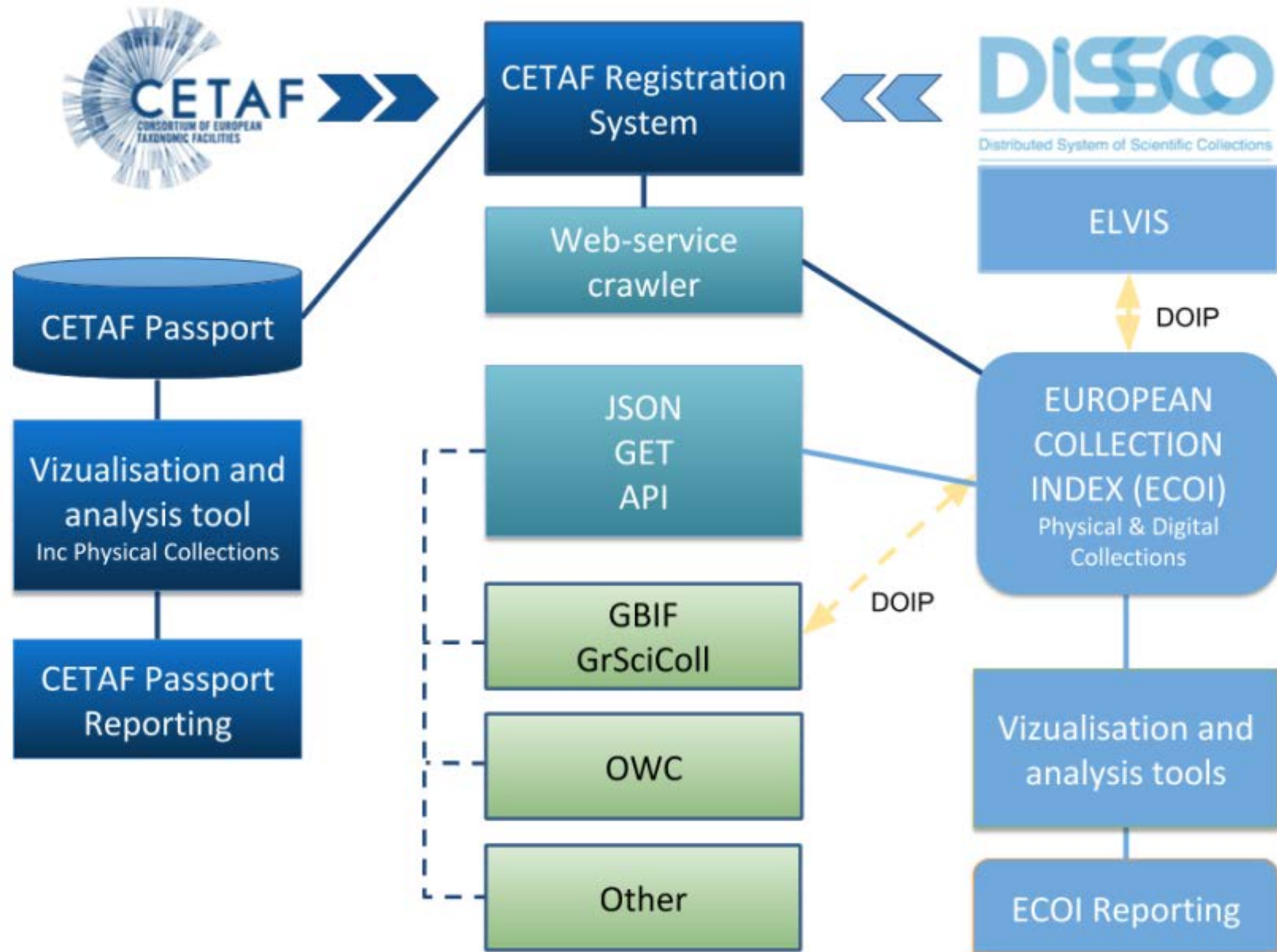


## ELViS provides access to Institute Natural Science collections

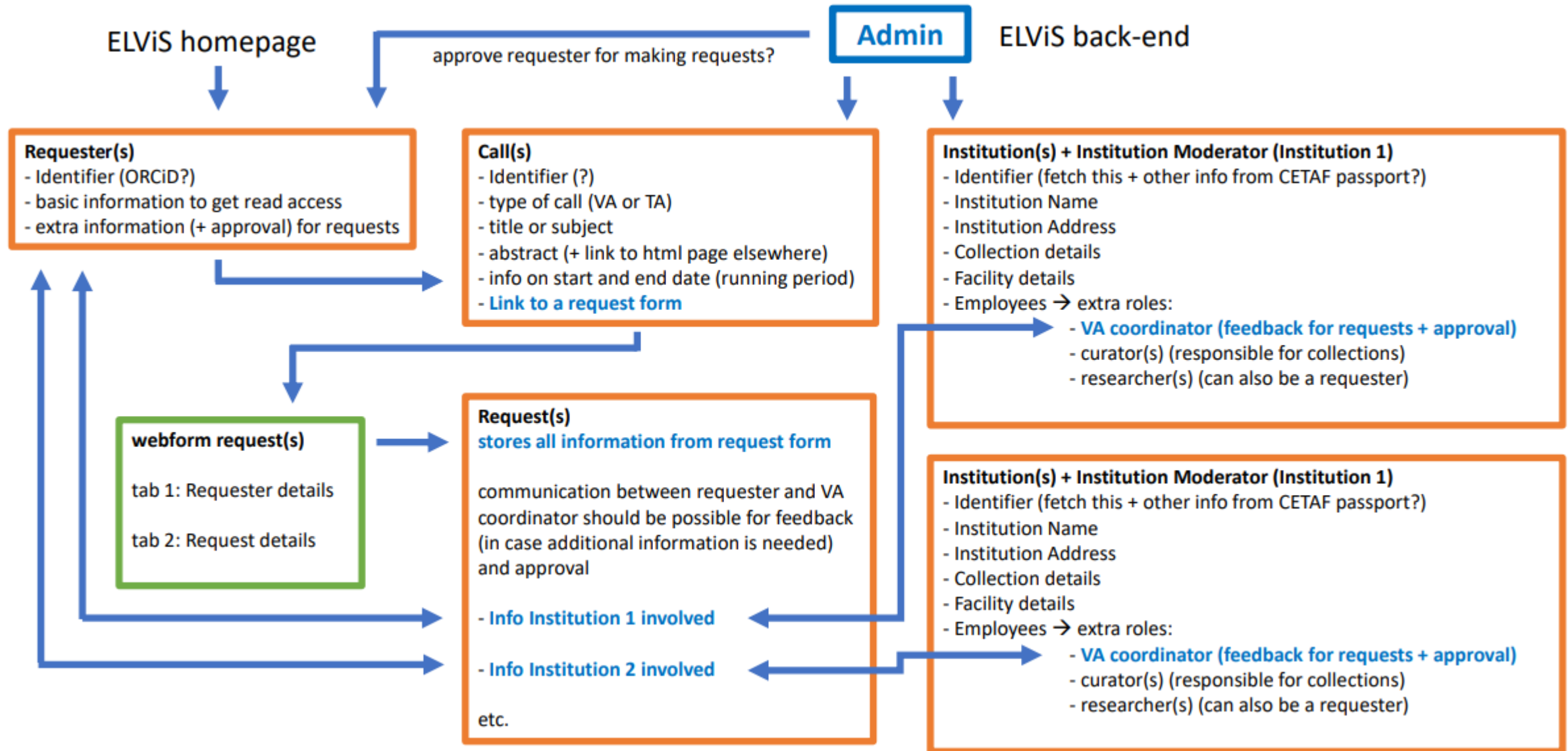
NS Collection class	Main characteristics	Examples
Institute NS Collection	<ul style="list-style-type: none"><li>• Institute ownership,</li><li>• Focus on access</li><li>• No overlap -can be described on institute level or other grouping of collections</li></ul>	<ul style="list-style-type: none"><li>• herbarium collection</li><li>• zoo</li><li>• yeast collection</li><li>• minerals collection</li><li>• collection of natural science related books</li><li>• archive</li></ul>
Private NS Collection	Private person ownership	<ul style="list-style-type: none"><li>• bird eggs collection</li><li>• pollen collection</li></ul>
Other NS Collection	<ul style="list-style-type: none"><li>• Aggregation from one or multiple institute or private owned collections</li><li>• Needs to be a work of enduring reference and been put together as a systematic endeavour to make it a reference point*</li></ul>	<ul style="list-style-type: none"><li>• items that were collected or made by a particular person</li><li>• items that came from the same place</li><li>• a reference collection for environmental DNA sampling</li><li>• all specimens collected on a research voyage</li></ul> <p>“Other NS collections” are not datasets:</p> <ul style="list-style-type: none"><li>• all pages of a digitized fieldbook</li><li>• a group of records in a dataset or database</li><li>• all specimens referenced within a single publication</li></ul>



# Global Workflow



# Virtual Access workflow





Title request... I would like to...

## General info

Request type	Virtual access
Topic	Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur.
Abstract	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

## Institutions &amp; Collections

- |  |               |   |
|--|---------------|---|
| 1. Botanischer Garten und Botanisches Museum (BGBM)    | Approved      | ▼ |
| 2. Royal Belgian Institute of Natural Sciences (RBINS) | To be checked | ▼ |
| 3. The University Museum of Bergen                     | To be checked | ▼ |
| 4. Natural History Museum Vienna (NHMW)                | To be checked | ▲ |

Institution

Natural History Museum Vienna (NHMW)

## Collection(s) involved

Collection name

## Change status of request

Being handled

## Request by

Name: Arjen Speksnijder  
Title: Head of laboratories  
Fields: Biological, Geological  
Institute: Naturalis  
ORCID: 0000-0002-1966-7265

## Comments

Submit

Here is a commit. We need more information about the ...

M. de Boer - 22 March 2020

Another comment. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

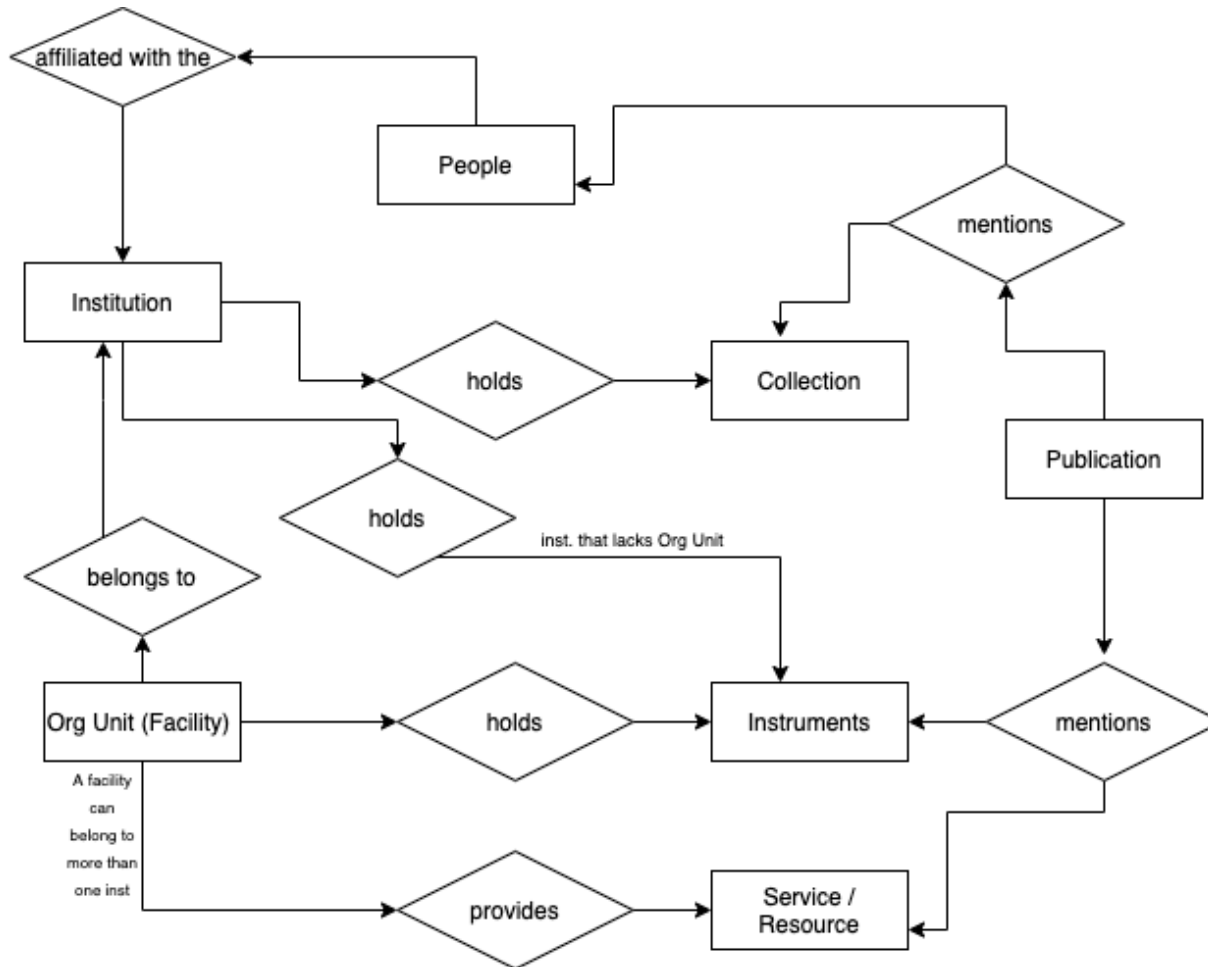
M. de Boer - 16 March 2020

Initial idea for selecting collections and equipment for a virtual access request

	Institution	APM	Naturalis	RBGK	LUOMUS	MNHN	UTARTU	NHM
What collections are you currently able to digitise?	Herbarium sheets	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Microscope slides	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Vertebrates specimens	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Spirit material	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Mineral specimens	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Palaeontological	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Anthropological	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Pinned insects	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Other	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Institution	APM	Naturalis	RBGK	LUOMUS	MNHN	UTARTU	NHM
Resources								
What equipment is available?	Macro photography setup (camera, stand & light source)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Image stacking photographic equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Multiple-camera setup (linked cameras, stand & light source)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Custom specimen digitisation hardware i.e. cradles, rigs, holders	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Herbarium imaging setup (camera, lens, stand & light source)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Herbarium scanner	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Flatbed scanner	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Other scanner (please specify)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Infrared scanner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	3D laser scanner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	CT scanner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Micro-CT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	X-ray	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	SEM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Automated slide scanner (please specify)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Semi-automated microscope (please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Manual microscope (please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Specialist microscope (please specify)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Other (please specify)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# Institutional profile in ELViS



## Institute

The institute that holds the facility and provides the services.  
Similar term has been proposed for the TDWG Collection  
Description standards: [Class:Institution · Issue #146 · tdwg/cd](#)

## Facility

Borrowing from the OBO Class:

Facility [http://purl.obolibrary.org/obo/NCIT\\_C62574](http://purl.obolibrary.org/obo/NCIT_C62574)

*Services and space and equipment provided for a particular purpose; a building or place that provides a particular service or is used for a particular industry.*

Also Core laboratory / Core Facility : *A lab providing services such as training, protocols, or access to instruments or software*

## Instrument

Borrowing from ERO ontology Class: Instrument

[http://purl.obolibrary.org/obo/ERO\\_0000004](http://purl.obolibrary.org/obo/ERO_0000004)

*Material entity that is designed to have a function and play a role in scientific investigation.*

## Service

Borrowing from ERO ontology 'service offering'

[http://purl.obolibrary.org/obo/ERO\\_0000005](http://purl.obolibrary.org/obo/ERO_0000005)

*An information content entity that describes a service performed by a person or organization with the objective of performing a technique, providing training, providing storage of data or material entities, or providing access to resources for another person or organization*





## Facilities

Laboratory name	Tools	Institute	Country
> Geology lab	Micro raman, Xray, Faxitron, FITR en UV spectrofotometer, Orbis XRF	<a href="#">Naturalis Biodiversity Center</a>	The Netherlands
> Morphology lab	micro Ct scan, TEM, FEG-SEM-EDS, low vacuum SEM	<a href="#">Naturalis Biodiversity Center</a>	The Netherlands
> DNA Labs (several)	-	<a href="#">Bavarian Natural History Collections</a>	Germany
> DNA-Bank	-	<a href="#">Bavarian Natural History Collections</a>	Germany
✓ Service Area Laboratories	SEM (Scanning electron microscopy), Optical microscopy - Multiple Stereo-/ Microscopes, Beckmann CEQ 8000 sequencer	<a href="#">Botanic Garden and Botanical Museum Berlin</a>	Germany

## Service Area Laboratories

Spread over two locations, the laboratory facilities cover approximately 450 m2. Institutionally, the Service Area Laboratories is affiliated on one side to the Botanic Garden and Botanical Museum, Berlin, and on the other side to the Borsch Working Group at the Institute of Biology, Systematic Botany and Geography of Plants. Both institutions are part of the Freie Universität Berlin.

Tool name	Description
SEM (Scanning electron microscopy)	Hitachi SU-8010 FE-SEM
Optical microscopy - Multiple Stereo-/ Microscopes	incl. Fluorescence, equipped with high res. Cameras (Olympus, Leica, Zeiss)

[← Add/edit collection](#)Collection name  
Modern human remainsCollection unit  
(Optional; This is the name of where the collection is  
part of)  
Biological anthropologyCollection description  
(Optional)

Number of specimen

GRSciCol URL

## Preservation

Discipline  
Anthropology

- |  |   |   |
|--|---|---|
| <input checked="" type="checkbox"/> Dried assemblage                     | <input checked="" type="checkbox"/> Dried - not assembled | <input checked="" type="checkbox"/> Fluid preserved                             |
| <input checked="" type="checkbox"/> Microscope slides                    | <input type="checkbox"/> Cryopreserved/frozen - 80C       | <input checked="" type="checkbox"/> Artefacts: climate<br>controlled conditions |
| <input type="checkbox"/> Artefacts: non climate<br>controlled conditions |   |   |



Save



## Calls / TA request



Which institution(s) do you  
propose to visit? ⓘ



Please briefly explain why you need  
access to these other institution(s)

Have you had a visit to this or any  
other institution(s) funded by the  
current H2020 SYNTHESYS project  
(February 2019 – January 2023)?



No



Yes

If Yes, which other institution(s)



If Yes, please give your application  
number(s) and describe the  
output(s) delivered from your prior  
visit(s)

&lt; Previous

Next &gt;

