

MAKING
NEW **TREAT**
MENTS
POSSIBLE

BBMRI-ERIC FEDERATED PLATFORM
A DISCOVERY SERVICE FOR BUILDING CROSS-BORDER COHORTS

Konrad Lang

EUROPEAN RESEARCH INFRASTRUCTURE FOR BIOBANKING

24 MEMBER STATES

- BBMRI-ERIC
- BioBanking and Molecular Research Infrastructure ERIC
- Providing tools and services for samples and data
- Make samples and data findable
- Service to negotiate on sample and data exchange



EUROPEAN RESEARCH INFRASTRUCTURE FOR BIOBANKING

PROJECTS

- BY-COVID
- CY-Biobank
- DIAMONDS
- EHDS2
- EOSC Future
- EOSC4CANCER
- EPND
- EuCanImage
- INTERVENE
- ISIDORe
- BIGPICTURE
- canSERV
- CETOCOEN II
- ConcePTION
- EJP RD
- EUCAN-Connect
- IC2PerMed
- PROPHET
- HealthyCloud

WHY FEDERATED PLATFORM EXPECTATIONS

Researcher

- ✓ Donor and sample level information
- ✓ Real-time search



© German Biobank Node

Biobanker

- ✓ Data harmonized & ready to use
- ✓ Less inadequate requests



© German Biobank Node

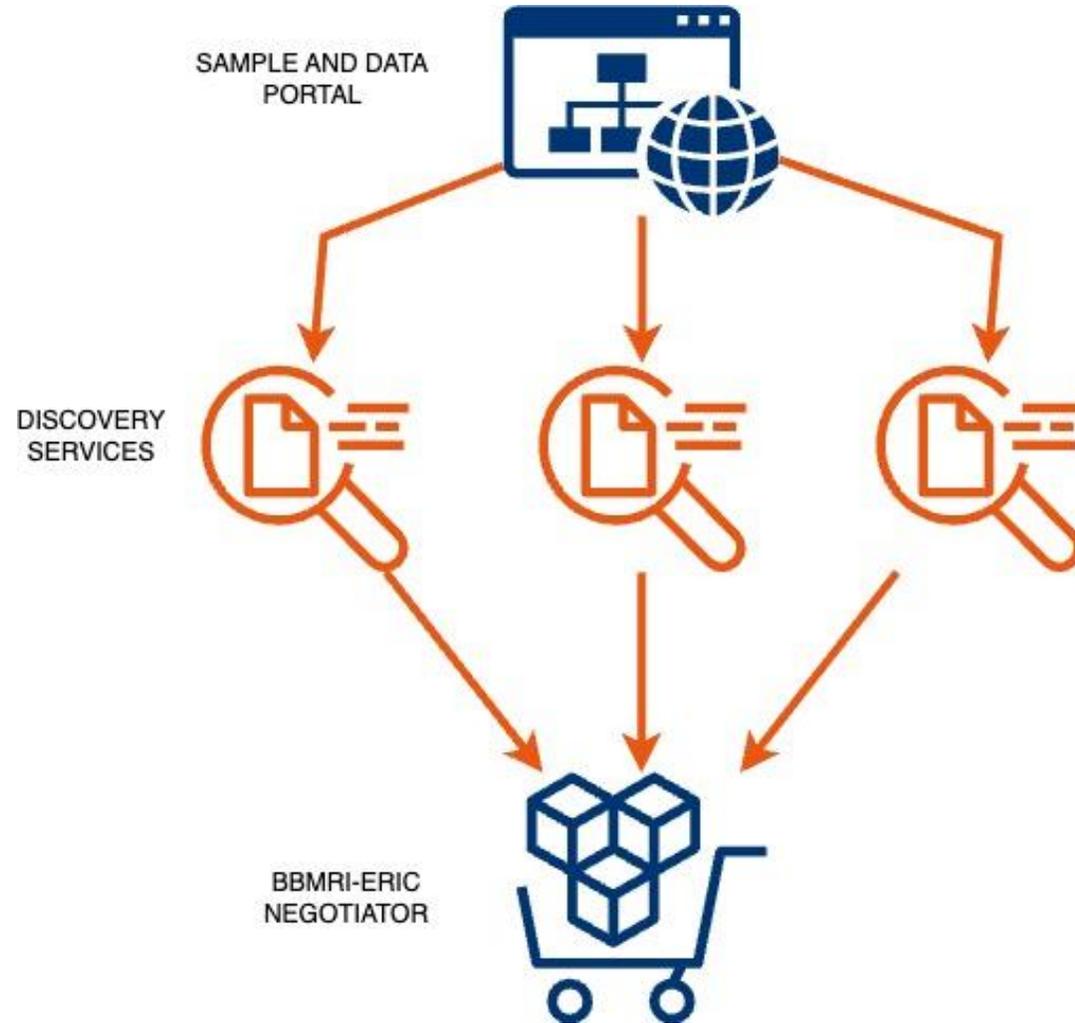
A FEDERATION REQUIRES A FEDERATED SOLUTION

MEMBERS, OBSERVERS, AND THE POTENTIAL

Main Objectives

- ✓ An interconnected system that is safe and spans across borders
- ✓ Federated analysis on Sample and Donor level
- ✓ A community driven data model
- ✓ Expediting data access
- ✓ Increase the datafication of biobanks to prepare for the EHDS regulation

HOW?

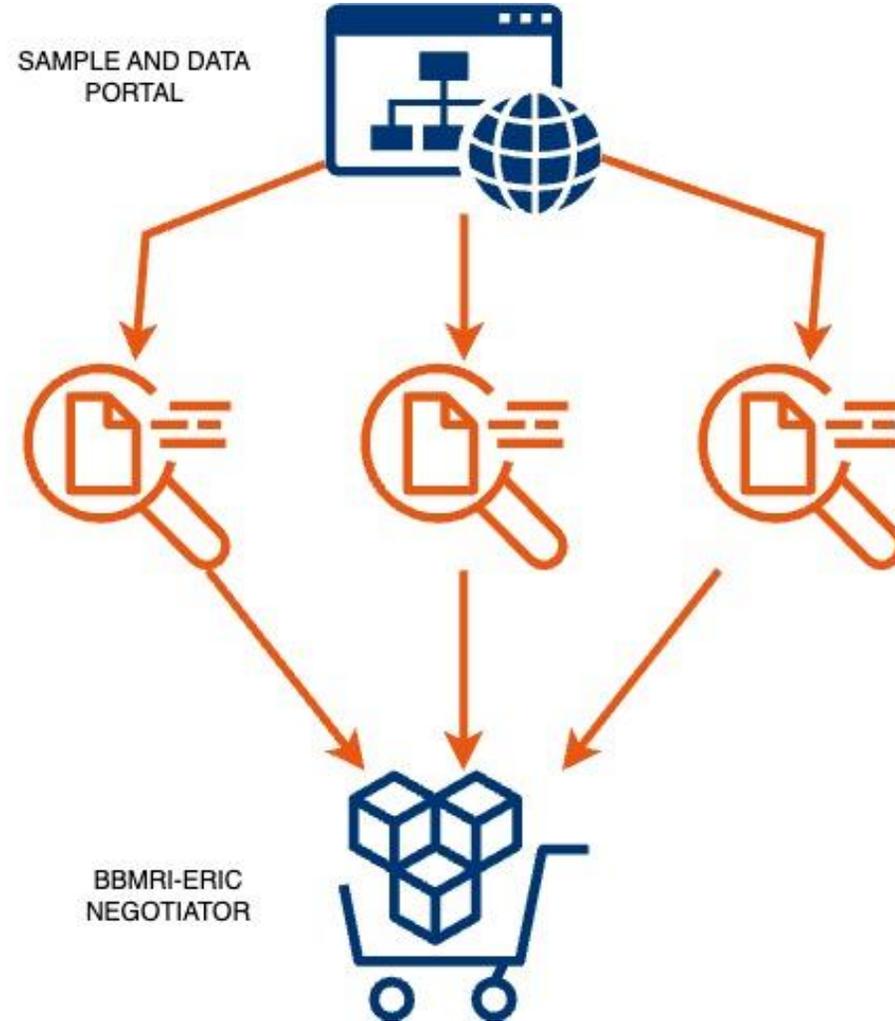


HOW?

"I need tissue and liquid samples fitting to my research scope."

- The **Locator** is your access to the samples and data associated to the samples based on real-time search on donor and sample level.

DISCOVERY SERVICES



"I am interested more in genomics and population data analysis than samples themselves."

- The **Finder** is a data analysis tool focused on clinical, phenotypic and genomics data.

"I want to browse all biobanks in the BBMRI-ERIC."

- The **Directory** is a broad catalogue of our biobanks with aggregated information on their collections. You can browse and filter by country, sample type, quality marks and more.

BBMRI-ERIC DIRECTORY



Search

0

Diagnosis available Countries Collection type Categories Material type Biobank services Quality labels Network Data type Available to commercial use

Search results
Organisations: 424
Collection(s): 1455
Subcollection(s): 1093

<< 1 2 3 4 ... >>

AGNES Biobank
[View biobank](#)
1 collection available
Arrhythmia genetics in the Netherlands
[More details](#)

ALLBIO INTERNATIONAL
[View biobank](#)
1 collection available
Ability to collect COVID-19 cases
[More details](#)

AMC Renal Transplant Biobank
[View biobank](#)
1 collection available
AMC Renal Transplant Biobank
[More details](#)

ARC-Net
[View biobank](#)
1 collection available
Collection all Samples
[More details](#)

ARGOS Biobank
[View biobank](#)
1 collection available
Association study of coronary heart disease Risk factors in the Genome using an Old-versus-young Setting
[More details](#)

ARREST Biobank
[View biobank](#)
1 collection available
Amsterdam Resuscitation Studies
[More details](#)

Acibadem University Biobank
[View biobank](#)
1 collection available
existing collection(s) of data/samples relevant for COVID-19
Available: 227 samples
[More details](#)

Acutelines
[View biobank](#)
1 collection available
AcuteLines
Available: 3500 samples
[More details](#)

JUST A METADATA CATALOGUE

Search

Available to commercial use

Based on MOLGENIS, can hold any metadata

SAMPLES COLLECTION DESCRIPTION

Cells

Id:	bbmri-eric:ID:CZ_MMCI:collection:Cells 
Size:	100 - 1000
Age:	18-100 Year
Type:	Hospital, Sample collection
Sex:	Female, Male
Materials:	Cell lines, Peripheral blood cells
Storage:	Liquid Nitrogen
Data:	Biological samples Imaging data Medical records National registries Survey data Physiological/Biochemical measurements
Diagnosis:	Malignant neoplasm of oesophagus Malignant neoplasm of stomach Malignant neoplasm of colon Malignant neoplasm of rectum Malignant neoplasm of bronchus and lung Malignant melanoma of skin Malignant neoplasm of ovary Malignant neoplasm of kidney, except renal pelvis

FINDER.BBMRI-ERIC.EU

History Prostate pressure New Query

Collections 7

Select gene

New Query

Group 1 AND

- Asthma
- Abnormal breathing

Group 2 AND

- Abnormal breathing

Count details

Collection	Total ↓	Status	Relative
Estonia <input type="checkbox"/>	6813	Job done	6813 82.90%
Graz <input type="checkbox"/>	1392	Job done	1392 16.94%
THL <input type="checkbox"/>	13	Job done	13 0.16%
BBMRI <input type="checkbox"/>	0	Job done	0 0.00%
Swiss Biobank <input type="checkbox"/>	0	Job done	0 0.00%

Age in years

Graz 

Sex

Female Male

Graz 

THL 

BBMRI-ERIC Locator

Search for human biospecimens across European biobanks

▼ Full Parameter Search

Results

Sites: 18 Patients: 133000 Specimens: 1791860

<input type="checkbox"/>	Sites	Patients	Specimen
<input type="checkbox"/>	Heidelberg	36210	1519230
<input type="checkbox"/>	Bmo	27310	29870
<input type="checkbox"/>	Frankfurt	20270	19940
<input type="checkbox"/>	Olomouc	15610	25530
<input type="checkbox"/>	Aachen	13950	76100
<input type="checkbox"/>	Dresden	7920	39150
<input type="checkbox"/>	Würzburg	7610	32640
<input type="checkbox"/>	Cyprus	1730	22000
<input type="checkbox"/>	Marburg	910	5030
<input type="checkbox"/>	Berlin	640	13180

<< < 1 2 > >>

FSP LANDING PAGE

[HTTPS://BBMRI-ERIC.EU/BBMRI-SAMPLE-AND-DATA-PORTAL/](https://bbmri-eric.eu/bbmri-sample-and-data-portal/)

BBMRI-ERIC Sample and Data Portal

BBMRI-ERIC SAMPLE AND DATA PORTAL

SEARCH BY BIOBANKS AND COLLECTIONS

DIRECTORY

"I want to browse all biobanks in the BBMRI-ERIC."

The Directory is a broad catalogue of our biobanks with aggregated information on their collections. You can browse and filter by country, sample type, quality marks and more.

[Guide for the Directory](#)

[Go to Directory](#)

SEARCH BY SAMPLE AND DONOR INFORMATION

FEDERATED PLATFORM TOOLS

"I need tissue and liquid samples fitting to my research scope."

The Locator is your access to the samples and data associated to the samples based on real-time search on donor and sample level.

[Guide for the Locator](#)

[Go to Locator](#)

"I am interested more in genomics and population data analysis than samples themselves."

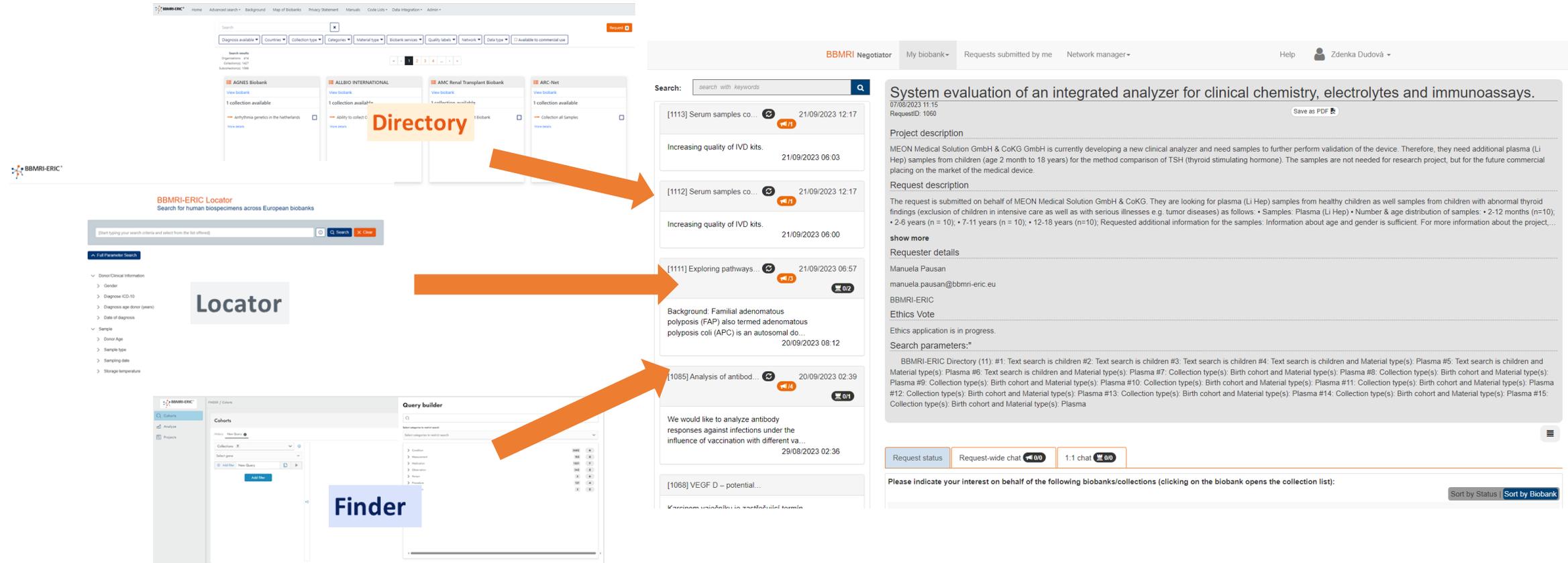
The Finder is a data analysis tool focused on clinical, phenotypic and genomics data.

[Guide for the Finder](#)

[Go to Finder](#)

NEGOTIATOR

ACCESS NEGOTIATION



The image displays the BBMRI-ERIC Negotiator interface, which is used for access negotiation. It is divided into several key sections:

- Directory:** A grid of biobank listings including AGNES Biobank, ALLBIO INTERNATIONAL, AMC Renal Transplant Biobank, and ARC-Net. An orange arrow points from this section to the search results.
- Locator:** A search interface for human biospecimens across European biobanks, featuring a search bar and a list of filters such as Donor/Clinical information, Gender, Diagnosis ICD-10, and Sample type. An orange arrow points from this section to the search results.
- Finder:** A query builder tool for constructing complex search queries. An orange arrow points from this section to the search results.
- Search Results:** A list of search results, each with a title, date, and status. Examples include:
 - [1113] Serum samples co... 21/09/2023 12:17
 - [1112] Serum samples co... 21/09/2023 12:17
 - [1111] Exploring pathways... 21/09/2023 06:57
 - [1085] Analysis of antibod... 20/09/2023 02:39
 - [1068] VEGF D – potential...
- Request Details:** A detailed view of a request (RequestID: 1060) titled "System evaluation of an integrated analyzer for clinical chemistry, electrolytes and immunoassays." It includes a project description, request description, requester details (Manuela Pausan), and search parameters.

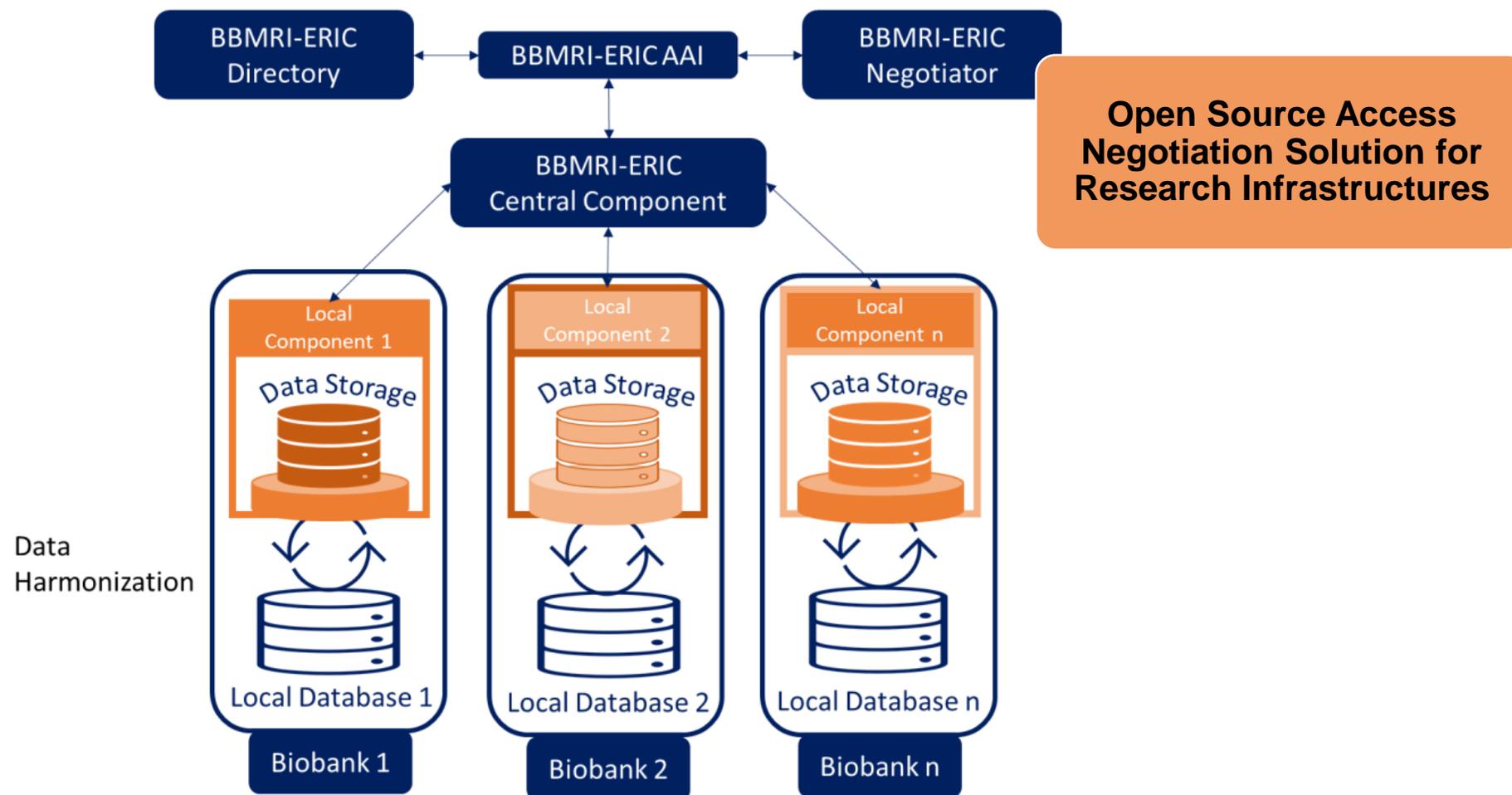
LS LOGIN

AUTHENTICATION AND AUTHORIZATION

- A single login for using all services in Life Science RI



FEDERATED SEARCH SOLUTION ARCHITECTURE



FEDERATED SEARCH TASK FORCE

IN-KIND EFFORT TO REACH BIG GOALS

- ✓ Participants from all national nodes

Role

- ✓ Supportive group to provide leadership and guidance on the development of the BBMRI-ERIC Federated Search tools
- ✓ Suggesting practical solutions to assist the longer-term interoperability between the systems
- ✓ Suggesting the visions -> Management Committee & Assembly of Members approval
- ✓ Tight communication with solution providers (deliverables, timeframe)

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THANK YOU!