



ELIXIR AAI PILOT

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European Life Sciences Infrastructure for Biological Information
www.elixir-europe.org

Outline

- CSC, EBI, FIMM, ELIXIR EGA and Nordic Control database
- Goals
 - Pilot 1: Federated authentication
 - Pilot 2: Authorisation - access management
- Demo of the REMS tool



EBI-European Bioinformatics Institute

- Part of European Molecular Biology Laboratory
 - Hosts ELIXIR Hub
 - Funded by European countries, EC, NIH etc
 - Located in Hinxton, Cambridge, UK
- EBI produces databases for bioinformatics, e.g.
 - EMBL-bank (DNA and RNA sequences)
 - Ensembl (genomes)
 - UniProt (protein sequences)
 - PDB (protein structures)
- Supports science by providing maximal access to biological data

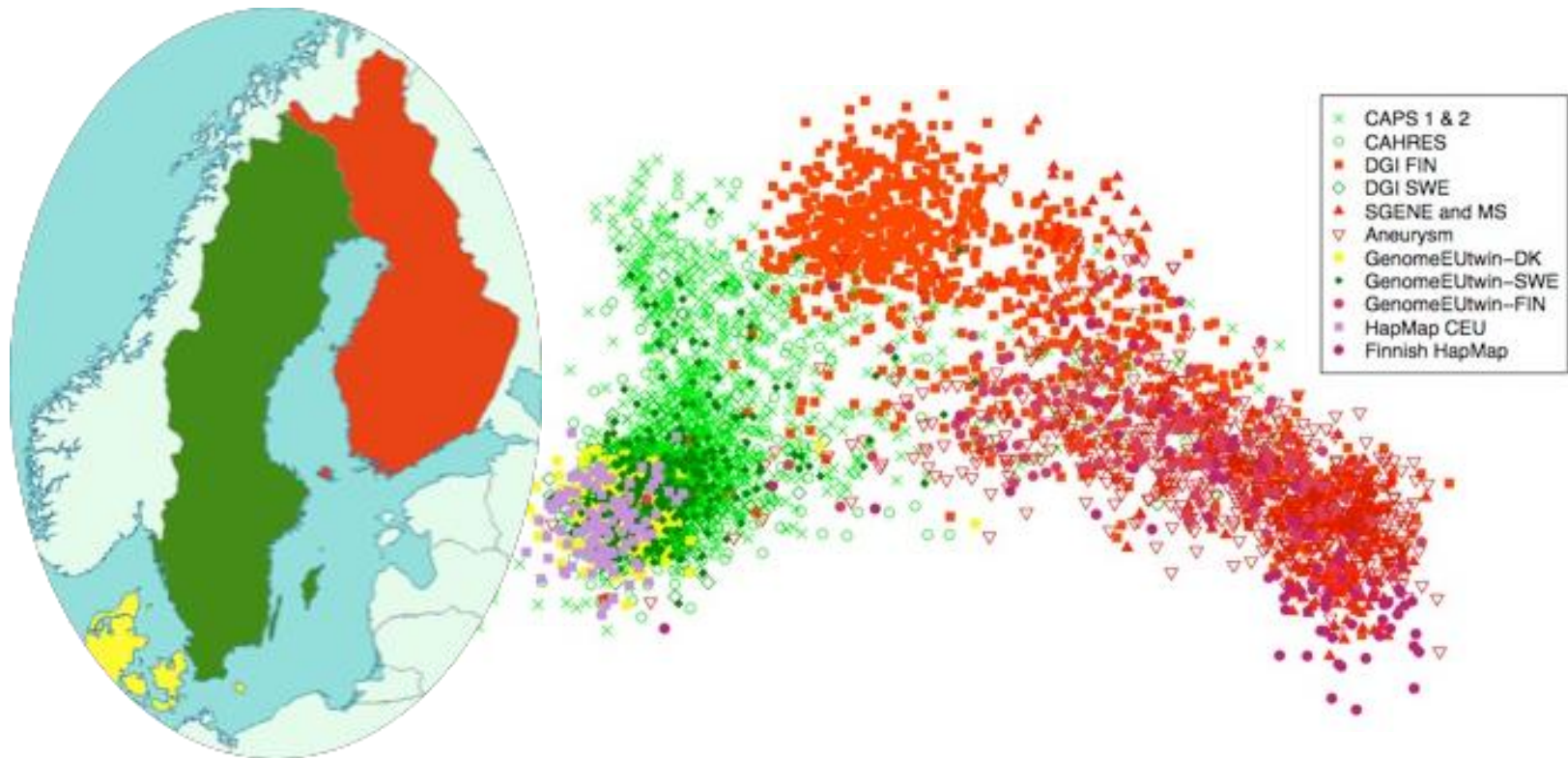


European Genome-phenome Archive (EGA)

- One of the EBI services
- Stores data where informed consent requires controlled access (AuthN&AuthZ)
- 8/2012: 323 datasets, 370TB, 200.000 samples
 - Growth rate is very fast at the moment
- Access to datasets granted by a **Data Access Committee (DAC)**
 - DACs nominated by the original data owners
 - 8/2012, 68 DACs around Europe and beyond
 - EGA acts as a secure broker
- www.ebi.ac.uk/ega



Nordic Control Database (NCDB)



- Collected and deposited to EGA by the Nordic Center of Excellence in Disease Genetics
- 6000 samples from DK, EE, FI and SE
- <http://nordicdb.org/>

ELIXIR EGA AAI pilot

- Common ELIXIR pilot action between EBI, CSC and FIMM (Finnish Institute for Molecular Medicine)
- Coordinated by ELIXIR FI, CSC
- 4/2012-4/2013



Project goals

Pilot 1: federated authentication

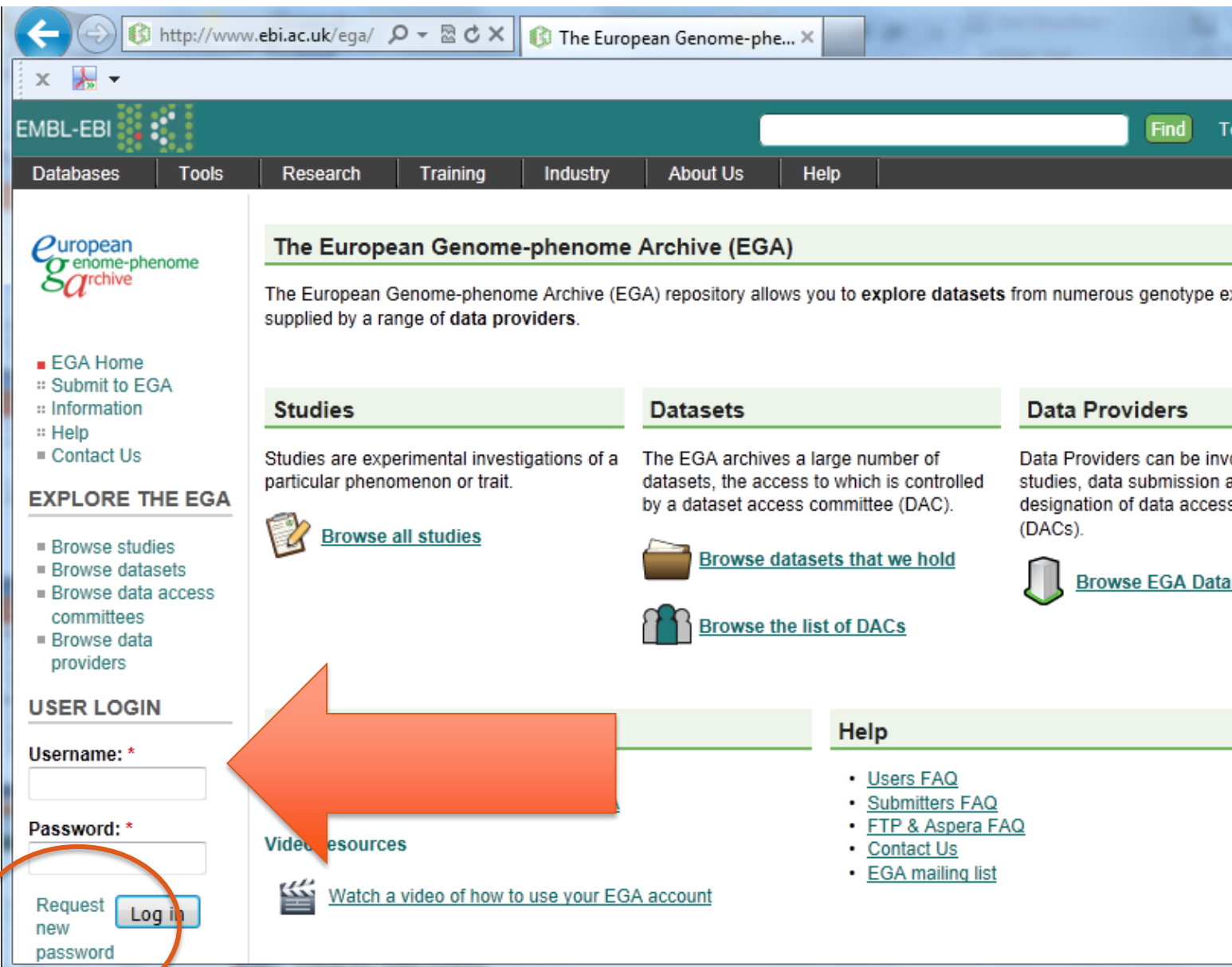
- Allow EGA data users to use their federated identity for requesting services from the EGA
- Remove user's temptation to share their uid/pwd
- Ensure access ceases when the user departs from the Home Organisation

Pilot 2: authorisation management tool for NCDB

- A workflow tool for applicants and DACs
- Reporting on access rights
- Reporting on scientific publications made based on the datasets



Pilot 1: Current authentication



http://www.ebi.ac.uk/ega/ The European Genome-phenome...

EMBL-EBI Find


Databases Tools Research Training Industry About Us Help

The European Genome-phenome Archive (EGA)

The European Genome-phenome Archive (EGA) repository allows you to explore datasets from numerous genotype e... supplied by a range of data providers.


Studies


Studies are experimental investigations of a particular phenomenon or trait.

 [Browse all studies](#)

Datasets


The EGA archives a large number of datasets, the access to which is controlled by a dataset access committee (DAC).

 [Browse datasets that we hold](#)

 [Browse the list of DACs](#)

Data Providers

Data Providers can be invited to submit data, data submission a designation of data access (DACs).

 [Browse EGA Data](#)

EXPLORE THE EGA

- EGA Home
- :: Submit to EGA
- :: Information
- :: Help
- Contact Us

- Browse studies
- Browse datasets
- Browse data access committees
- Browse data providers

USER LOGIN

Username: *


Password: *

Request new password

Help

- [Users FAQ](#)
- [Submitters FAQ](#)
- [FTP & Aspera FAQ](#)
- [Contact Us](#)
- [EGA mailing list](#)

Video resources

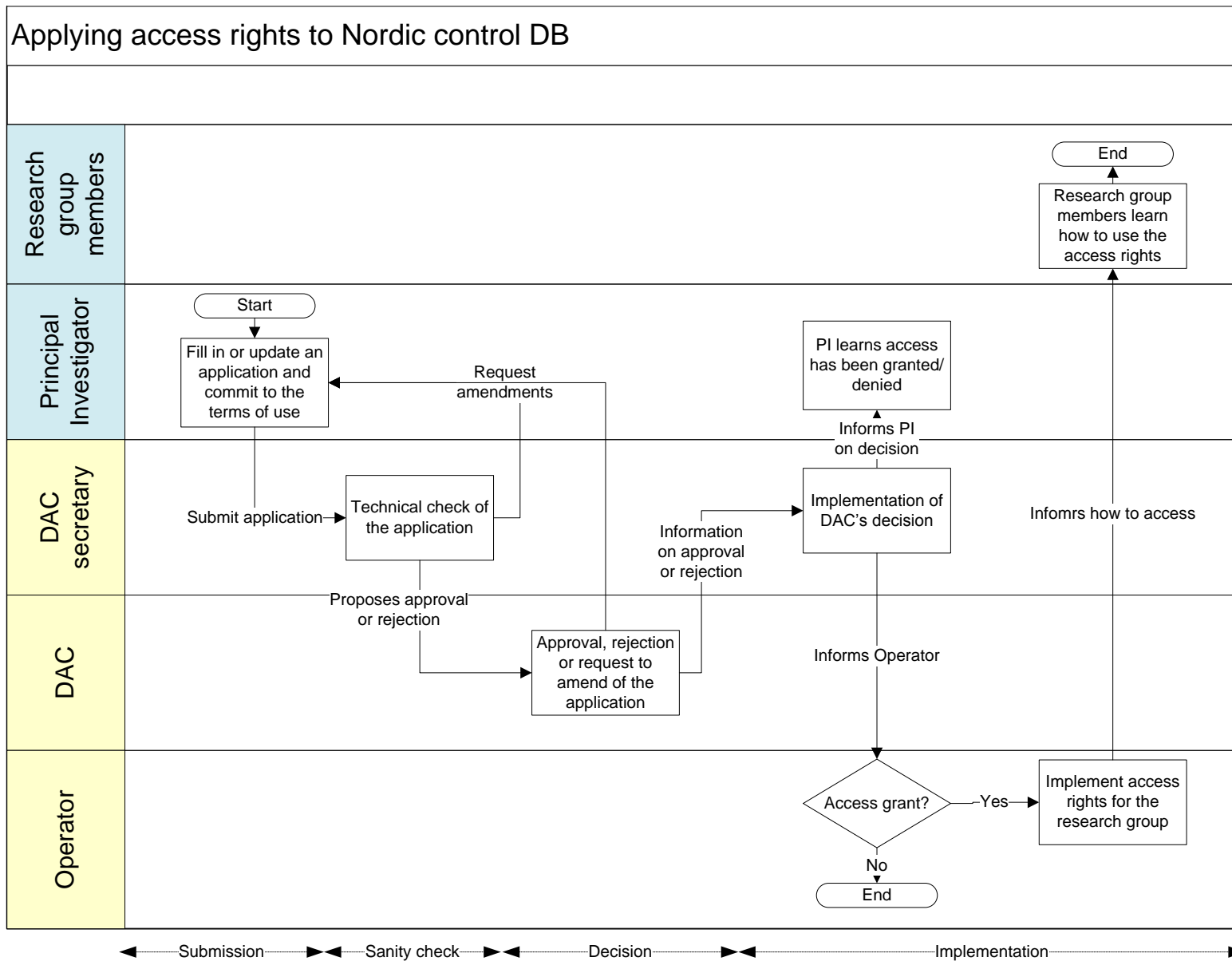
 [Watch a video of how to use your EGA account](#)

Pilot 1: outcome

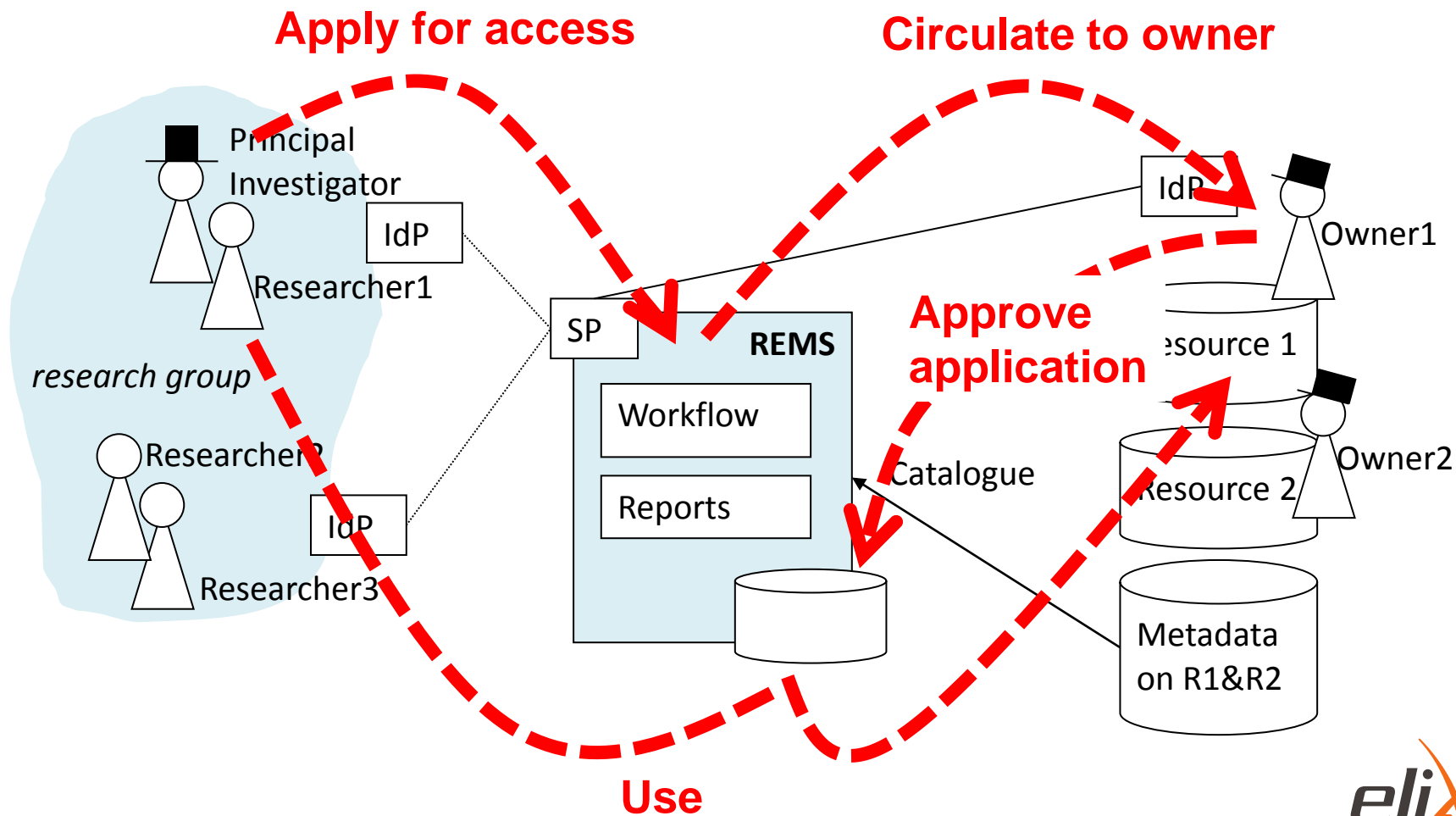
- Integrated EGA web portal to SAML2 SP
 - Haka login available in EBI wwwdev
- EMBL joined Haka FI federation and registered EGA as an SP to Haka
 - No further joining necessary to benefit from interfederations such as Kalmar Union or eduGAIN
 - Technically possible to limit exposure by excluding countries



Pilot 2: NCDB application workflow



Resource Entitlement Management System



REMS usage demo



Technical Proof
of Concept

European Life Sciences Infrastructure for Biological Information
www.elixir-europe.org

Gaining access to biobank metadata

KITE BBMRI data discovery portal

Apply data access with REMS leveraging federated authentication

Query ▾ Visualization ▾ Annotation ▾

KITE - Login

Basic

Haka

You can apply access to COHA collection [in REMS](#)

<http://youtu.be/2pkIRjksH2g>



REMS intends to be a generic tool

- Applying access to a resources
 - Identified by an identifier
- Workflows
- Discipline independent
- Several members in one application
- License terms for resources
- Federated authentication
- Reporting
- Proposal: offered as a service from ELIXIR FI
 - Release using an OS license

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- Andrew Lyall*
- Ugis Sarkas
- Rodrigo Lopez
- Ewan Birney*

- **FIMM**

- Juha Muilu
- Timo Miettinen*
- Teemu Perheentupa
- Tomi Simonen

- **Other stakeholders**

- EGI Gergely Sipos
- eduGAIN Valter Nordh

- **Funders**

- Academy of Finland, Biomedinfra.fi
- BioMedBridges
- EGI-Inspire

