



Archiving, preserving, sharing



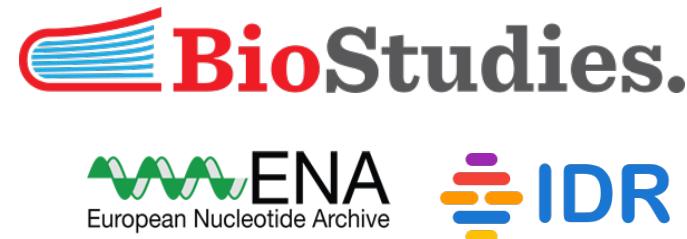
CENTRE FOR
DIGITAL LIFE
NORWAY

Korbinian Bösl
Data management coordinator
ELIXIR Norway/Digital Life Norway



NeLS

Norwegian e-Infrastructure for Life Sciences



Data life cycle +

Your role +

Your domain +

Your problem -

Compliance monitoring

Data analysis

Data management plan

Data organisation

Data protection

Data publication

Data quality

Data storage

Data transfer

Identifiers

Licensing

Documentation and metadata

Sensitive data

All tools and resources

Tool assembly +



Link to RDMkit: <https://rdmkit.elixir-europe.org/>

Why should I deposit my data?



Increased Visibility (SEO) → 25% more citations

Why should I deposit my data?

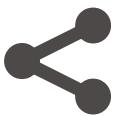


Increased Visibility (SEO) → 25% more citations

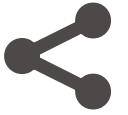


Value added Databases → more citations

Why should I deposit my data?

-  Increased Visibility (SEO) → 25% more citations
-  Value added Databases → more citations
-  FAIRification – Funding requirements ✓✓

Why should I deposit my data?

-  Increased Visibility (SEO) → 25% more citations
-  Value added Databases → more citations
-  FAIRification – Funding requirements ✓✓
-  Safe money on storage

Where should I deposit my data?

Preferably somewhere
where most things are taken care of?



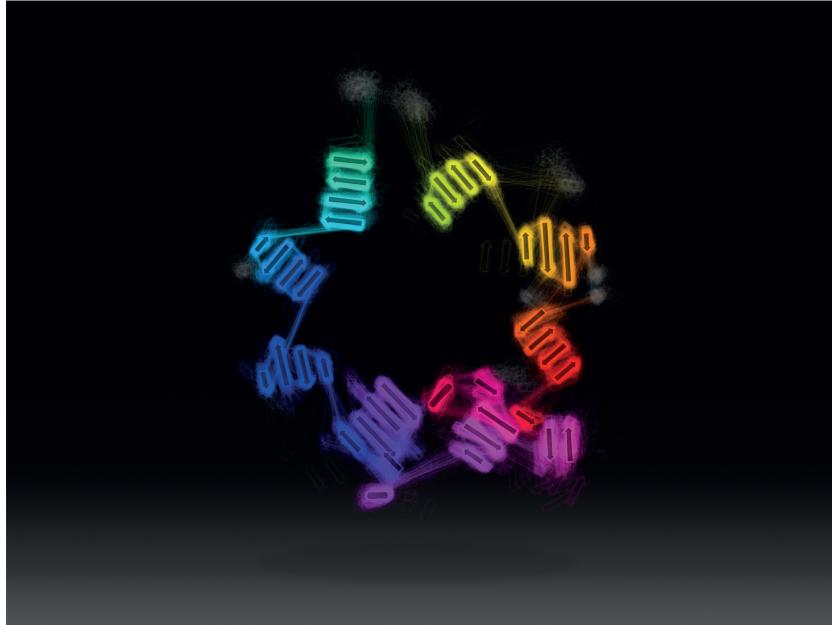
How to choose?

PRINT ISSN: 0305-1048
ONLINE ISSN: 1362-4962

Nucleic Acids Research

VOLUME 49 DATABASE ISSUE JANUARY 8, 2021

<https://academic.oup.com/nar>



molecular biology
1641 databases

OXFORD
UNIVERSITY PRESS

Open Access

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Rigden, D. J. & Fernández, X. M. licensed under Creative Commons Attribution 4.0 International License

The 2021 Nucleic Acids Research database issue and the online molecular biology database collection. Nucleic Acids Research 49, D1–D9 (2021).



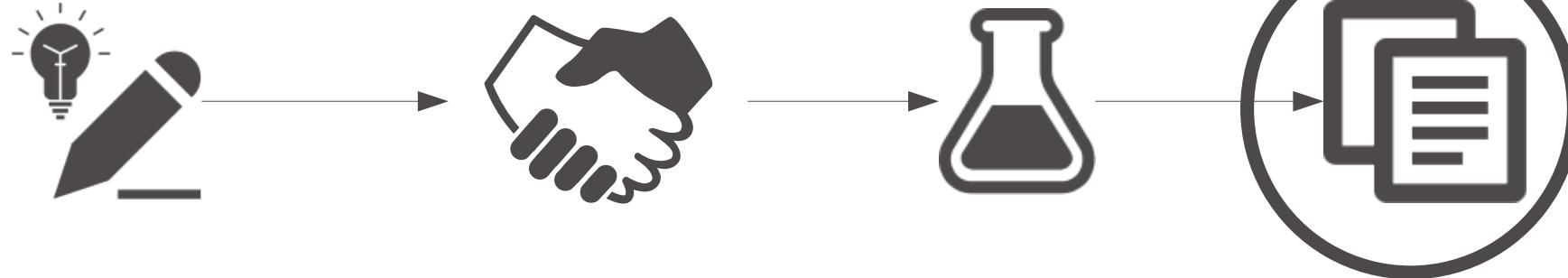
Taylor & Francis
Taylor & Francis Group

nature



SCIENTIFIC
DATA

1101110
01111101
110111110
0111101101



Deposition

Where should I deposit my data?



Where should I deposit my data?



Where should I deposit my data?

Fits?

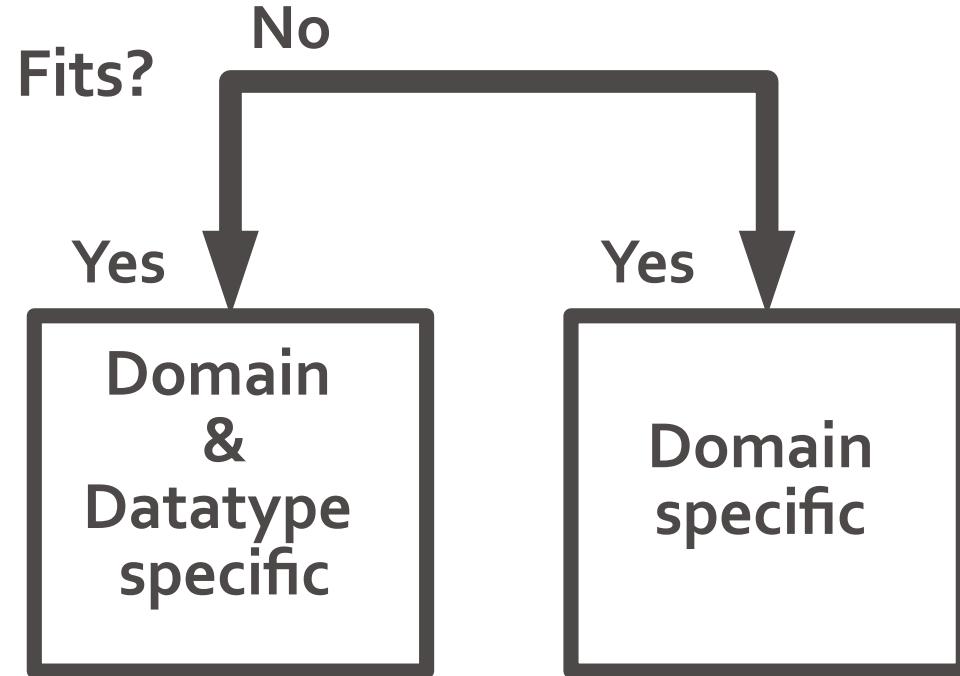


Yes

Domain
&
Datatype
specific



Where should I deposit my data?

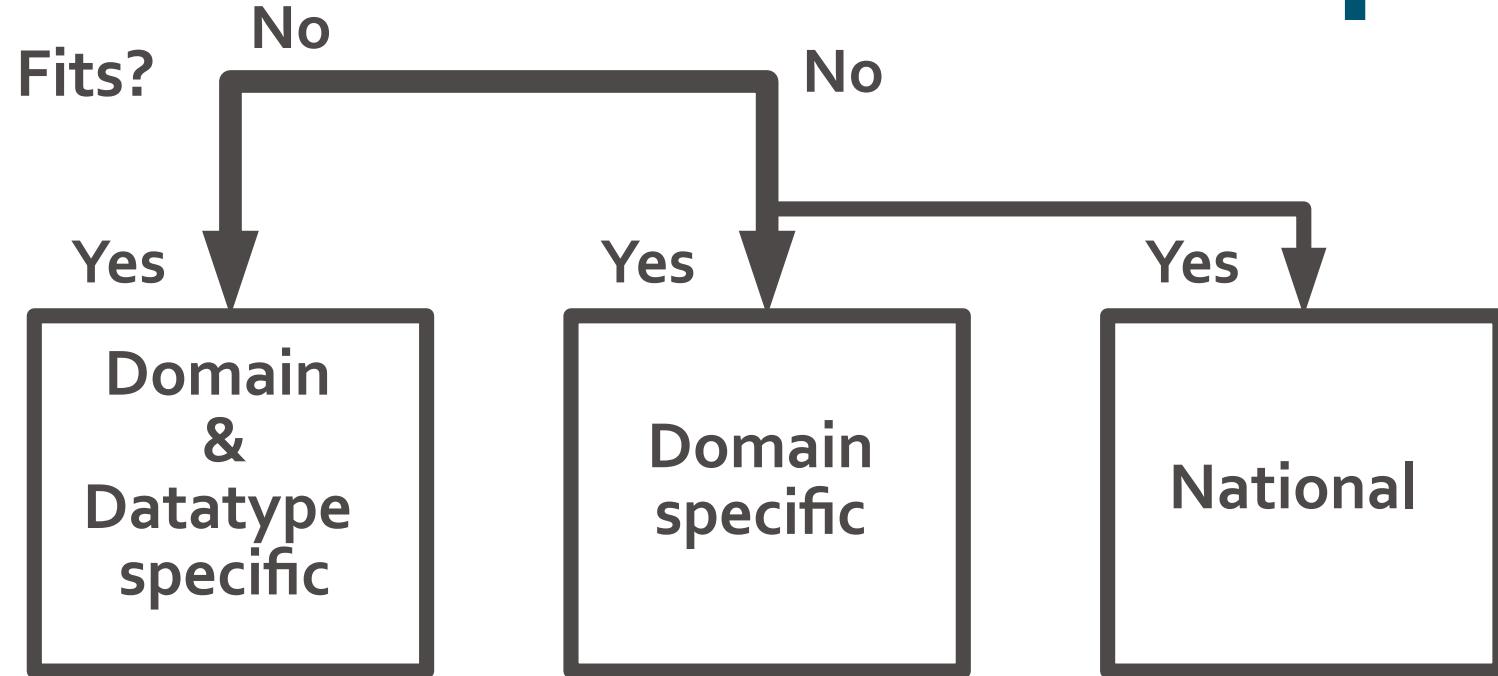


 ENA
European Nucleotide Archive

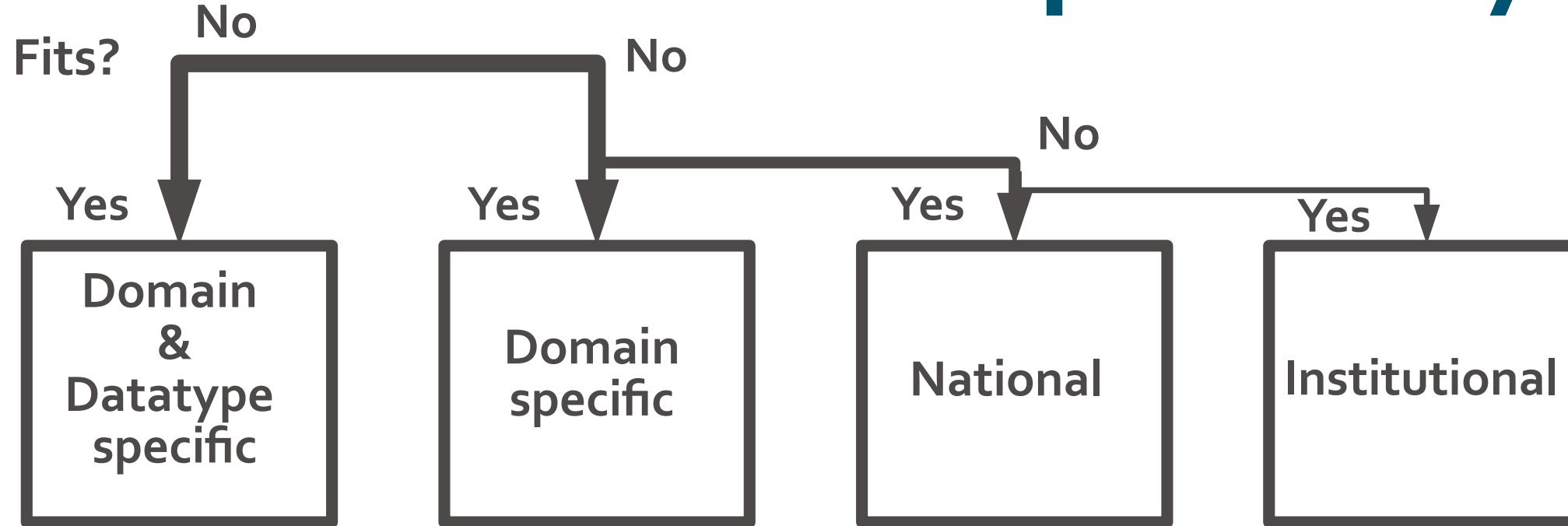
 BioStudies.

 SRA
NCBI

Where should I deposit my data?



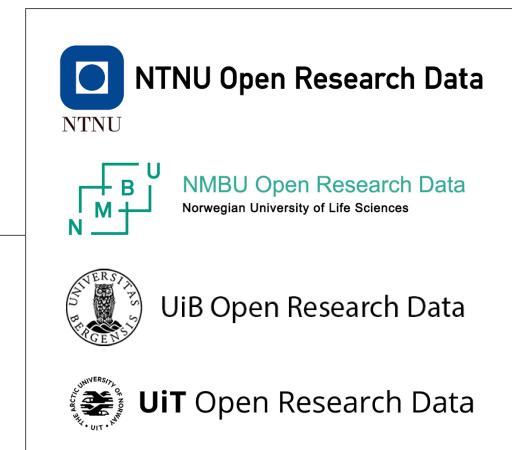
Where should I deposit my data?



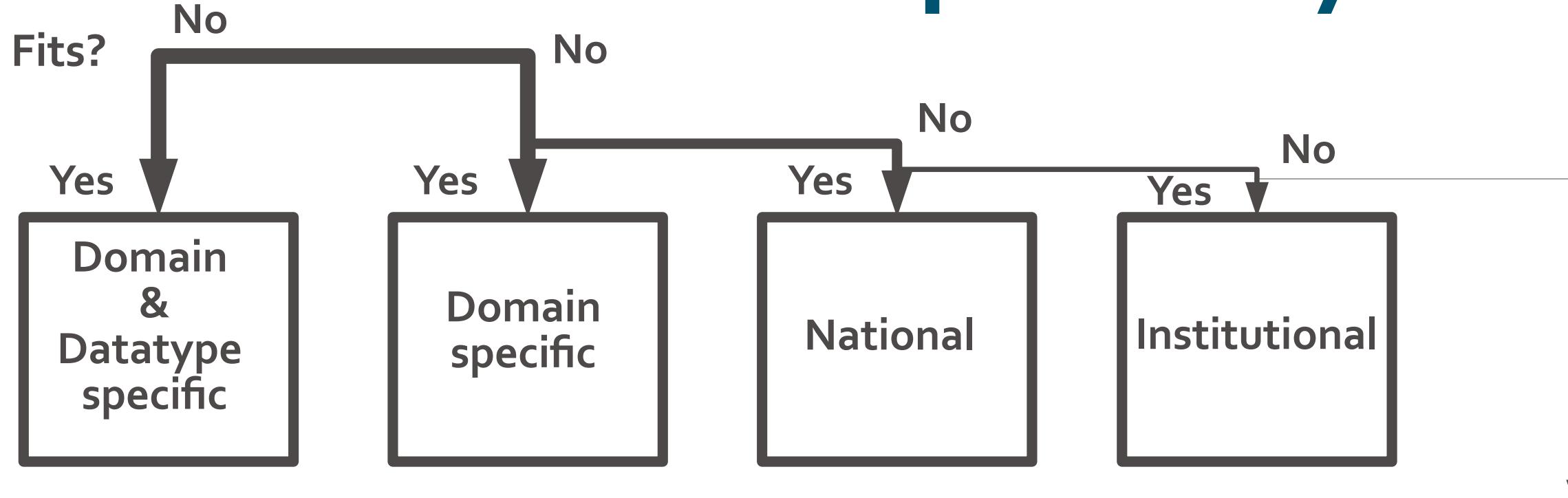
NIRD RESEARCH DATA ARCHIVE



DataVERSENO
DataVERSE Network Norway



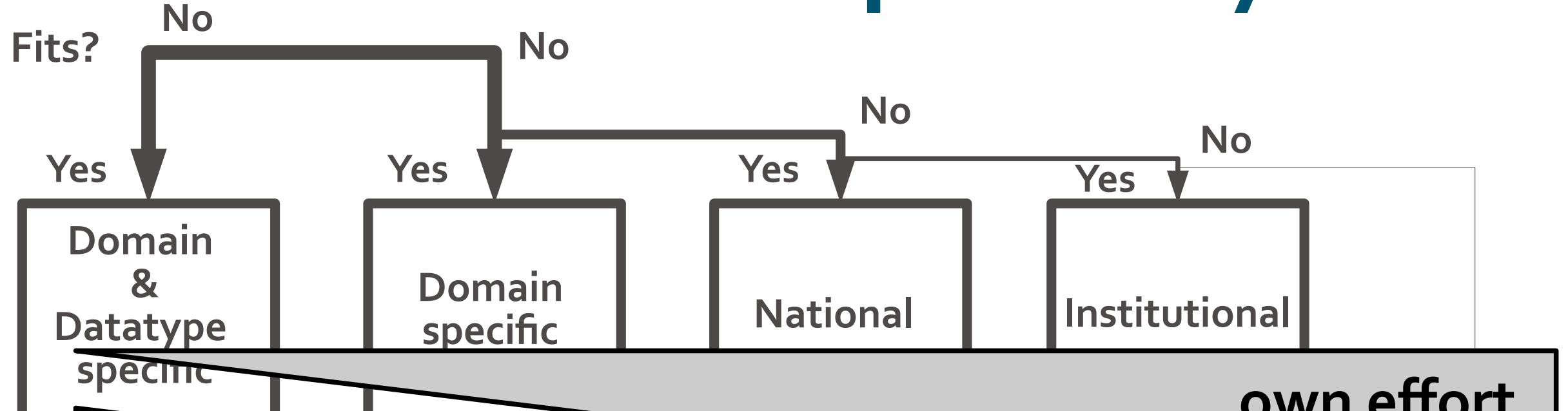
Where should I deposit my data?



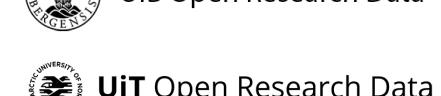
NIRD RESEARCH DATA ARCHIVE



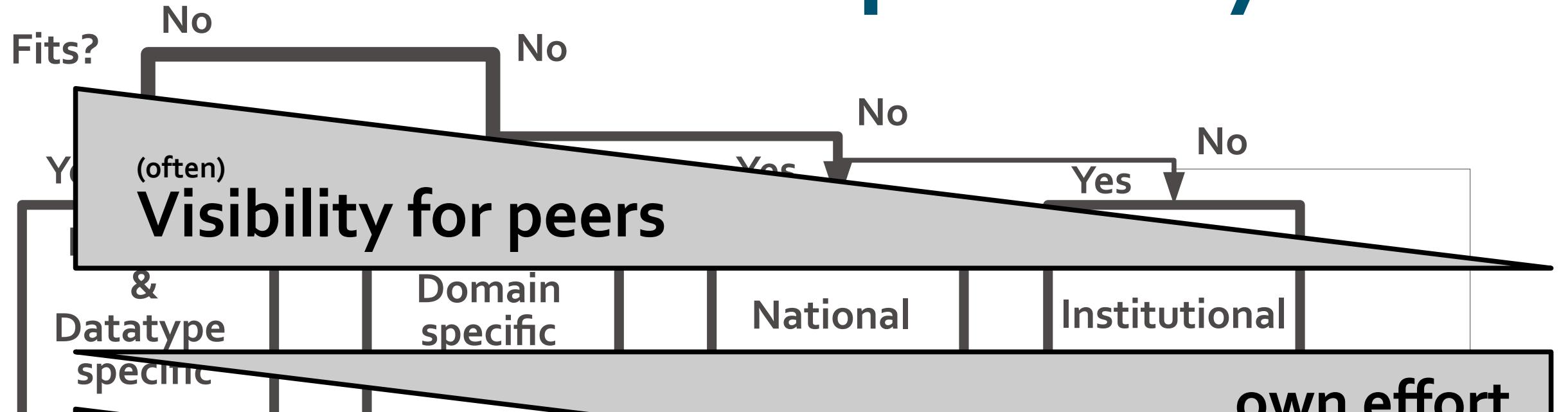
Where should I deposit my data?



Standardization



Where should I deposit my data?



NCBI

Standardization

NTNU Open Research Data

zenodo

DataverseNO
Dataverse Network Norway

NM
Norwegian University of Life Sciences



UiB Open Research Data

UiT Open Research Data

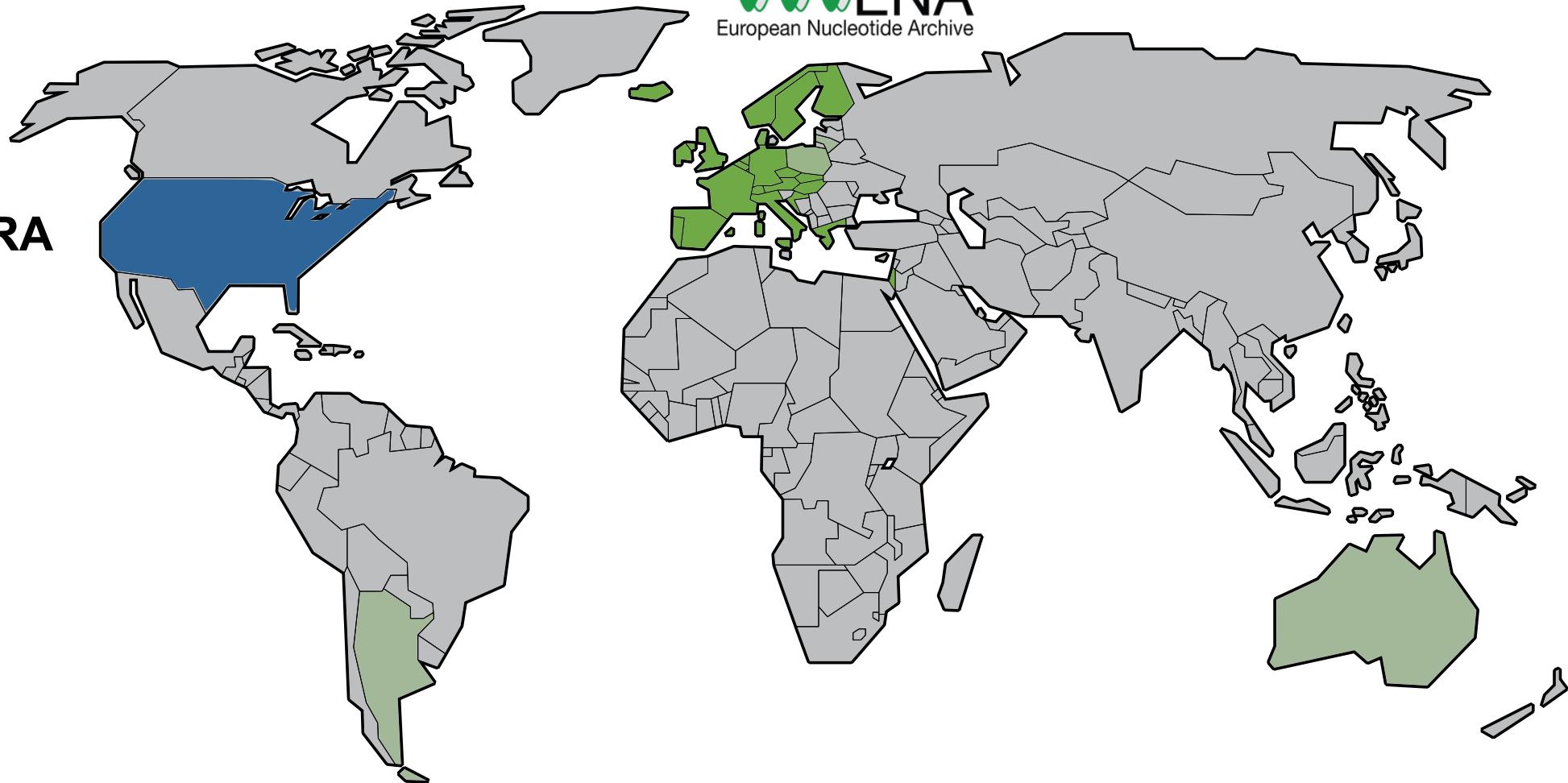
EUDAT

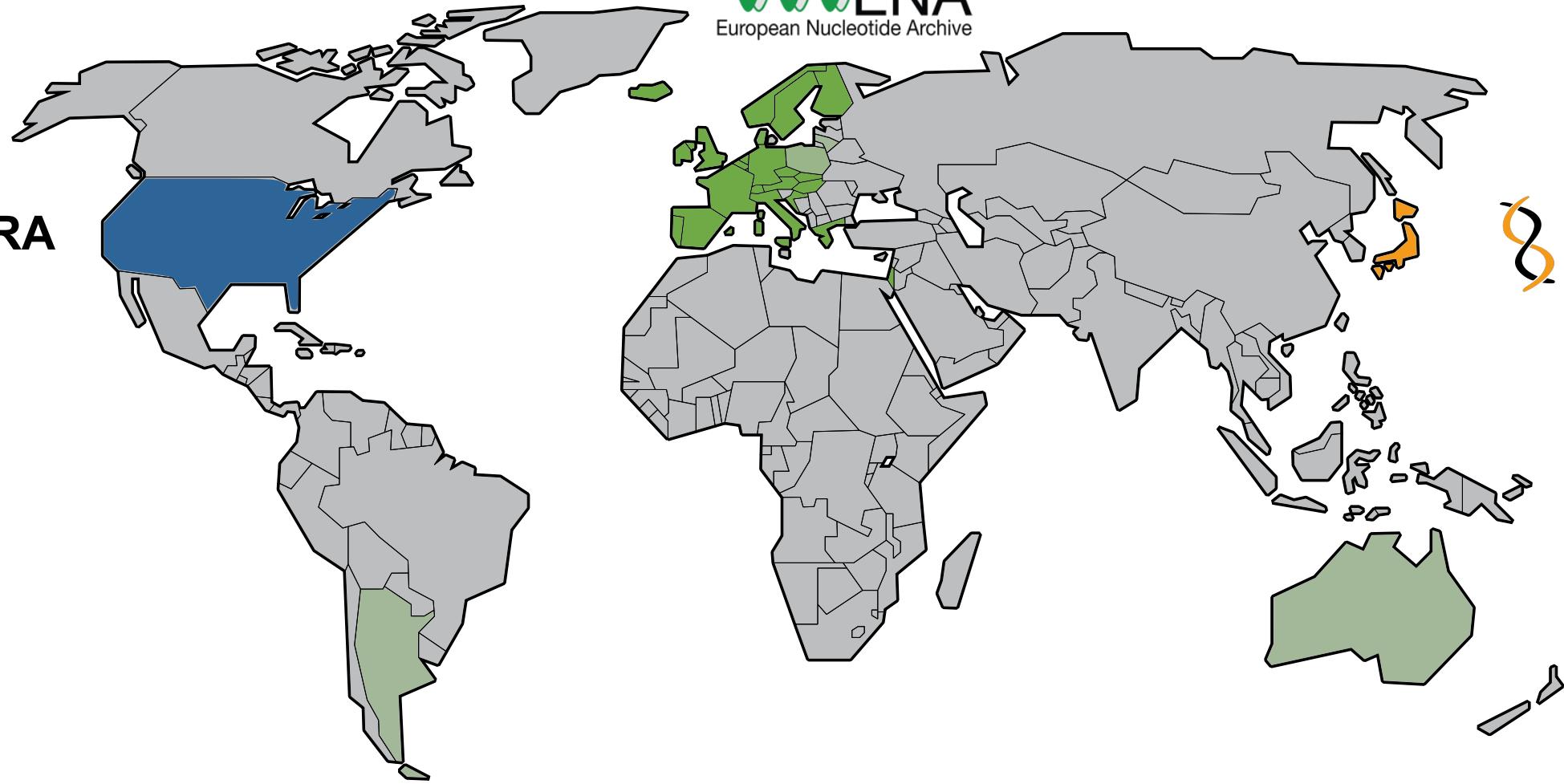
figshare

Multiple Repositories – similar datatypes



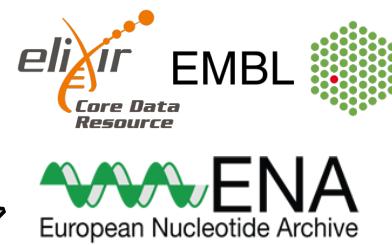
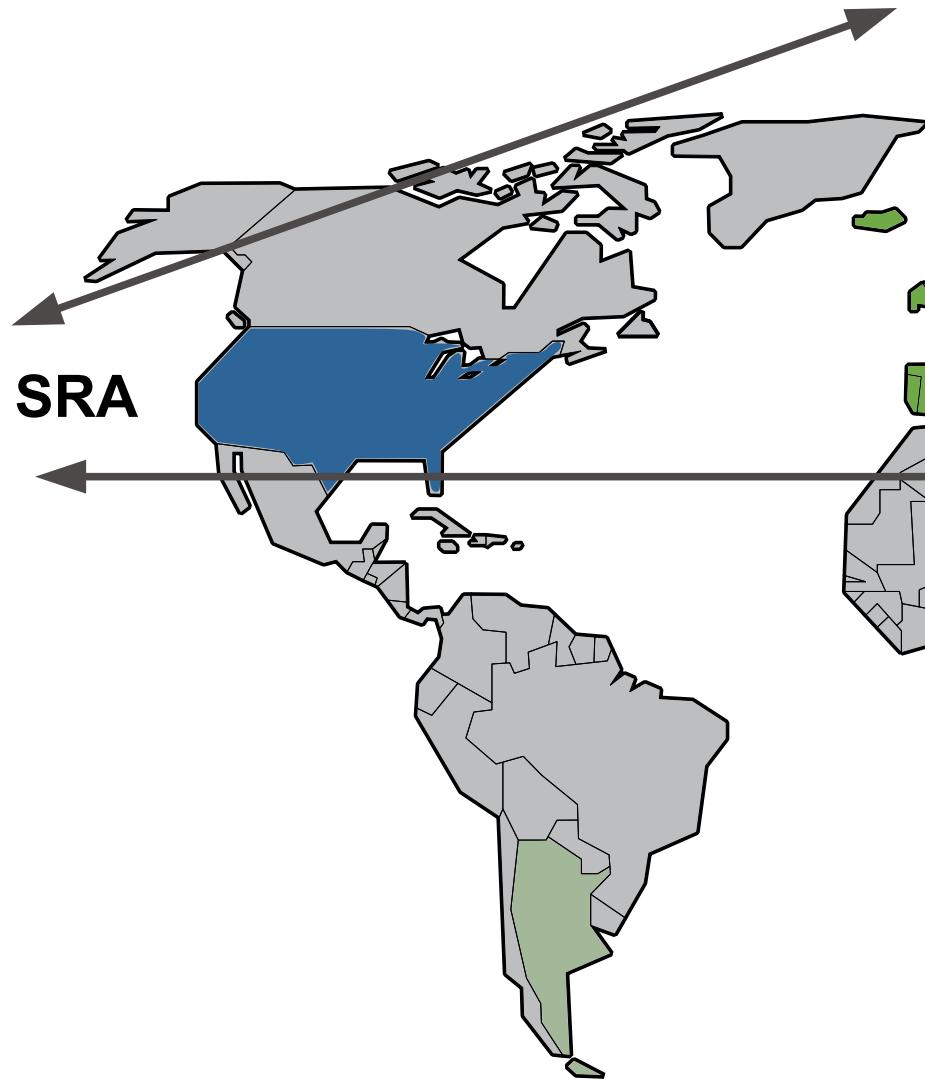








SRA

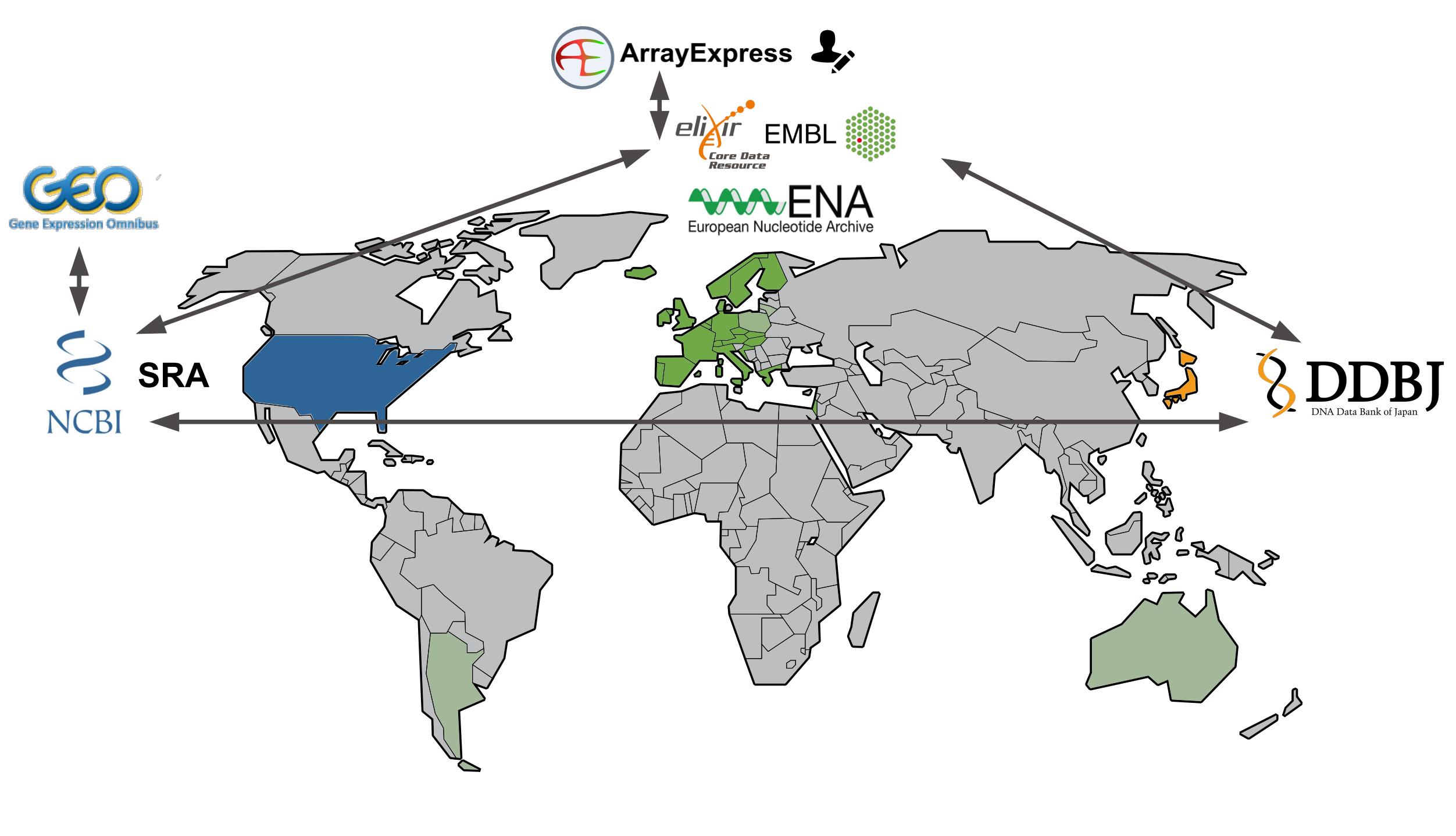


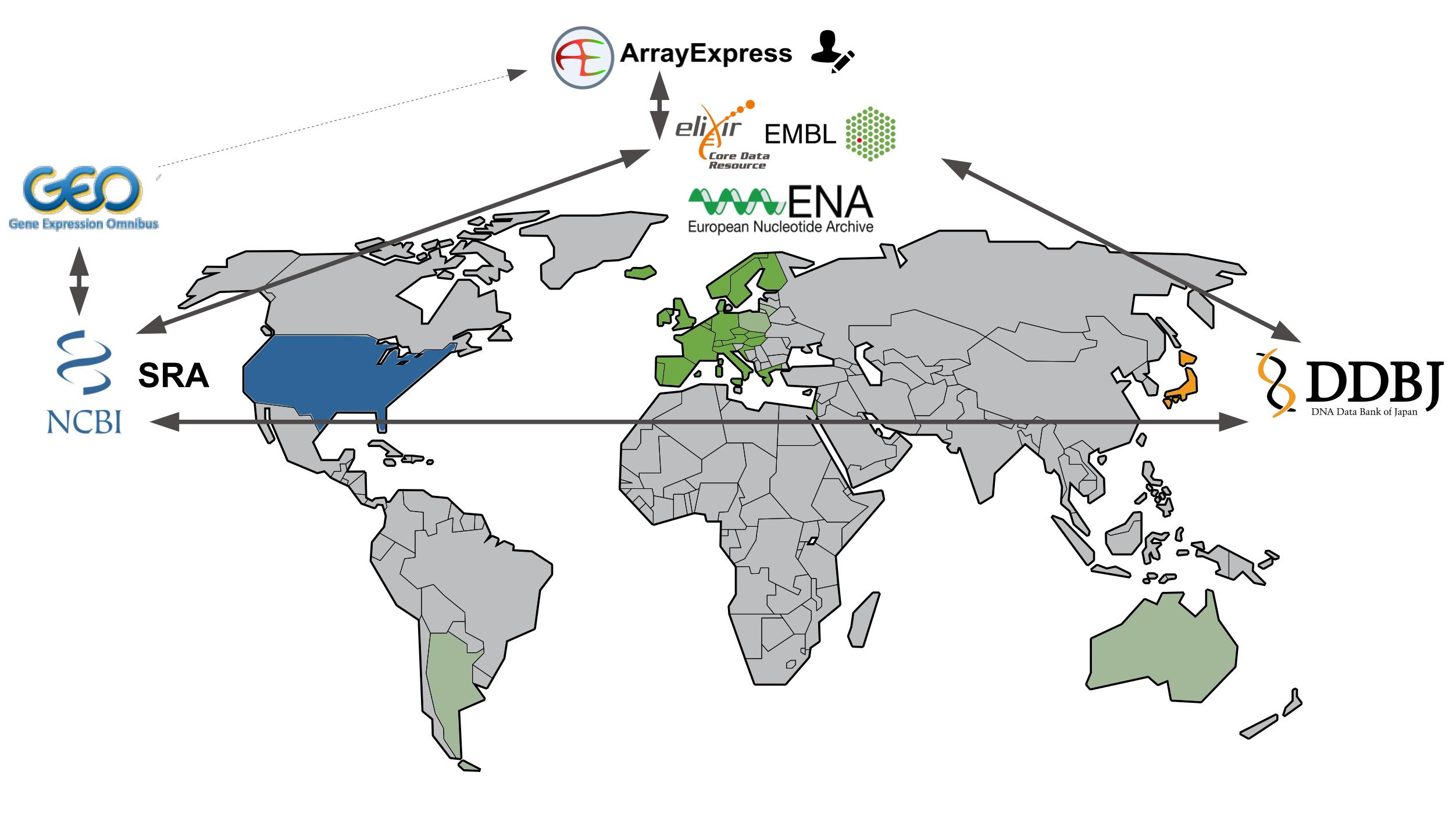
ENA

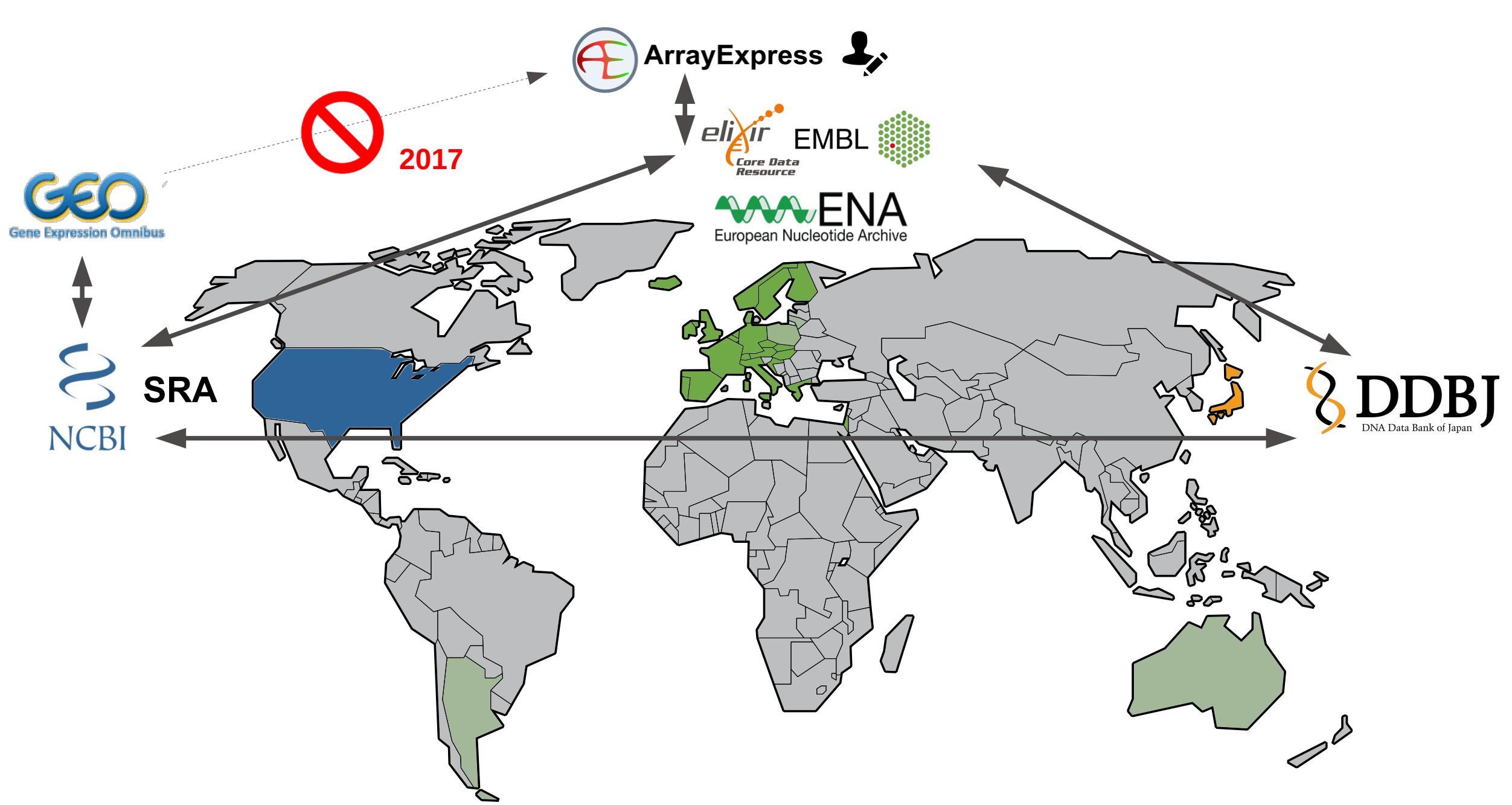
European Nucleotide Archive



DNA Data Bank of Japan









EMBL



Mass Spectrometry
Interactive Virtual Environment





EMBL



PRIDE

PRoteomics IDEntifications Database



Proteome
Xchange

iProX



Where should I deposit my data?

Recognized & Recommended



<https://elixir-europe.org/platforms/data/core-data-resources>

<https://elixir-europe.org/platforms/data/elixir-deposition-databases>

Where should I deposit my data?

Recognized & Recommended

Free of charge



Where should I deposit my data?

Recognized & Recommended

Free of charge

Quick upload



Where should I deposit my data?



Recognized & Recommended

Free of charge

Quick upload

Not operated by single university/government

Where should I deposit my data?



Recognized & Recommended

Free of charge

Quick upload

Not operated by single university/government

Guided submission process

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Free of charge

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Guided submission process

Generous embargo regulation (2yrs →)

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API access (upload from NeLS planned)

Where should I deposit my data?



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Where should I deposit my data?



ArrayExpress



PRIDE

PRoteomics IDENTifications Database



BioImage Archive



EMPIAR



BioModels



MetaboLights

Where should I deposit my data?



ArrayExpress

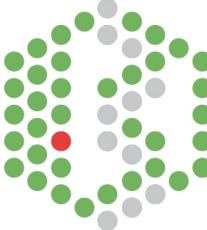
 BioImage Archive



Where should I deposit my data?



EMBL-EBI



BioImage Archive



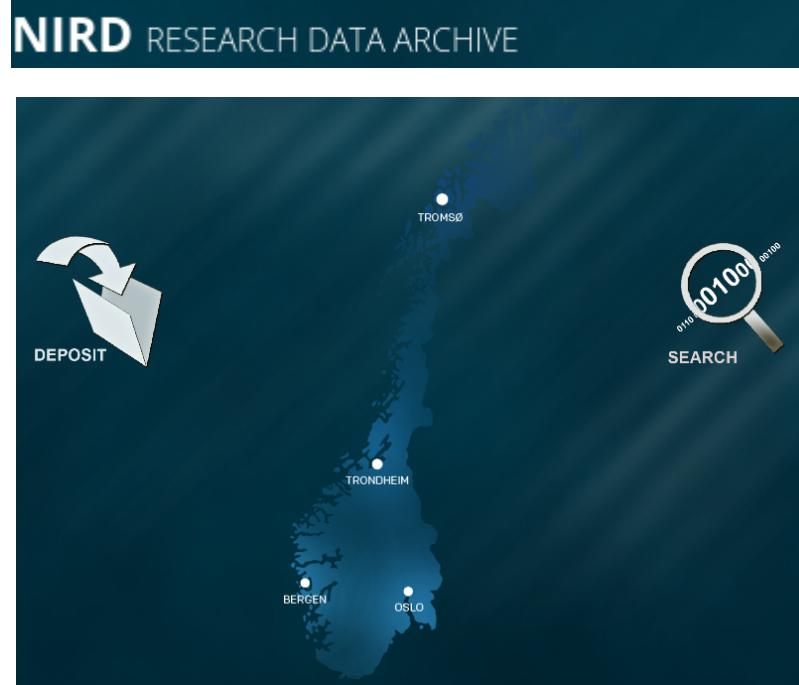
Data Submission Wizard

<https://www.ebi.ac.uk/submit/>

PRIDE
Proteomics IDEntifications Database



NIRD archive



National, free depositing repository

Domain agnostic

Dublin-core metadata standard

DOI accessible

Supports machine readable metadata harvesting

Generic archives



Less standard metadata → Re-usability ↓



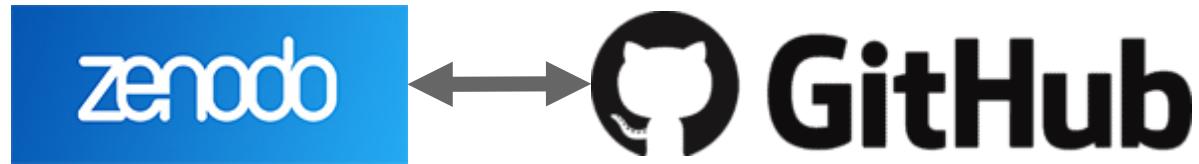
Domain agnostic → Findability ↓

Guided submission process



Commercial actors: Size limitations, ...

Archiving code/scripts



Good integration - easy to implement

Archival of each release

beta solutions for gitlab

What about sensitive data?



EUROPEAN
GENOME-PHENOME
ARCHIVE

ega-archive.org

Central metadata accessibility

Secure storage

Implemented data access committees

Norwegian EGA

(for data that can not leave the country)



What about sensitive data?

Central metadata accessibility

Secure storage



Ensure your consent form & REC approvals address committees
allow controlled access archiving!

Norwegian EGA
(for data that can not leave the country)



NSD archive

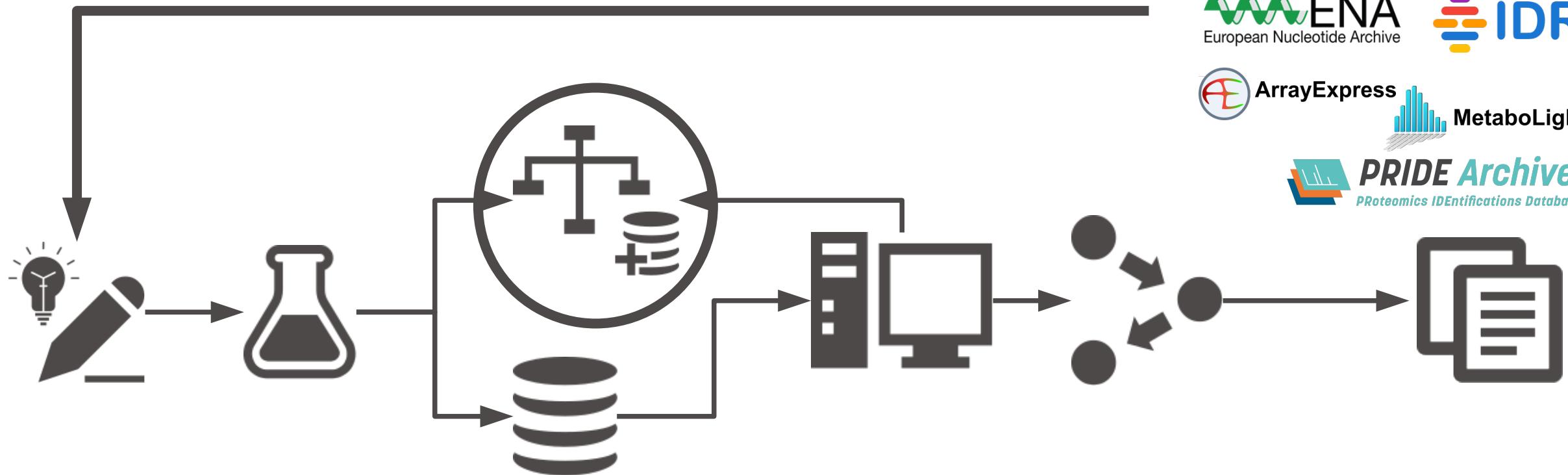


Domain agnostic

DOI accessible

Implemented data access committees

Main data type: Questionnaires, ...



 ENA
European Nucleotide Archive

 IDR

 ArrayExpress

 MetaboLights

 PRIDE Archive
PRoteomics IDEntifications Database

 EUROPEAN
GENOME-PHENOME
ARCHIVE



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