



Data Management Plans

and a short introduction to ELIXIR & Digital Life Norway



CENTRE FOR
DIGITAL LIFE
NORWAY

Korbinian Bösl
Data management coordinator
ELIXIR Norway/Digital Life Norway

Schedule

21.04.2021

0900 - 0915 Introduction

0915 - 0945 Requirements from institutions & funding bodies

0945 - 1015 Information on national and local storage infrastructures

1015 - 1030 Short break

1030 - 1230 Data preservation, archiving and sharing

Schedule

22.04.2021

0900 - 1000 GDPR and other legal requirements for research on humans

1000 - 1015 Short break

1015 - 1045 Licensing of data, biological material and software

1045 - 1100 Intro Data Steward Wizard

1100 - 1300 Hands on training and assistance to generate a data management plan



Kjersti
Enerstvedt



Jenny
Ostrop



University Library Research Data team



Kjersti
Enerstvedt



Jenny
Ostrop



University Library Research Data team



Tore
Linde



**LAB-IT &
SAFE**



Kjersti
Enerstvedt



Jenny
Ostrop



University Library Research Data team



Tore
Linde



**LAB-IT &
SAFE**



Siri
Kallhovd



Metacenter





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Metacenter



Janecke
Veim



Espen
Åberg



Erik
Hjerde



Federico
Bianchini



Korbinian
Bösl



**CENTRE FOR
DIGITAL LIFE
NORWAY**

ELIXIR Europe

'Data for Life'

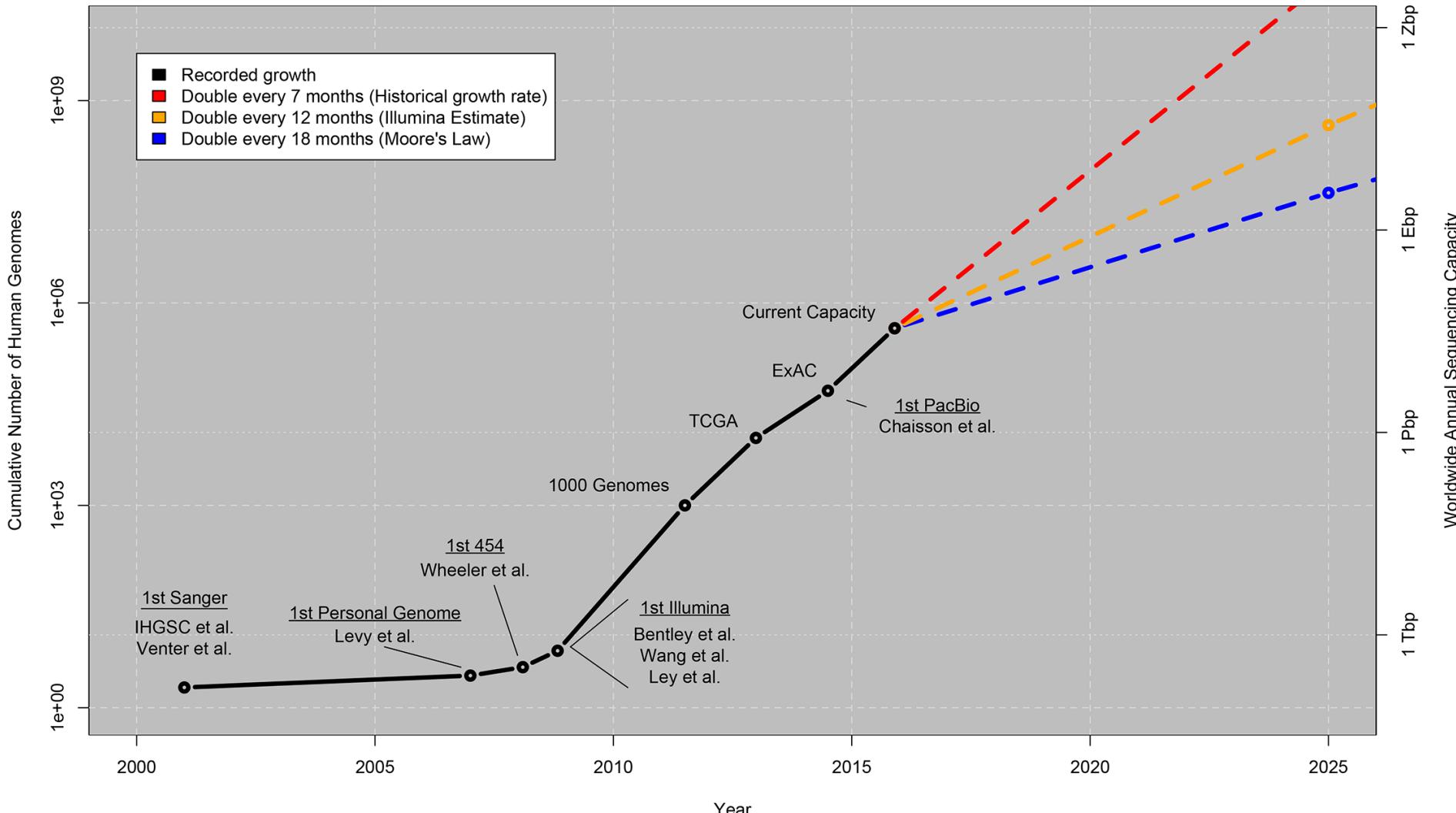
Mission:

To operate a sustainable European infrastructure for biological information, supporting life-science research and its translation to society, the bio-industries, environment and medicine



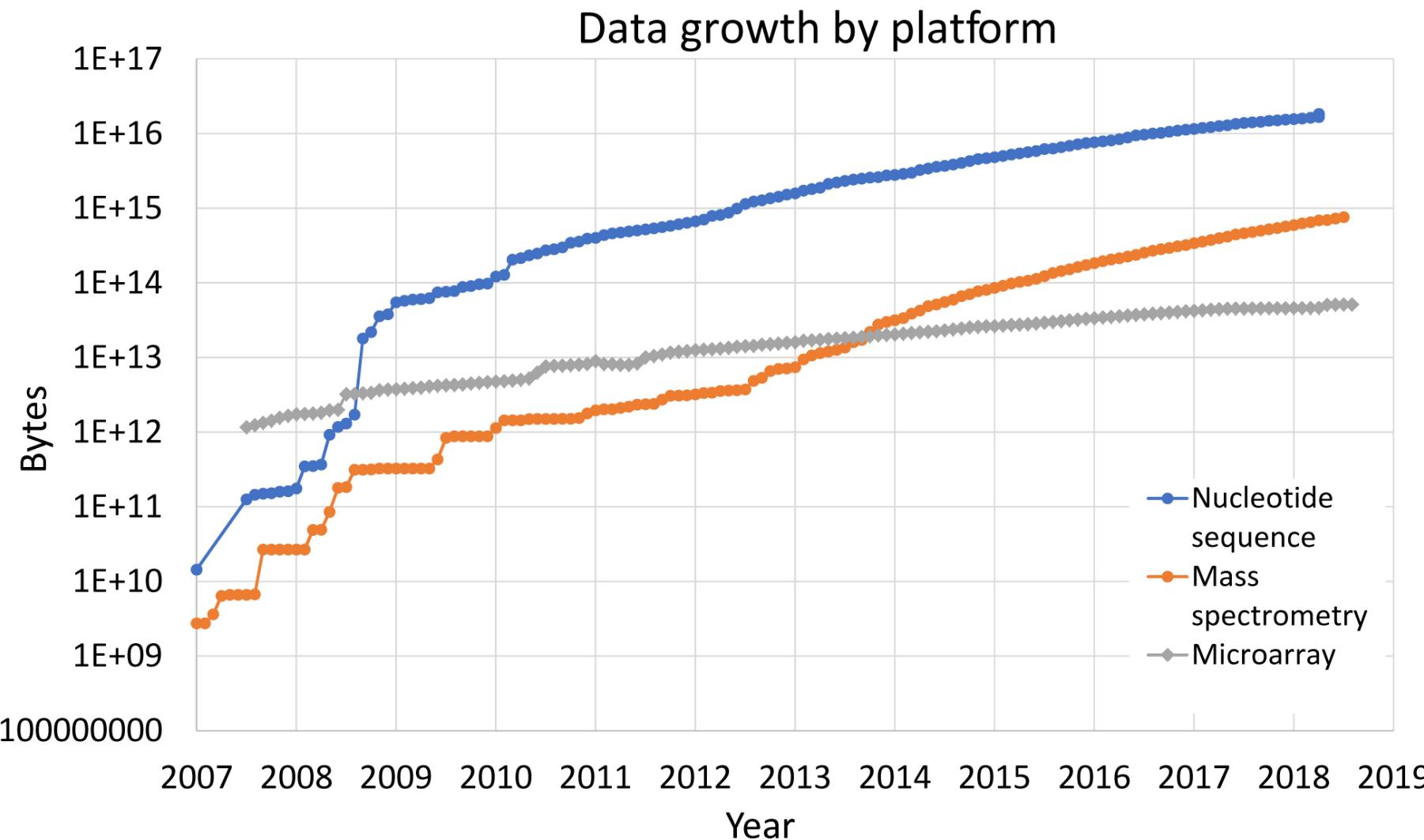
ELIXIR Europe

Growth of DNA Sequencing



From: Stephens, Z. D. et al. Big Data: Astronomical or Genomical? PLOS Biology 13, e1002195 (2015).
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ELIXIR Europe



Data stored in
ELIXIR/EBI-EMBL
Repositories



ELIXIR Members



ELIXIR Observers



Cyprus

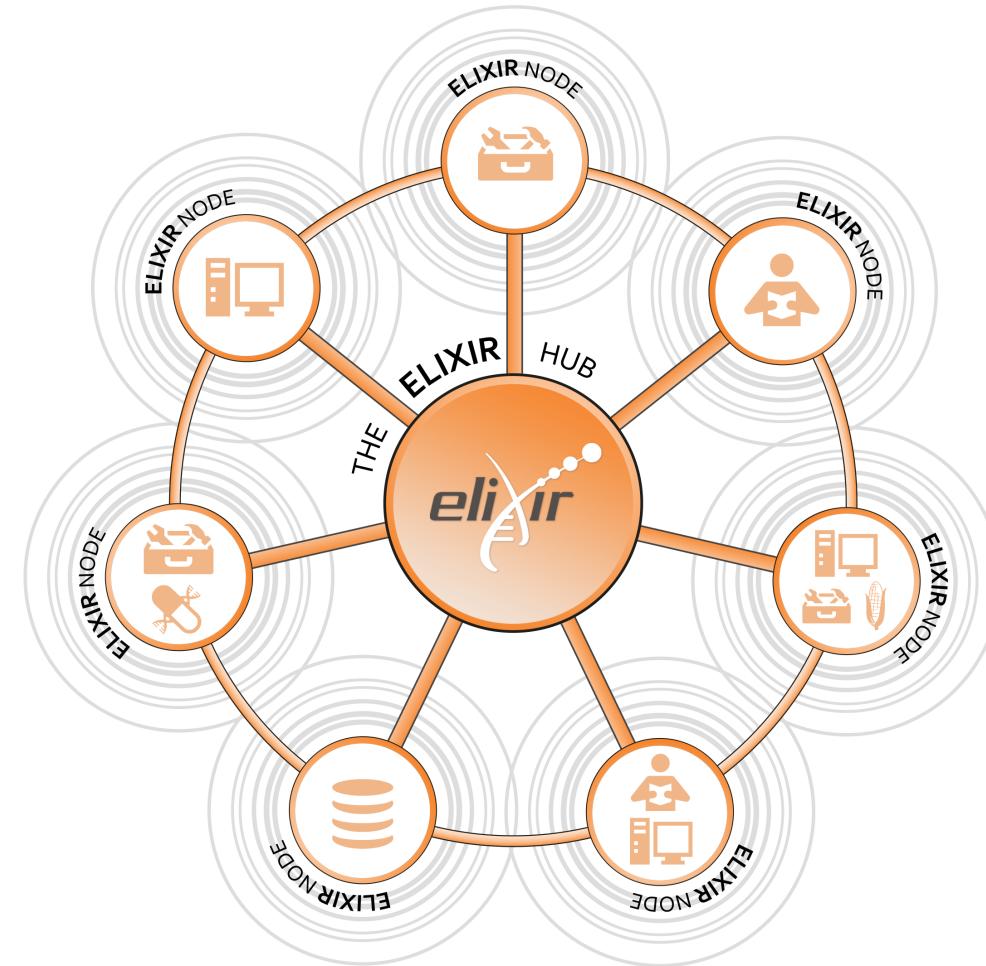


A distributed infrastructure to scale with the challenge

ELIXIR data infrastructure
for Europe's life science
research sector

ELIXIR Nodes build local
bioinformatics capacity
throughout Europe

ELIXIR Nodes build on
national strengths and
priorities



ELIXIR Services



Data deposition:
ENA, EGA, PDBe, EuropePMC, ...



Data management:
Genome annotation
Data management plans



Added value data:
UniProt, Ensembl, OrphaNet, ...



Data Interoperability:
FAIRSharing, identifiers.org, OLS,
Bioschemas, ...



Compute:
Secure data transfer, cloud computing, AAI



Bioinformatics tools:
Bio.tools, Benchmarking: OpenEBench



Industry:
Innovation and SME programme
Bespoke collaborations



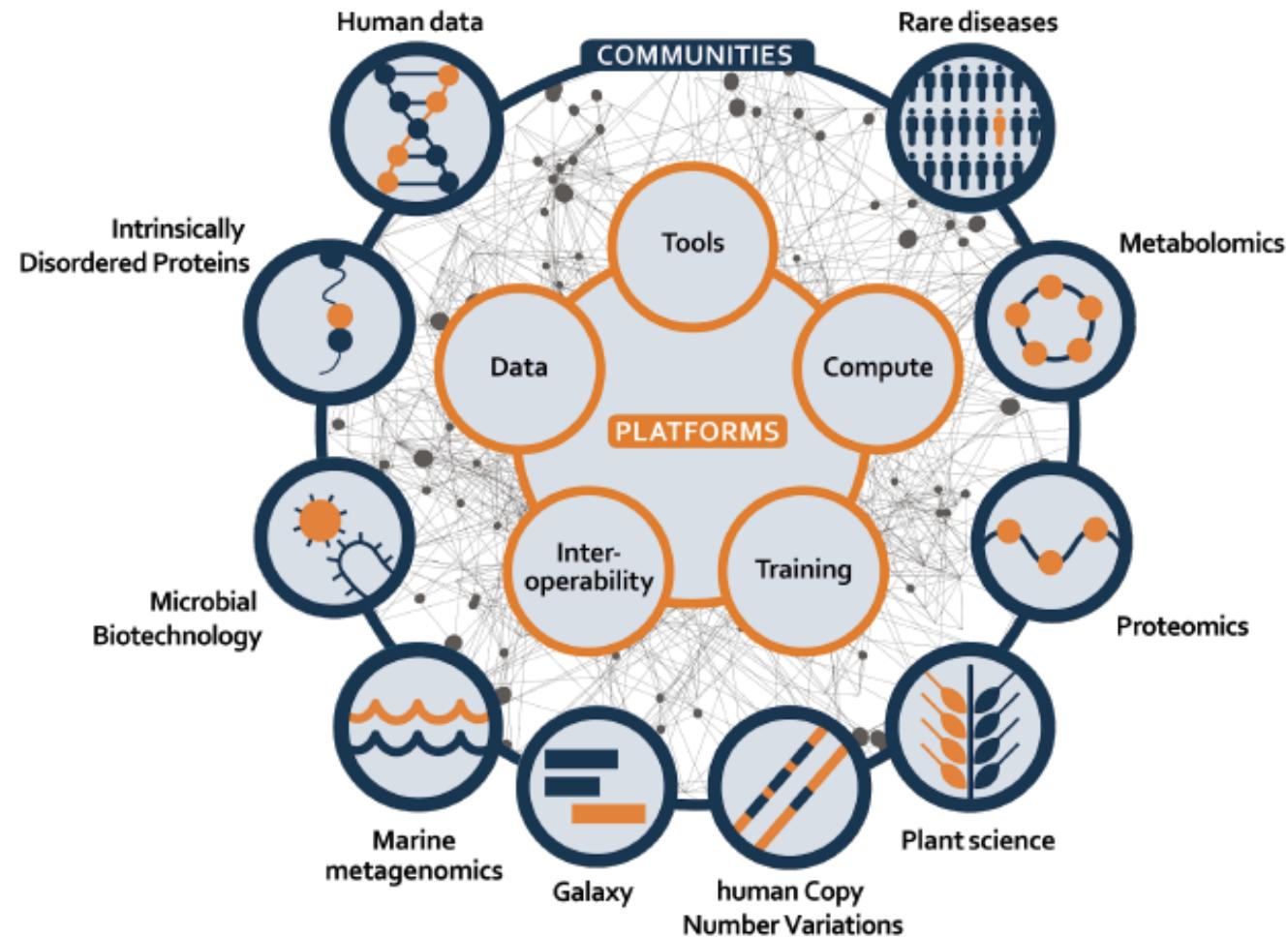
Training:
TeSS, Data Carpentry, eLearning



ELIXIR Structure

Five technical **Platforms** for
Compute, Data, Tools,
Interoperability, and Training

Complemented by
Communities for specific use
cases within e.g. **Human data,**
Metabolomics, Proteomics,
Marine Metagenomics,
Microbial Biotechnology,
Structural Bioinformatics and
others



ELIXIR Structure

The Norwegian node of ELIXIR Europe

Currently funded by:

The Research Council of Norway (until 2021)

The involved institutions; UiB, UiO, NMBU, NTNU and UiT

Users

Services to national users

Infrastructure, support and training

Deliverables to ELIXIR Europe

Tools and databases



Our additional user services - Norway

- Support – through our HelpDesk 2 days of service free of charge (enabled by RCN)

Training – in using our tools and workflows, and in data management

Bioinformatics infrastructure

Analysis, sharing and storage of data

contact@bioinfo.no



Support for trans-disciplinary participating projects:

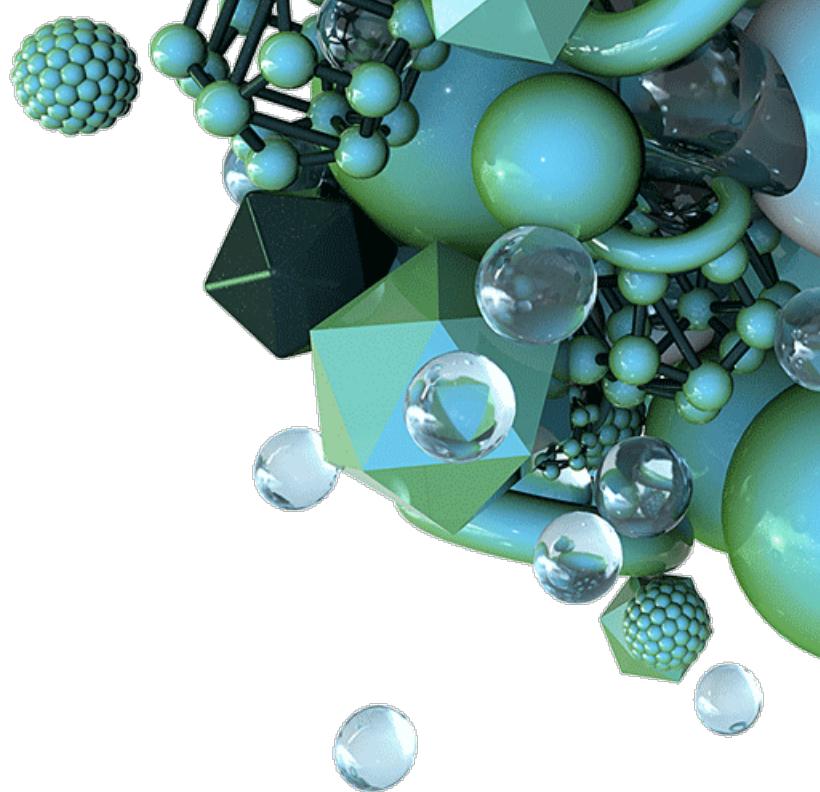
Responsible Research and Innovation

Innovation and industry involvement

Training & Research school

Competence and infrastructure – incl. Data Management

Outreach & Communication



Data Management

Make research data and related metadata
discoverable, accessible and understandable ...



Data Management

Make research data and related metadata
discoverable, accessible and understandable ...



... today, tomorrow, and well into the
future.

Data Management

Make research data and related metadata
discoverable, accessible and understandable ...



... today, tomorrow, and well into the
future.

... across geographical distances.

Data Management

Make research data and related metadata
discoverable, accessible and understandable ...

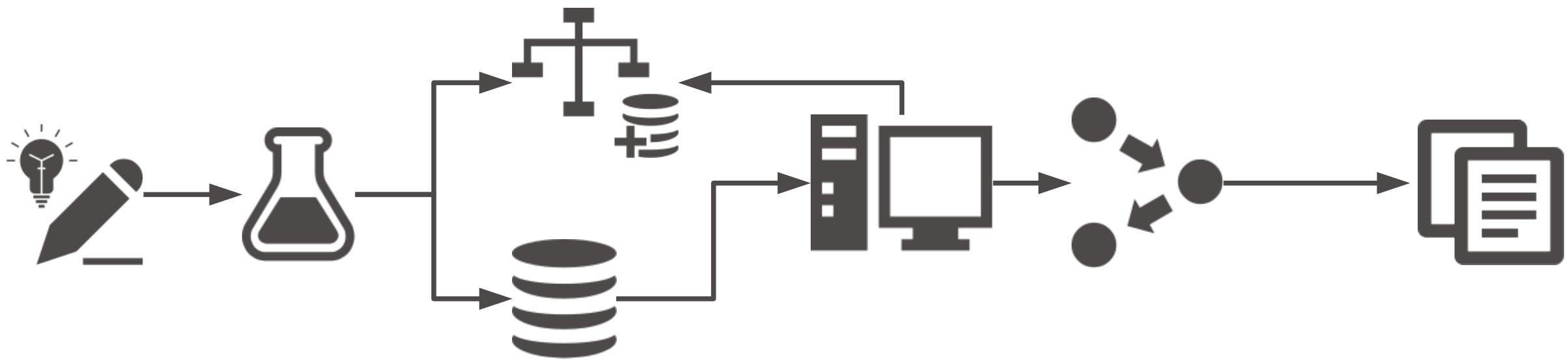


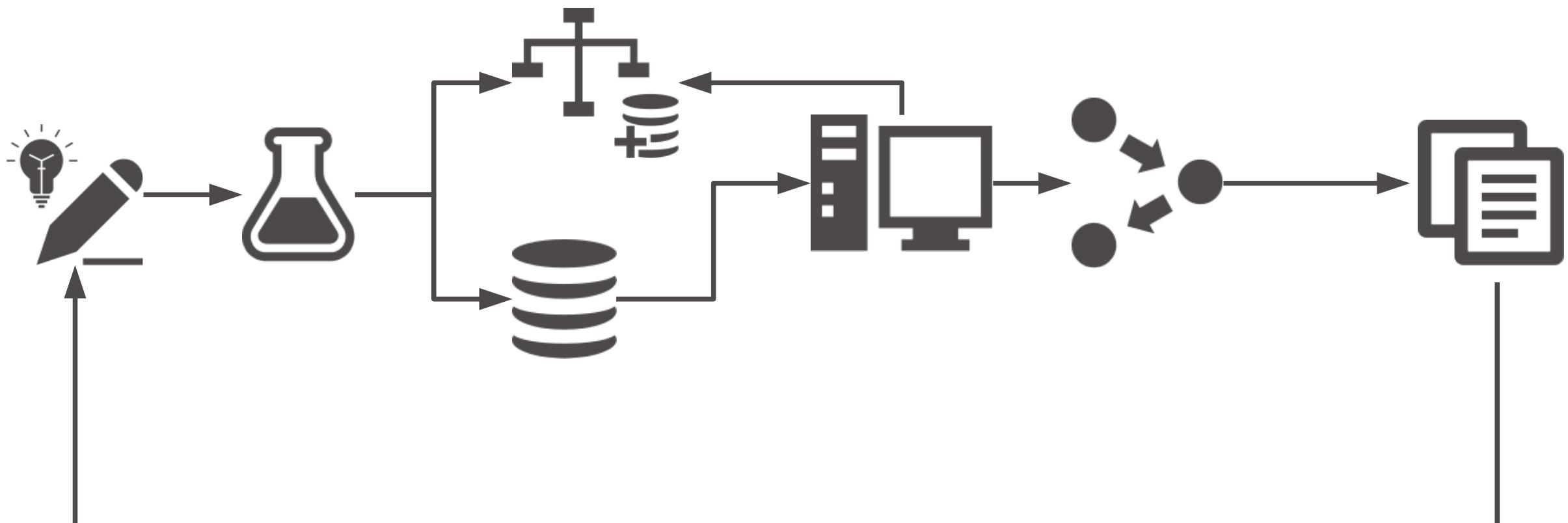
... today, tomorrow, and well into the future.

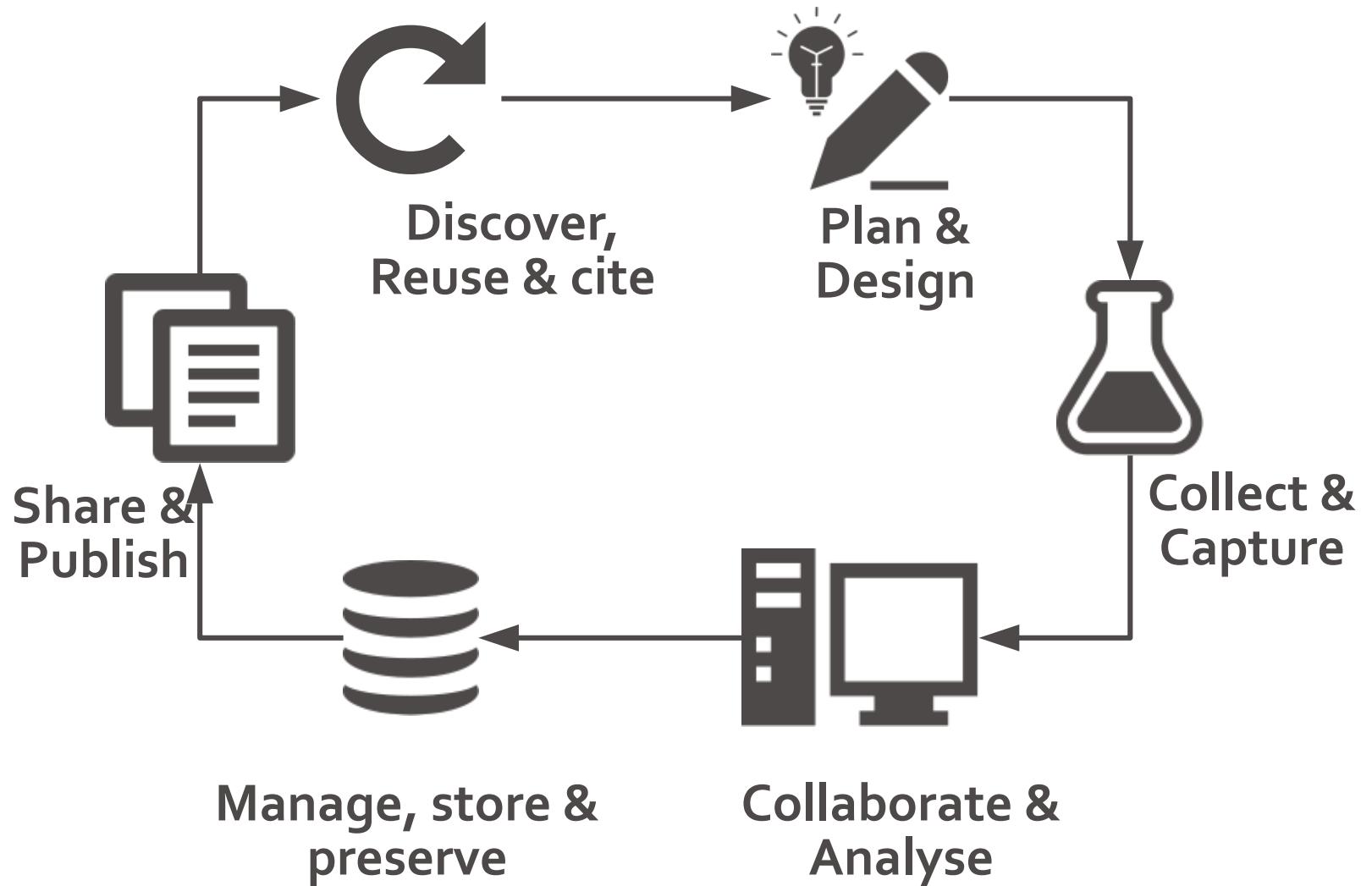
... across geographical distances.

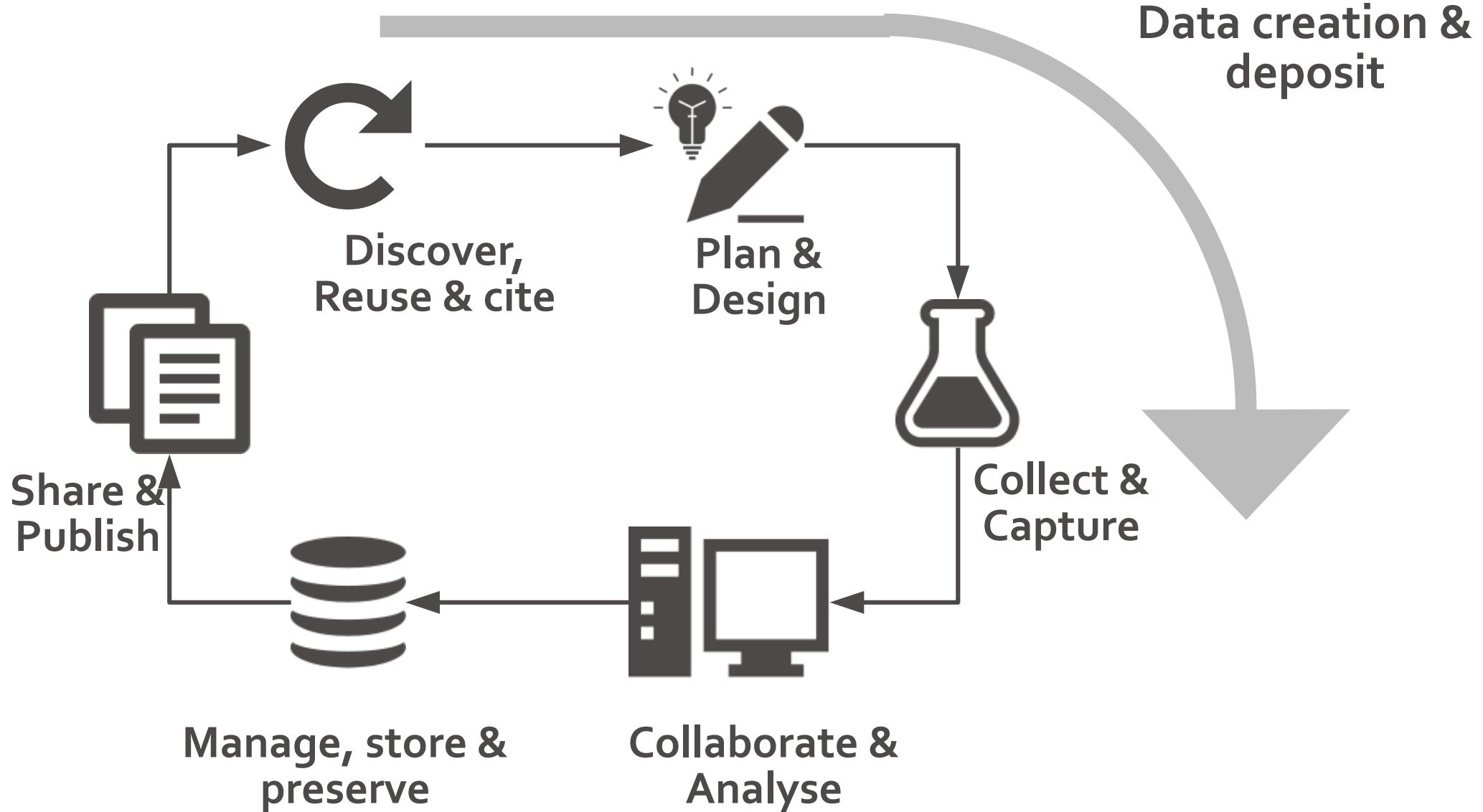
... enabling efficient collaboration;

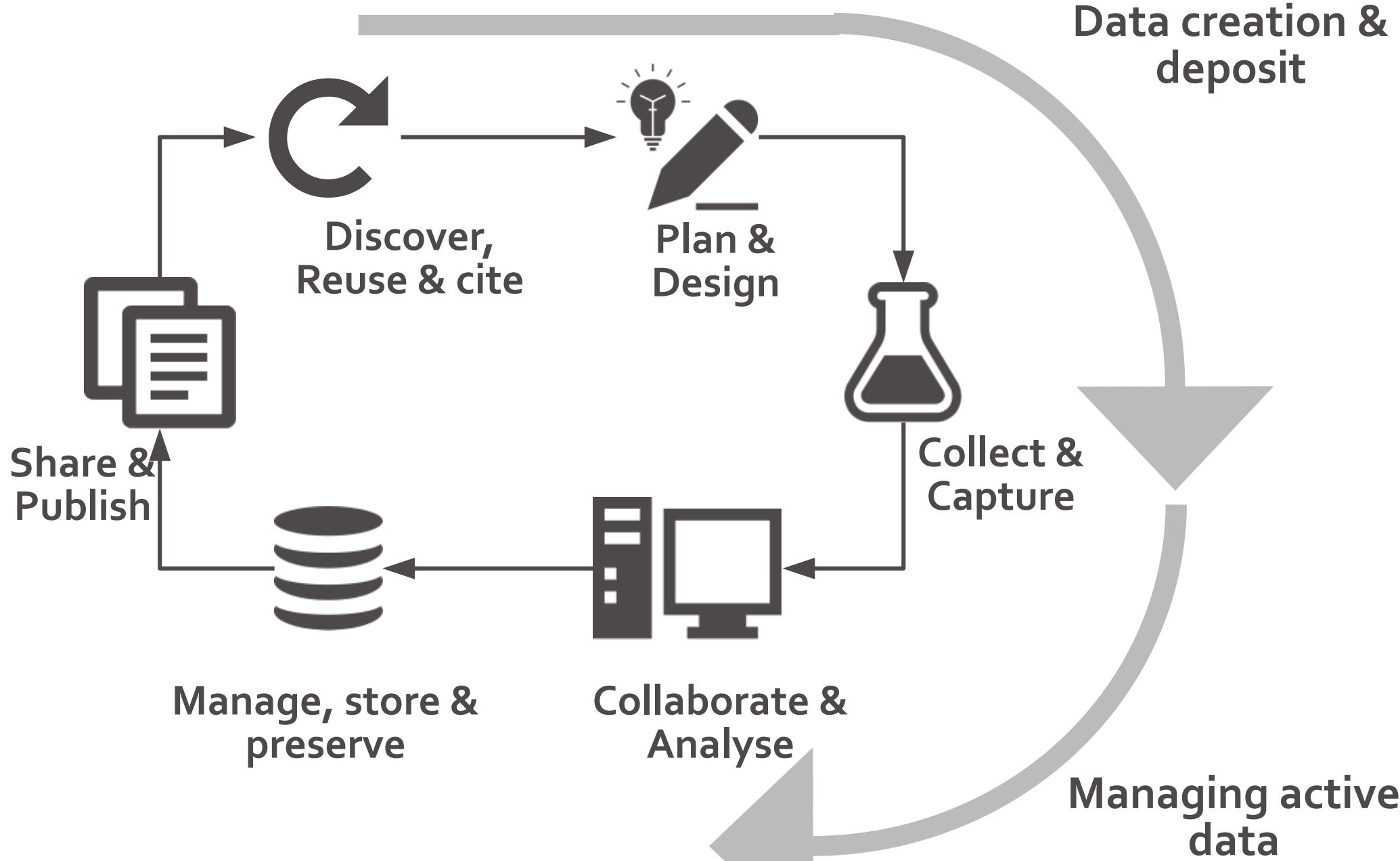
even across disciplines.

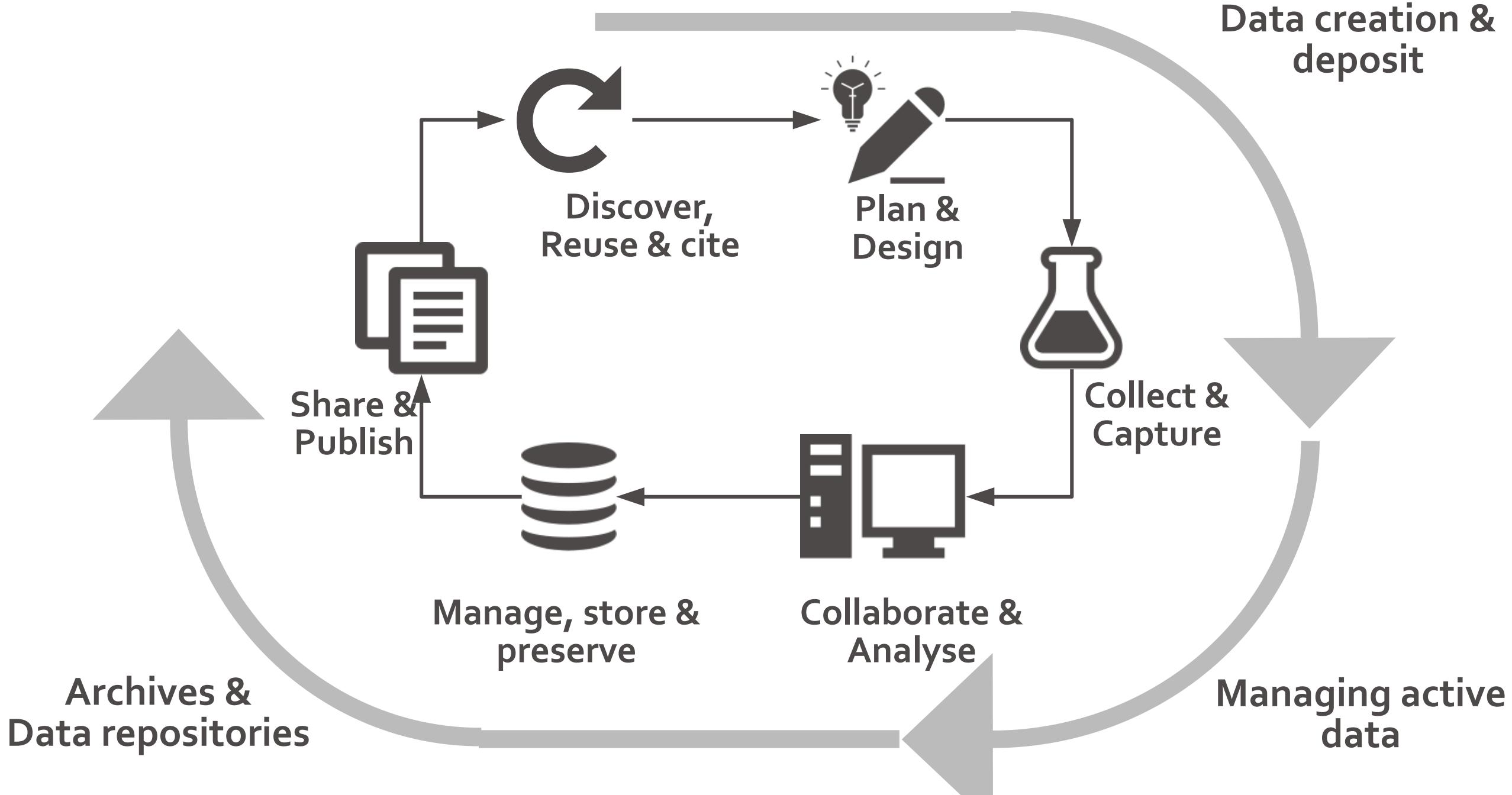


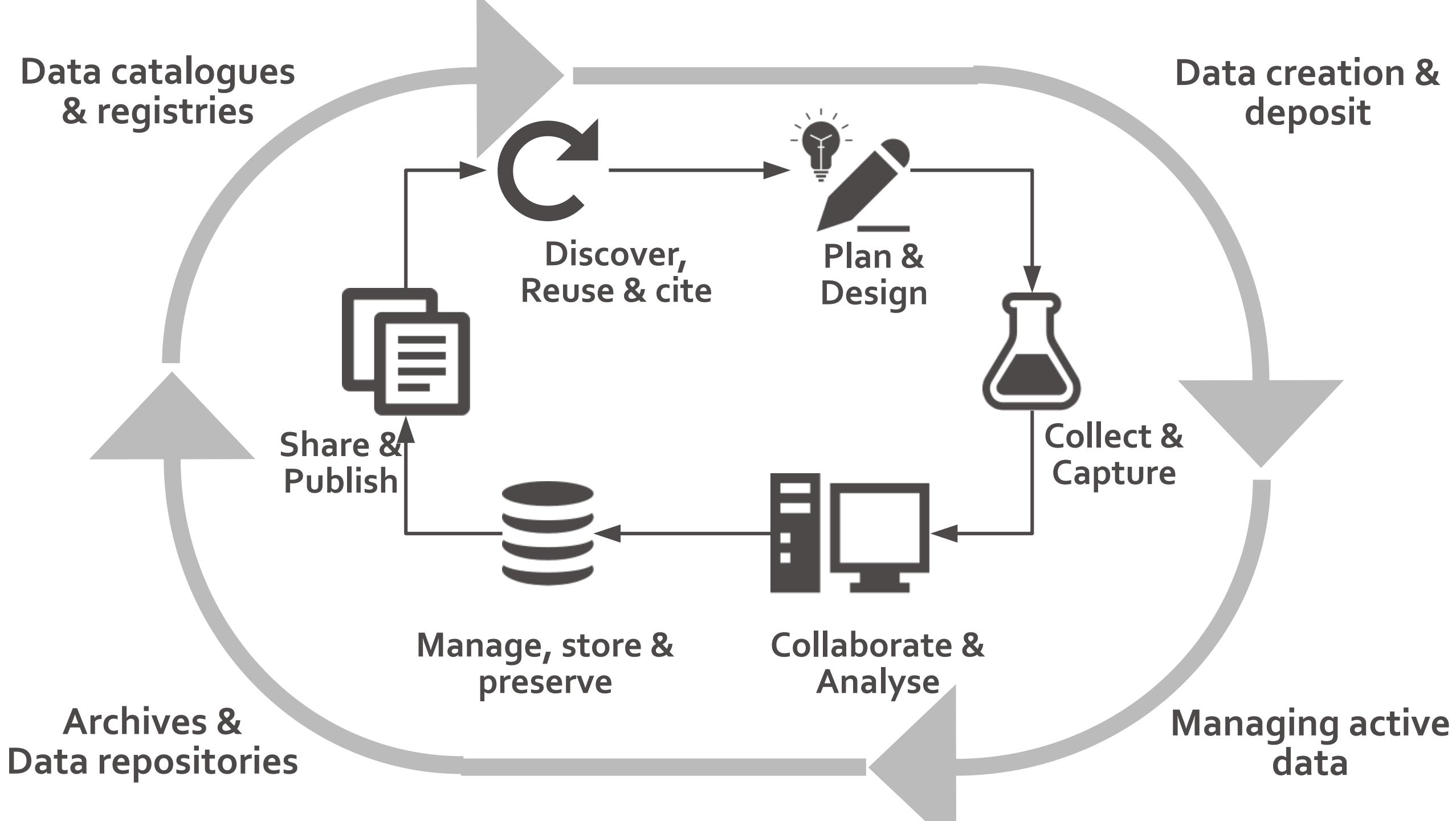


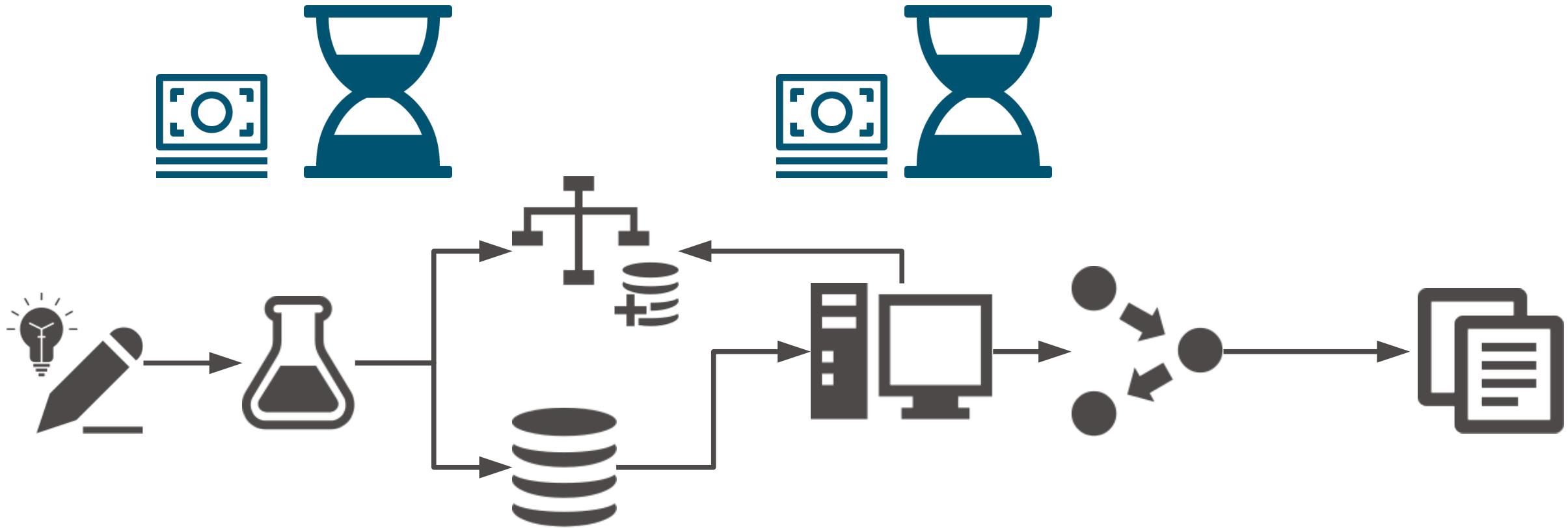


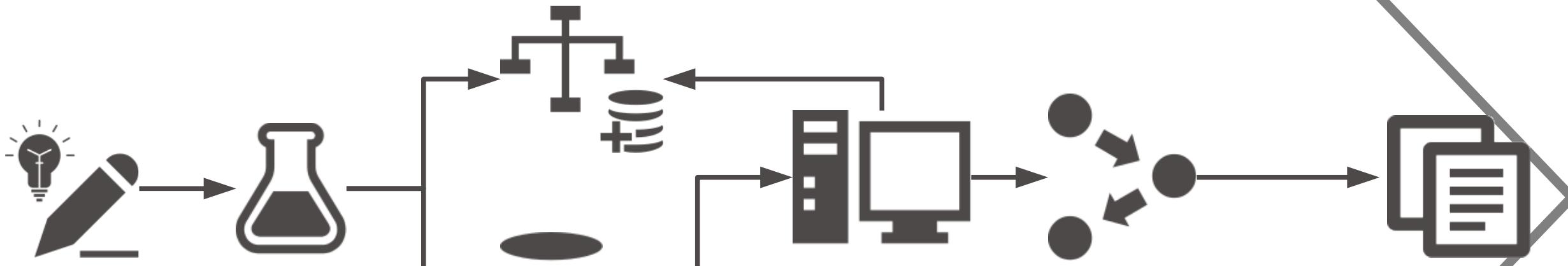


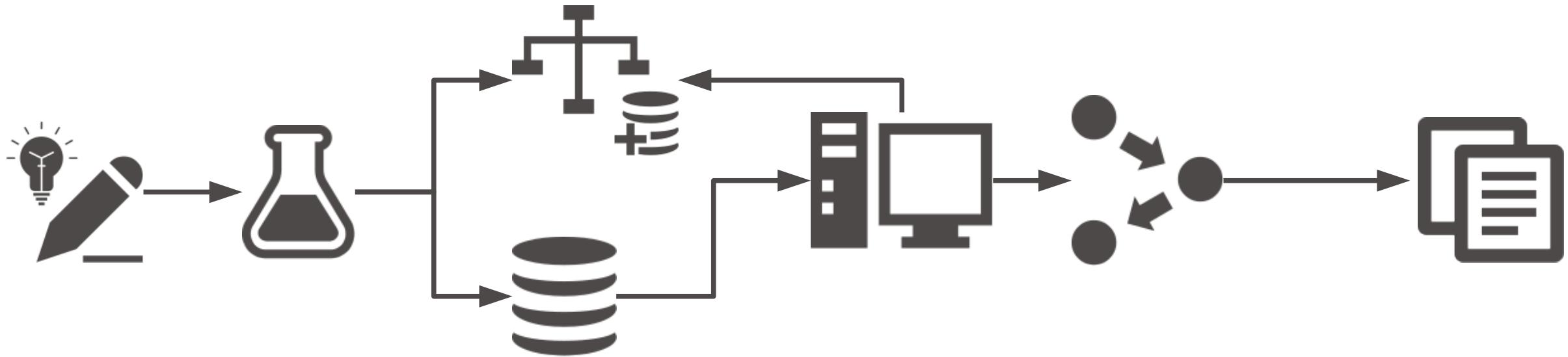








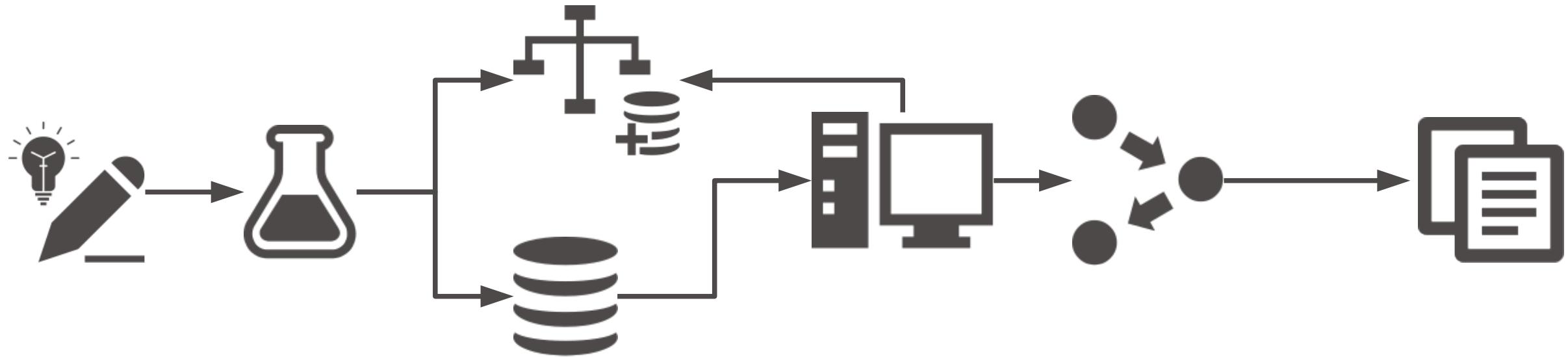






NeLS

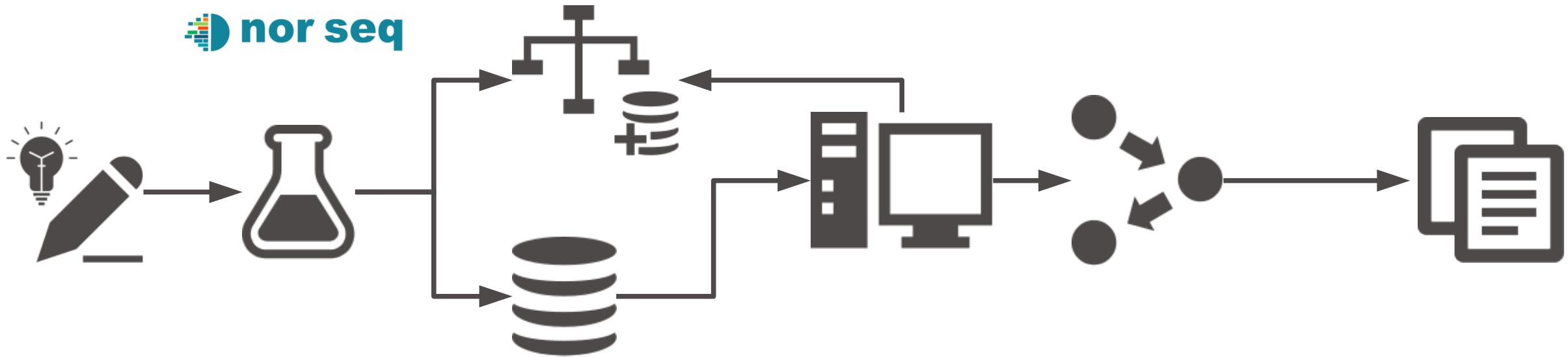
Norwegian e-Infrastructure for Life Sciences





NeLS

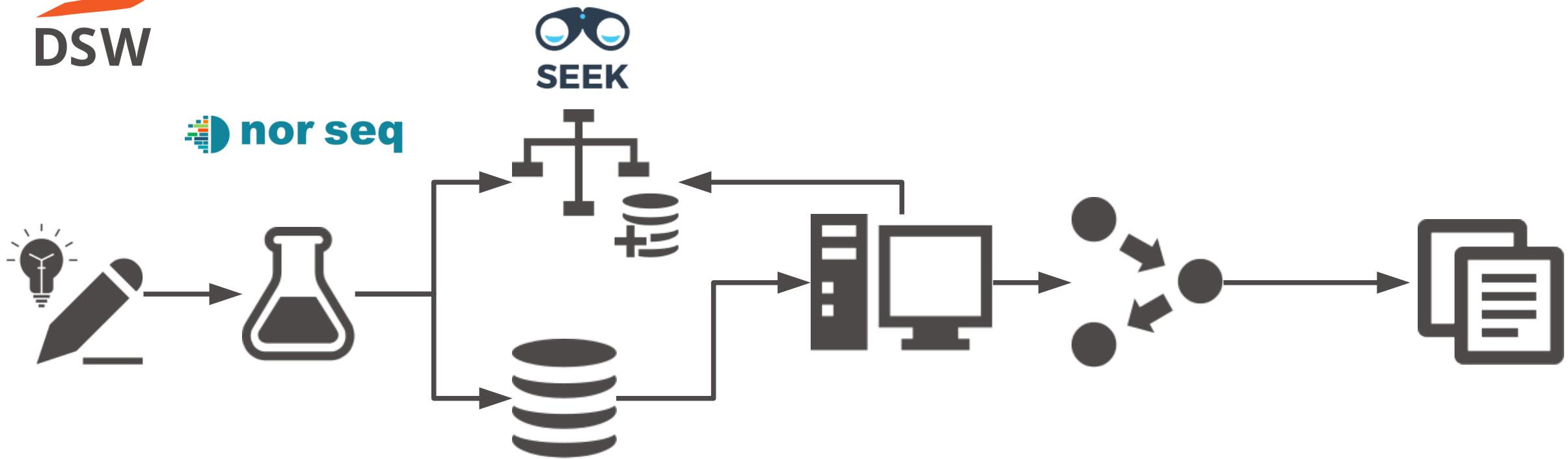
Norwegian e-Infrastructure for Life Sciences





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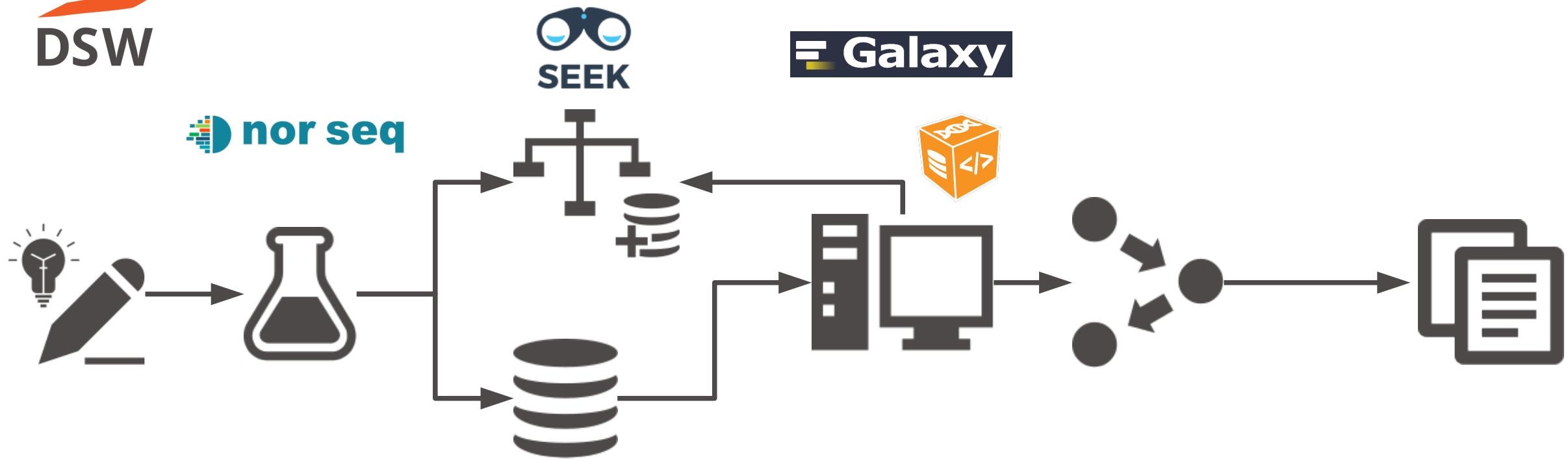
Norwegian e-Infrastructure for Life Sciences





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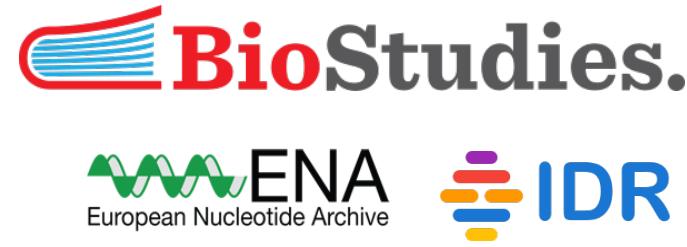
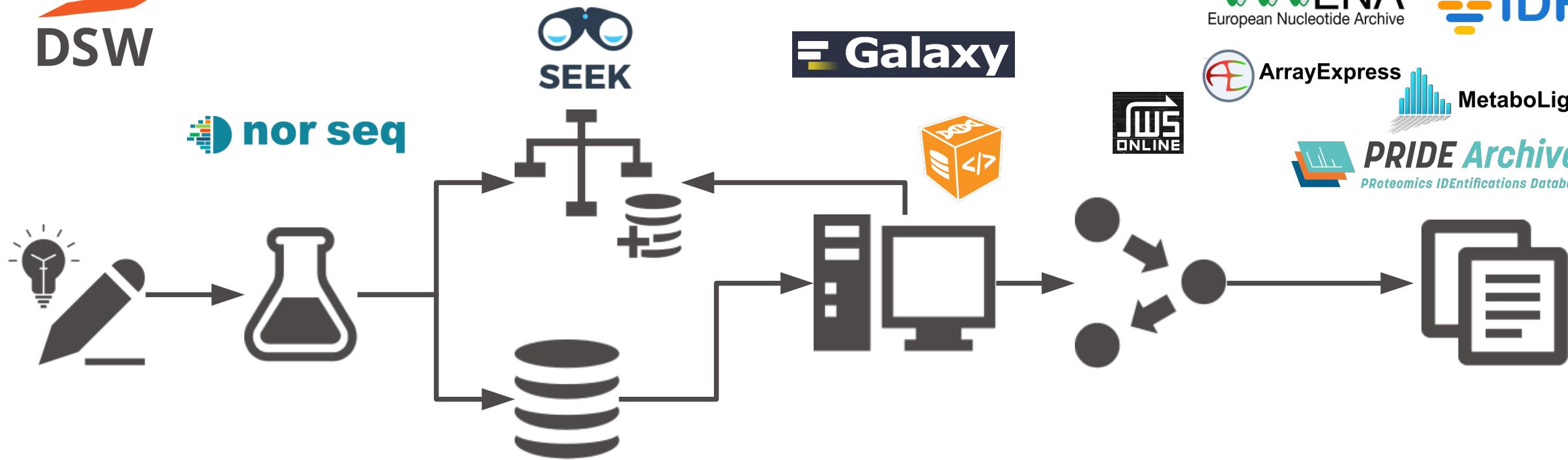
Norwegian e-Infrastructure for Life Sciences





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Norwegian e-Infrastructure for Life Sciences



ENA
European Nucleotide Archive

IDR

ArrayExpress

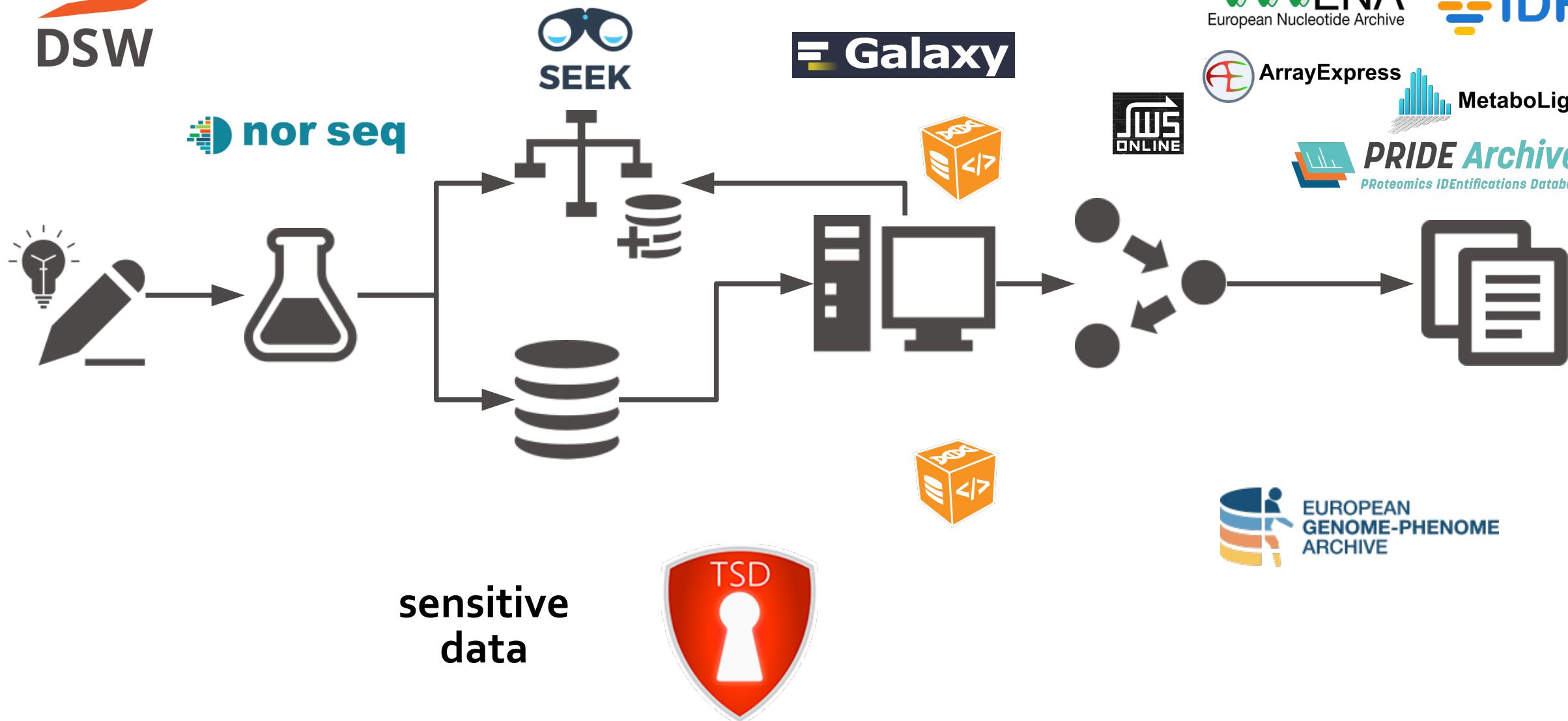
MetaboLights

PRIDE Archive
PRoteomics IDEntifications Database



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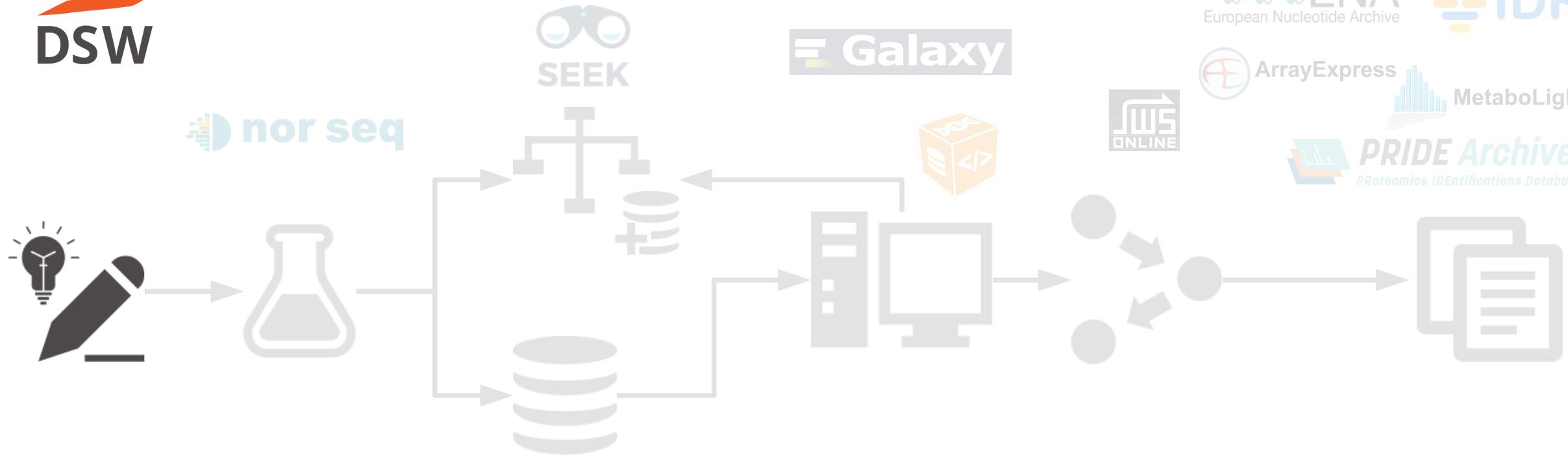
Norwegian e-Infrastructure for Life Sciences





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Norwegian e-Infrastructure for Life Sciences



BioStudies.

ENA
European Nucleotide Archive

IDR

ArrayExpress

MetaboLights

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PRoteomics IDEntifications Database



Data Management Plan?





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Norwegian e-Infrastructure for Life Sciences

BioStudies.

ENA
European Nucleotide Archive

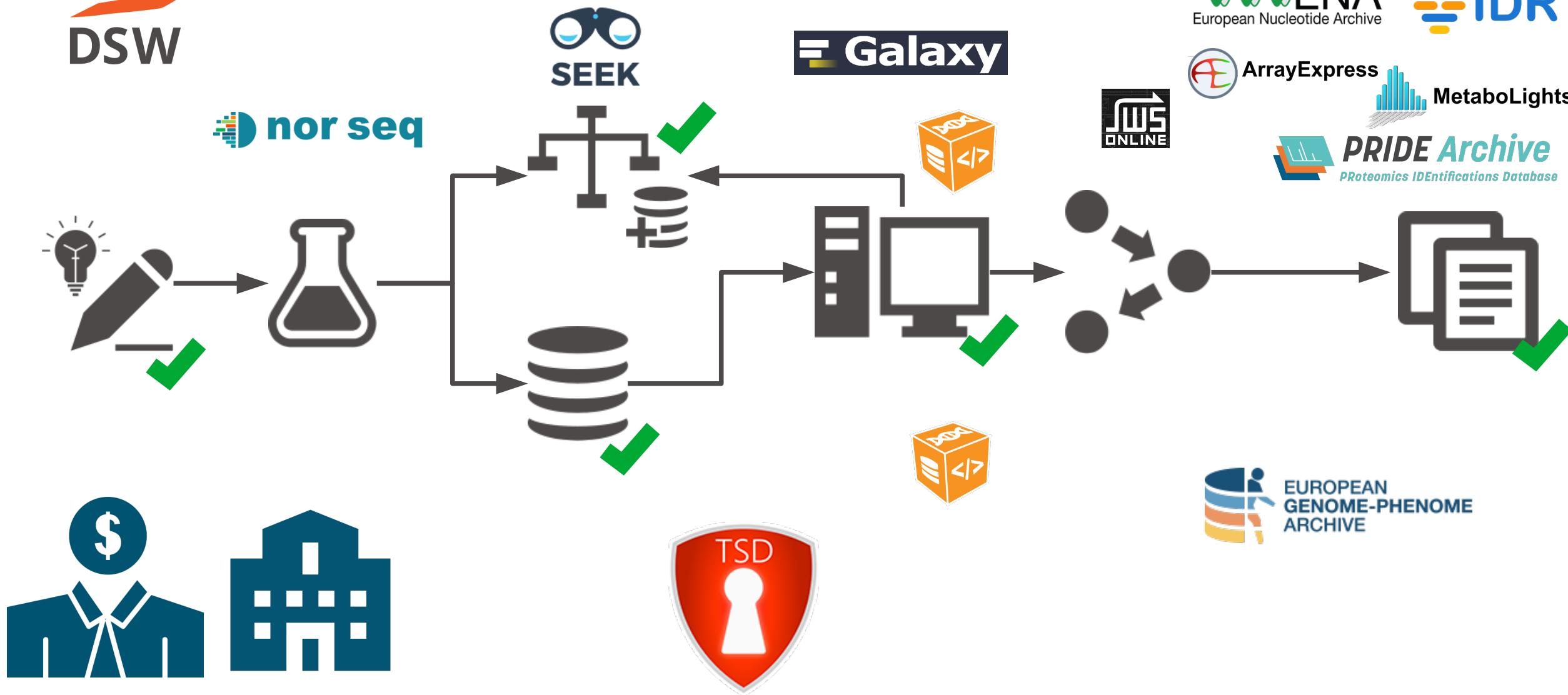
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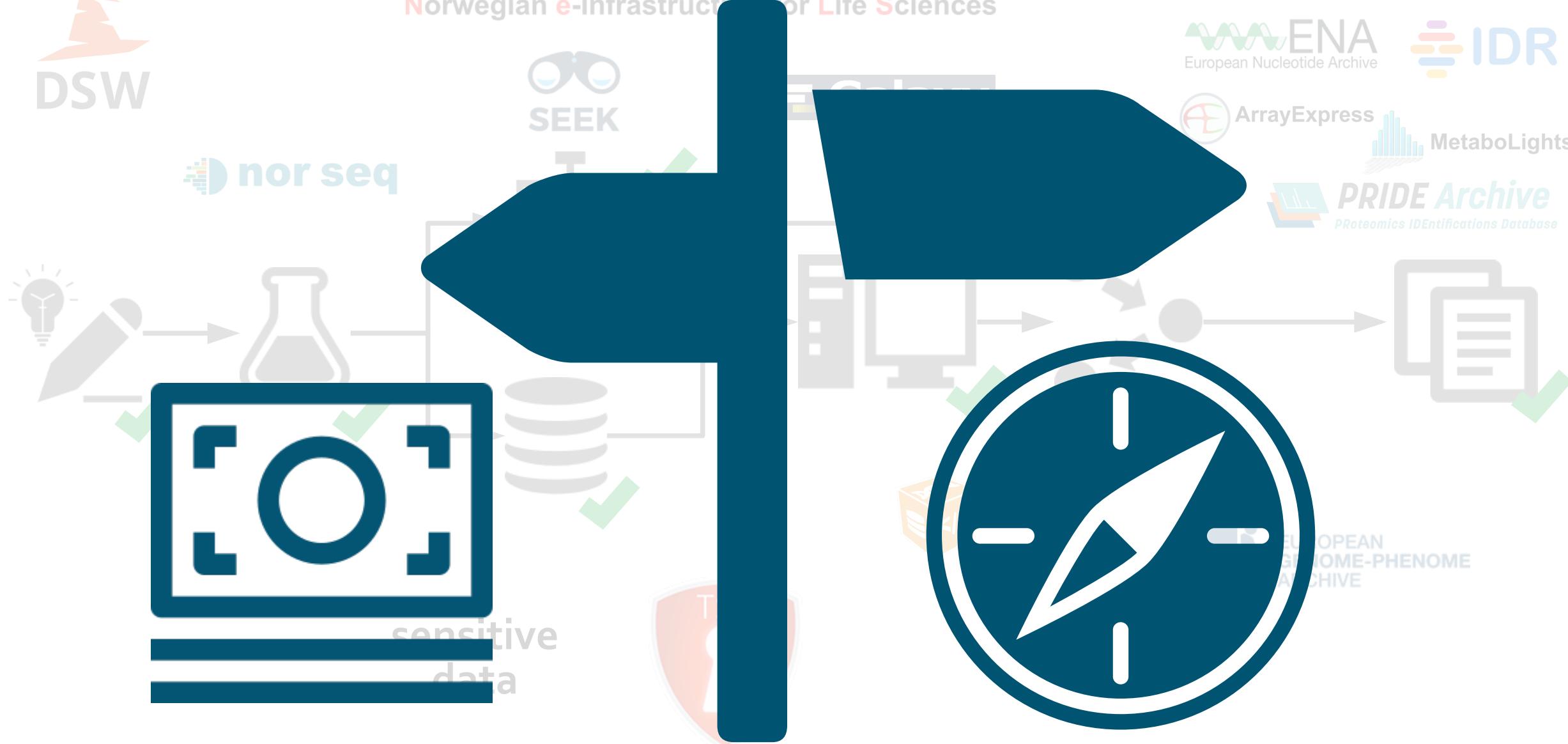
EUROPEAN GENOME-PHENOME ARCHIVE





NeLS

Norwegian e-Infrastructure for Life Sciences



RDMkit

Your role



- Researcher

Data steward policy

Data steward research

Data steward infrastructure

rdmkit.elixir-europe.org

RDMkit

Your domain

-

Plant sciences

Marine metagenomics

Human data

Biomolecular simulation data

Intrinsically disordered proteins

Microbial biotechnology



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RDMkit

Your problem

-

Compliance monitoring

Data analysis

Data management plan

Data organisation

Data protection

Data publication

Data quality

Data storage

Data transfer

Identifiers

Licensing

Metadata management

Sensitive data



rdmkit.elixir-europe.org



inbuilt curated resources:



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inbuilt curated resources:

**Repositories &
Metadata standards**

 FAIRsharing

The FAIRsharing logo consists of the word "FAIRsharing" in a blue and black sans-serif font. A stylized blue infinity symbol is positioned below the letter "A".

rdmkit.elixir-europe.org



inbuilt curated resources:

**Repositories &
Metadata standards**



Software



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RDMkit

inbuilt curated resources:

**Repositories &
Metadata standards**



Software



Training



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digitallifenorway.org



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@elixirnorway
@DigitaltLiv
@BoslKorbinian



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**The Research
Council of Norway**



UNIVERSITY OF BERGEN



UiO : University of Oslo



UiT The Arctic University of Norway



NTNU

Norwegian University of
Science and Technology



Norwegian University
of Life Sciences

The Data Stewardship Wizard is provided by:





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