



Data Management Plans

and a short introduction to ELIXIR & Digital Life Norway



Korbinian Bösl
Data manager ELIXIR Norway
4 March 2020

ELIXIR Europe

'Data for Life'

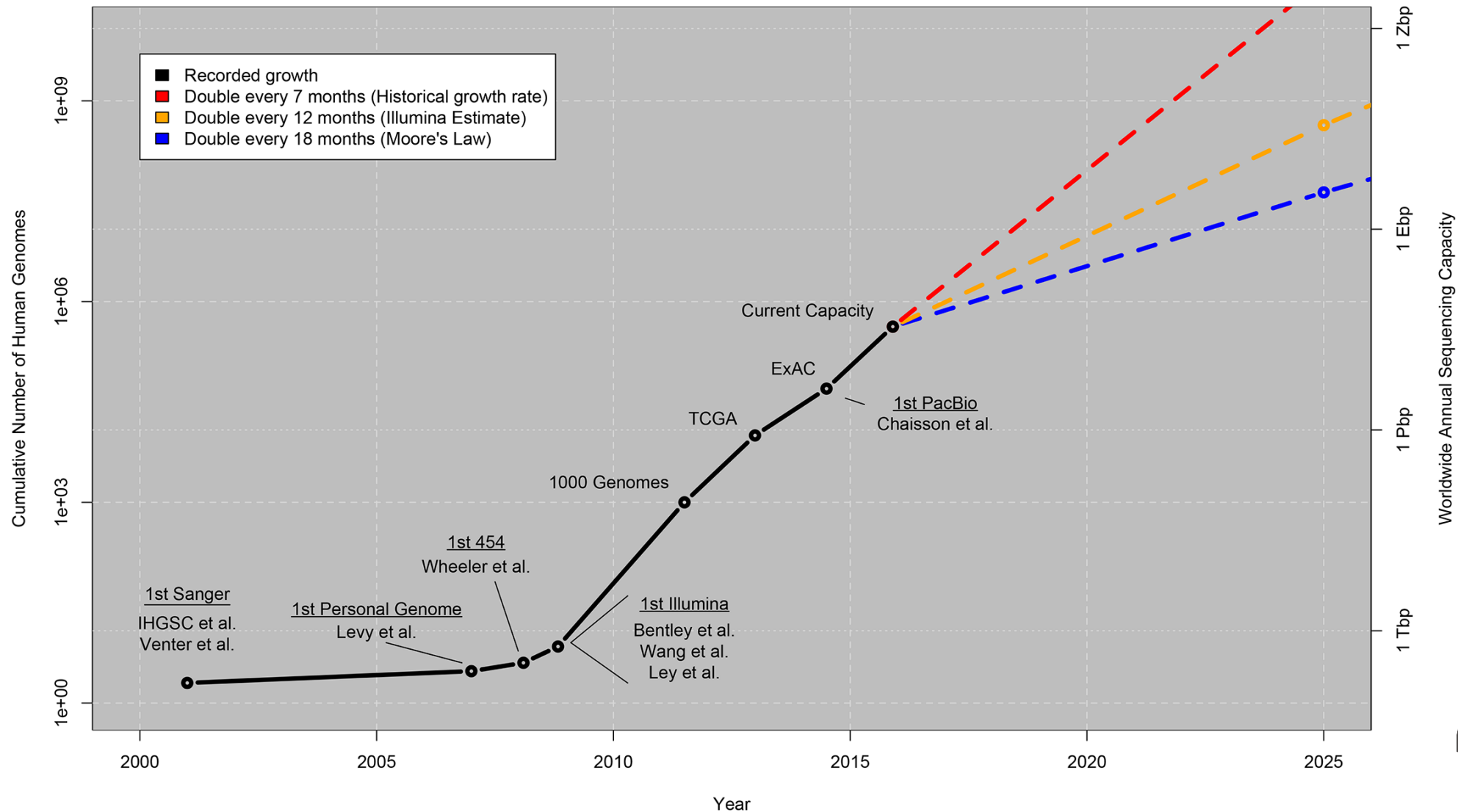
Mission:

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

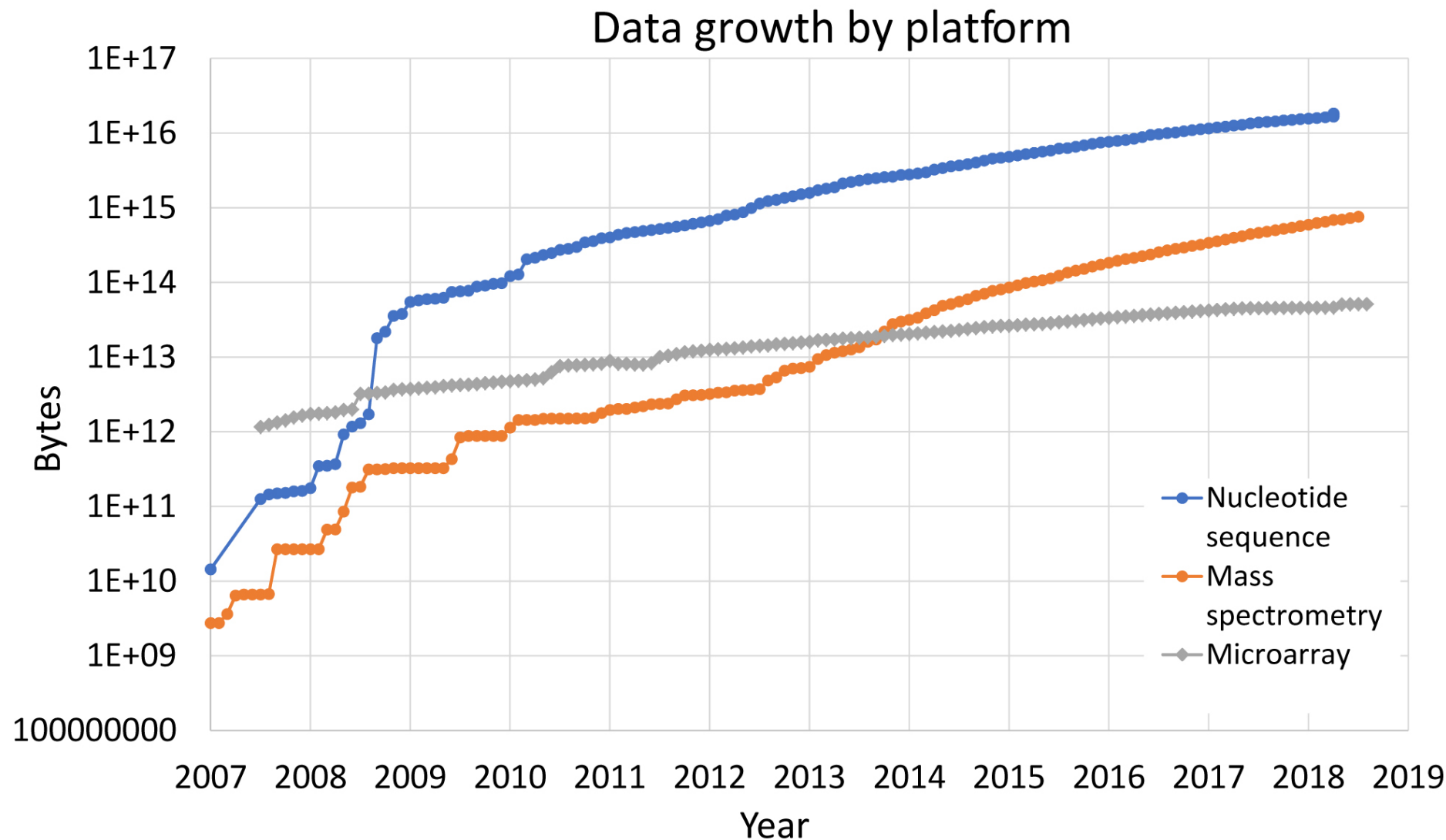


ELIXIR Europe

Growth of DNA Sequencing



ELIXIR Europe



Data stored in
ELIXIR/EBI-EMBL
Repositories



ELIXIR Members



Belgium



Czech Republic



Denmark



EMBL



Estonia



Finland



France



Germany



Greece



Hungary



Ireland



Italy



Luxembourg



Israel



Netherlands



Norway



Slovenia



Portugal



Spain



Sweden



Switzerland



United Kingdom

ELIXIR Observers



Cyprus

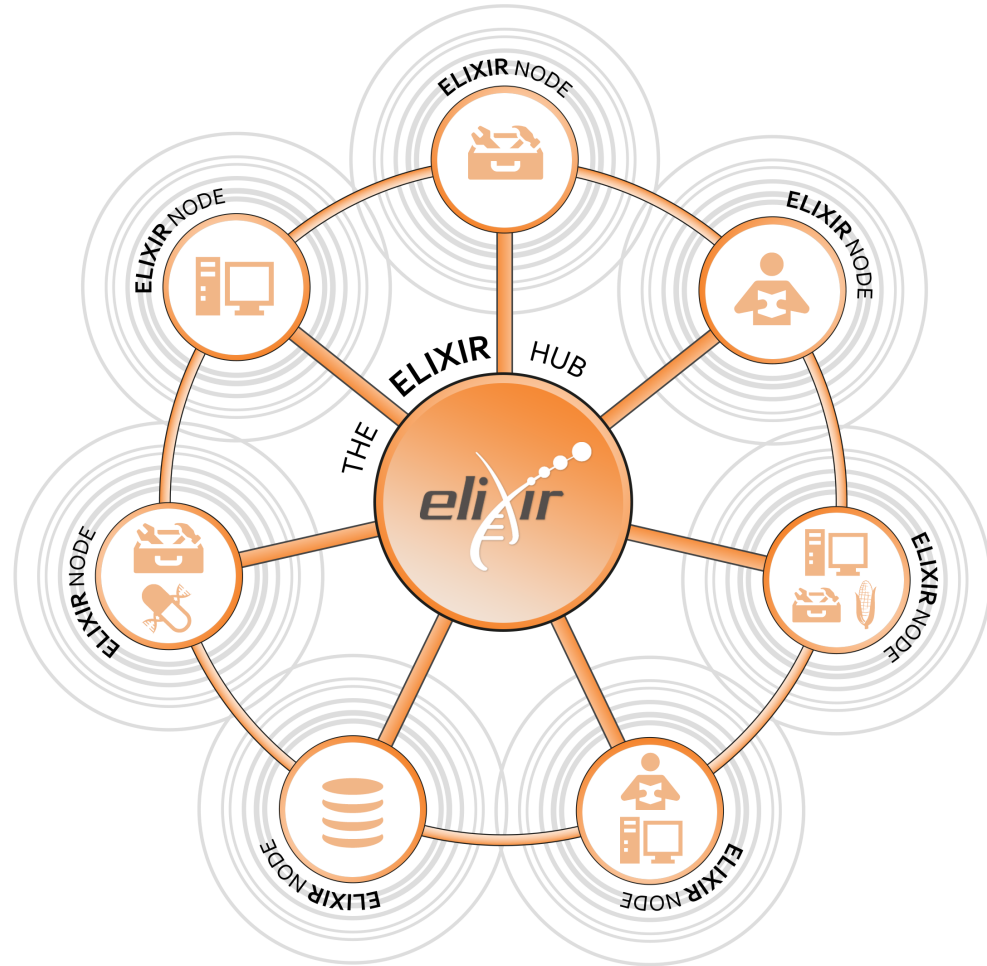


A distributed infrastructure to scale with the challenge

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, ...



ELIXIR Services



Data deposition:

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Data management:

Genome annotation

Data management plans

ELIXIR Services



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Added value data:

UniProt, Ensembl, OrphaNet, ...

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Data Interoperability:

FAIRSharing, identifiers.org, OLS,
Bioschemas, ...



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Compute:

Secure data transfer, cloud computing, AAI



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Bioinformatics tools:

Bio.tools, Benchmarking: OpenEBench



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Industry:

Innovation and SME programme

Bespoke collaborations



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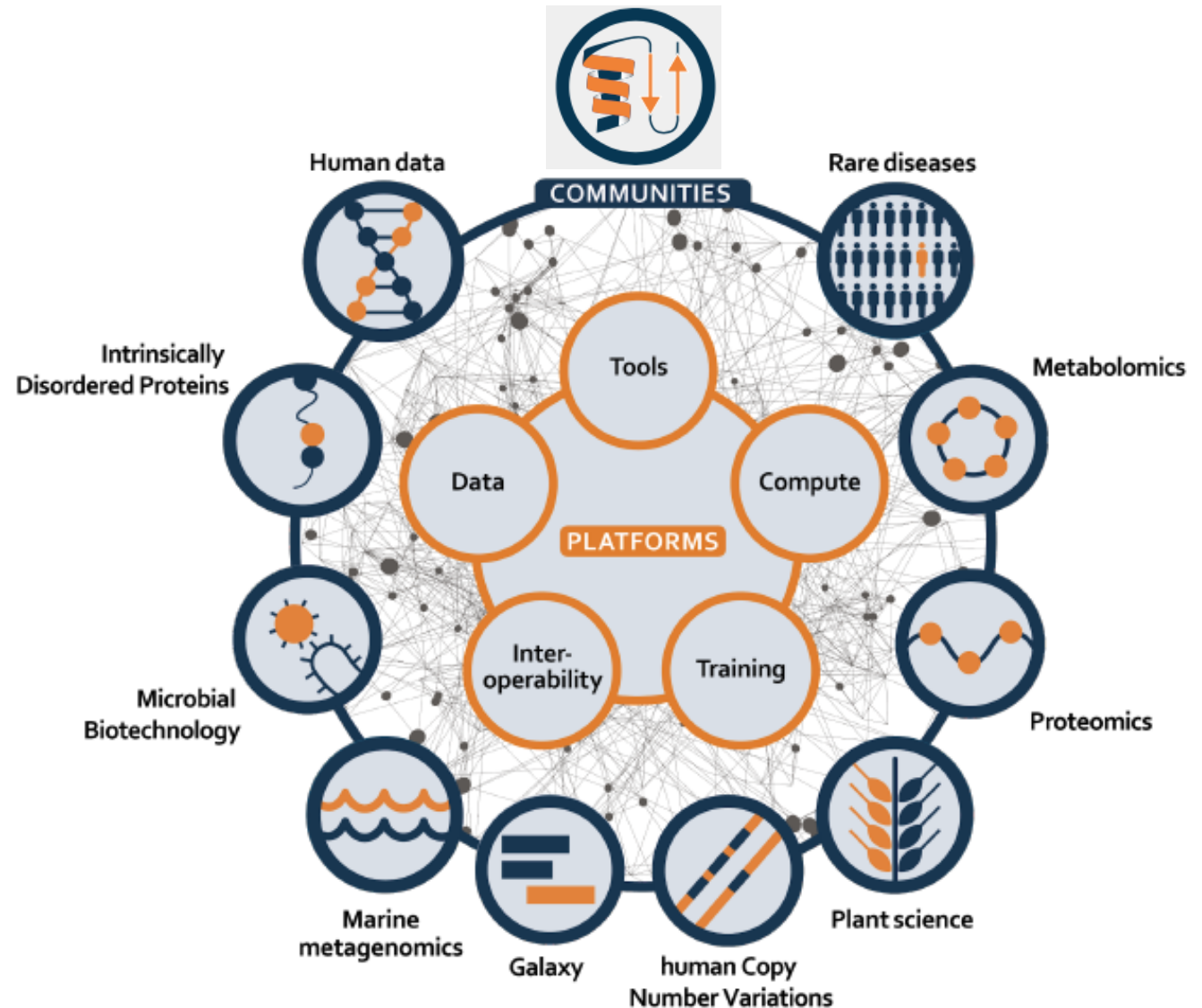
Training:

TeSS, Data Carpentry, eLearning



ELIXIR Structure

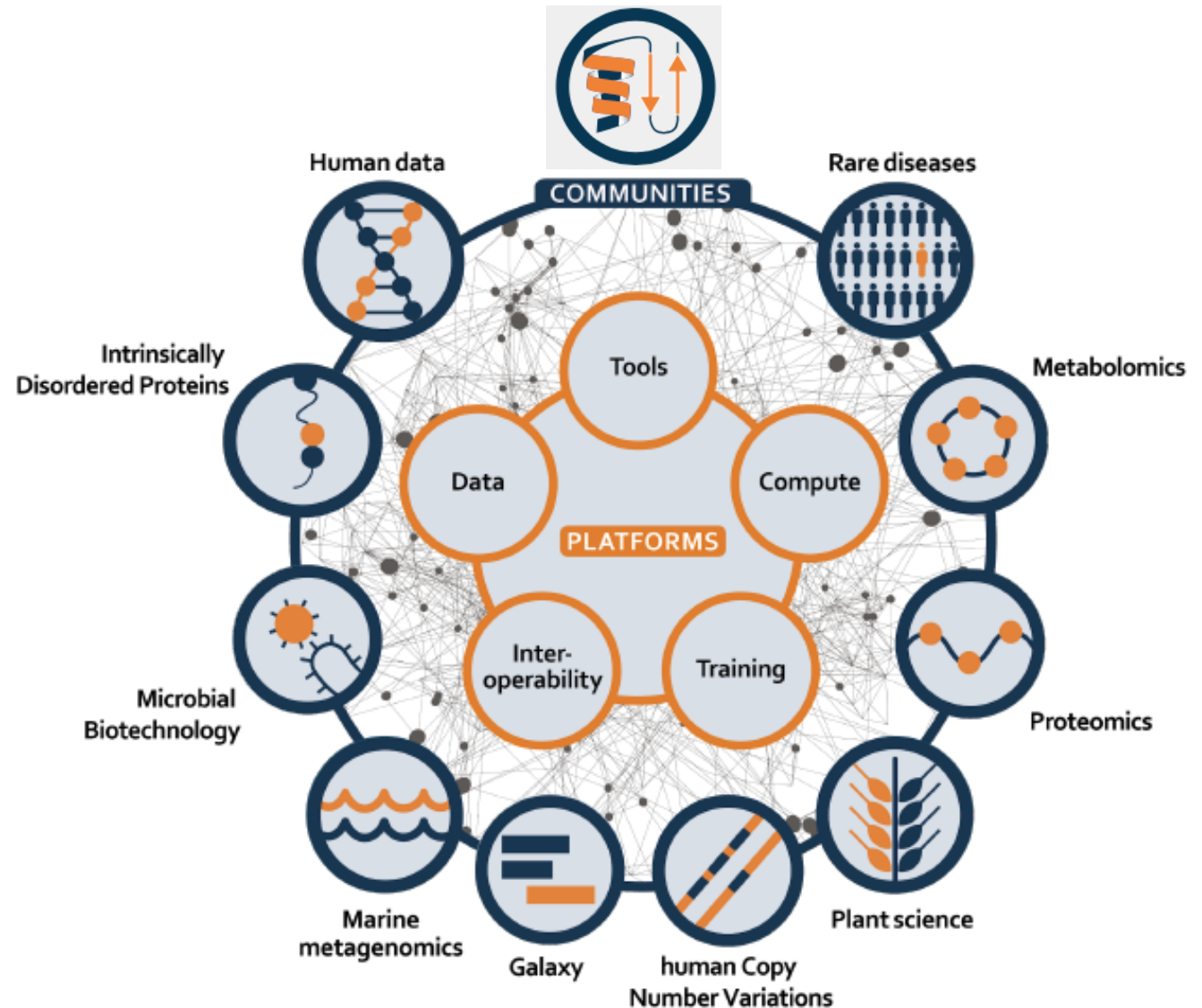
Five technical **Platforms** for
Compute, Data, Tools,
Interoperability, and Training



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

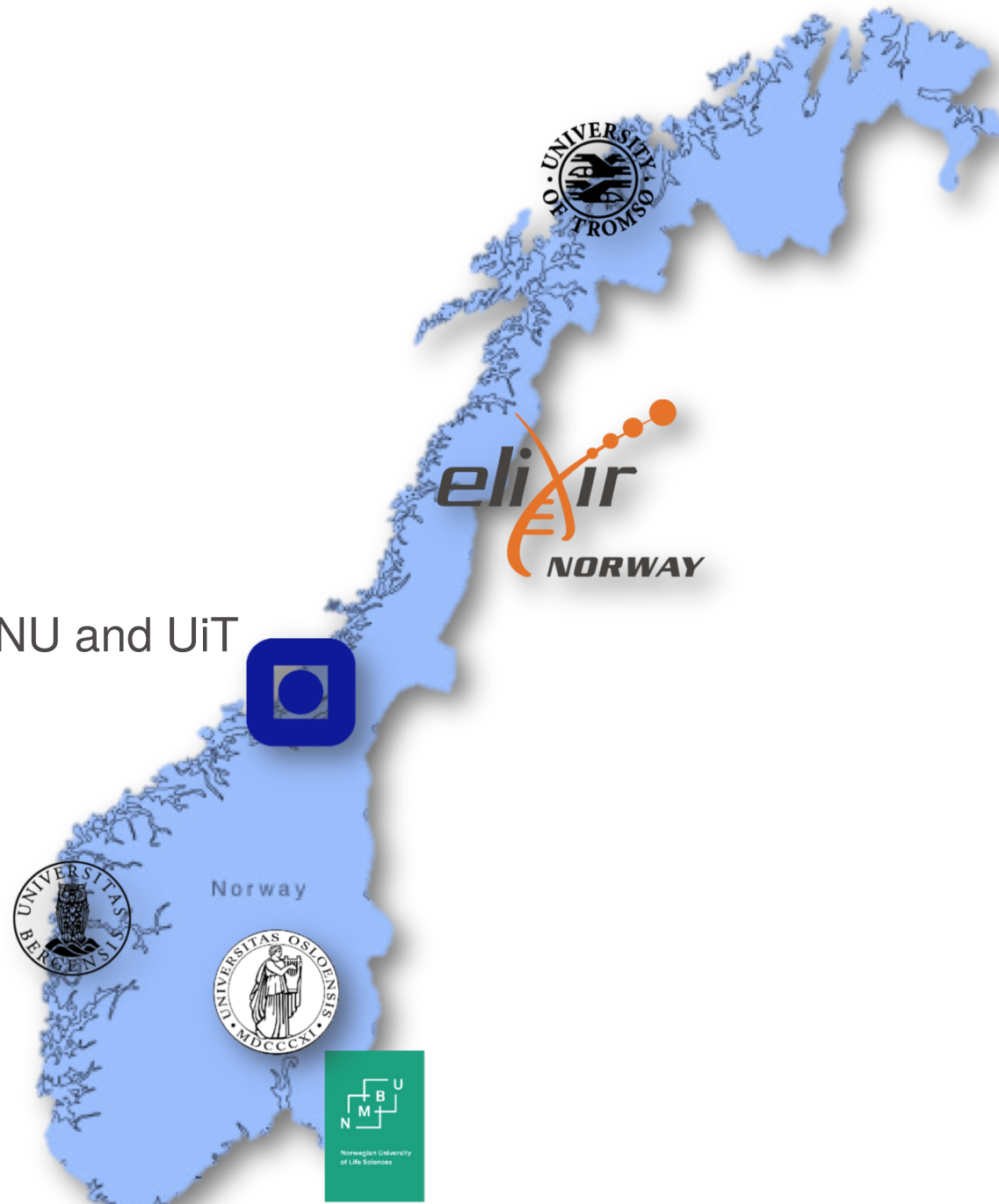
Users

Services to national users

Infrastructure, support and training

Deliverables to ELIXIR Europe

Tools and databases



Our additional user services - Norway

Support – through our HelpDesk

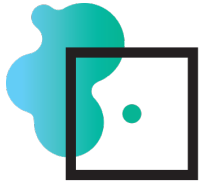
Training – in using our tools and workflows, and in data management

Bioinformatics infrastructure

Analysis, sharing and storage of data

contact@bioinfo.no





**CENTRE FOR
DIGITAL LIFE
NORWAY**

Support for trans-disciplinary participating projects:

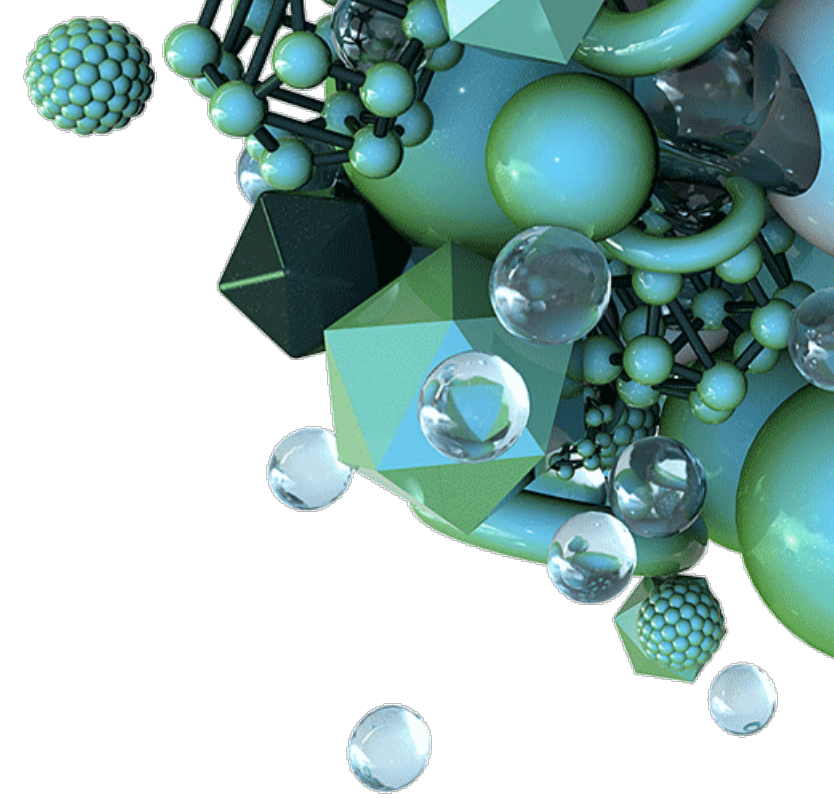
Responsible Research and Innovation

Innovation and industry involvement

Training & Research school

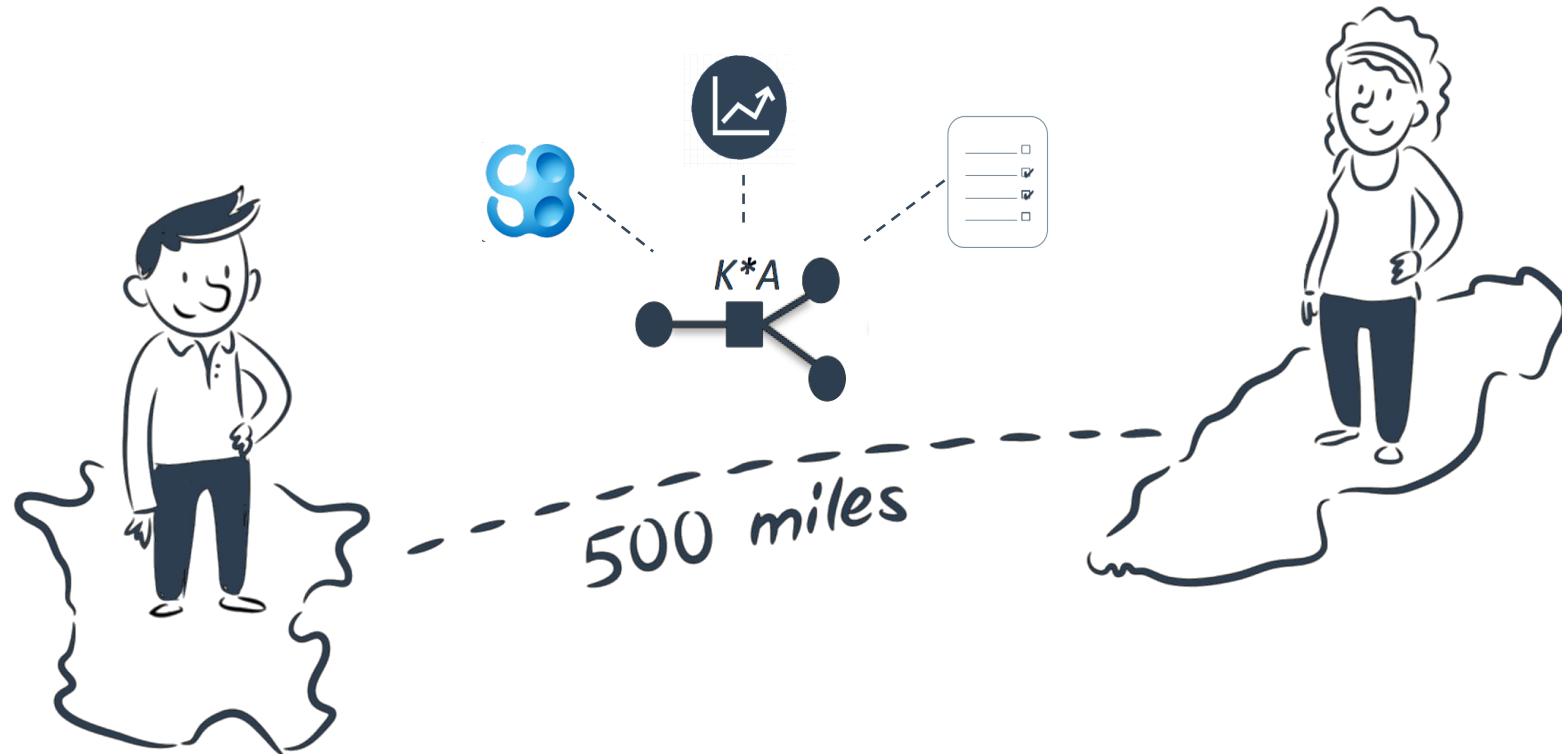
Competence and infrastructure – incl. Data Management

Outreach communication

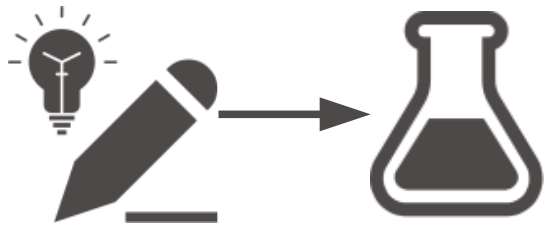


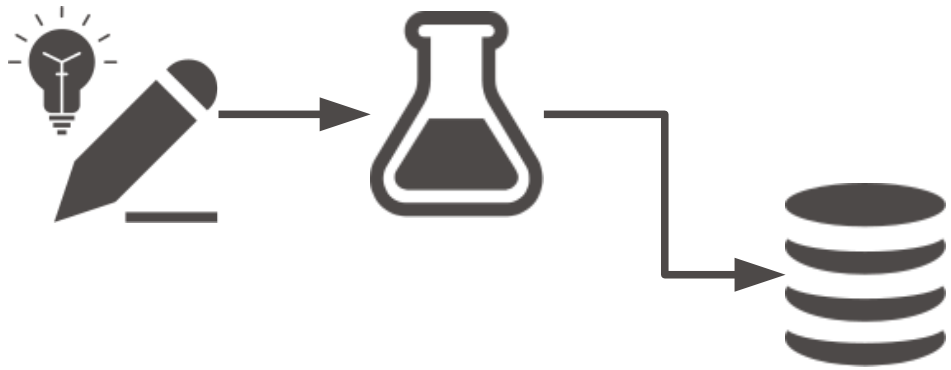
Data Management

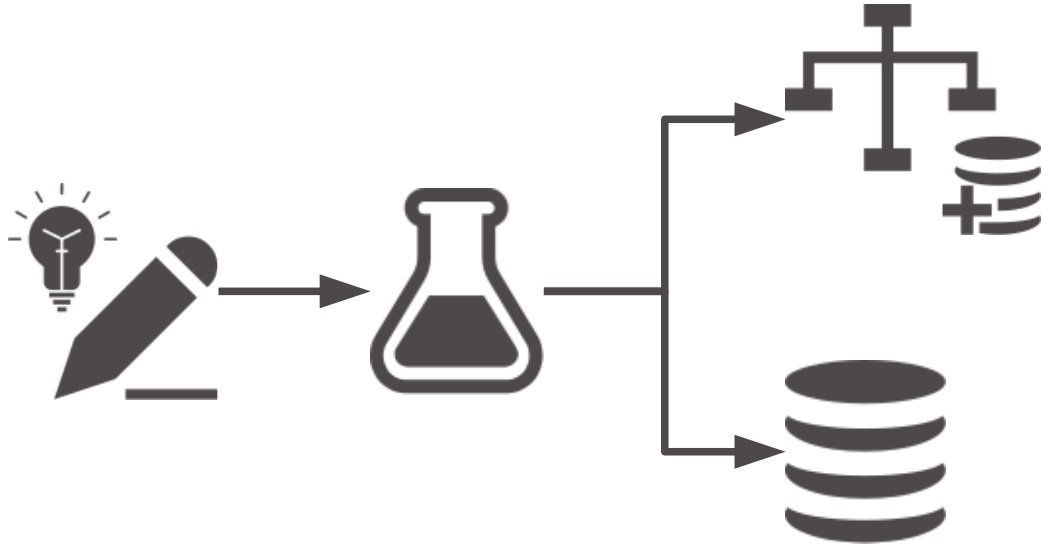
Make research data and related metadata **discoverable, accessible** and **understandable** today, tomorrow, and well into the future.

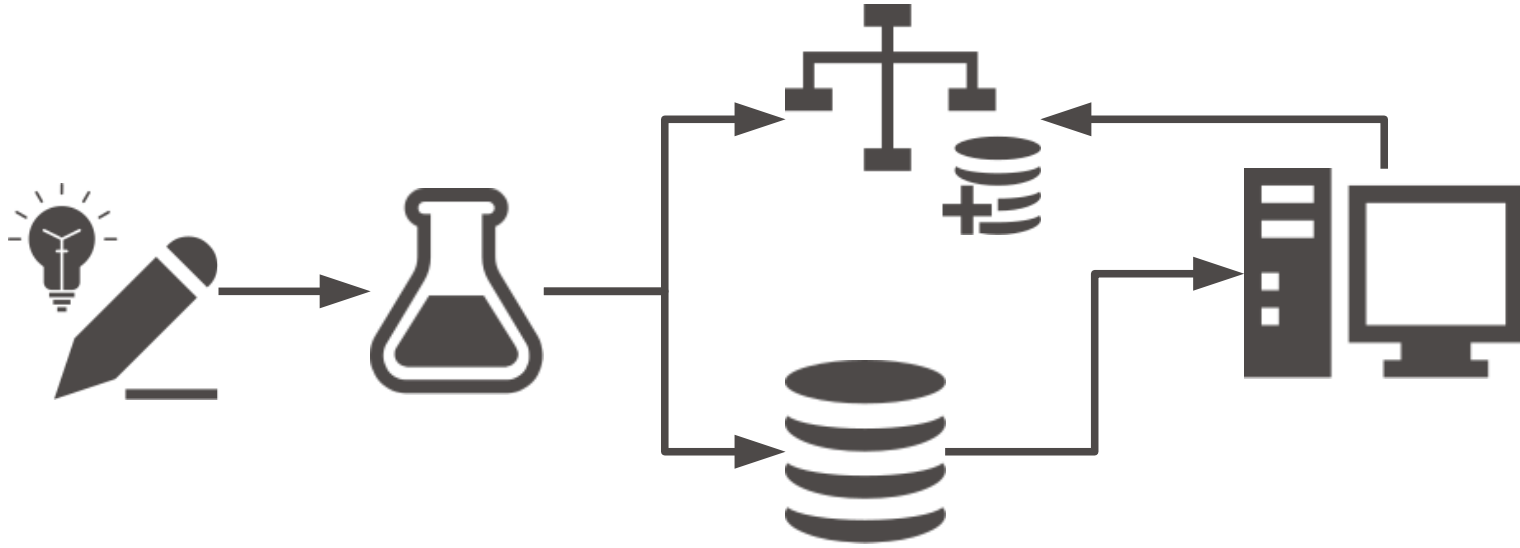


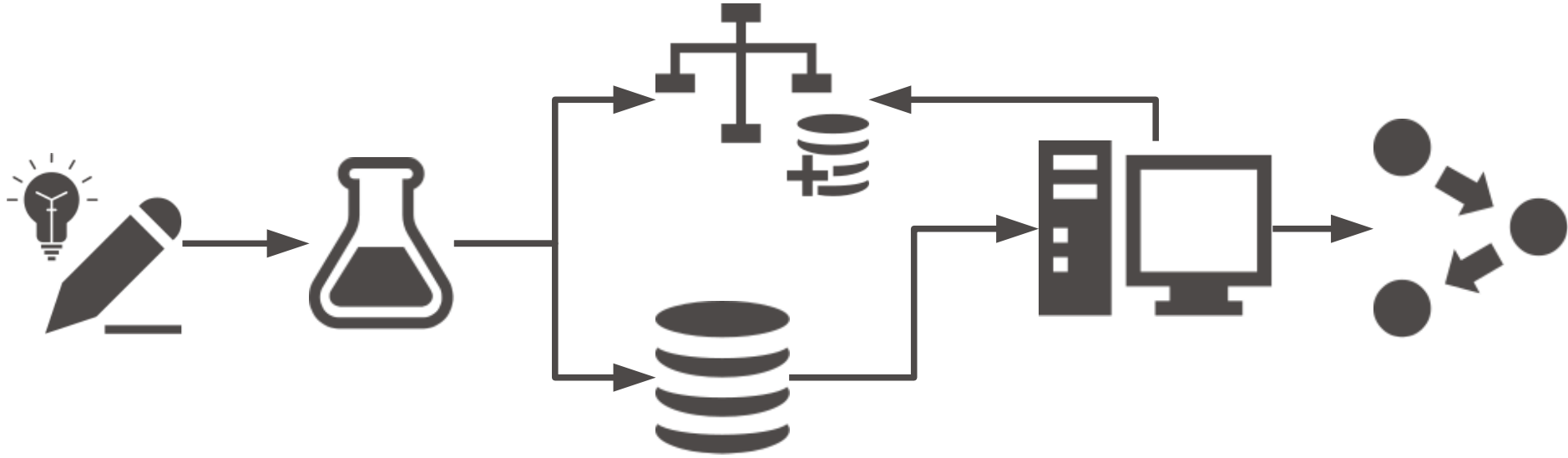


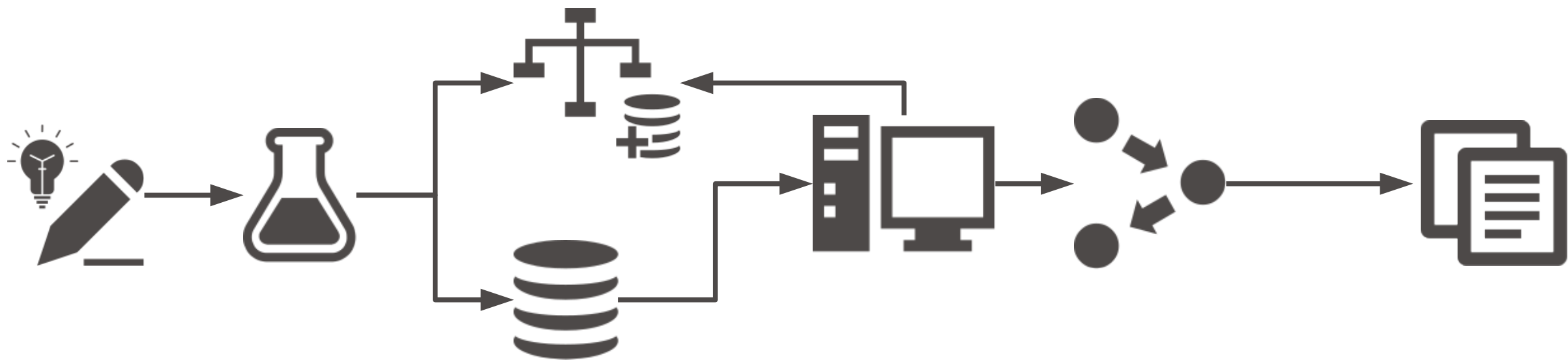


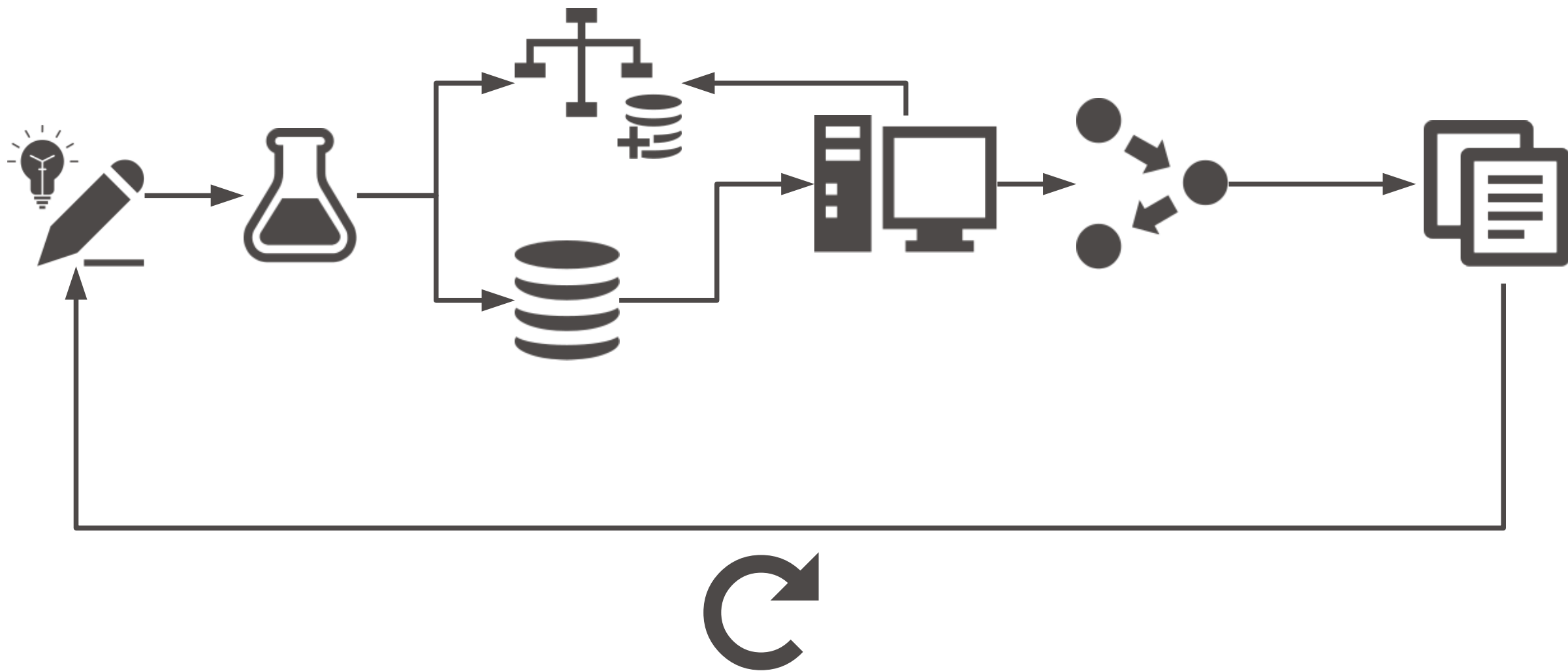


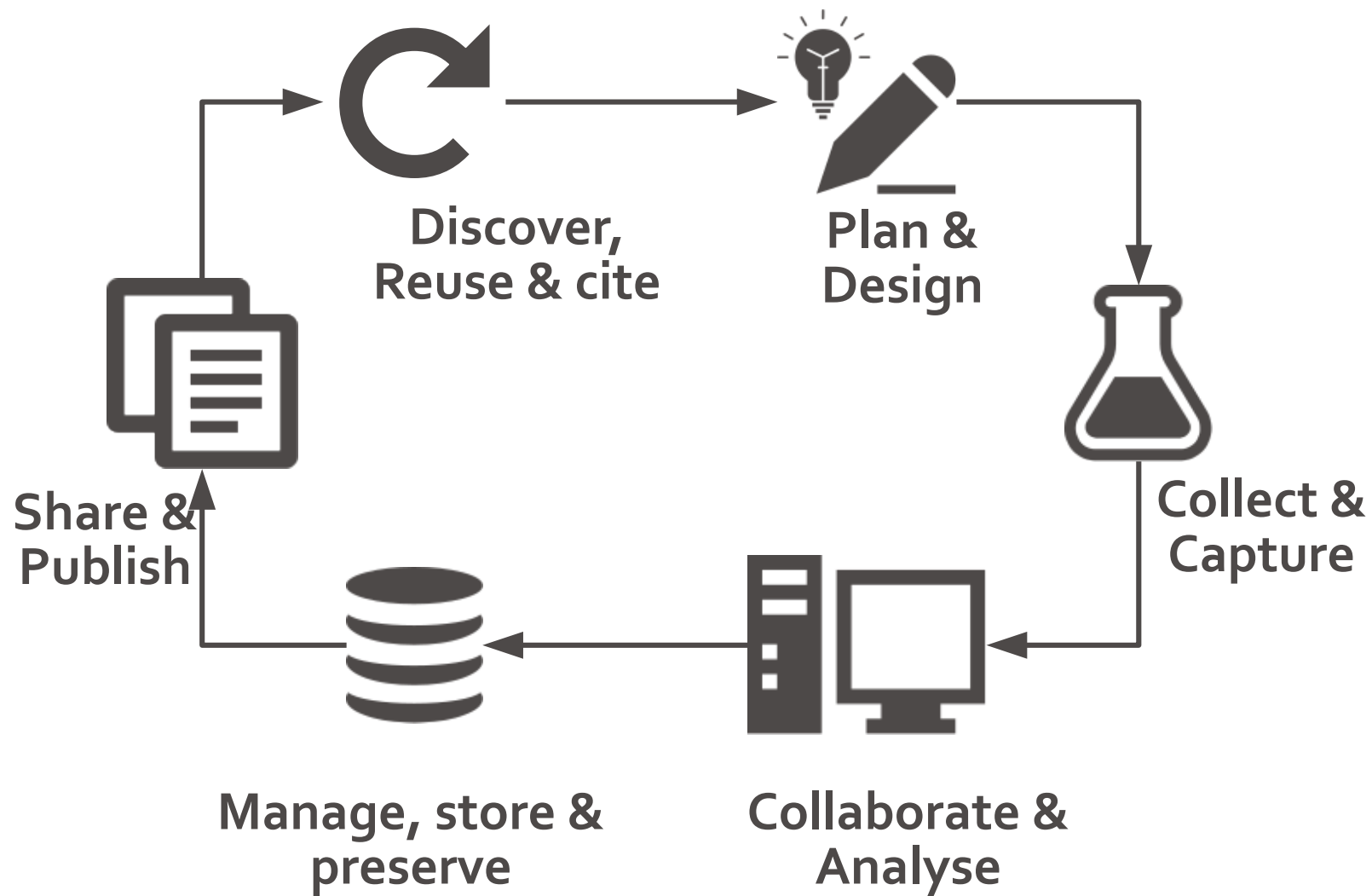


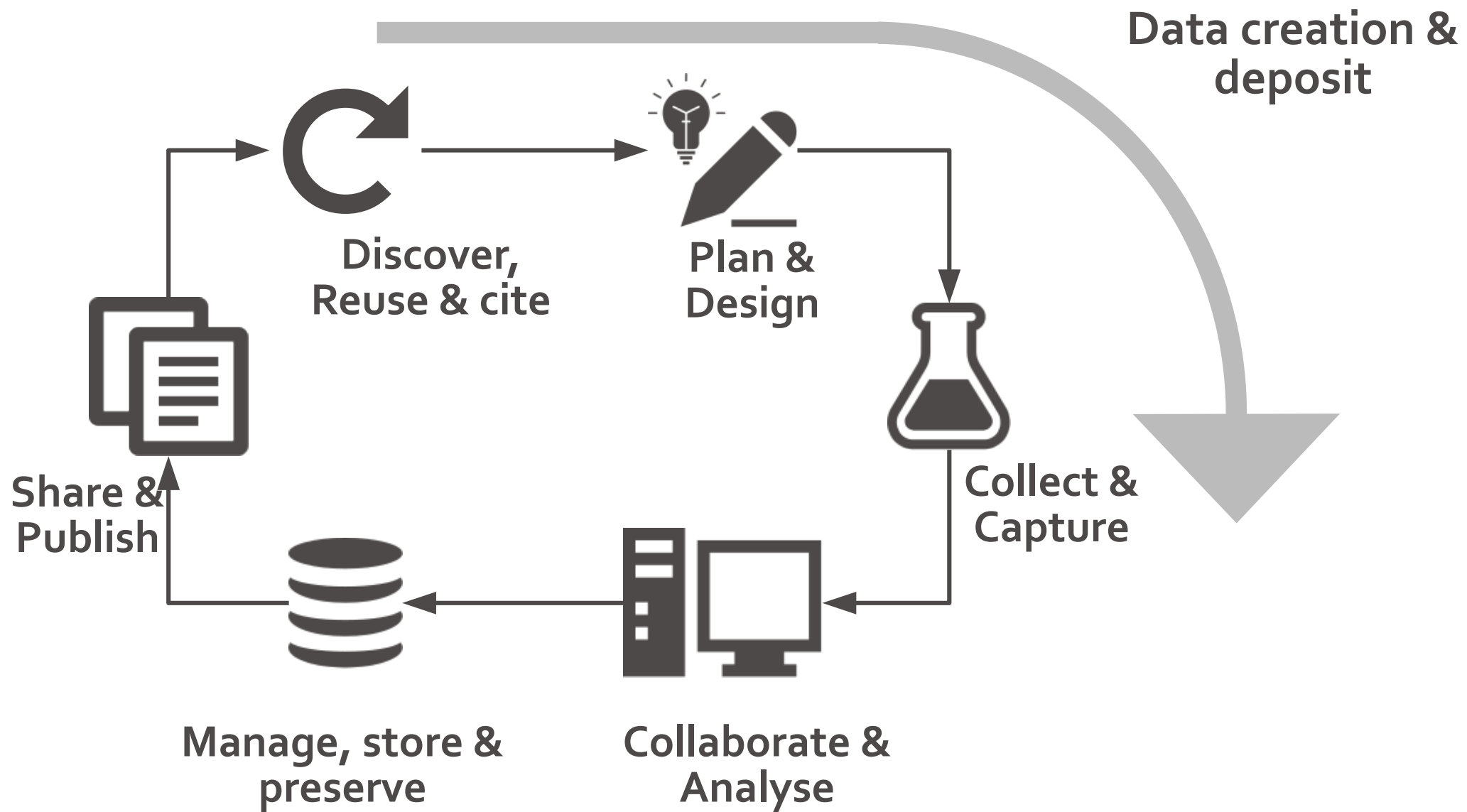


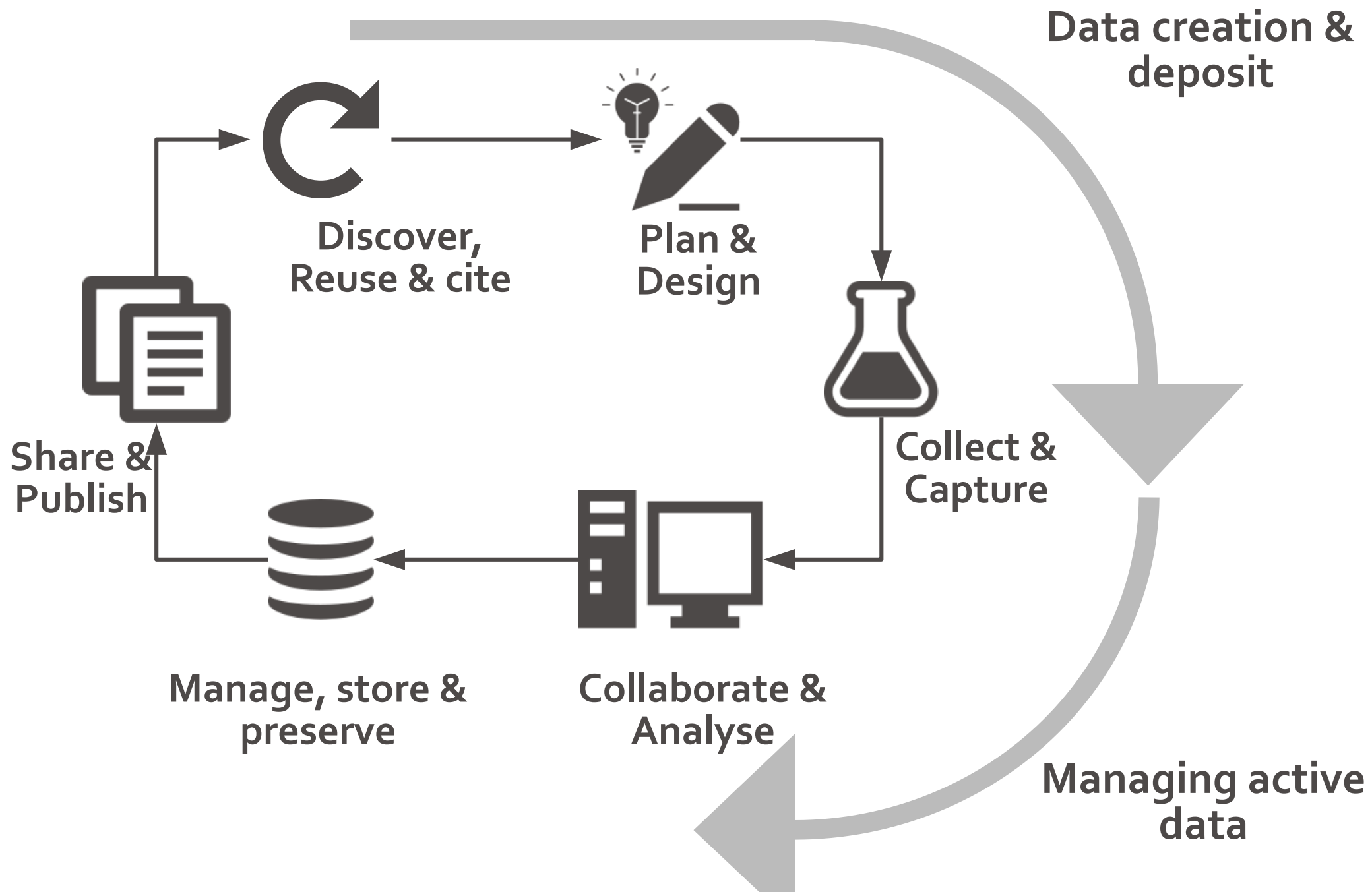


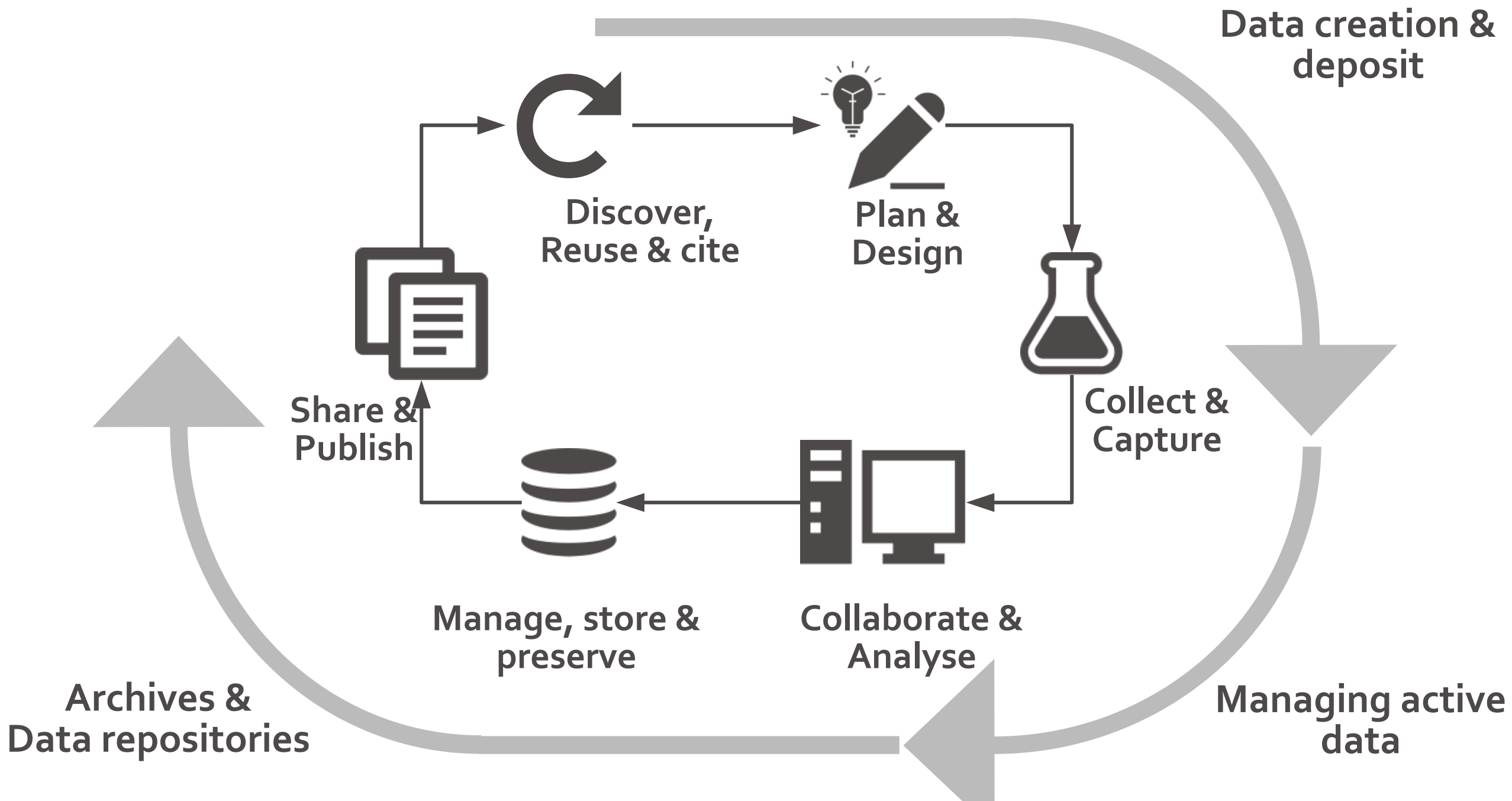


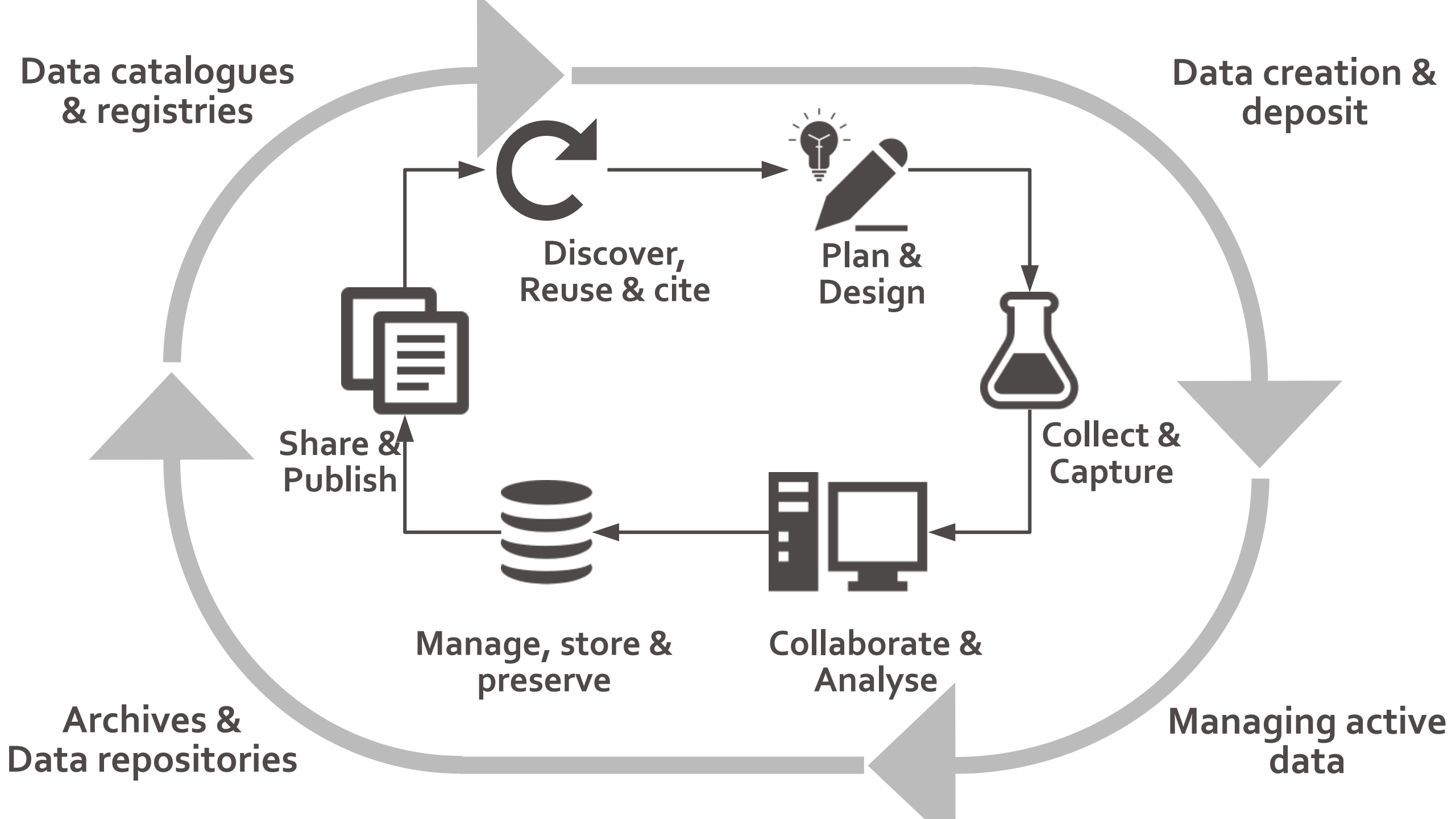


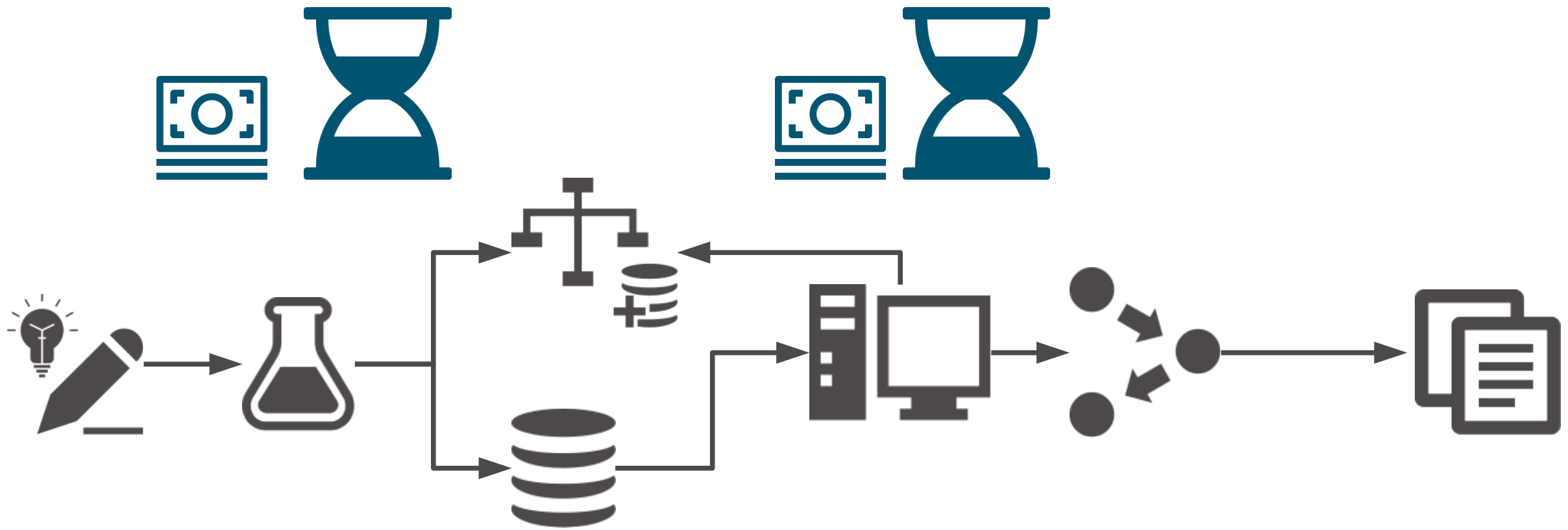


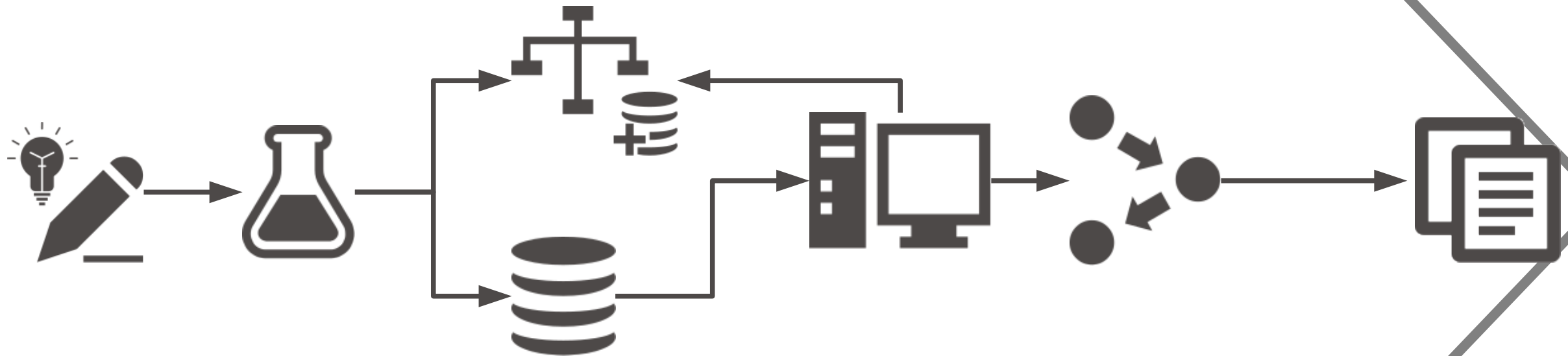


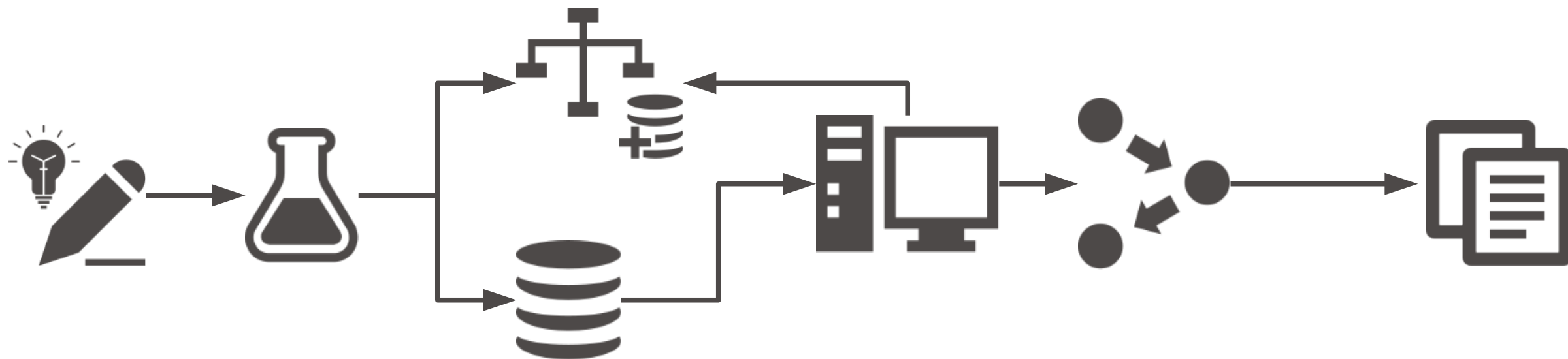








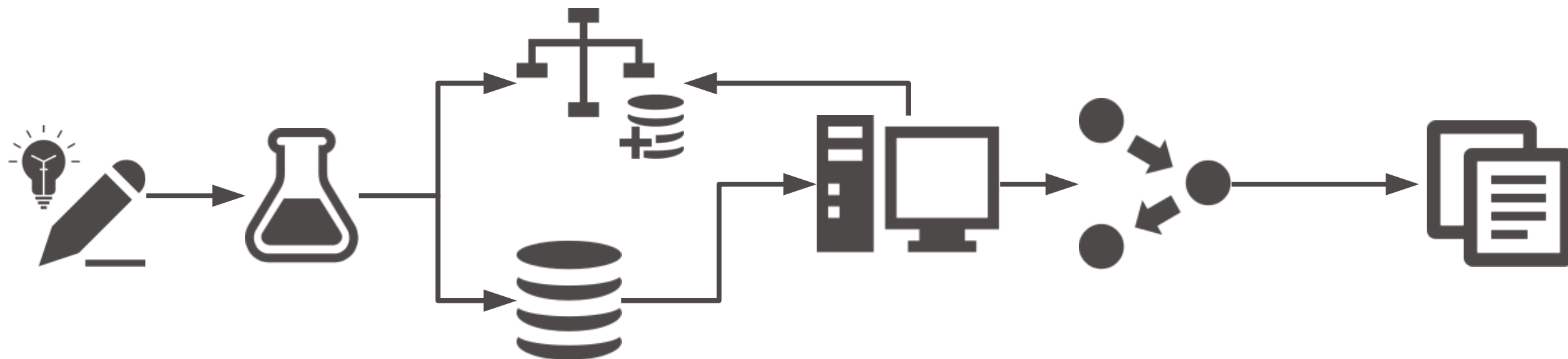






NeLS

Norwegian e-Infrastructure for Life Sciences

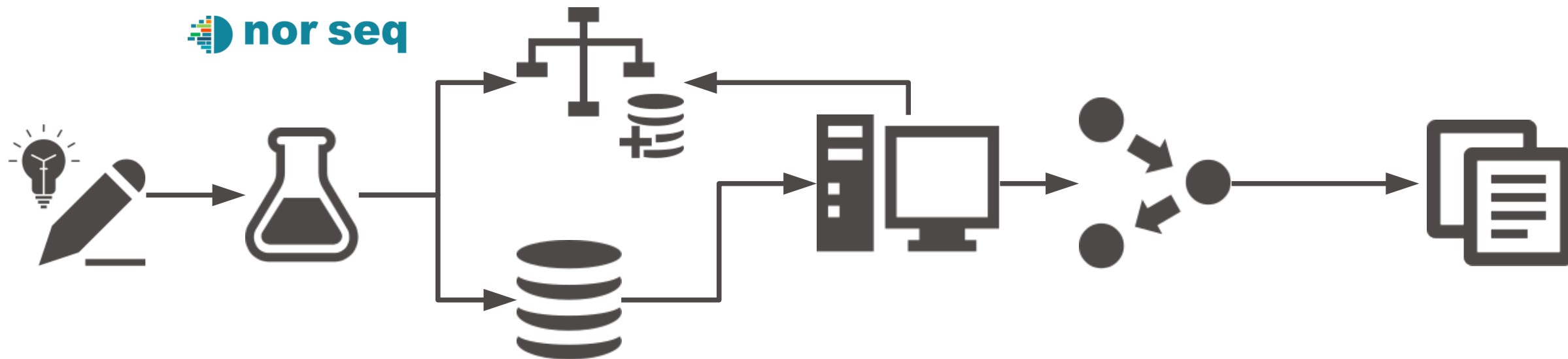




NeLS

Norwegian e-Infrastructure for Life Sciences

 **nor seq**





NeLS

Norwegian e-Infrastructure for Life Sciences





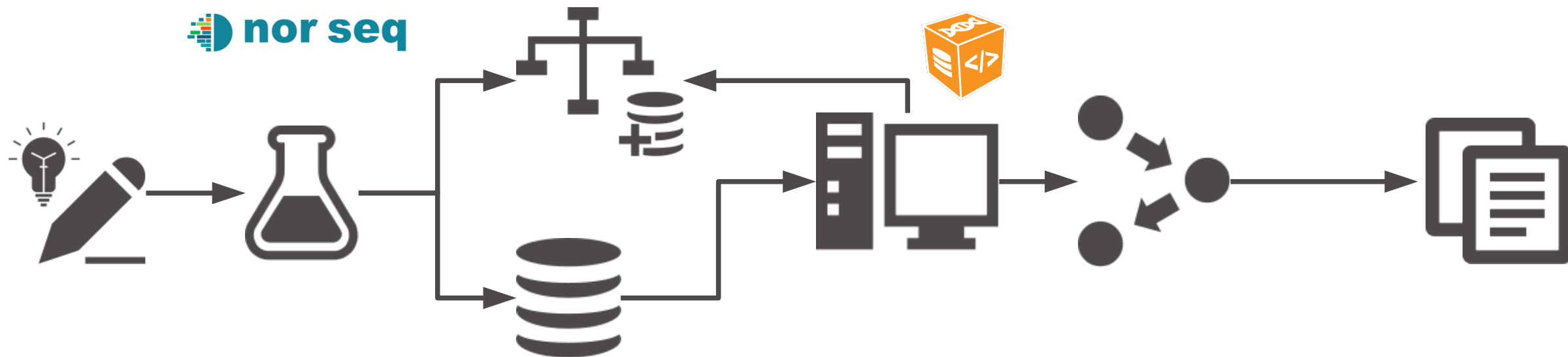
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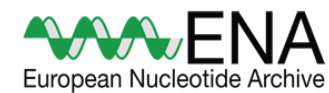
 **Galaxy**





NeLS

Norwegian e-Infrastructure for Life Sciences



ArrayExpress



MetaboLights



PRIDE Archive
PRoteomics IDentifications Database





NeLS

Norwegian e-Infrastructure for Life Sciences



ArrayExpress



MetaboLights



PRIDE Archive
Proteomics IDentifications Database

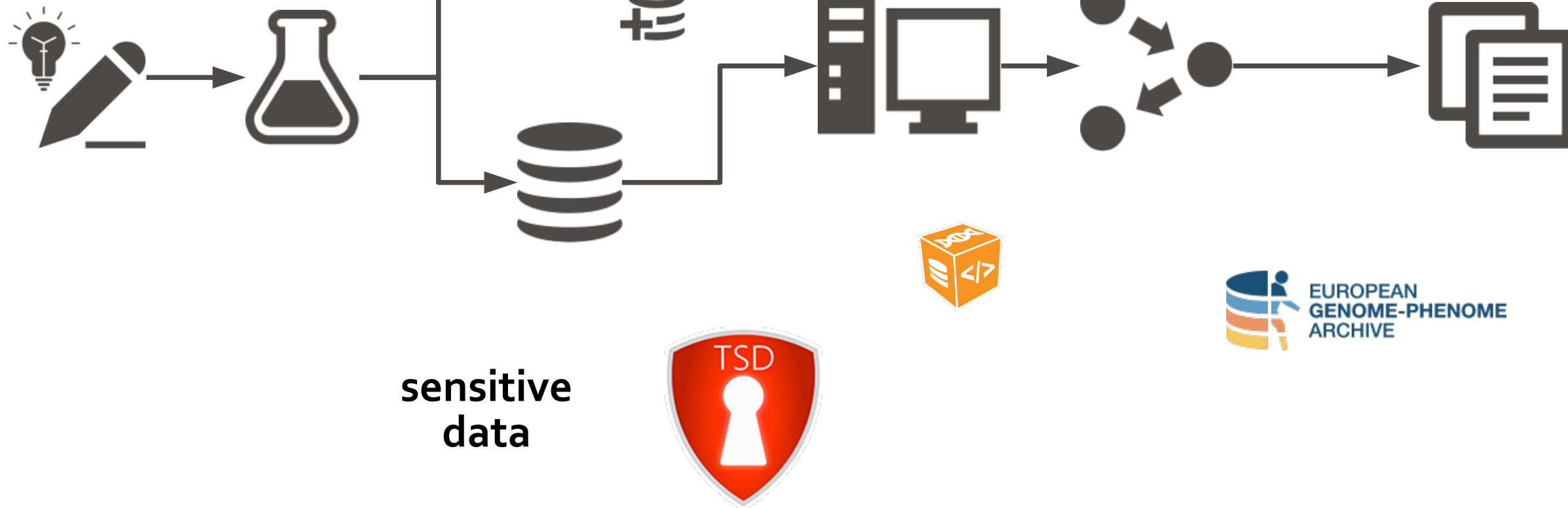


EUROPEAN
GENOME-PHENOME
ARCHIVE

nor seq



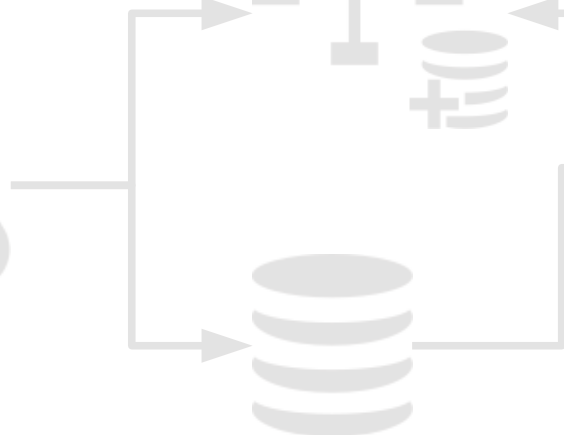
Galaxy





NeLS

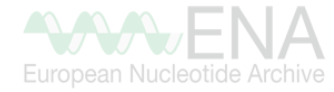
Norwegian e-Infrastructure for Life Sciences



NeLS

Norwegian e-Infrastructure for Life Sciences

BioStudies.



Data Management Plan?

sensitive
data





NeLS

Norwegian e-Infrastructure for Life Sciences



ArrayExpress



MetaboLights



PRIDE Archive
PRoteomics IDentifications Database

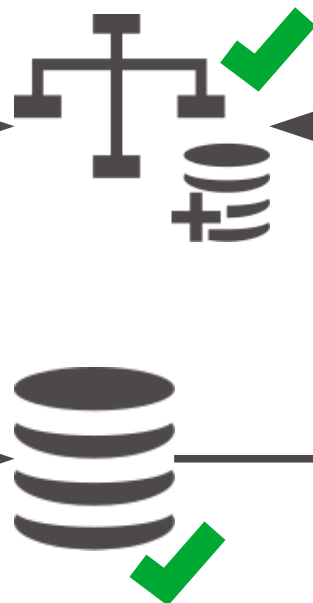
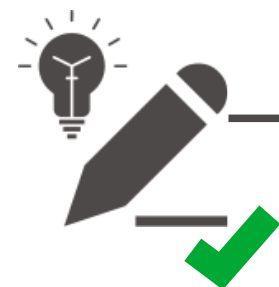


EUROPEAN
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 **nor seq**



 **Galaxy**



NeLS

Norwegian e-Infrastructure for Life Sciences

BioStudies.



 **nor seq**



 **ENA**
European Nucleotide Archive

 **IDR**

 **ArrayExpress**

 **MetaboLights**

 **PRIDE Archive**
PRoteomics IDentifications Database





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**Horizon 2020
Research Infrastructure
Program**



With funding from
**The Research
Council of Norway**



UNIVERSITY OF BERGEN



UiT The Arctic University of Norway



UiO : **University of Oslo**



NTNU

Norwegian University of
Science and Technology



Norwegian University
of Life Sciences