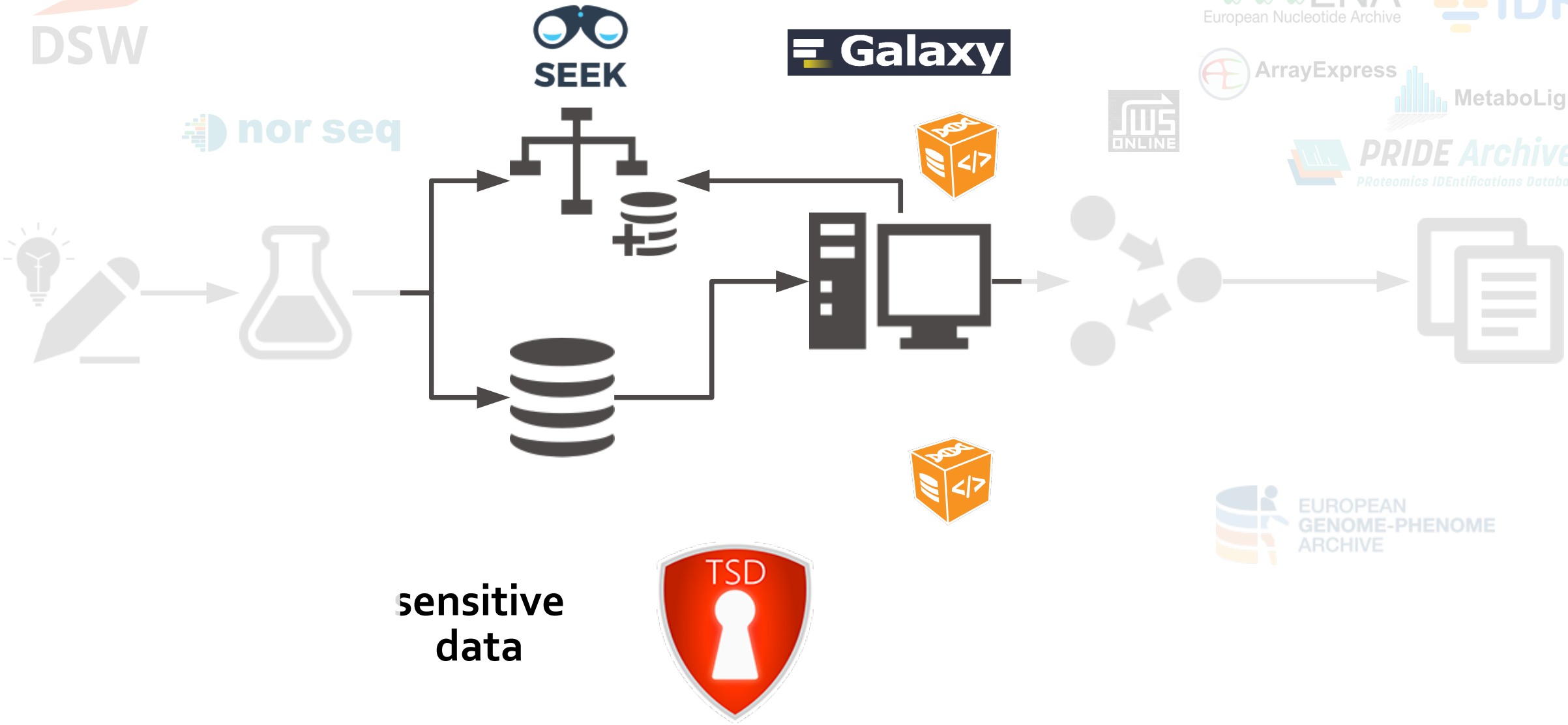
Data Storage Platforms

Korbinian Bösl
Data manager ELIXIR Norway
4 March 2020

NeLS

Norwegian e-Infrastructure for Life Sciences



NeLS

nor seq

Feide ola@uib.no

My Projects

NeLS

Norwegian e-Infrastructure for Life Sciences

Data curation

Tekle, et al. (2018) F1000Res

github.com/elixir-no-nels/nels-core

https://nels.bioinfo.no/

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nor seq

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My Projects

NeLS

Norwegian e-Infrastructure for Life Sciences

Flexible work on active data

Data curation

Tekle, et al. (2018) F1000Res

github.com/elixir-no-nels/nels-core

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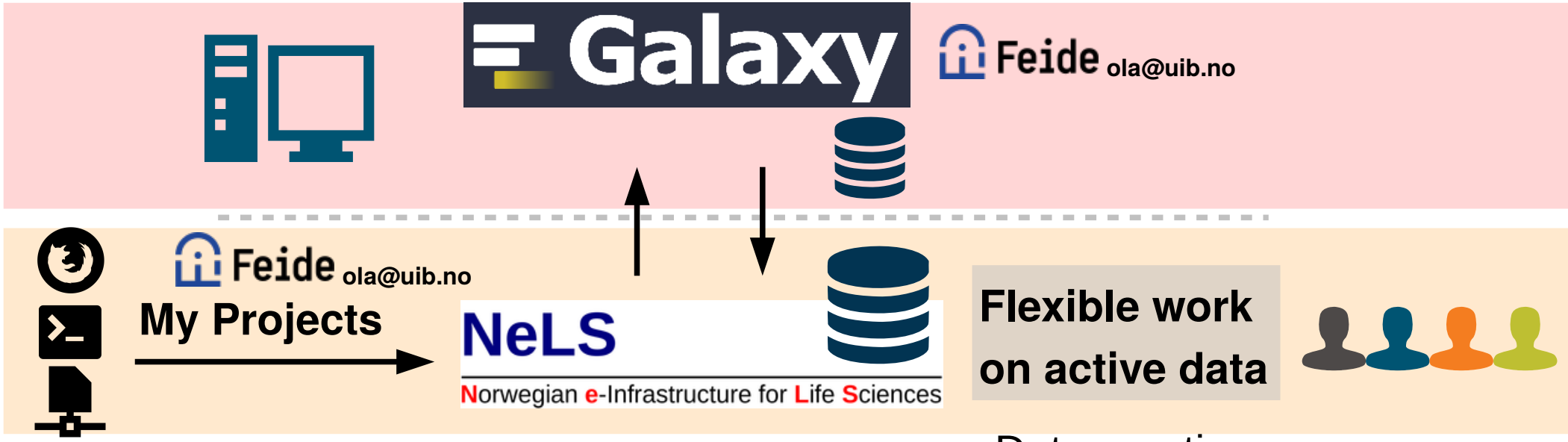

nor seq

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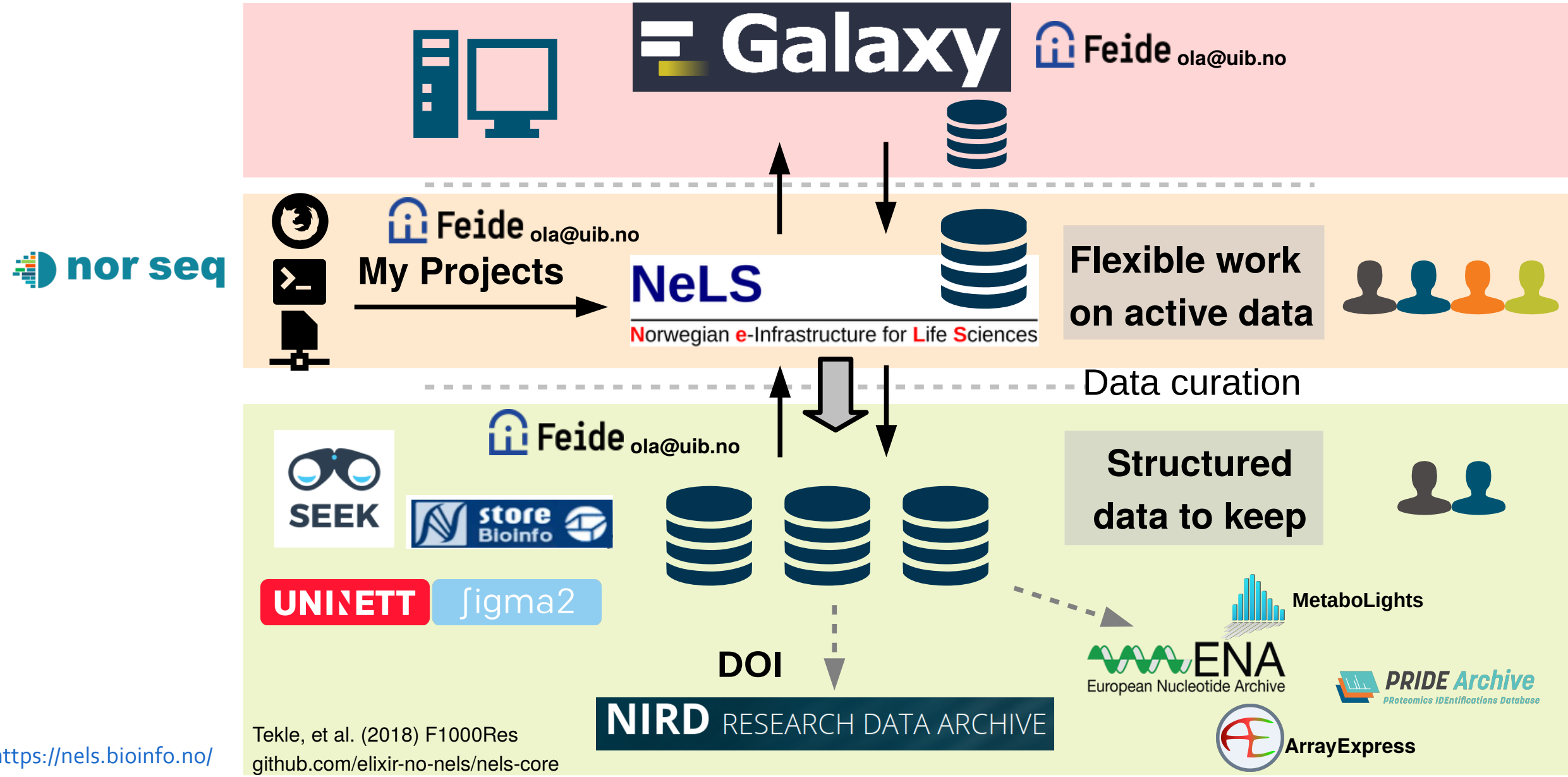

Tekle, et al. (2018) F1000Res
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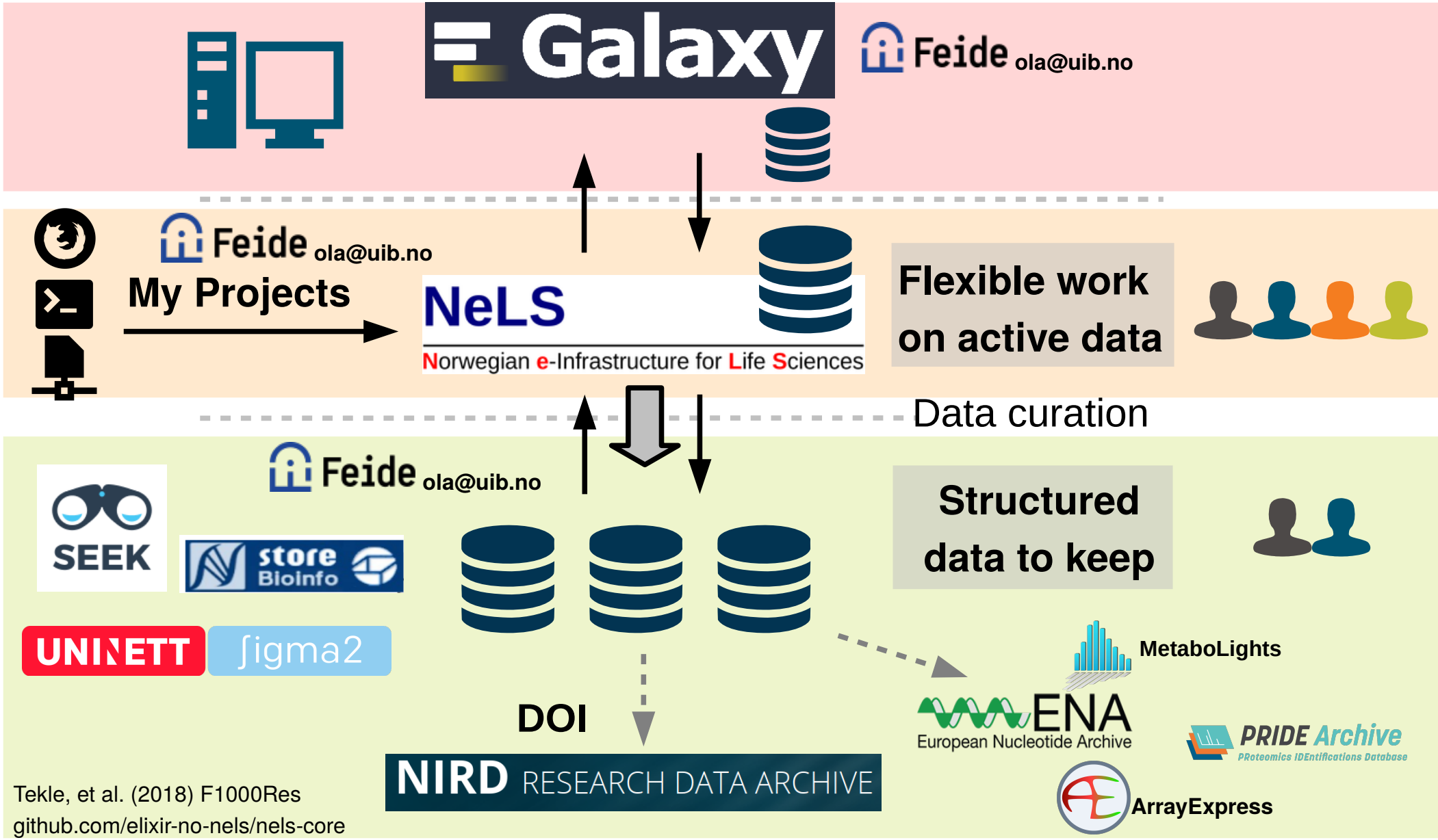
NeLS

Days - weeks

Months

Years

Decades



Tekle, et al. (2018) F1000Res

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https://nels.bioinfo.no/

NeLS - Accessibility

small datasets

Feide

ola@uib.no

NeLS - Accessibility

small datasets

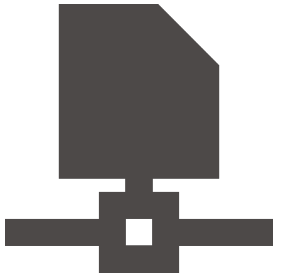
Feide

ola@uib.no

larger datasets

ssh-key

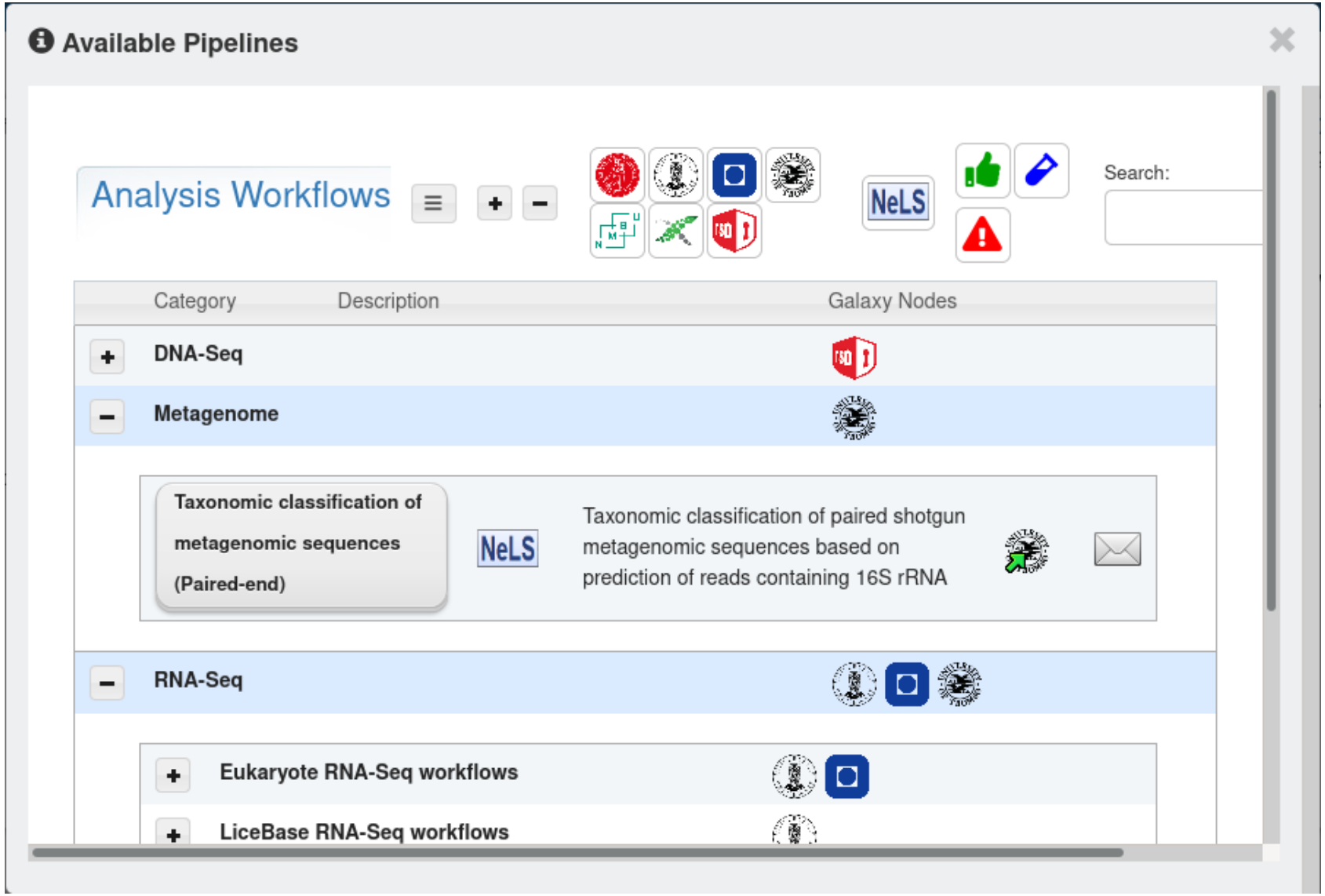
git



sFTP

https://nels.bioinfo.no/

Data Analysis in NeLS



https://nels.bioinfo.no/

NeLS - Getting Access

NeLS

Norwegian e-Infrastructure for Life Sciences

Typically > 1TB data

Free for regular sized projects

Allocation through Helpdesk: contact@bioinfo.no

Direct upload through Norseq facilities

https://nels.bioinfo.no/pages/user-terms.xhtml

SEEK

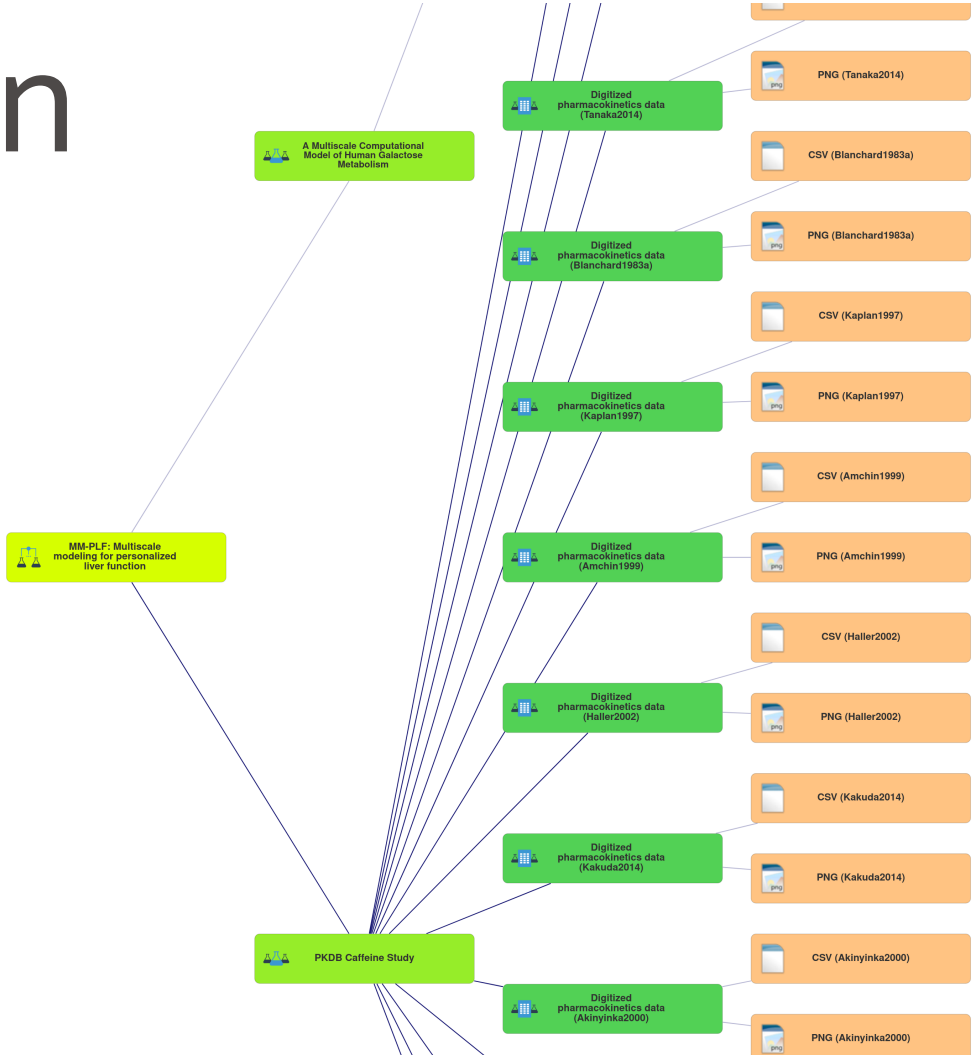
https://seek4science.org/
https://fairdomhub.org/

SEEK

Investigation

Study

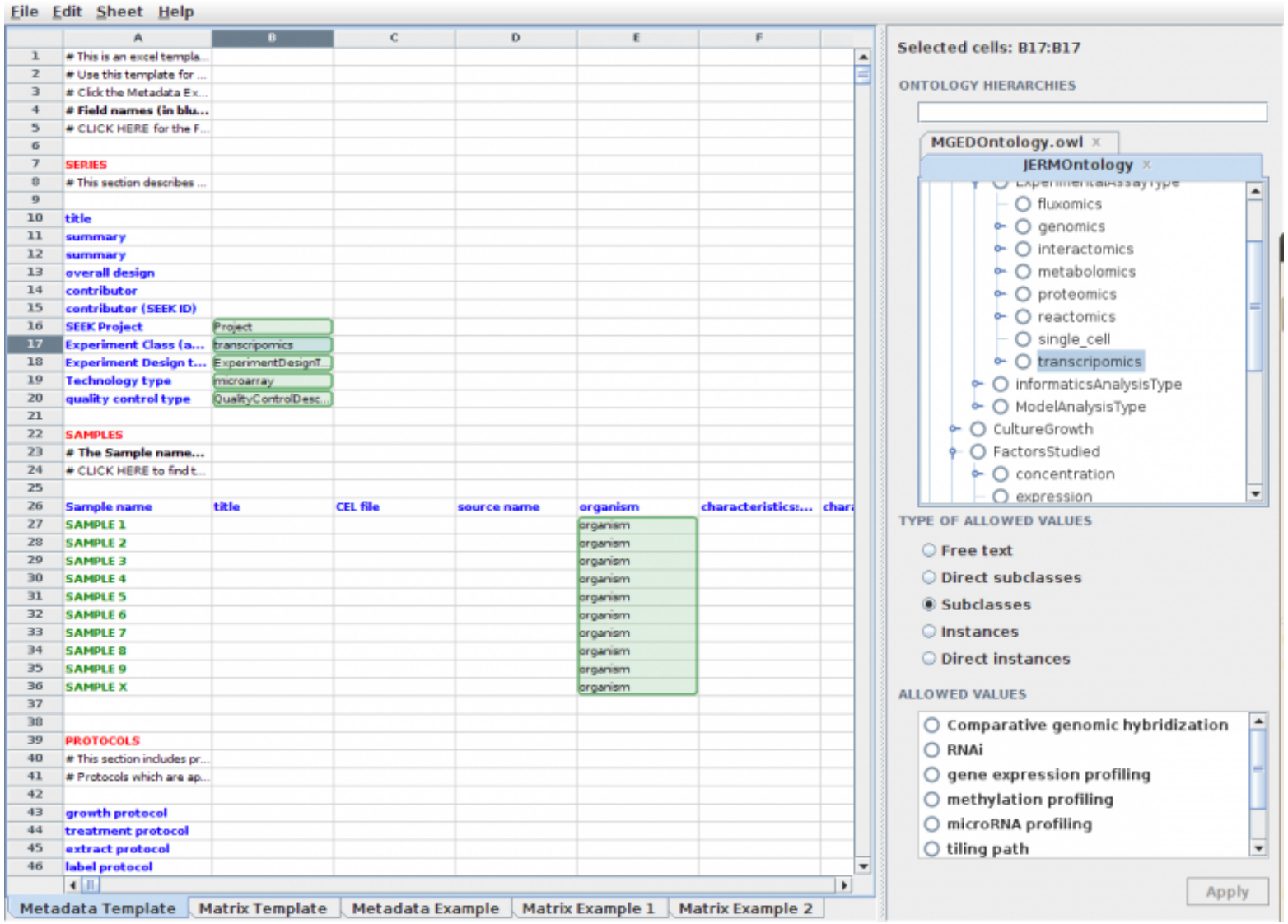
Assay



https://seek4science.org/
https://fairdomhub.org/

SEEK

RightField



https://seek4science.org/
https://rightfield.org.uk/

NeLS
Norwegian e-Infrastructure for Life Sciences

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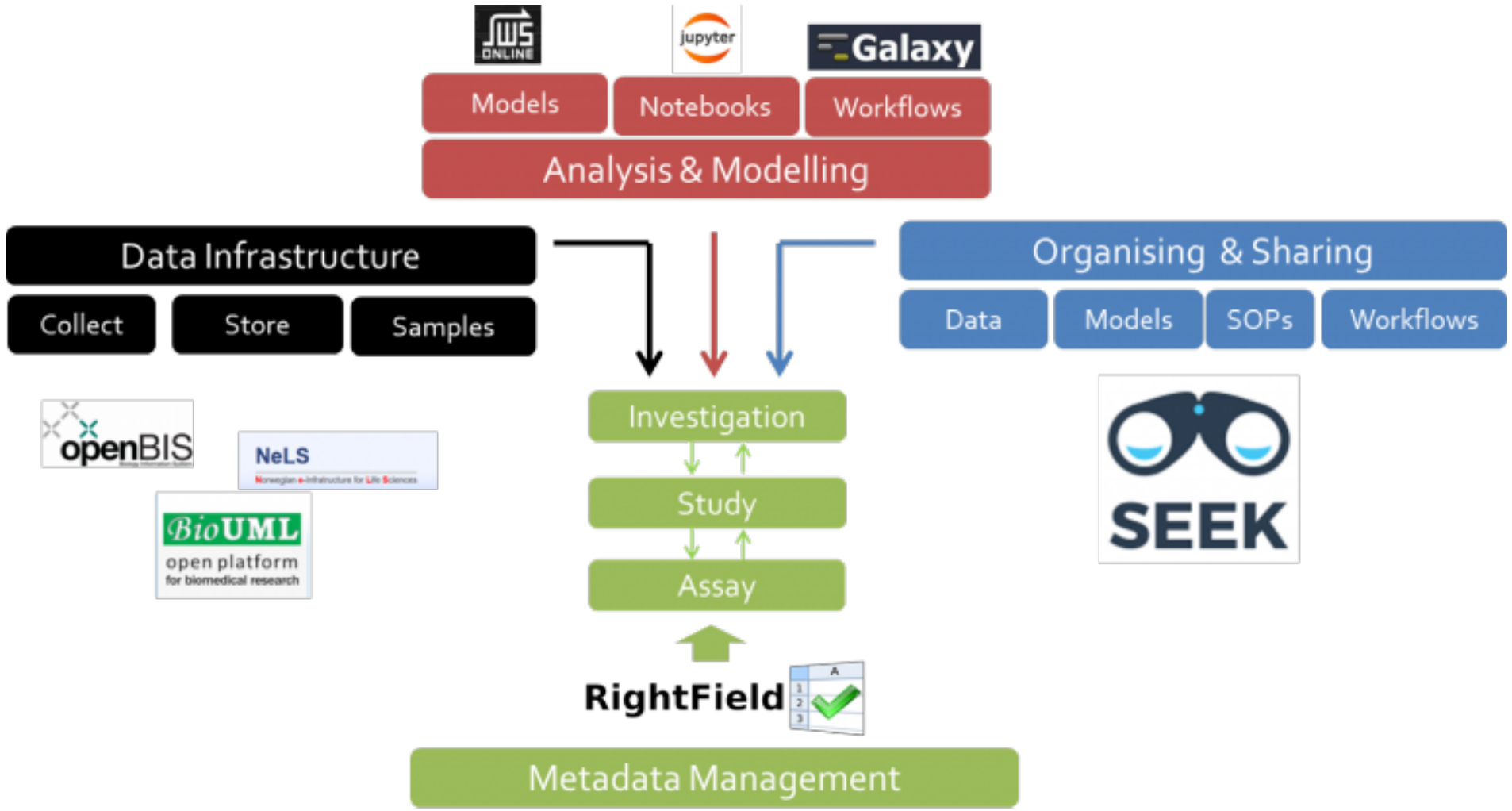
SEEK

Integration

Reference data in NeLS in SEEK

Access data in NeLS through SEEK

Save Metadata to SEEK through NeLS


JWS ONLINE
jupyter
Galaxy
Models
Notebooks
Workflows
Analysis & Modelling
Data Infrastructure
Collect
Store
Samples
openBIS
NeLS
Norwegian e-Infrastructure for Life Sciences
BioUML
open platform
for biomedical research
Investigation
Study
Assay
RightField
Metadata Management
Organising & Sharing
Data
Models
SOPs
Workflows
SEEK

BILLY – Tape Backup

- Storage on tape – min 4MB/file – 3 copies
- Geo-replication
- 1 TB 250NOK/yr in 50TB chunks → bs.uib.no

https://it.uib.no/Billy
https://bs.uib.no/

TSD – National sensitive data service

Maximum classification

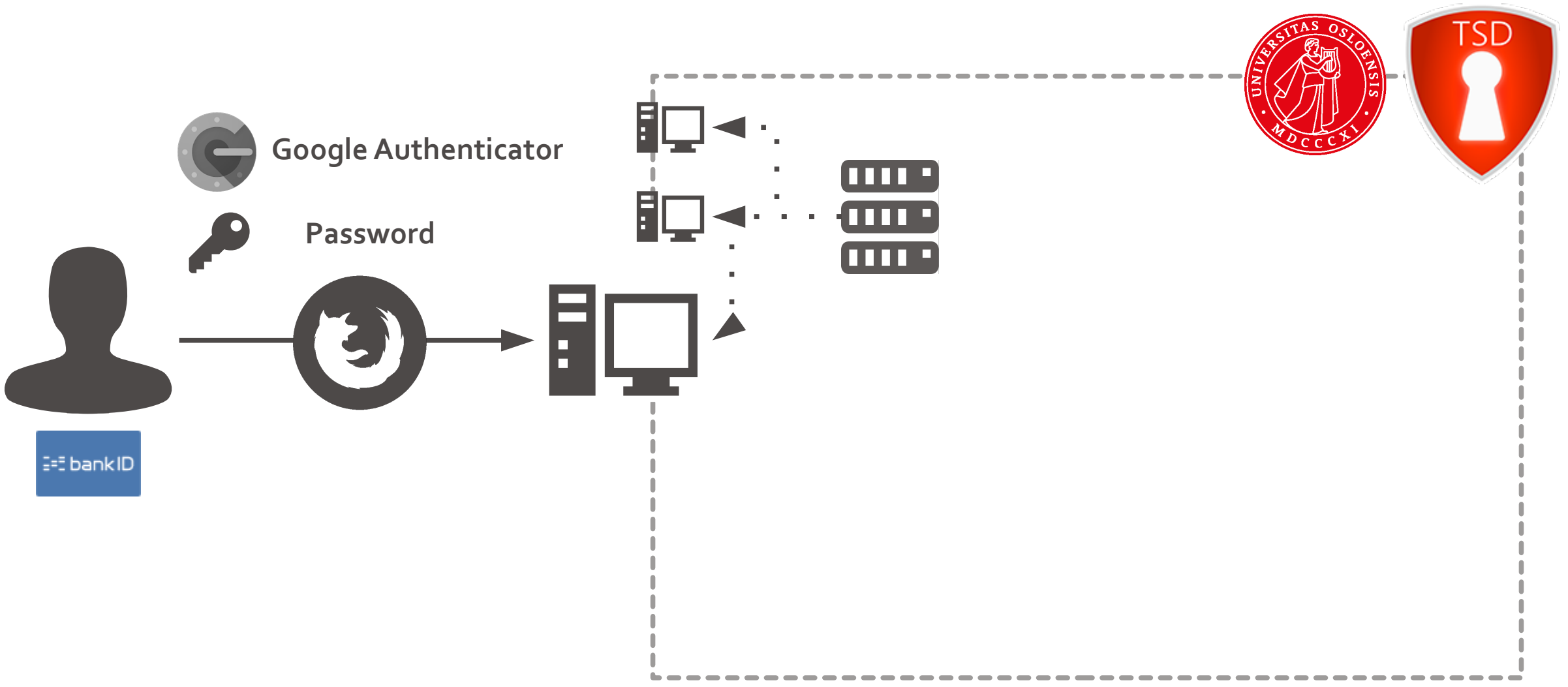
2-factor authentication

Attached HPC resources

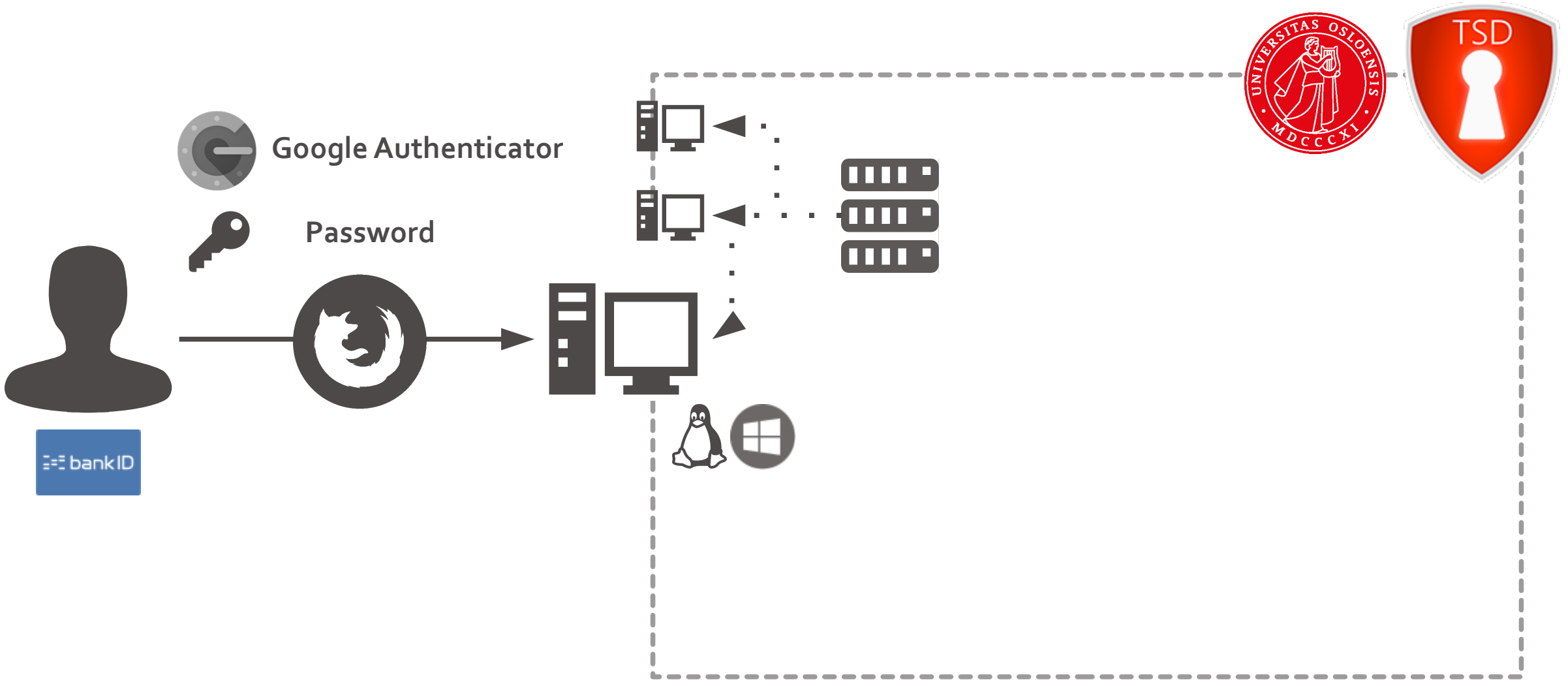
https://www.uio.no/english/services/it/research/sensitive-data/index.html

TSD – National sensitive data service

TSD – National sensitive data service



TSD – National sensitive data service



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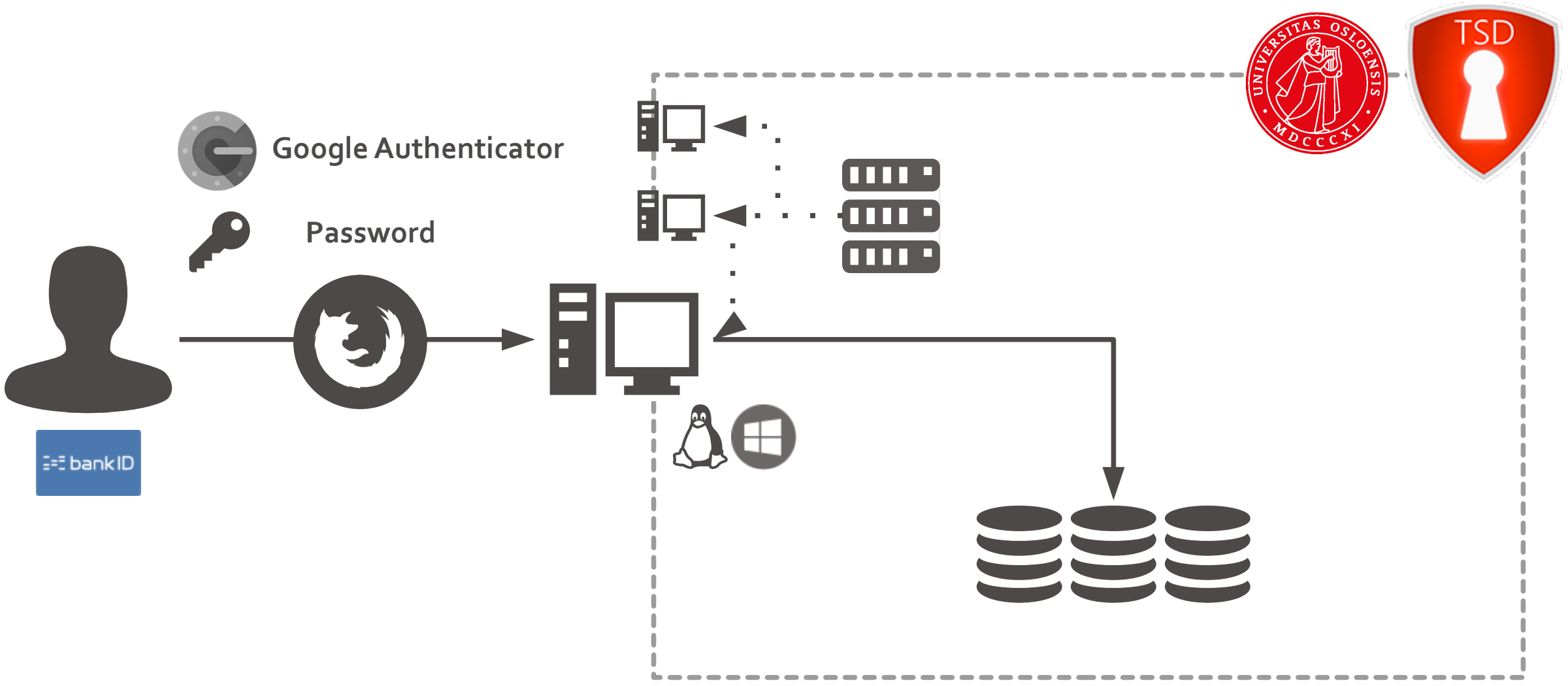

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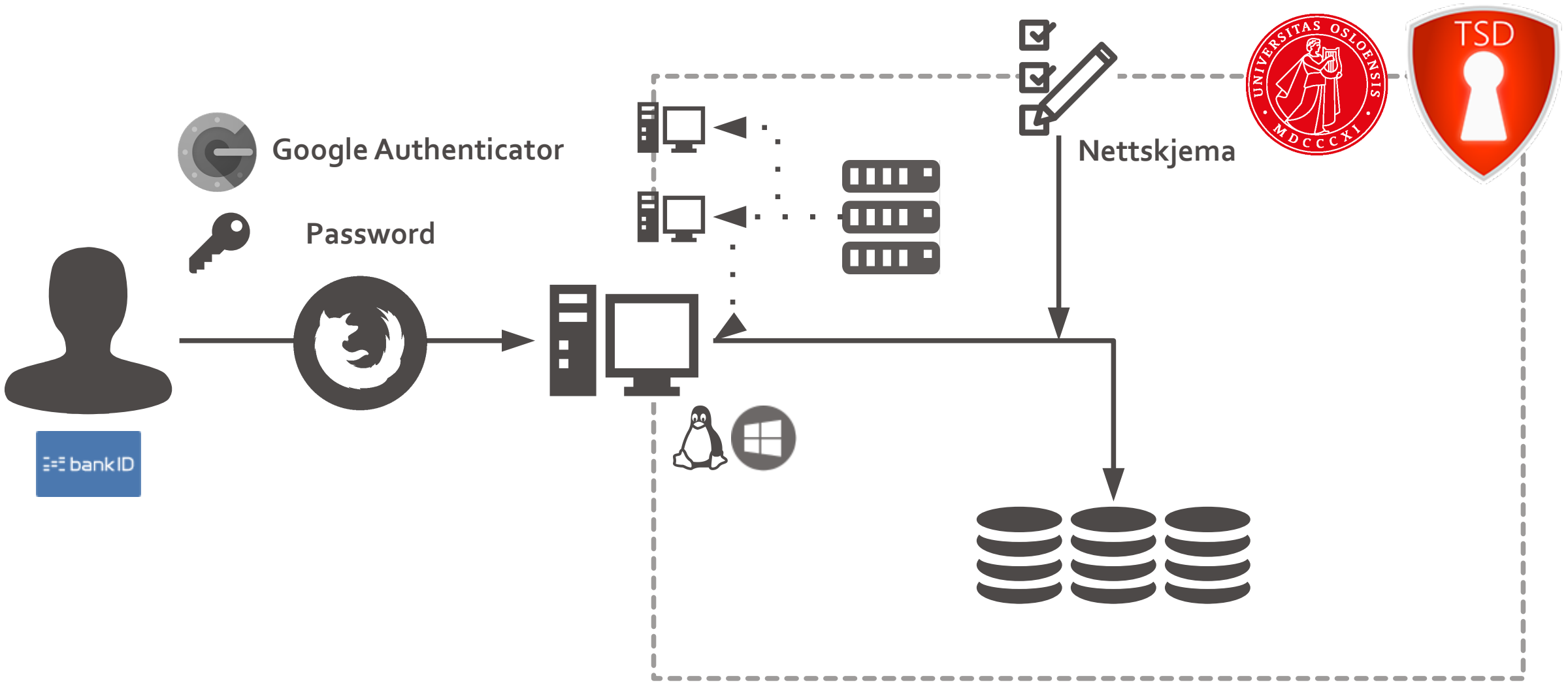

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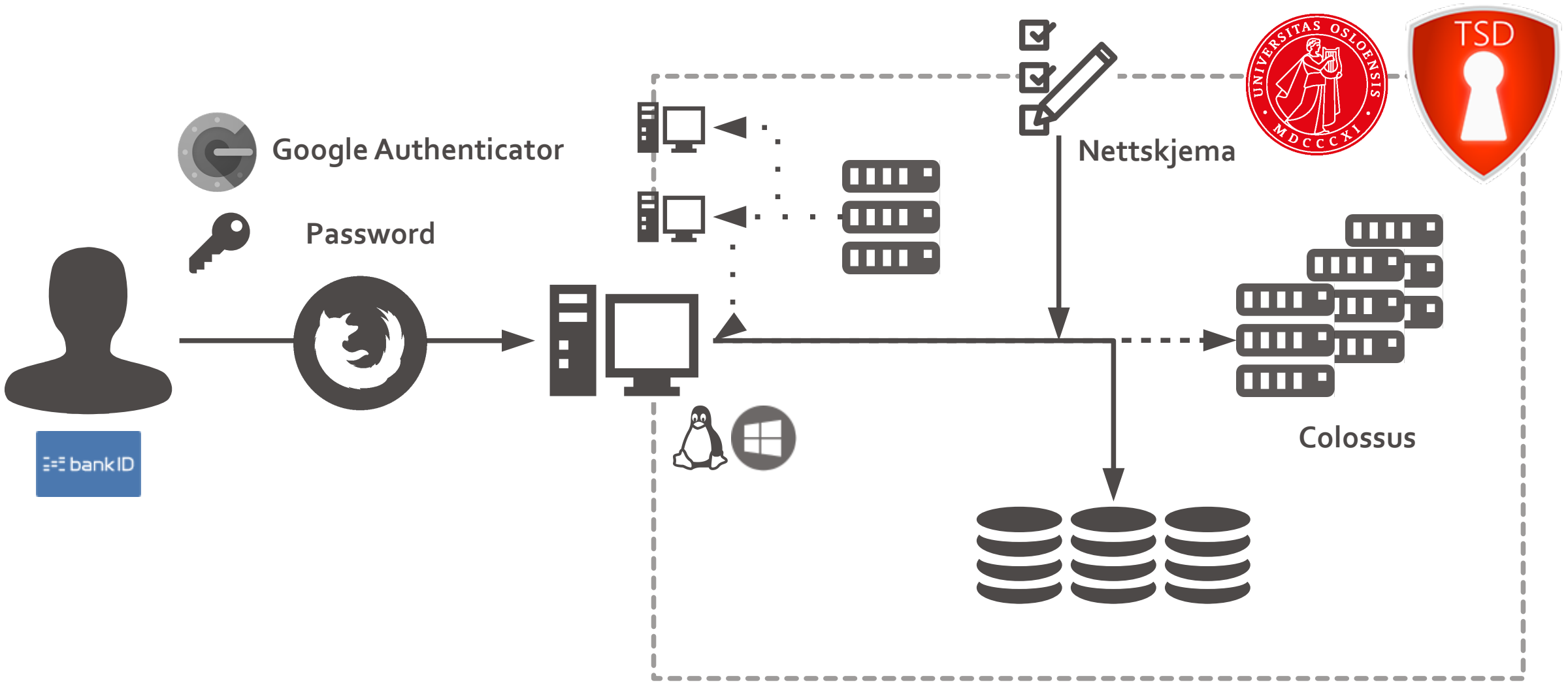

TSD – Getting Access

Subsidized access through Sigma2 calls

User contribution model (non UiO: min 15kNOK/a)

Free storage quotas through NeLS

https://www.uio.no/english/services/it/research/sensitive-data/access/prices/
https://nels.bioinfo.no/