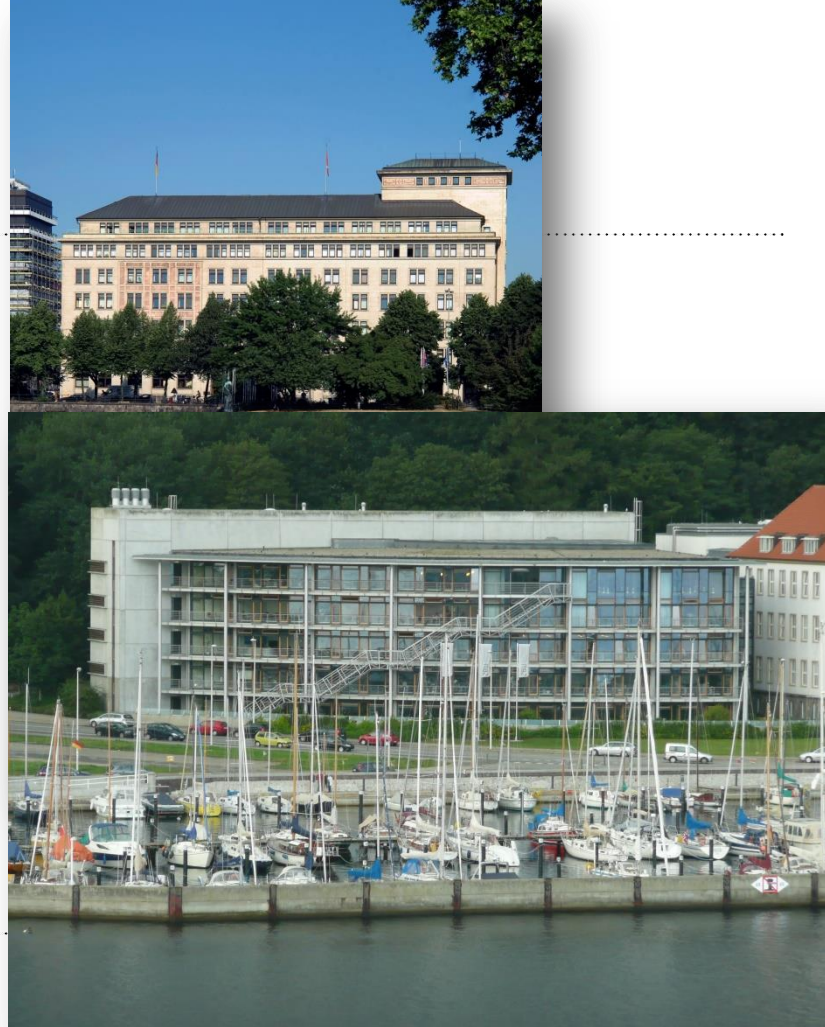


# Generic Research Data Infrastructure

Klaus Tochtermann  
ZBW Kiel/Hamburg

- Founded in 1919
- Member of Leibniz Association
- 4,4 Mio documents
- 31.000 Periodica, Journals
- 5 Mio downloads of digital full texts
- ~ 243 full time equivalent
- ~23 Mio Euro Budget/Year





# GeRDI Research Data Management

Situation. Research data repositories in Germany · Europe · World.

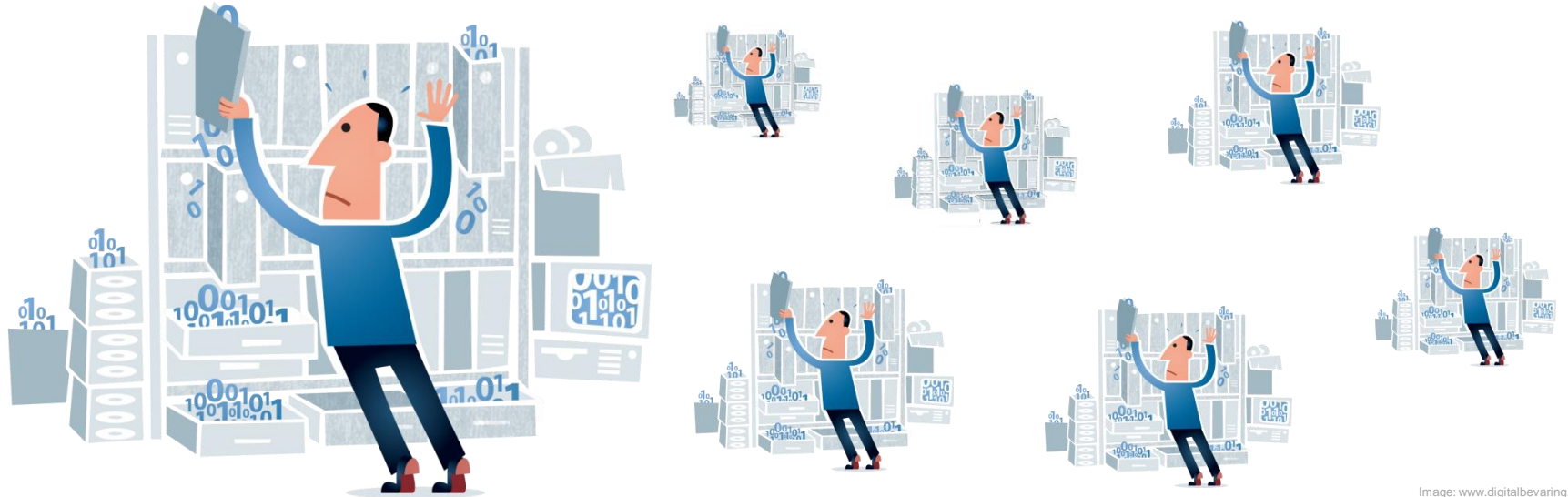


Image: www.digitalbevaring.dk

Generic Research Data Infrastructure · [www.gerdi-project.eu](http://www.gerdi-project.eu)



Name,  
Institution  
Ort, Datum



Funded by

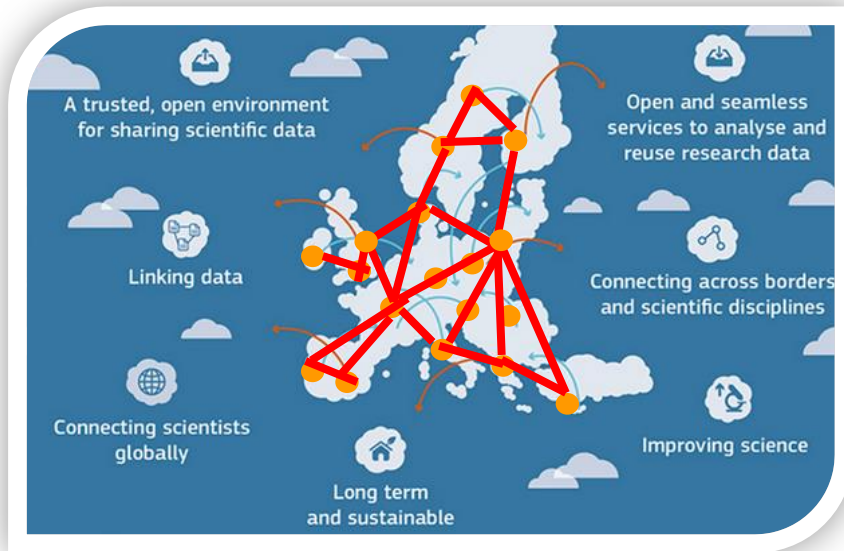
# Recognized Importance



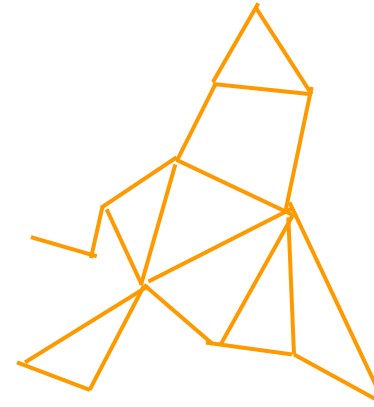


# High Level Expert Group / RfII

**Vision.** Bringing together current and future data infrastructures.



What does *bringing together* mean?



# Challenge 1 – Eco-System of Infrastructures

Longterm Accessible · Sustainable · Interoperable Infrastructure



## Connection of

- Existing Systems
- Software Components
- Protocols
- Standards
- ...

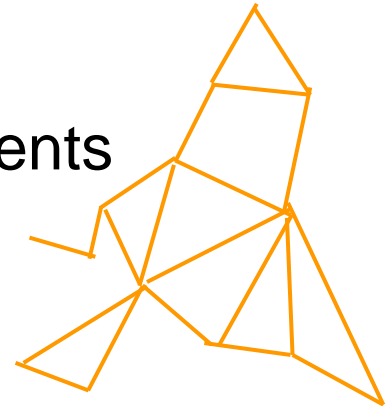


Image: [www.digitalbevaring.dk](http://www.digitalbevaring.dk)

# Challenge 2 – FAIR Data

FAIR Data. Findable · Accessible · Interoperable · Re-usable



Image: [www.digitalbevaring.dk](http://www.digitalbevaring.dk)

# Challenge 3 – Trusted Infrastructure

## Trusted infrastructure for research data management



Image: www.digitalbevaring.dk





# Generic Research Data Infrastructure

Funded by DFG for 3 years and started in Nov. 2016

## Infrastructures



## Research Communities

Environmental,  
Resource and  
Ecological Economics



TUM Chair of Hydrology and  
River Basin Management

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Institution  
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# Challenge 1 – Eco-System of Infrastructures

Longterm Accessible · Sustainable · Interoperable Infrastructure



Connection of

- Existing Systems
- Software Components
- Protocols
- Standards
- ...

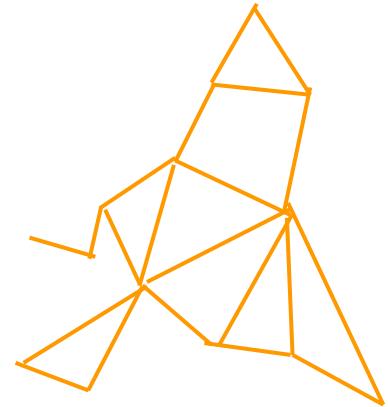
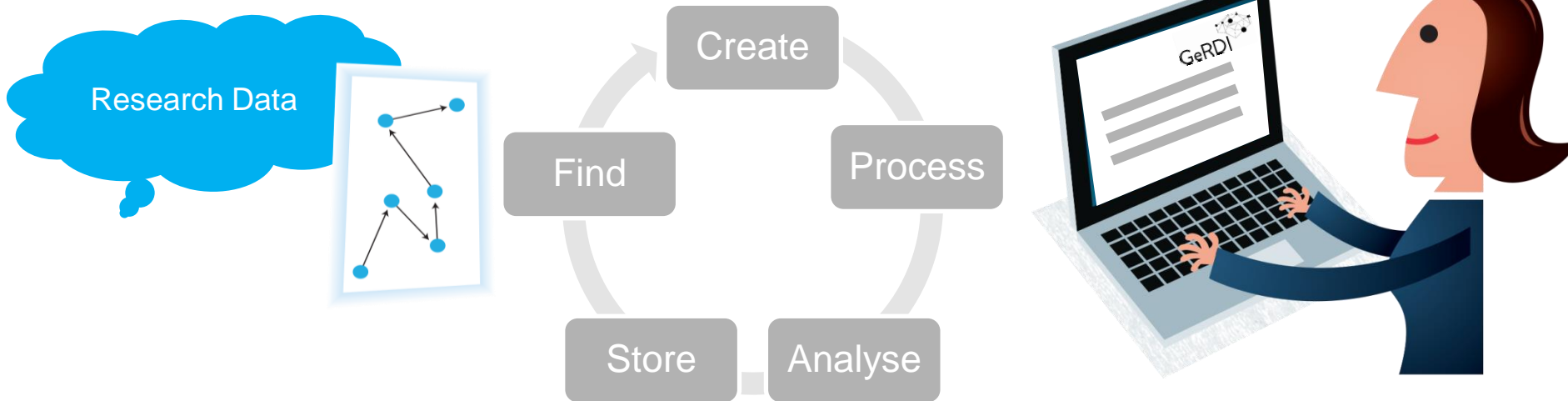


Image: [www.digitalbevaring.dk](http://www.digitalbevaring.dk)

# GeRDI Objectives

Data Life Cycle. Consider important phases.



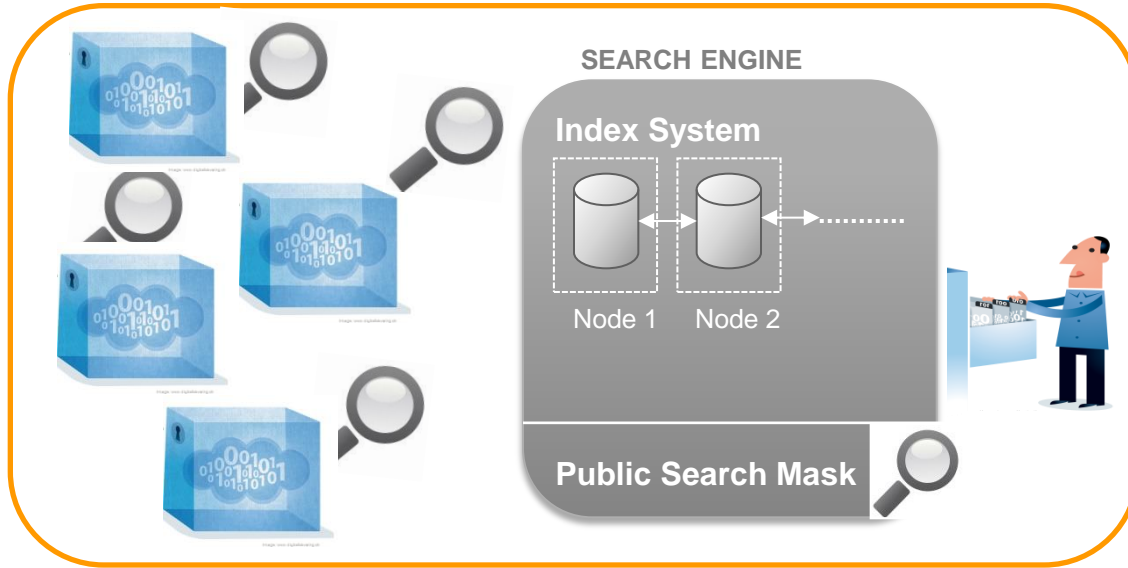


Image: www.digitalbevaring.dk

# GeRDI Process

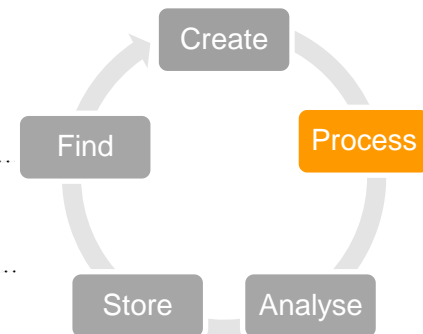


Image: [www.digitalbevaring.dk](http://www.digitalbevaring.dk)

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# GeRDI Analyse

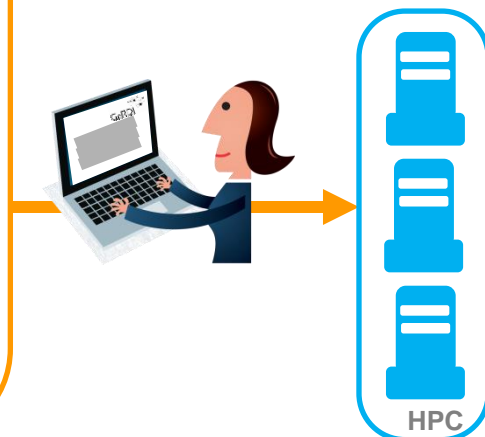
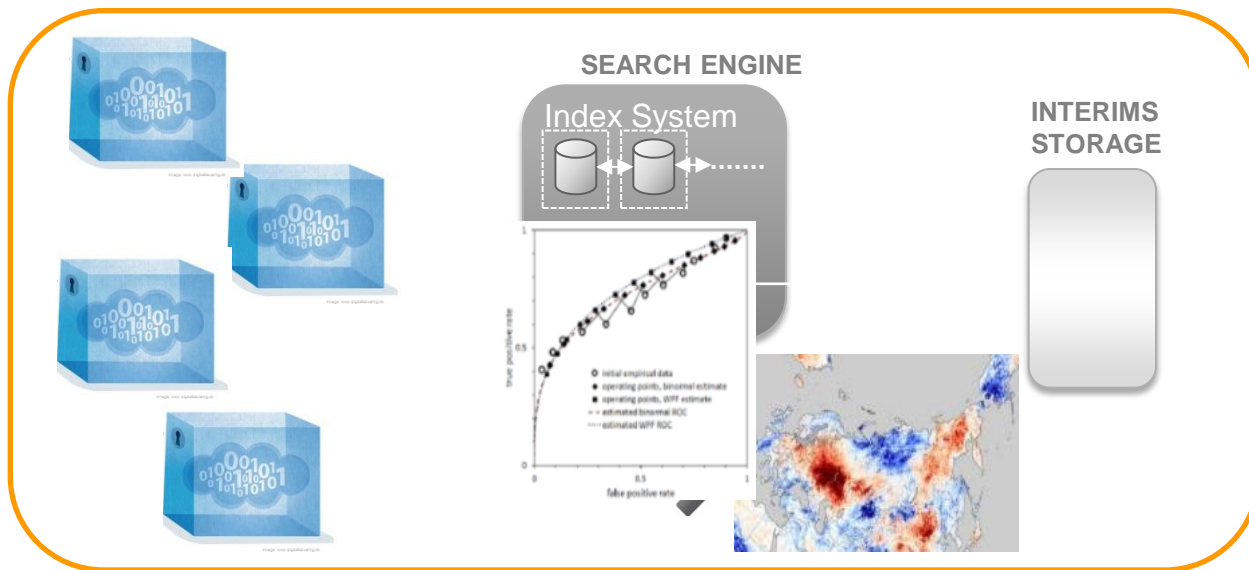
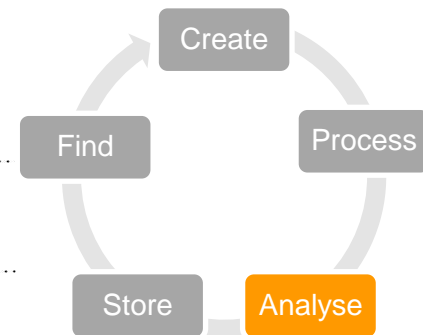


Image: www.digitalbevering.dk

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Name,  
Institution  
Ort, Datum



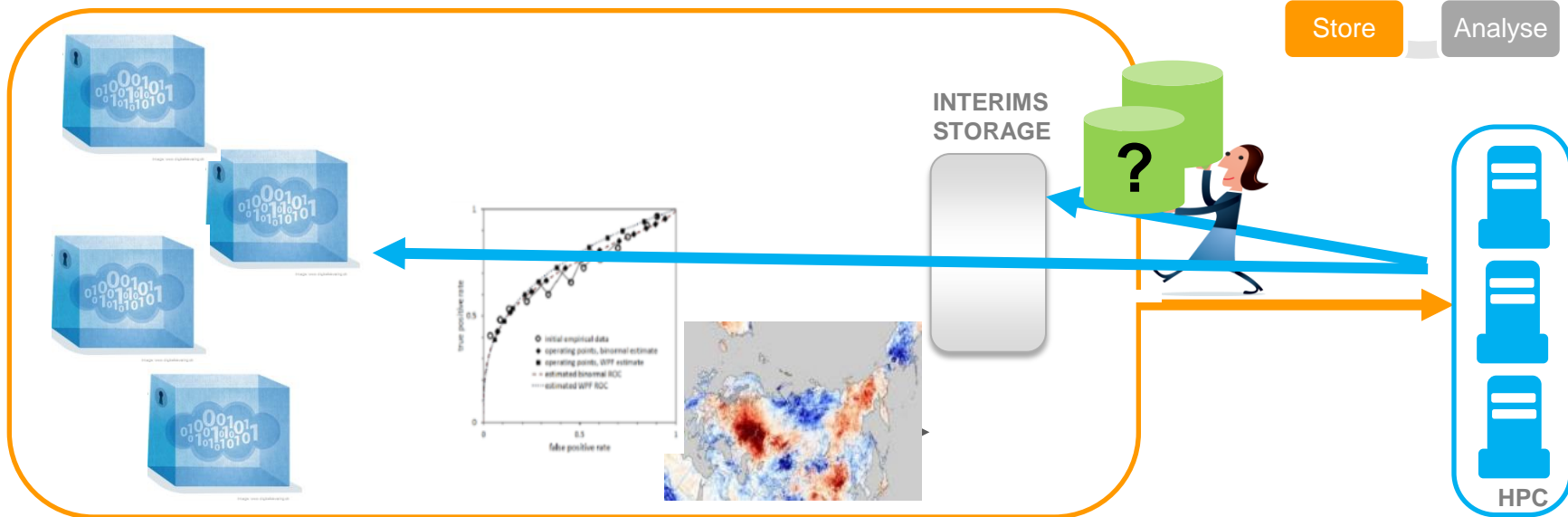


Image: www.digitalbevering.dk

# Take Home Messages

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Not only existence but **consistent use of metadata standards**, is key factor for success

**Cross-disciplinary standards needed**



# Challenge 2 – FAIR Data

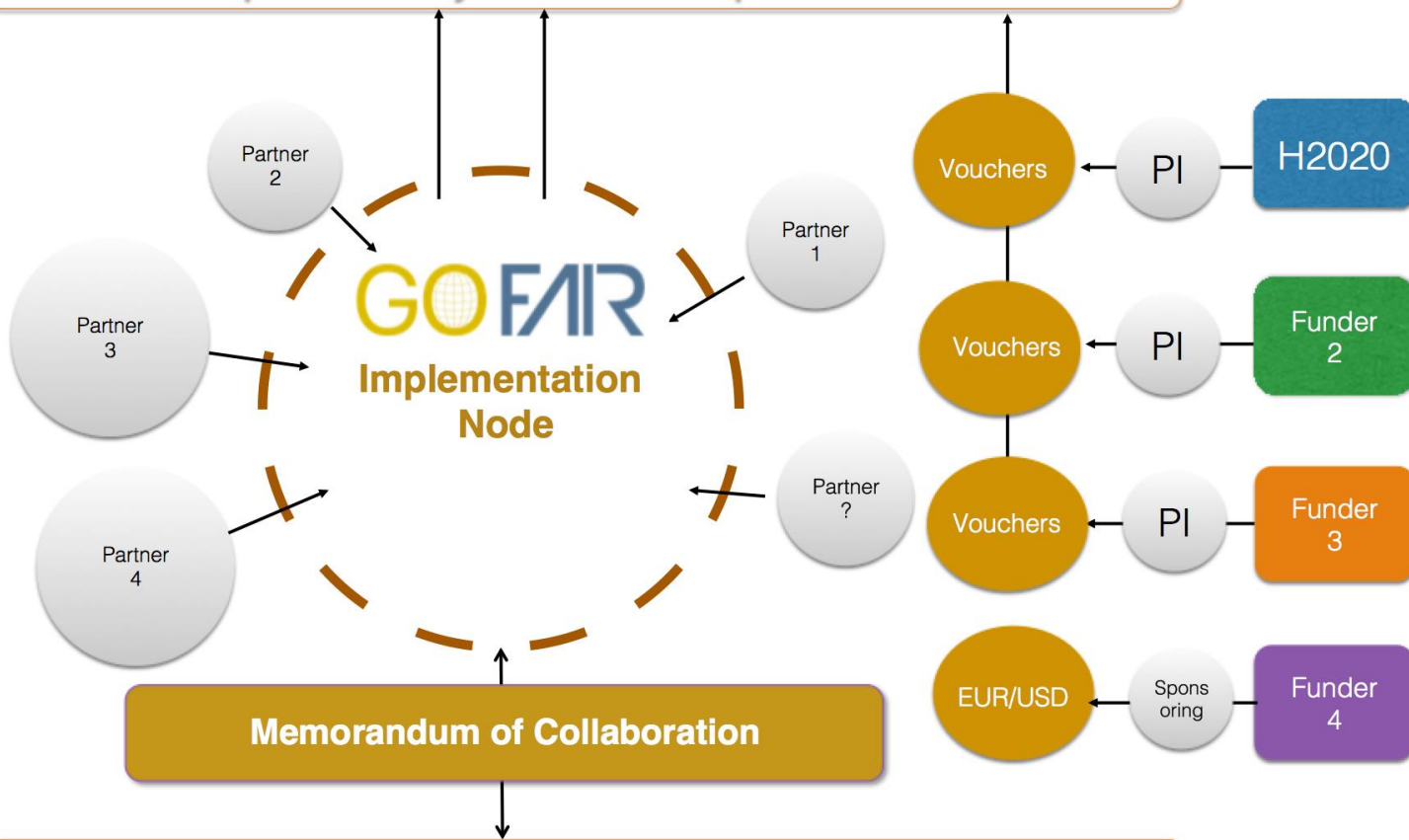
FAIR Data. Findable · Accessible · Interoperable · Re-usable



Image: [www.digitalbevaring.dk](http://www.digitalbevaring.dk)

# Services provided by GO FAIR Implementation Node

Rules of Engagement

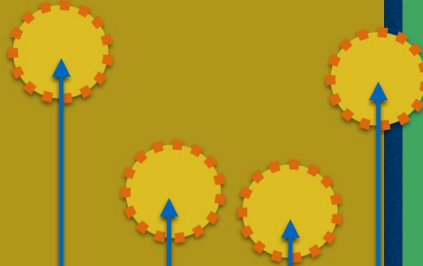


GO FAIR Coordination Hub (self coordination)



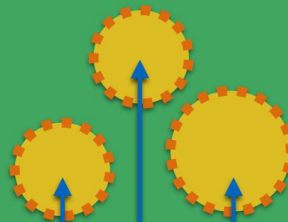
## GO-CHANGE

Culture change,  
Open Science Promotion  
Reward systems



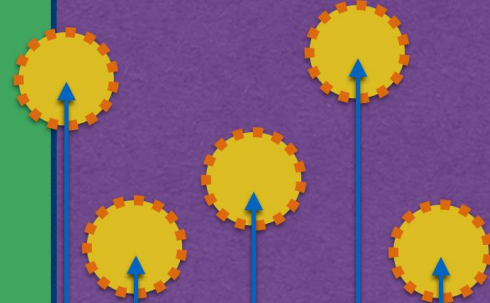
## GO-TRAIN

education/training  
MOOCs SPOCs  
Wizards, Certification



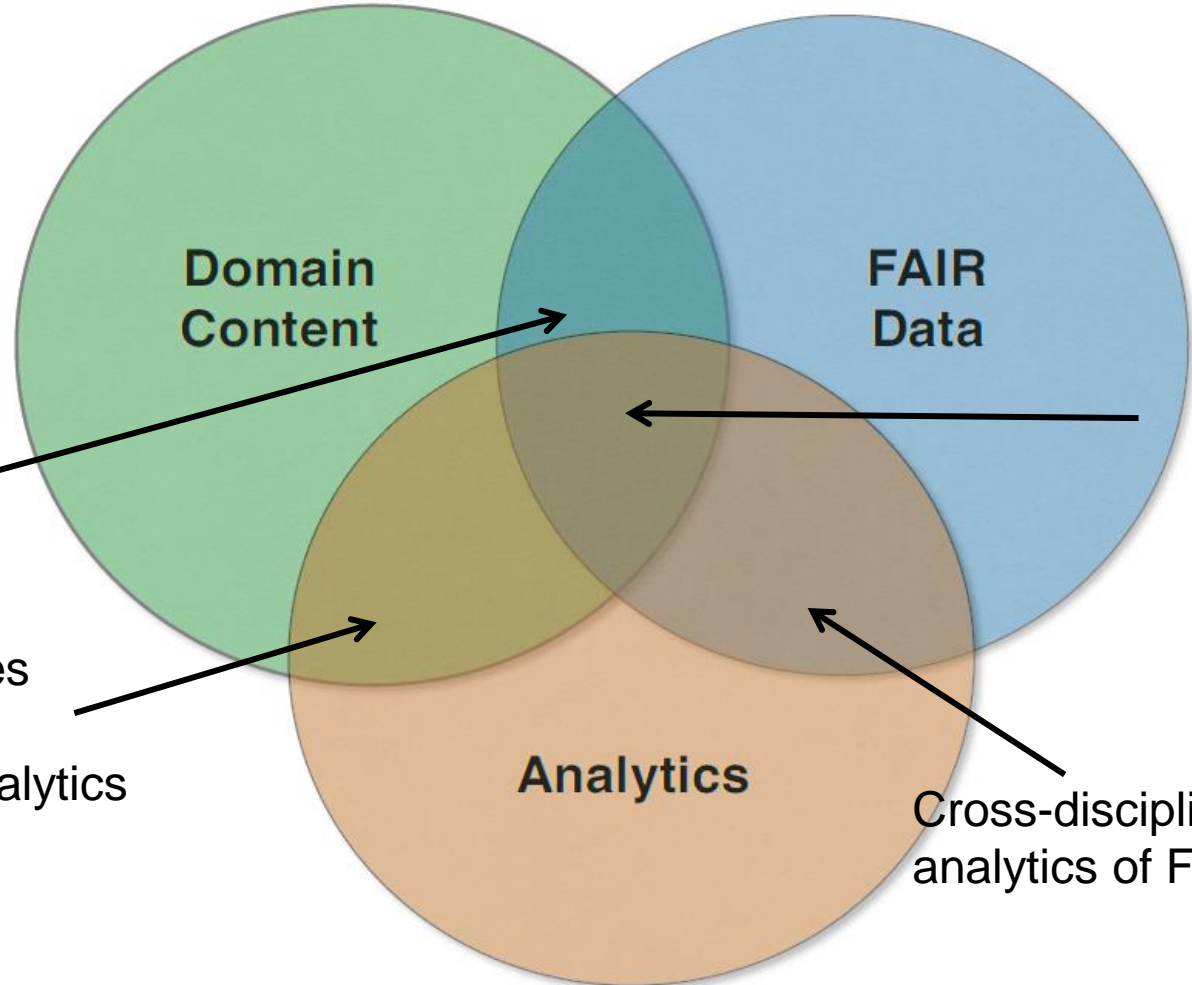
## GO-BUILD

technical implementation  
FAIR data & services  
Technical Infrastructure



Memorandum of Collaboration

GO FAIR Coordination Office (self coordination)



Thematic data  
already committed  
to FAIR principles

Data and Services  
not yet FAIR  
but usable for analytics

Cross-disciplinary  
analytics of FAIR data

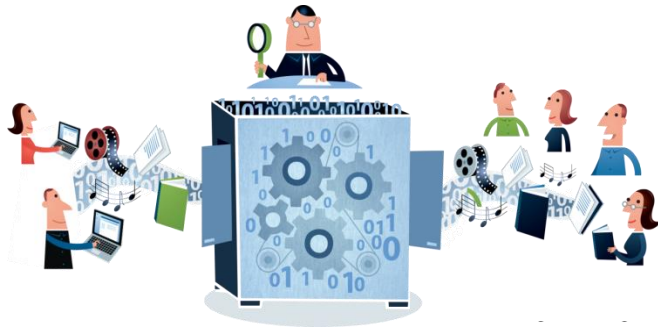
Perfect

# Take Home Messages

... modern reward and recognition practices need to **support data sharing and re-use** ...

... **core data experts need to be trained** and their career perspective improved...

**eco-system of infrastructures** ... to be technically conceived as an Internet of **FAIR Data and Services**



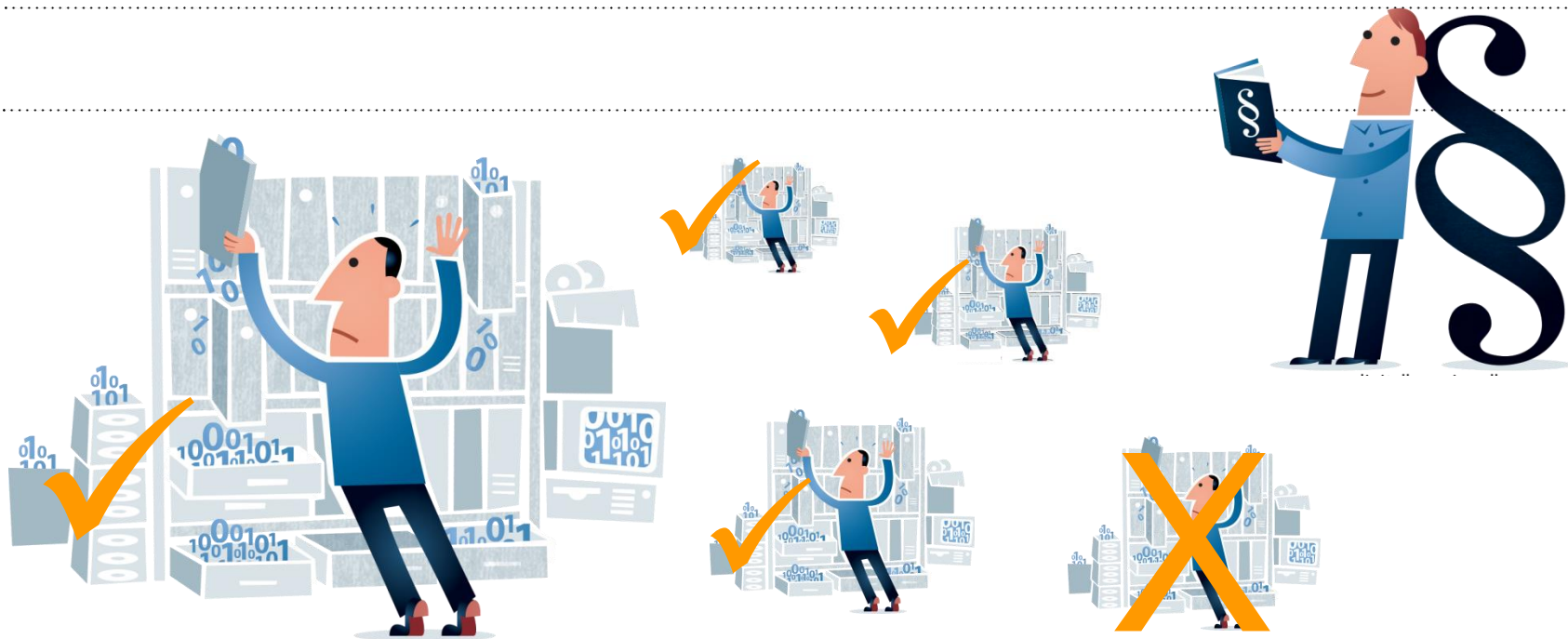
# Challenge 3 – Trusted Infrastructure

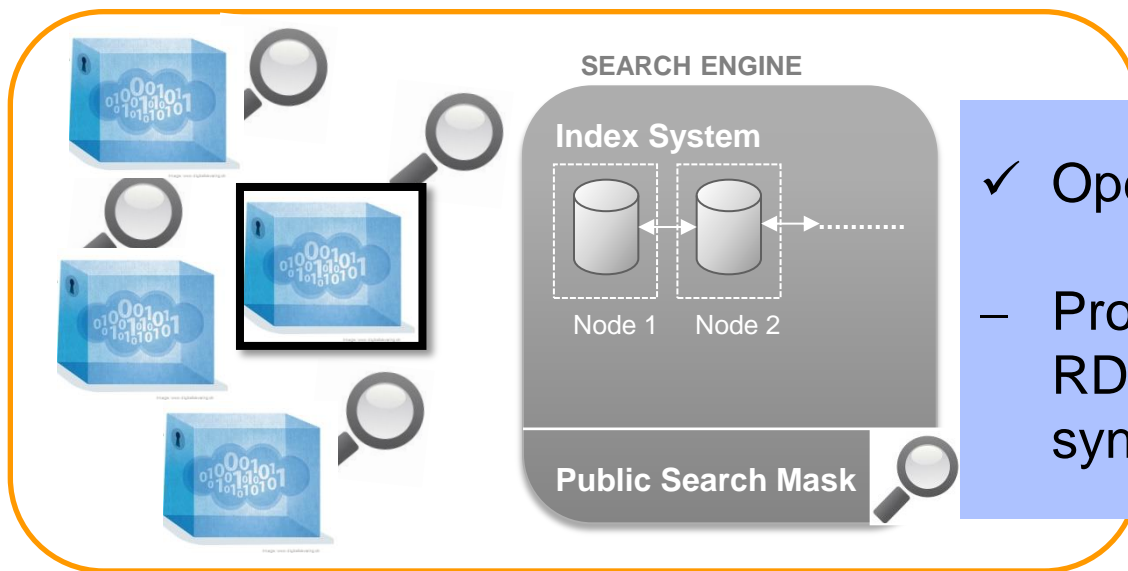
## Trusted infrastructure for research data management



Image: www.digitalbevaring.dk

# Rules for Engagement





- ✓ Open Metadata
- Protected Metadata
- RDC – GeRDI
- sync authentication



Image: www.digitalbevaring.dk



# GeRDI Process & Analyse



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- ✓ Open Research Data
- Protected Research Data  
Process data according to license of RDC

Image: www.digitalbevaring.dk



– License of RDC defines the IPR for newly created datasets

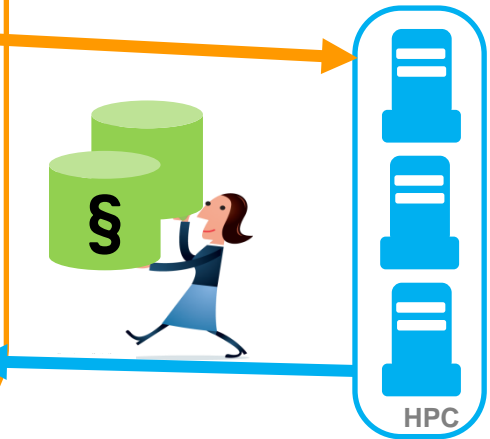
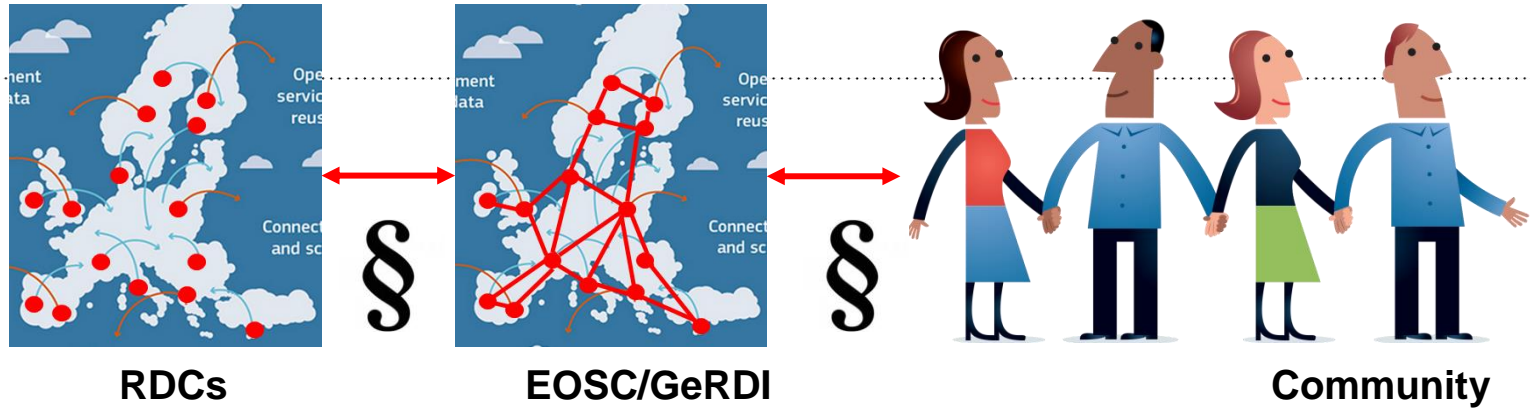


Image: www.digitalbevering.dk

# Take Home Messages



- EOSC/GeRDI mediates between RDCs and Research Communities
- IPRs remain under the control of RDCs

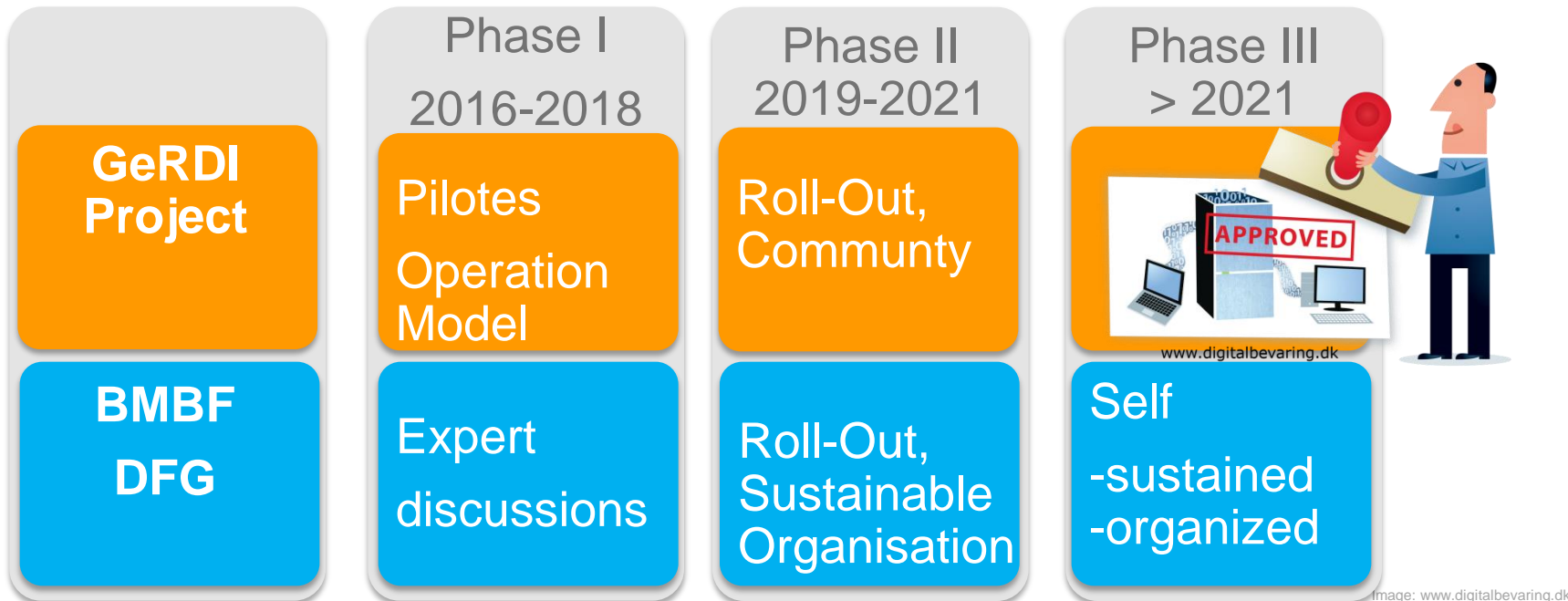


Image: www.digitalbevaring.dk

# GeRDI Summary

## GeRDI Challenge 1 – Eco-System of Infrastructures

Longterm Accessible · Sustainable



Generic Research Data Infrastructure · [www.gerdi-project.eu](http://www.gerdi-project.eu)  
    

## GeRDI Challenge 2 – FAIR Data

FAIR Data. Findable · Accessible · Interoperable



Generic Research Data Infrastructure · [www.gerdi-project.eu](http://www.gerdi-project.eu)  
      

## GeRDI Challenge 3 – Trusted Infrastructure

Create a trusted infrastructure to support open and interdisciplinary research.



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ZBW – Leibniz Informationszentrum Wirtschaft  
Kiel/Hamburg

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