

# WP3 Best Practices Workshop ICAT Catalogue Integration at CERIC

19 May, 2021

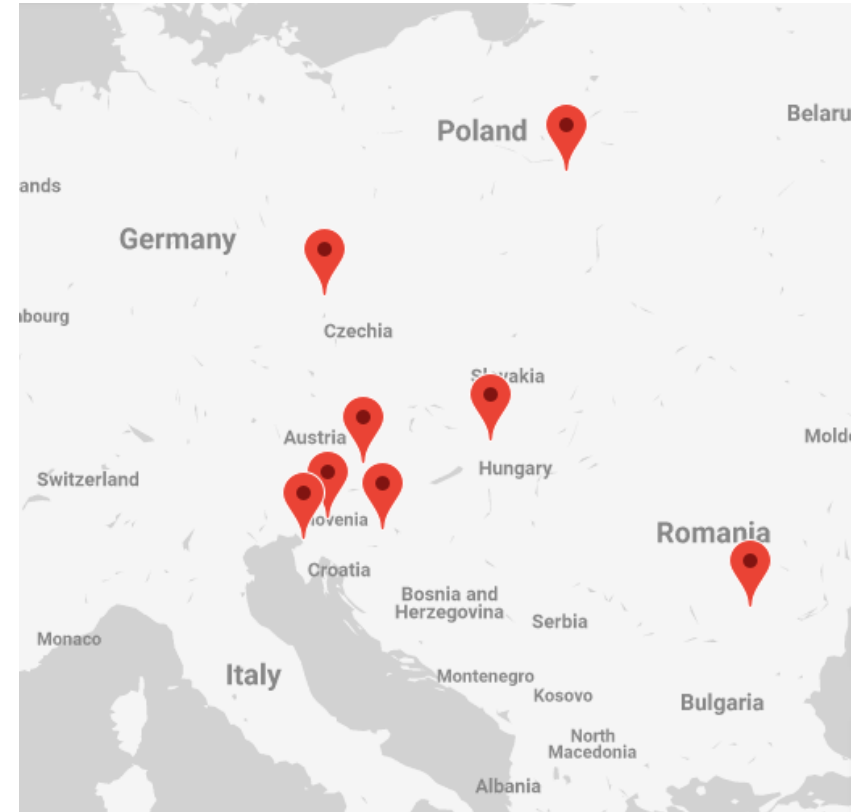
Authors: Alessandro Olivo, Emiliano Coghetto



# Introduction

- 8 Partner Facilities from 8 countries
- 58 instruments - photons, neutrons, ion beam, NMR
- distributed infrastructure
- [VUO](#) is CERIC's User management system

# CERIC



# Introduction

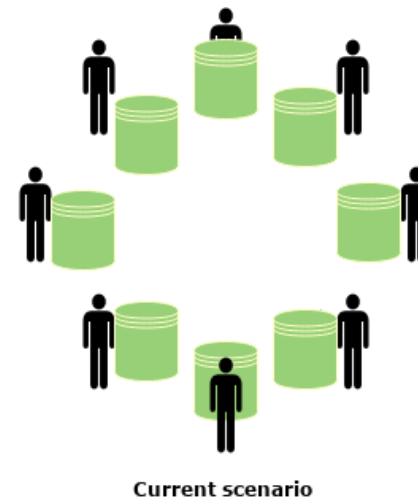
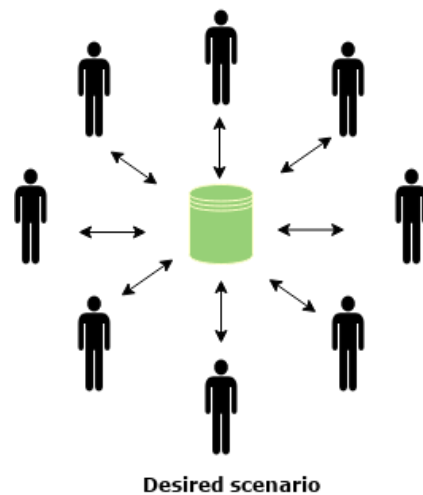
## Outline

- Challenges in a distributed network of partner facilities
- Catalogues at CERIC: current and future
- Metadata cataloguing
- Conclusion and outlook

# CERIC Partners Facilities

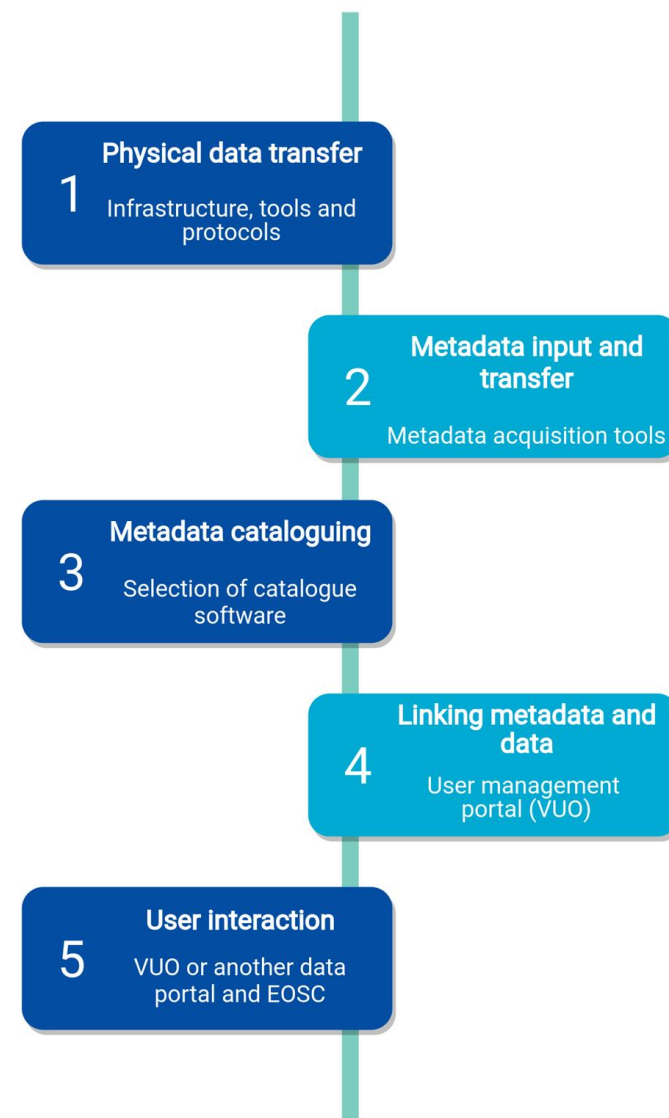
## Challenges in a distributed network of partner facilities

- Identifying contact persons -> **NOT** all facilities have dedicated IT groups
- Defining specifications and requirements
  - Data storage, data cataloguing, e-logbooks and software for analysis
- A roadmap has been defined for each PF



# Catalogues at CERIC

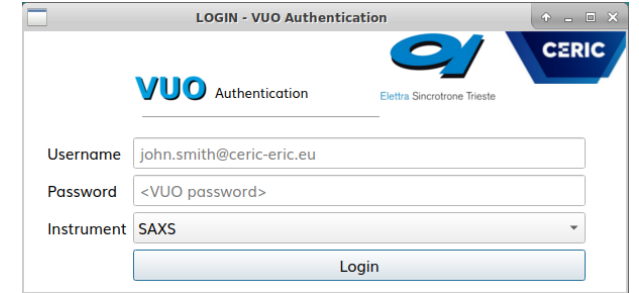
- Currently no catalogue in place
  - VUO is not a real data catalogue
  - it tracks partial metadata (title, abstract, CAS number, chemical formula ...) and data is saved on multiple formats (ascii, proprietary ...)
  - metadata are partially findable
- Towards automatic metadata collection
- CERIC will adopt iCAT



# Metadata Cataloguing

## 1) Data transfer

- Data size: from ~MB to ~TB per experiment
- Many PFs lack a centralized storage system
- Demonstrator solution
  - Data transfer from PFs to the Elettra storage system
  - CERIC developed 2 tools:
    - a standalone multi-platform “*uploader*”
    - web based solution



LOGIN - VUO Authentication

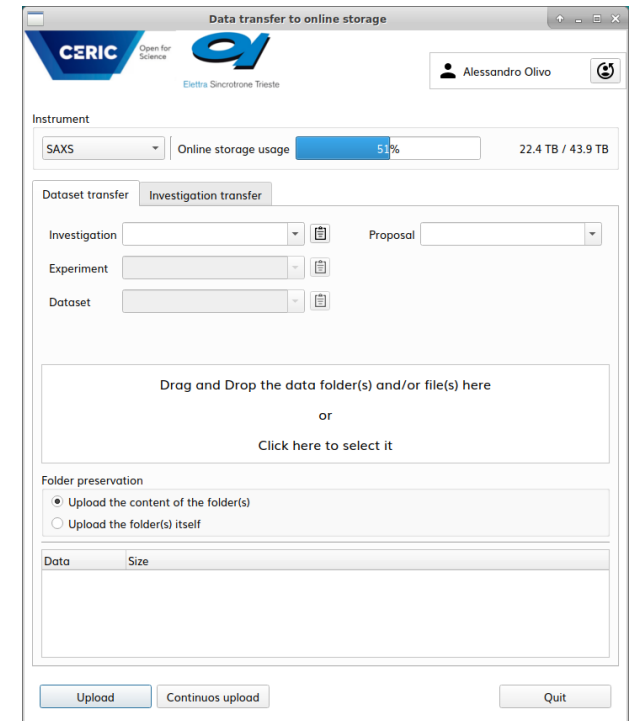
VUO Authentication Elettra Sincrotrone Trieste CERIC

Username john.smith@ceric-eric.eu

Password <VUO password>

Instrument SAXS

Login



Data transfer to online storage

CERIC Open for Science Elettra Sincrotrone Trieste Alessandro Olivo

Instrument SAXS Online storage usage 5.1% 22.4 TB / 43.9 TB

Dataset transfer Investigation transfer

Investigation [dropdown] Proposal [dropdown]

Experiment [dropdown]

Dataset [dropdown]

Drag and Drop the data folder(s) and/or file(s) here  
or  
Click here to select it

Folder preservation

Upload the content of the folder(s)  
 Upload the folder(s) itself

Data	Size
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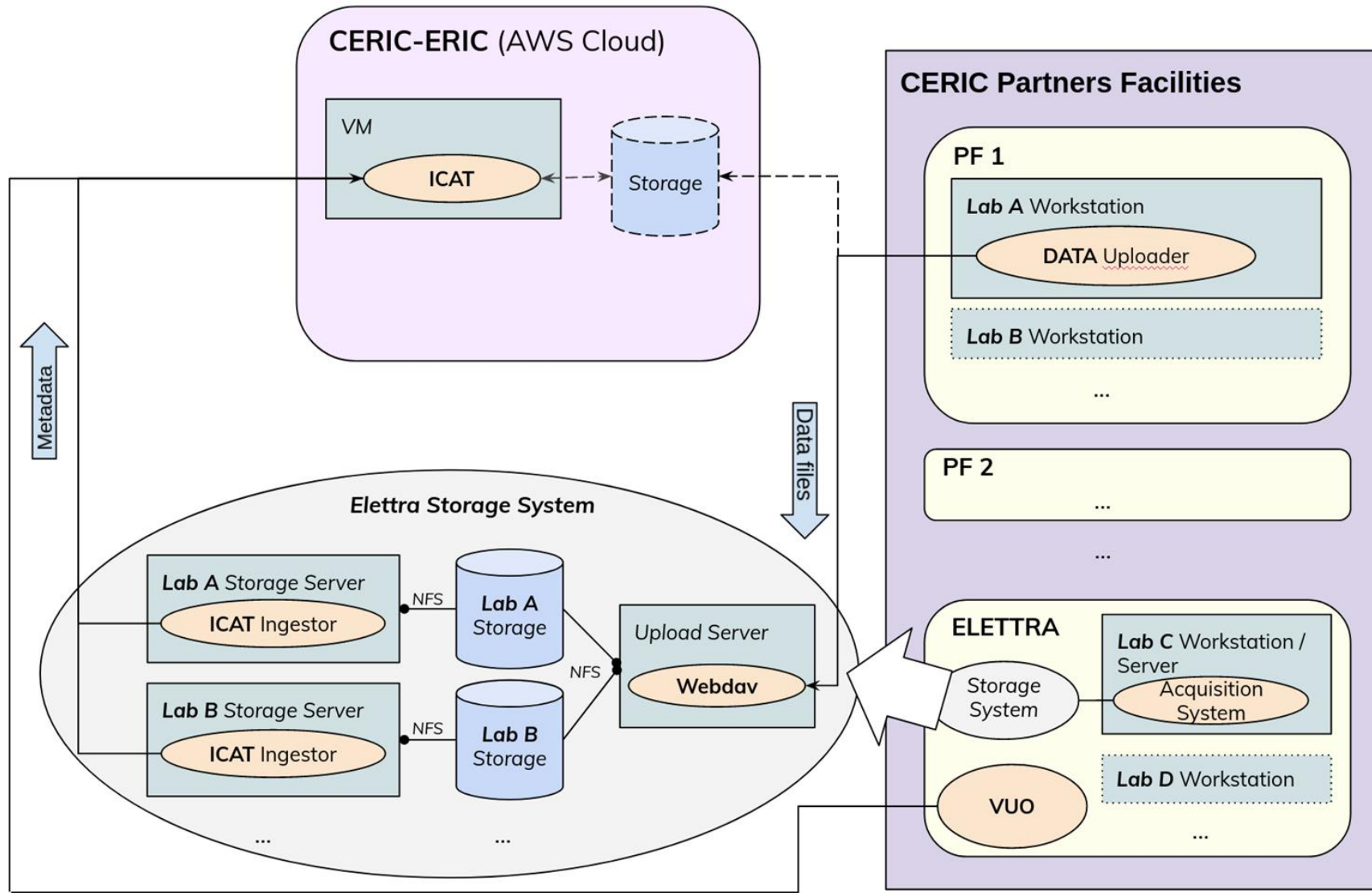
Upload Continuous upload Quit

# Metadata Cataloguing

## 2) Metadata acquisition and ingestion

- Merging of proposal (VUO) and experiment (instrument) metadata
- Metadata ICAT ingestion
- Currently no e-logbook in place

# Metadata Cataloguing





# Conclusion and outlook

- Continue with demonstrator solution
  - Deployment in partner facilities
  - Collect Feedback
- Long-term storage solution
  - OCRE funding
  - Sustainability
- Towards CERIC data portal
  - iCAT interface
  - Search by DOI and landing pages
  - Data access and management

**CERIC** Data Portal

[SIGN IN](#) [REGISTER](#) [ABOUT](#)

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# Thank you

**Acknowledgments:** Aljosa Hafner, Marco De Simone

