ONEDATA

ONEDATA - A DATA MANAGEMENT PLATFORM SUPPORTING GLOBAL OPEN SCIENCE

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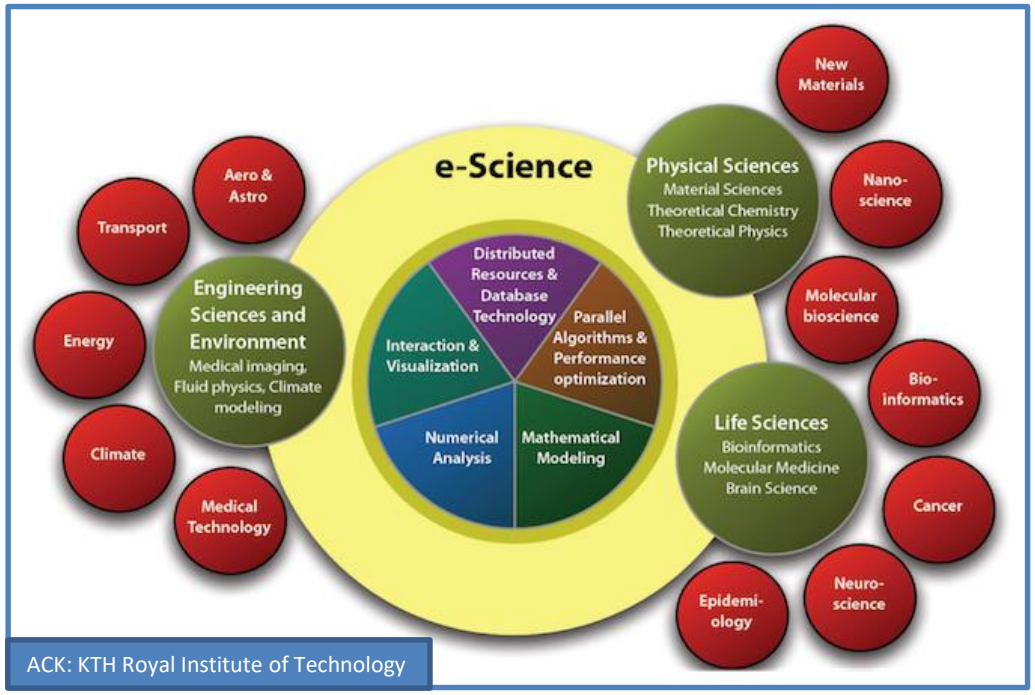
AGENDA

1. Science of today
2. Challenges of e-Science
3. Open Data requirements
4. Onedata - global data access system for science
5. Scientific collaboration in Onedata
6. Open Data features in Onedata
7. Conclusions

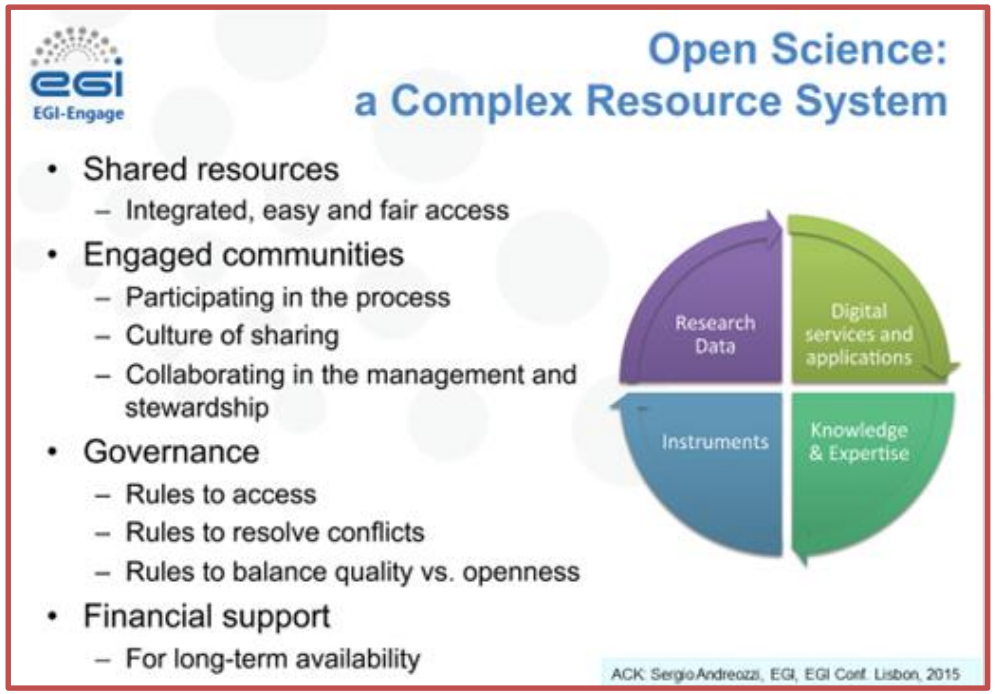
SCIENCE OF TODAY

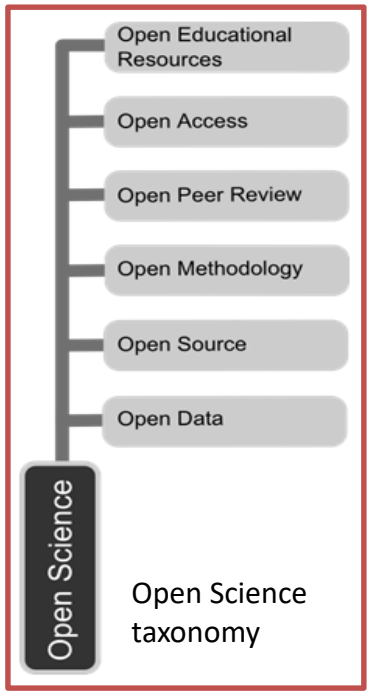
e-Science



ACK: KTH Royal Institute of Technology

Open Science





Open Science taxonomy

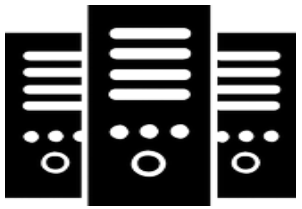
ONEDATA.ORG

INDIGO - DataCloud

Challenges of e-Science – storage resources

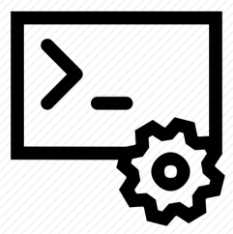
different storage systems

NFS
LUSTRE
GPFS



CEPH
S3
SWIFT

different data access methods



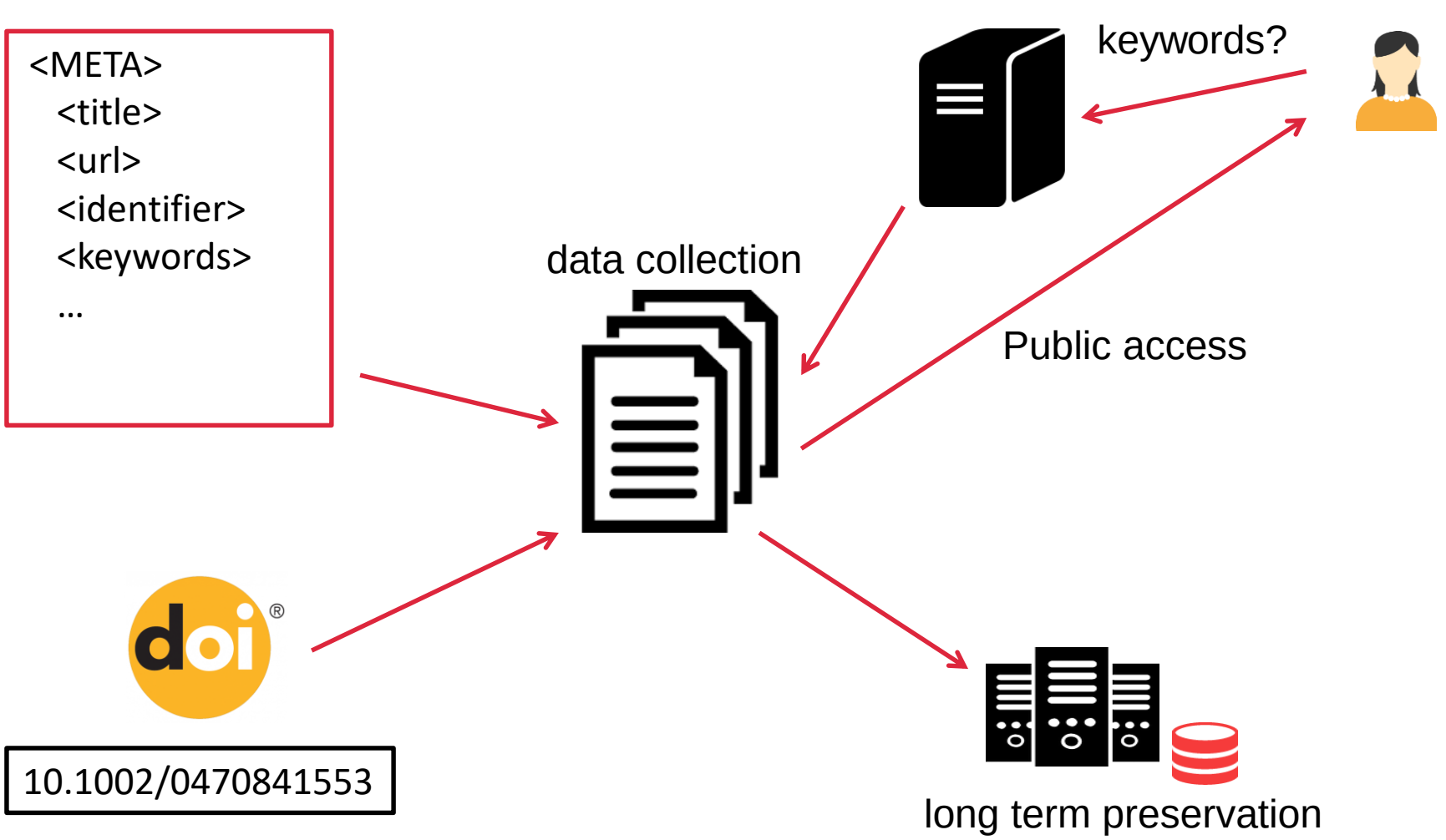
different policies

different auth mechanisms

OpenID

SAML

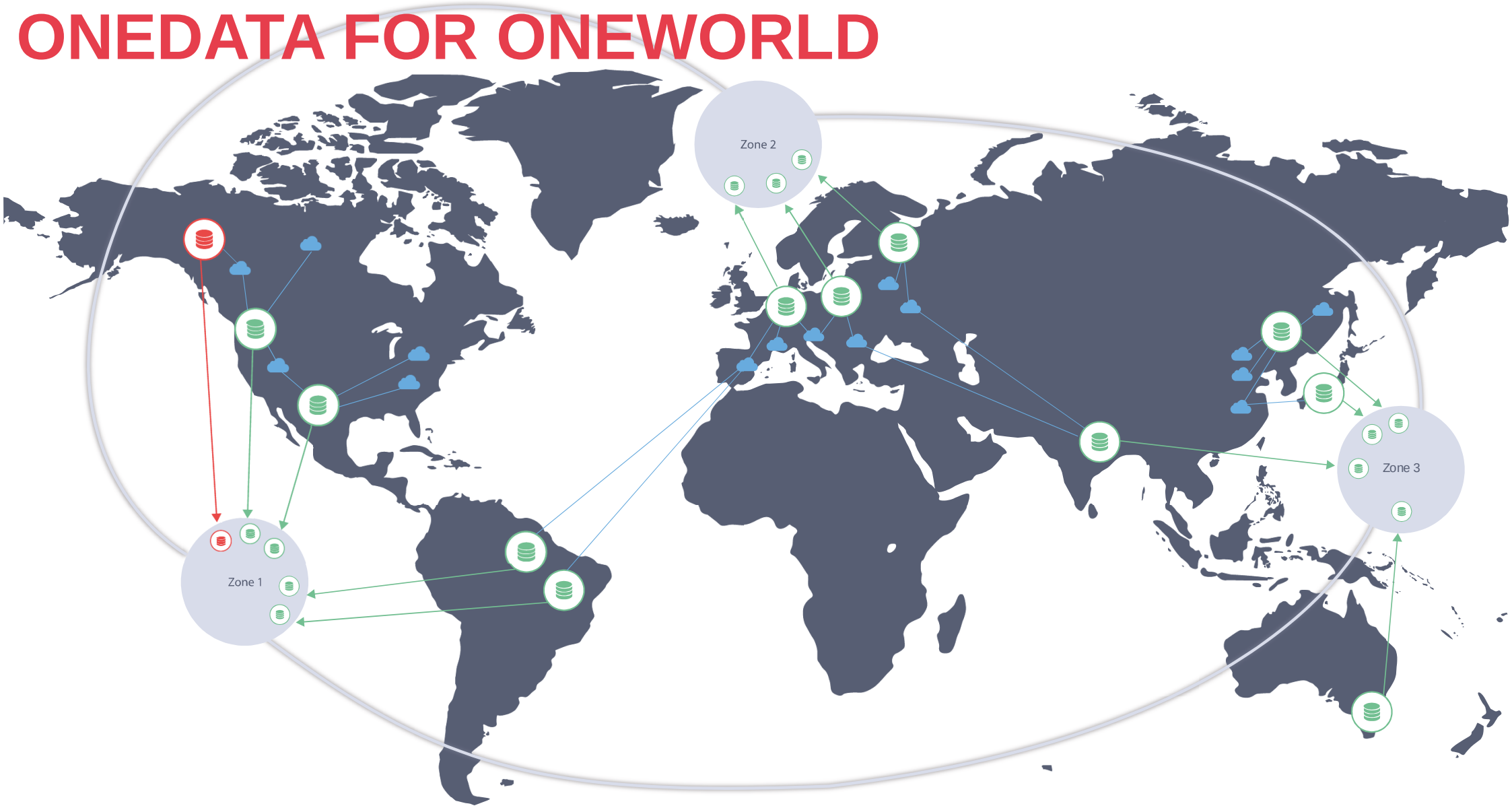
Open Data requirements



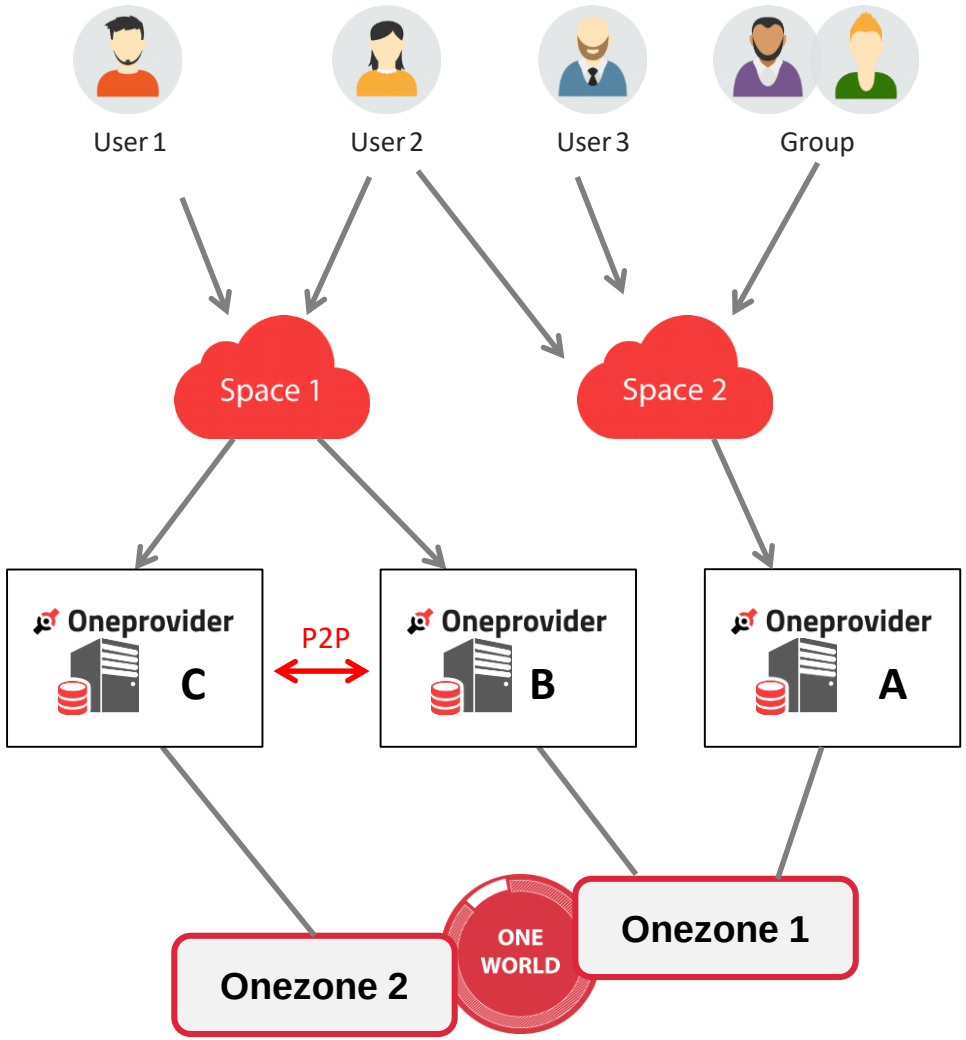
- Availability
- Interoperability
- Discoverability
- Identification
- Provenance
- Preservation

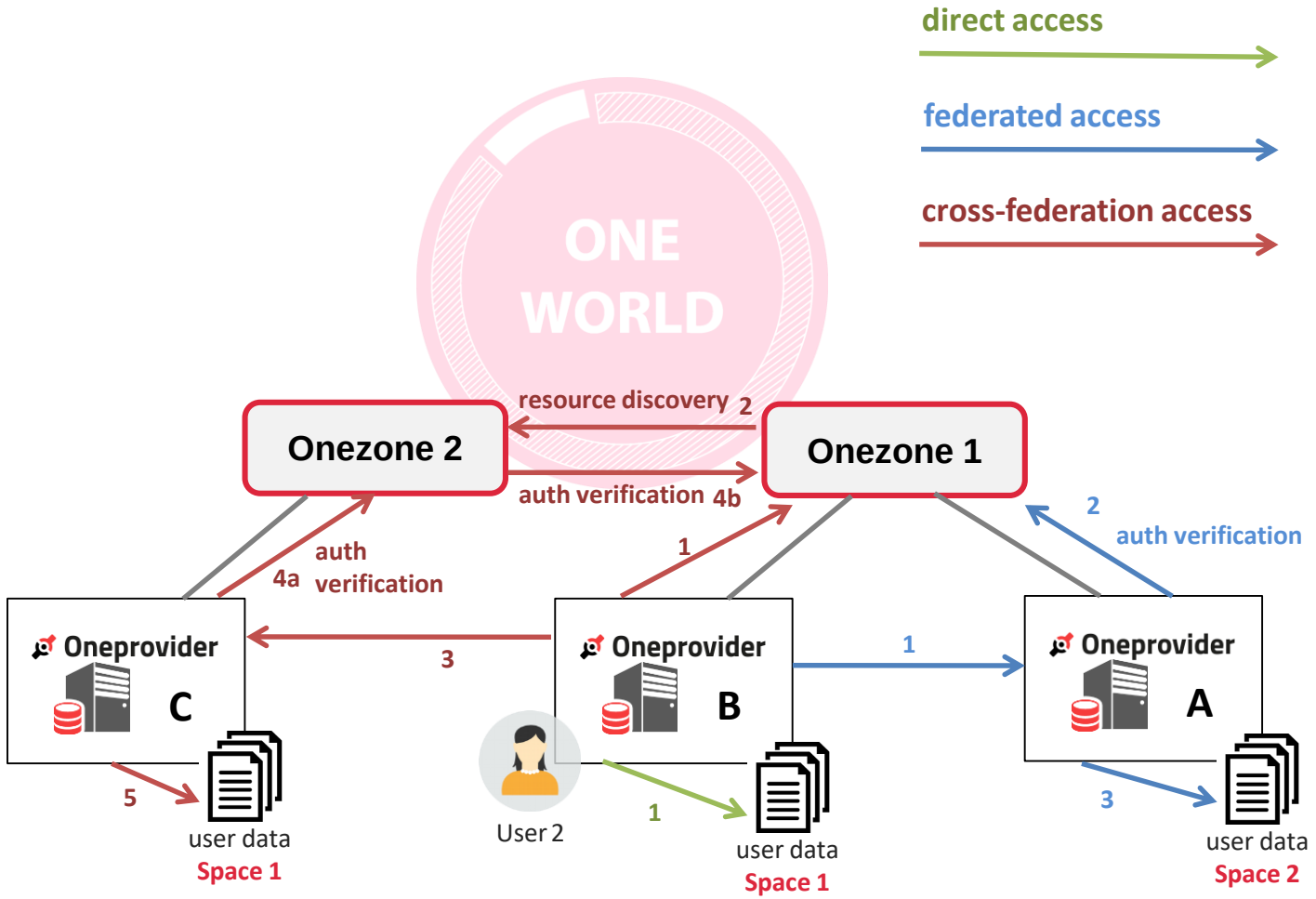
ONEDATA – A GLOBAL DATA ACCESS SYSTEM FOR SCIENCE

ONEDATA FOR ONEWORLD

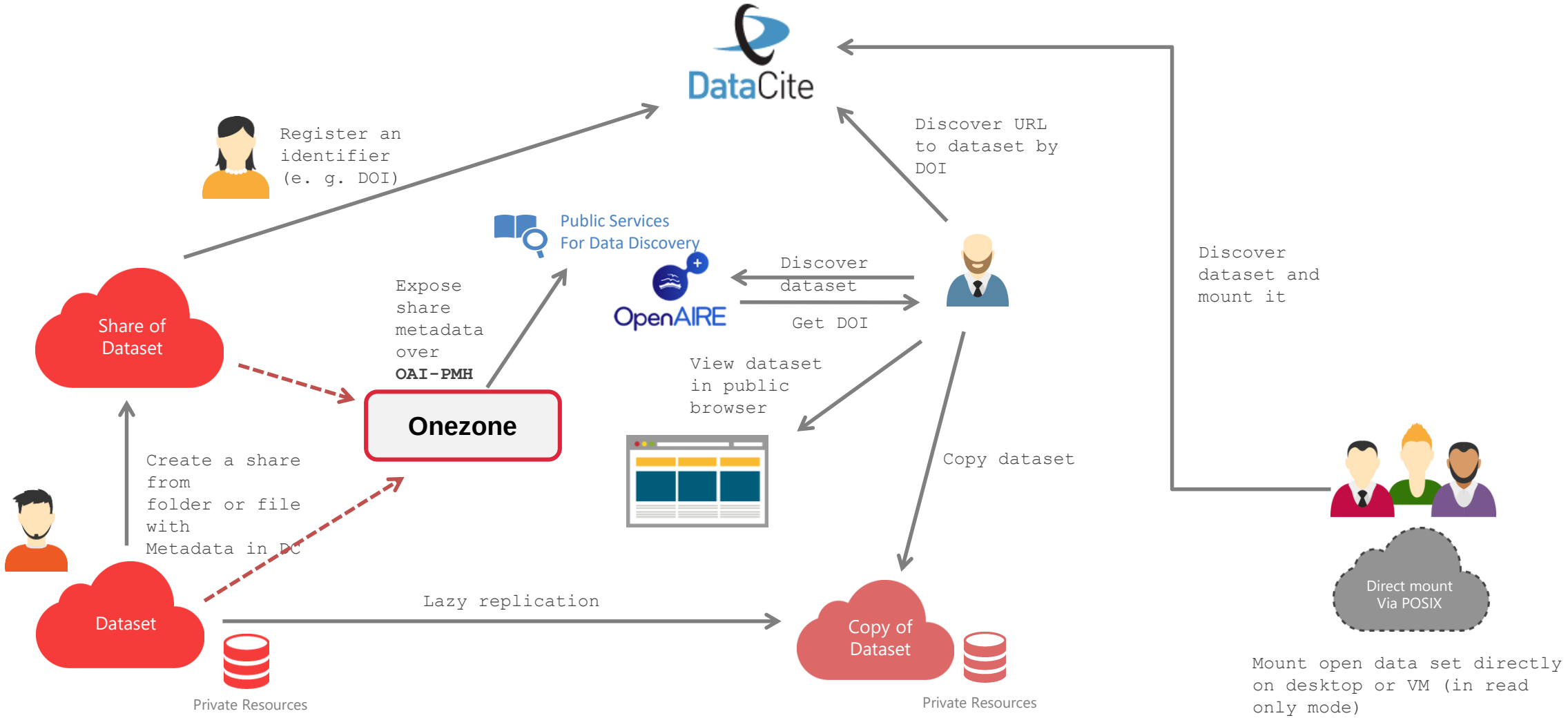


SCIENTIFIC COLLABORATION IN ONEDATA





Open Data features in Onedata



CONCLUSIONS

- There is a demand for new tools to stimulate science
- Onedata is building a virtual file system for scientific research
  - mechanisms for borderless collaboration
  - support for open data publication
- Implementation progress
  - ✓ collaboration within single zone
  - ✓ data exchange protocol between zones
  - cross-zone collaboration
  - ✓ OpenData publication, OAI-PMH support
  - snapshots of arbitrary data sets
- Current applications – EU projects (testing phase)
  - INDIGO-DataCloud
  - EGI-Engage

ONEDATA

THANK YOU

onedata.org