Frictionless Data Exchange - Petr Knoth, Open University

EOSCpilot
The European Open Science Cloud for Research Pilot Project
www.eoscpilot.eu

The European Open Science Cloud for Research pilot project is funded by the European Commission, DG Research & Innovation under contract no. 739563

The Science Challenge

- A single scientific repository is of limited value
- Real benefits come from ability to exchange data within a network
- Current technology for exchanging data across repositories (OAI-PMH) more than 15 years old
  - Scalability
  - Implementations inconsistency
  - Metadata synchronisation only

The European Open Science Cloud for Research pilot project is funded by the European Commission, DG Research & Innovation under contract no. 739563

The Science Demonstrator

- Assess how scientific resources can be effectively, regularly and reliably exchanged across systems using the ResourceSync protocol.
- Conduct a set of experiments/benchmarks comparing OAI-PMH with ResourceSync along a set of dimensions, scenarios and implementation setups.
  - different repository platforms, over 1k repository systems, variety of configurations and scenarios
  - quantitative benchmark and case for adoption of ResourceSync.

The European Open Science Cloud for Research pilot project is funded by the European Commission, DG Research & Innovation under contract no. 739563

Challenges

- Guidelines for adoption (EOSC/domain specialists)
- Knowledge and skills gap between between technologists who implement repositories and those who manage it

The European Open Science Cloud for Research pilot project is funded by the European Commission, DG Research & Innovation under contract no. 739563

Lessons Learned

- Tested approach widely applicable and with clear benefits over currently used technology.
- Recommend ResourceSync as a default data and metadata exchange protocol for all repositories operating within EOSC.
- Need a communication channel to work with WP6 Interoperability (and others) to communicate results and decide next steps.

The European Open Science Cloud for Research pilot project is funded by the European Commission, DG Research & Innovation under contract no. 739563