



## Brief Overview


Frictionless Data Exchange pilots a demonstrator service for fast and highly scalable exchange of data across repositories storing research datasets, manuscripts and scientific software.

## Objectives


This pilot wants to showcase how scholarly communication resources can be effectively, regularly and reliably exchanged across systems, and to apply ResourceSync protocol on real-world use cases. Moreover, the objective is also to show data synchronization across a cross-disciplinary network of repositories and between repositories and global added-value services.

## Main achievements

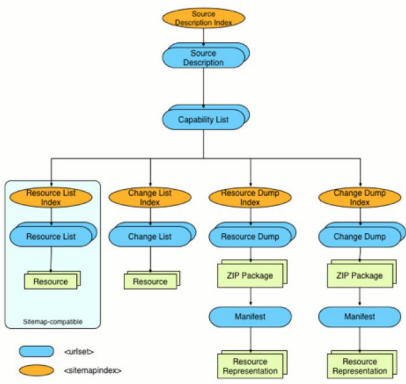
- » Benchmarking OAI-PMH against ResourceSync in a number of scenarios and according to a number of criteria, including:
- » Enhancing ResourceSync by means of developing of a ResourceSync On Demand Dump concept and its implementation and addition in a real use cases.
- » Supporting OpenAIRE in adopting ResourceSync-based ingestion of scientific papers from publishers.



### Activities



**ResourceSync is a Synchronization framework for the web consisting of various capabilities that allow third-party systems to remain synchronized with a server's evolving resources.**



```

graph TD
    SDI[Source Description Index] --> SD[Source Description]
    SD --> CL[Capability List]
    CL --> RLI[Resource List Index]
    CL --> CLI[Change List Index]
    CL --> RDI[Resource Dump Index]
    CL --> CDI[Change Dump Index]
    RLI --> RL[Resource List]
    RL --> R[Resource]
    CLI --> CLIST[Change List]
    CLIST --> R2[Resource]
    RDI --> RD[Resource Dump]
    RD --> ZP1[ZIP Package]
    ZP1 --> M1[Manifest]
    M1 --> RR1[Resource Representation]
    CDI --> CD[Change Dump]
    CD --> ZP2[ZIP Package]
    ZP2 --> M2[Manifest]
    M2 --> RR2[Resource Representation]
    
```

Legend: Blue box = <urlset>, Orange box = <itemindex>

[www.eosc-pilot.eu](http://www.eosc-pilot.eu)

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

9



# EOSC<sub>pilot</sub>

The European Open Science  
Cloud for Research Pilot Project

## Recommendations for the implementation

- » Benchmarking OAI-PMH against ResourceSync in a number of scenarios and according to a number of criteria, including:
- » Enhancing ResourceSync by means of developing of a ResourceSync On Demand Dump concept and its implementation and adoption in a real use cases.
- » Supporting OpenAIRE in adopting ResourceSync-based ingestion of scientific papers from publishers.

## Partners of the SD

The Open University, UK - Los Alamos National Laboratory, USA



*// EOSC is in the process of establishing a federated infrastructure of repositories, whether storing research data, software or scientific publications, for researchers. Such infrastructure can only fulfil its potential if data can be transferred across the nodes in the network in an interoperable way. This demonstrator provides the results, arguments and tools to inform how this can be achieved. //*

## Contacts

✉ petr.knoth@open.ac.uk