Updates on the INFN Open Access Repository

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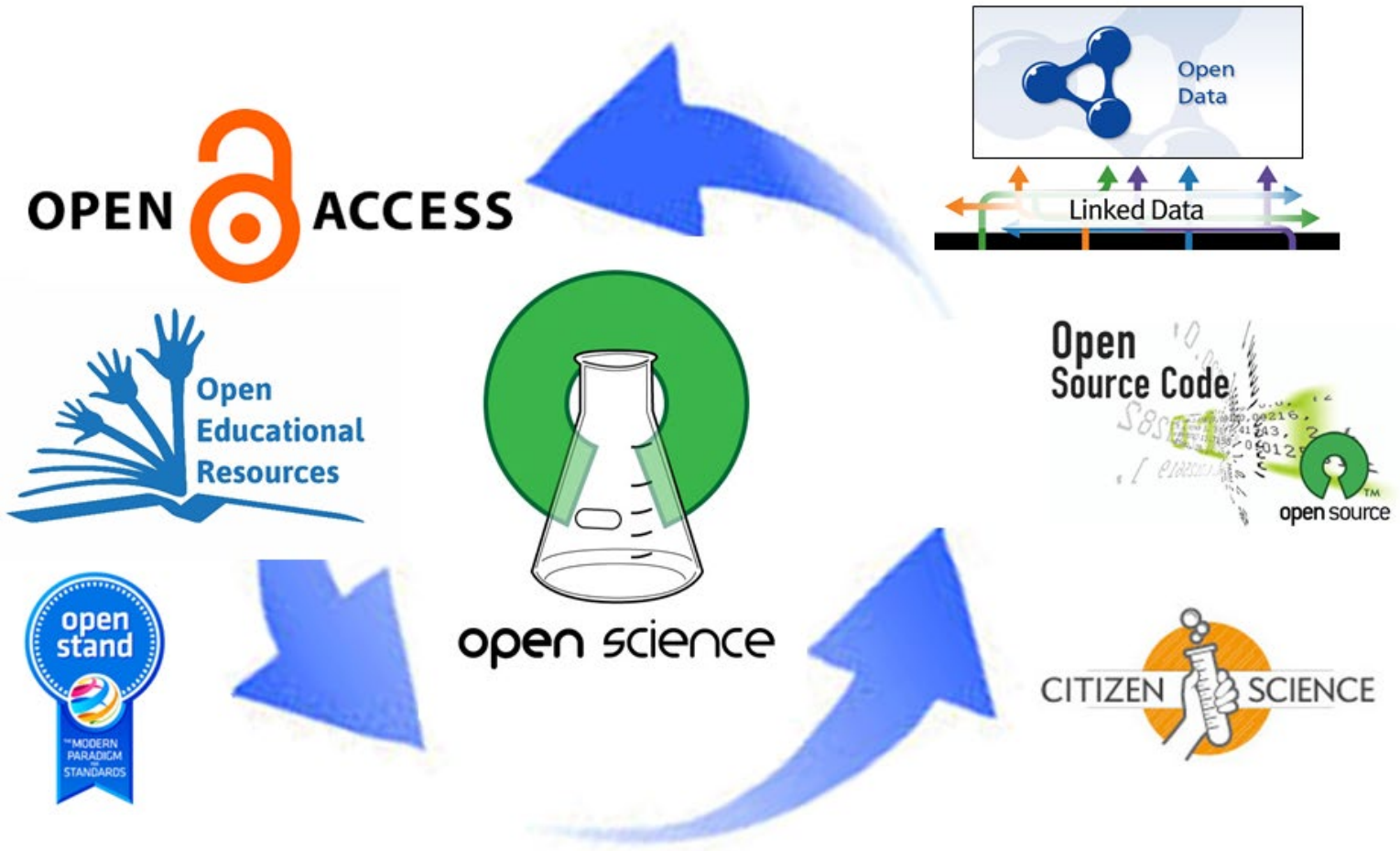
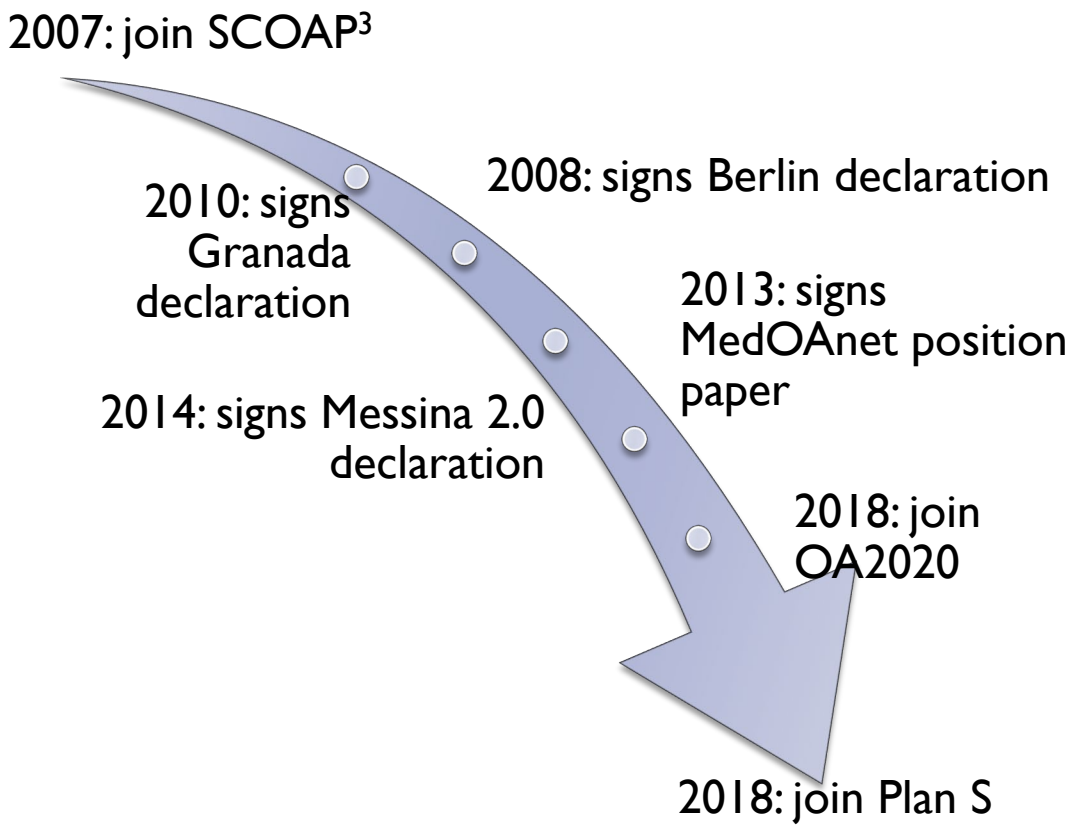
Outline

- INFN signs Plan S
- What's Plan S and why it's important
- How OAR fits Plan S
- OAR Evolution
- CDR, validation, future activities

Open… to be “FAIR”



INFN towards Plan S adoption



Plan S

Plan S is an initiative for Open Access publishing that was launched in September 2018. The plan is supported by cOAlition S, an international consortium of research funders. Plan S requires that, from 2021, scientific publications that result from research funded by public grants must be published in compliant Open Access journals or platforms.

Source: https://www.coalition-s.org/

Principles overview

- Funders will not support publishing on journal with double-dipping plan
- Commit to create new compliant journal if not available
- Direct publishing on Open Access Archive with no embargo
- Authors keep copyright
- Article Processing Costs (APC) must be commensurate to service delivery
- Detailed list of 10 principles available at: https://www.coalition-s.org/principles-and-implementation/

Plan S Three way implementations

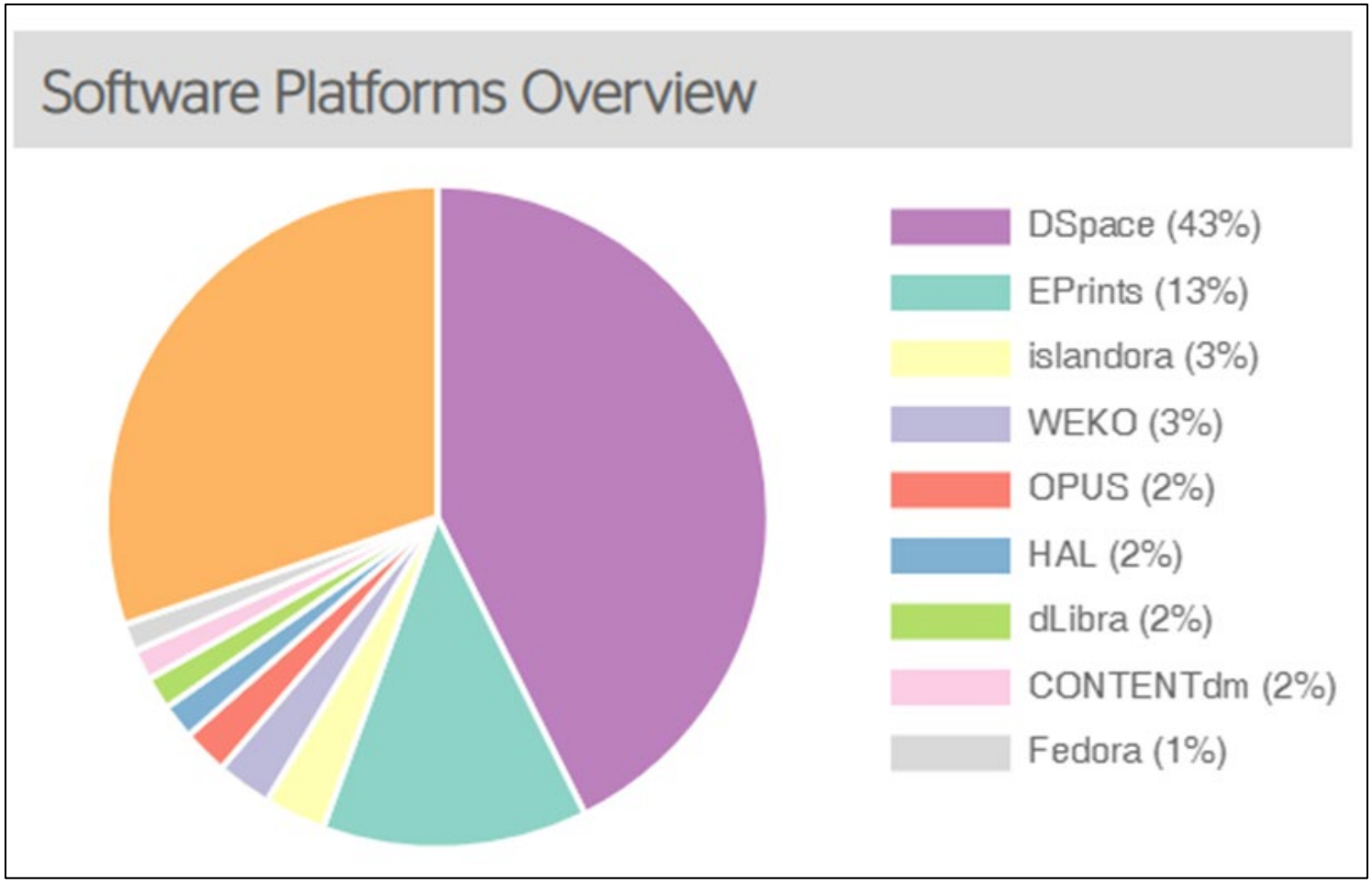
- Gold OA: authors publish on Open Access journals or Open Access platforms with CC By Licence
  - Publisher Plan S compliant
- Green OA: **Authors Accepted Manuscript (AAM) or Version of Record available with CC BY license on a repository Plan S compliant**
- Temporary hybrid: authors publish with CC BY license on closed journal supporting transaction agreement
  - Journal agrees to migrate to Open Access according to a specific timeline

The Knowledge Workflow

Requirements for an INFN Open Access Repository

- Compliant with Plan S
- Support widely adopted protocols
- Store all kinds of digital assets
- Automatically harvest and store INFN-authored documents from other repositories
- Support the management during the periodic national research assessments (VQR)
- Increase the visibility of both INFN research and researchers
- Compliant with EOSC guidelines
- No available solutions to satisfy all the above requirements at once

Digital Asset Management Systems

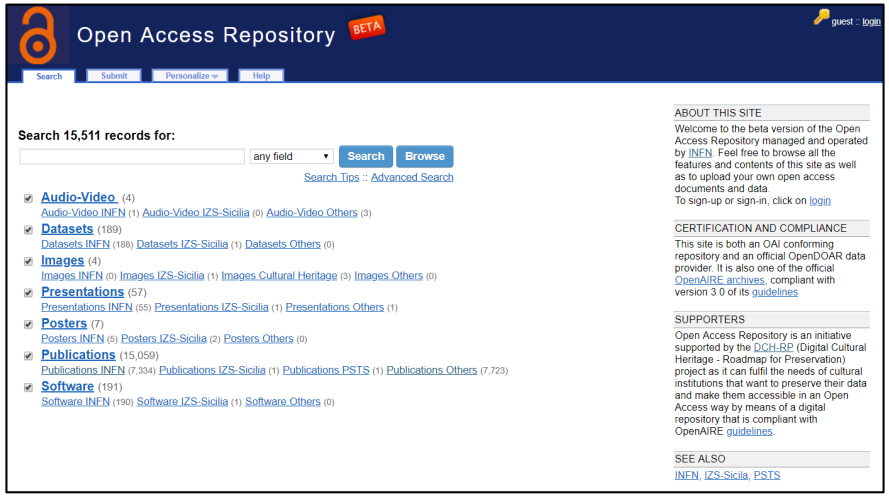


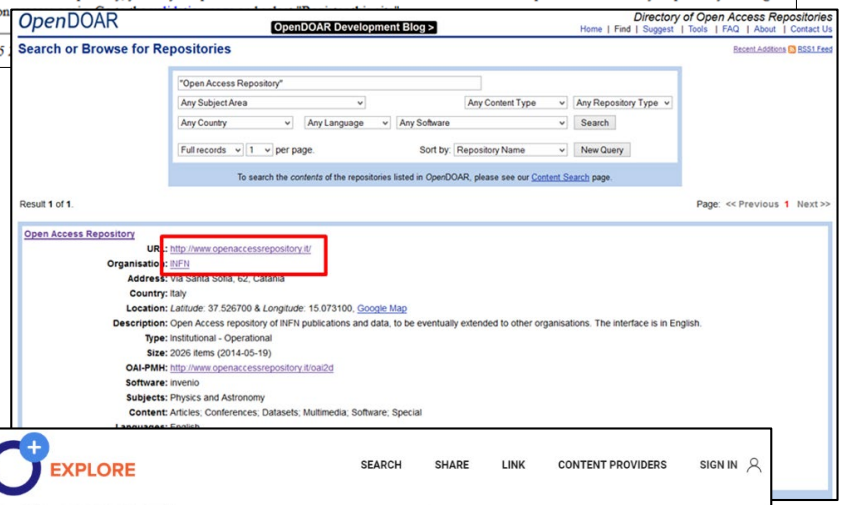
Source: OpenDOAR

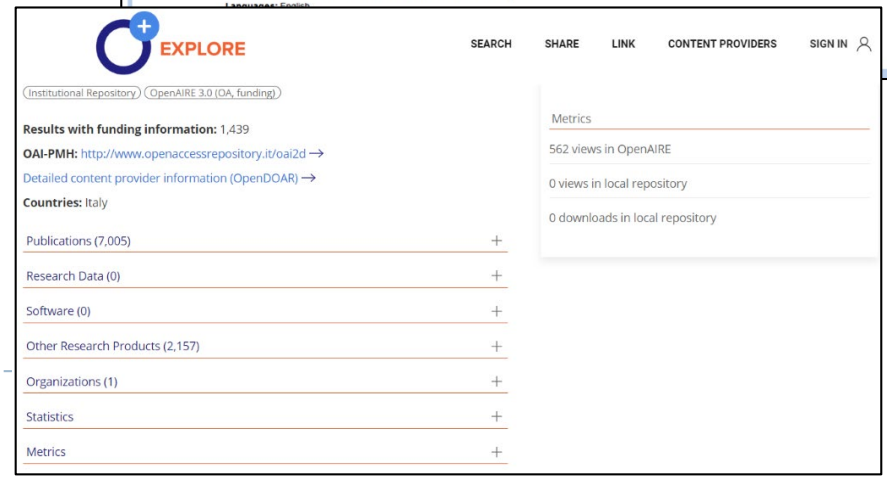
Why Invenio?

- Open source
- Deployable on a local infrastructure (i.e., not a hosted service)
- Compliant with main standards, such as DCMI, Marc21 and OAI-PMH
- Large community
  - Co-developed by a large international collaboration comprising institutes such as CERN, DESY, EPFL, FNAL, SLAC and used as institutional DAMS by tens of scientific institutions worldwide
- Active development
- Scalability
  - the CERN Document Server operates and manages since 2002 more than 0.6 million records in high-energy physics, covering articles, books, journals, photos, videos, and more
    - Zenodo currently hosts about 1 million records belonging to various disciplines

The (pilot of the) INFN Open Access Repository







- Developed at Catania since 2014
- Intended to be a single entry point for the deposit of research outputs and other digital assets
- Uses standard to exchange metadata with other oar

History

- Since first OAR version (2014):
- Invenio 1 has reached its end of life and will not receive any further updates
- Invenio 2, which was a transitional release never made widely public
- Zenodo was officially launched
- Invenio v3.0 was officially released (on June 2018)
- Zenodo developers have recently released their code on GitHub, including the GUI

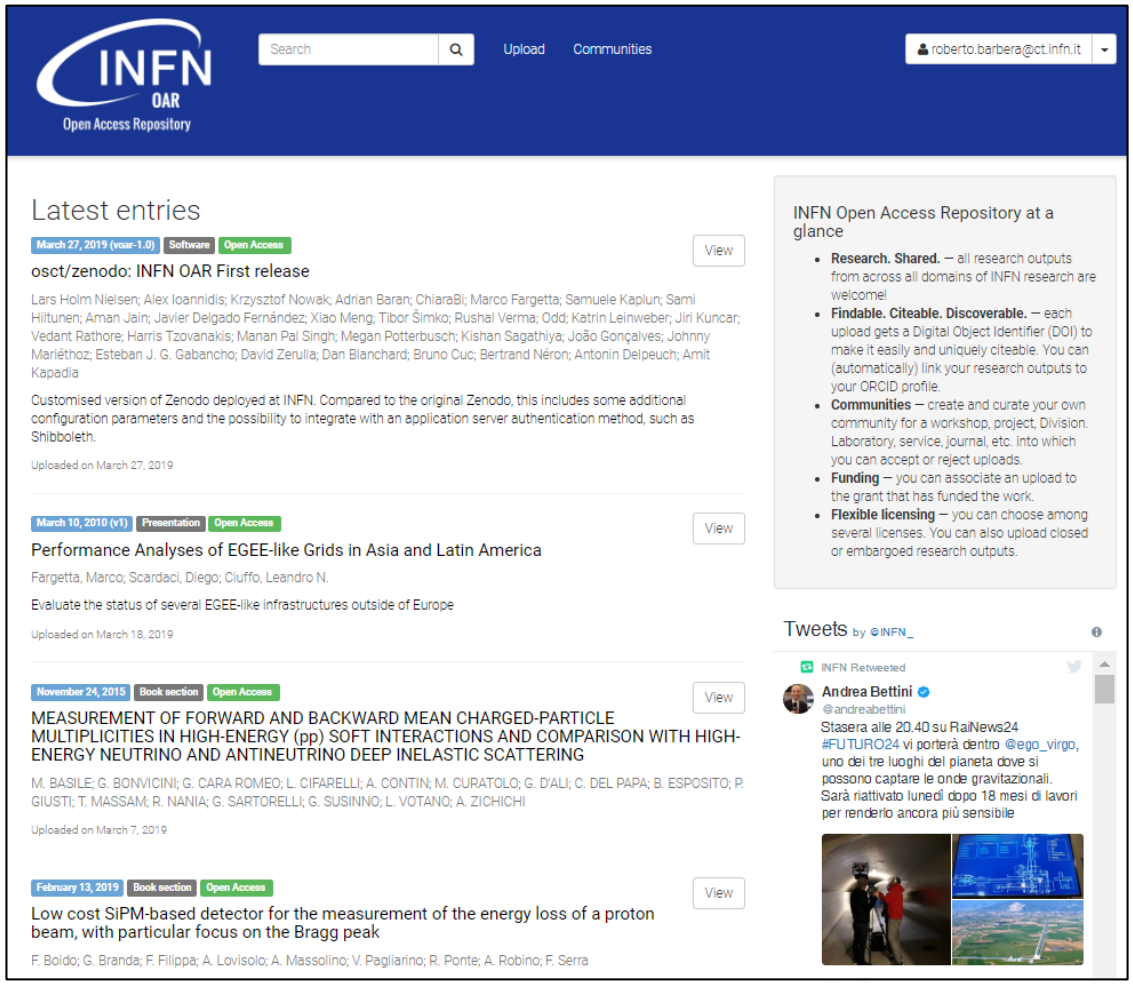
Evolution to new OAR

- Migrate from Invenio 1 to Zenodo (based on Invenio 3)
- Customise the Zenodo GUI to fit the look and feel of the INFN OAR
- Integration with INFN-AAI
  - SAML based authentication
- Re-engineering of backend architecture into micro-services
  - Kubernetes
  - CI/CD
- First deployed at the end of 2018
- Open for use since end of March 2019

Improvements

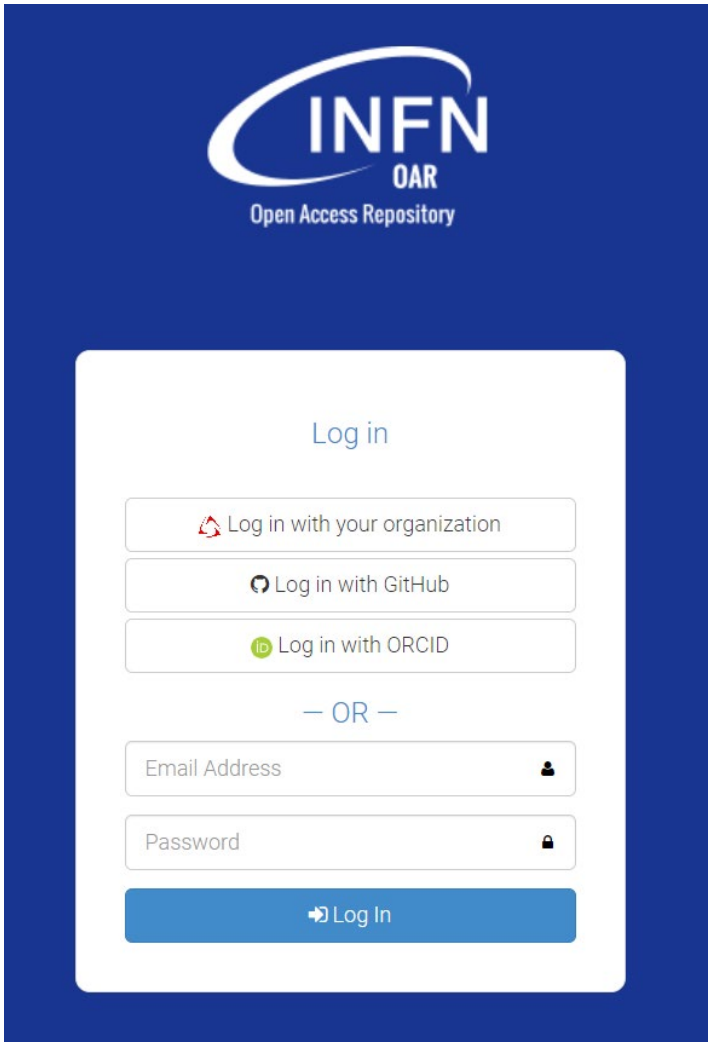
- Adoption of leading-edge technologies in the domain of digital repositories
- Include access control for digital assets
  - open access, embargoed, restricted and closed
- Exploit Zenodo "communities" to aggregate contents
  - INFN division, Scientific Committees, projects, initiatives, etc.
- DOI versioning
- Interoperable with external repositories and other services thanks to Zenodo APIs
  - Possible integration with INFN SI
- Open to non-INFN users (thanks to the concept of «Communities»)

The new INFN Open Access Repository

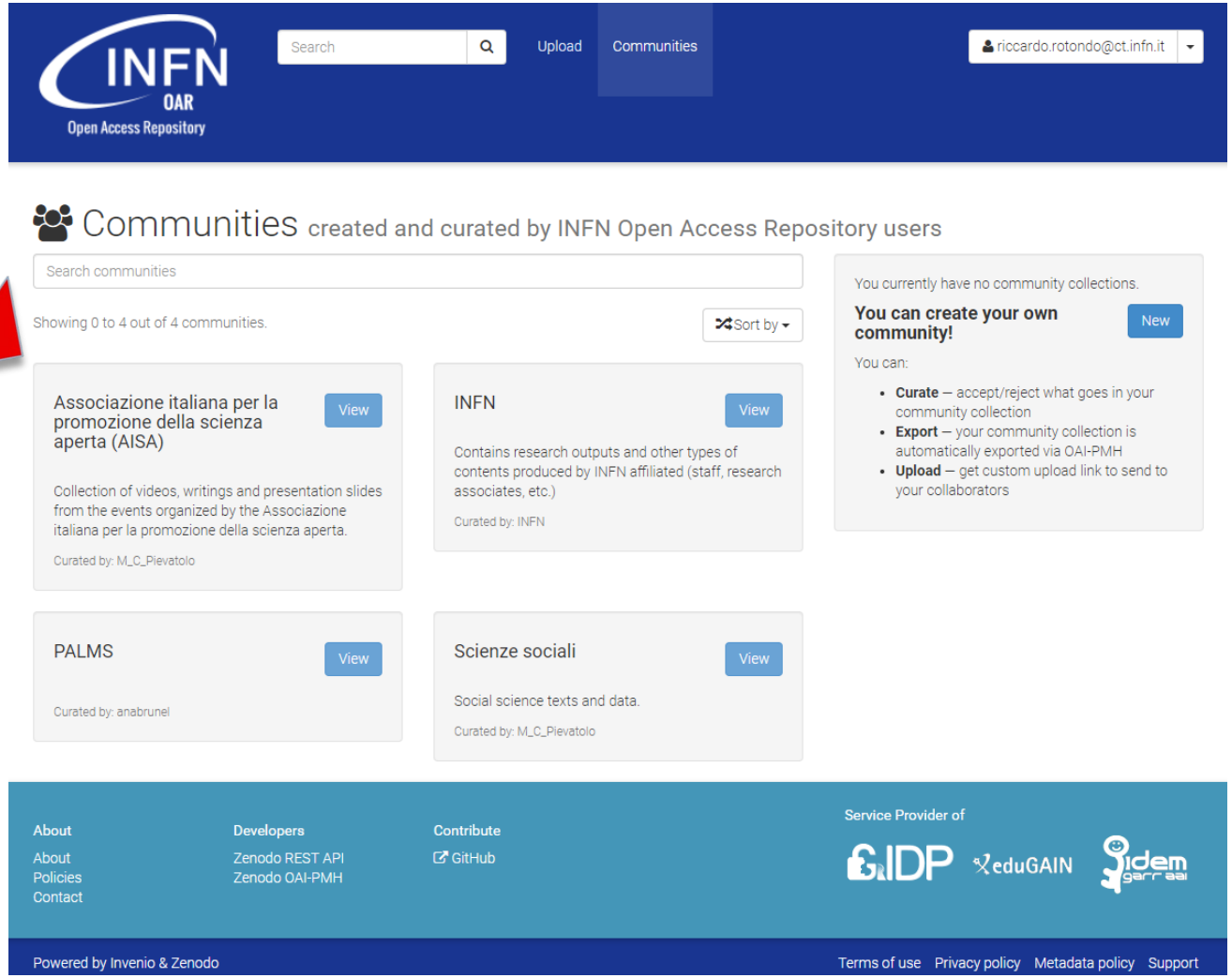


https://openaccessrepository.it

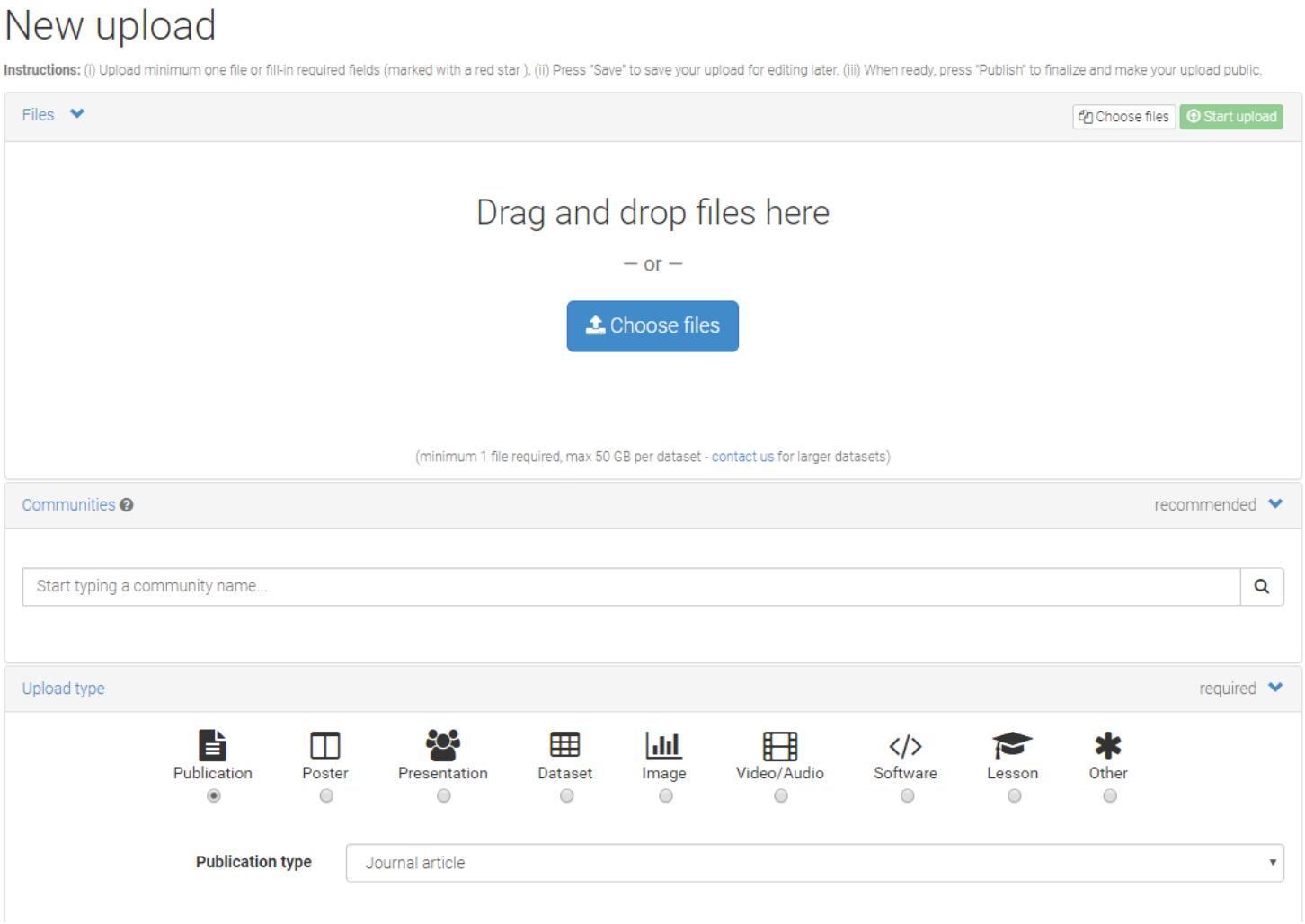
Log in with your organization



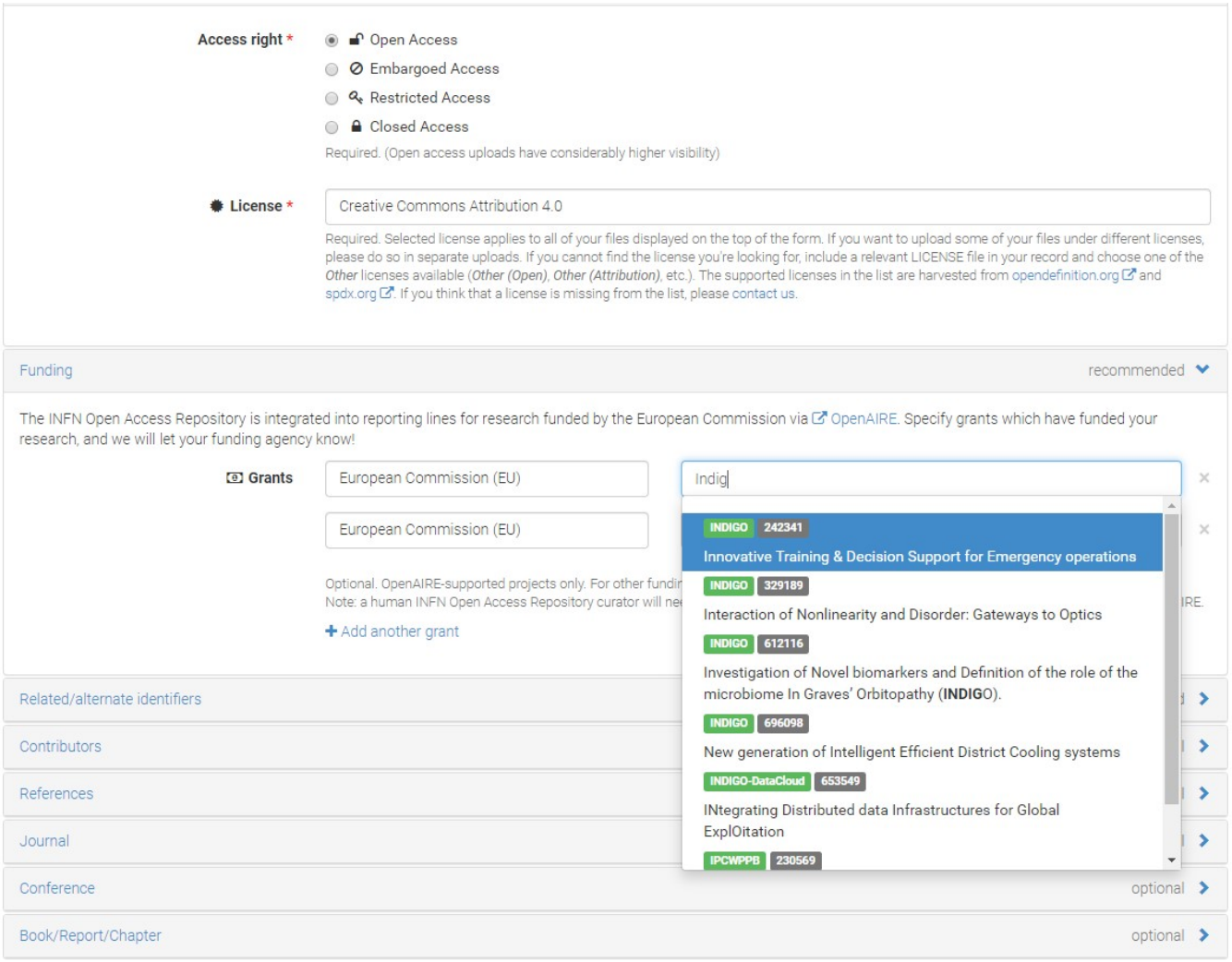
Communities



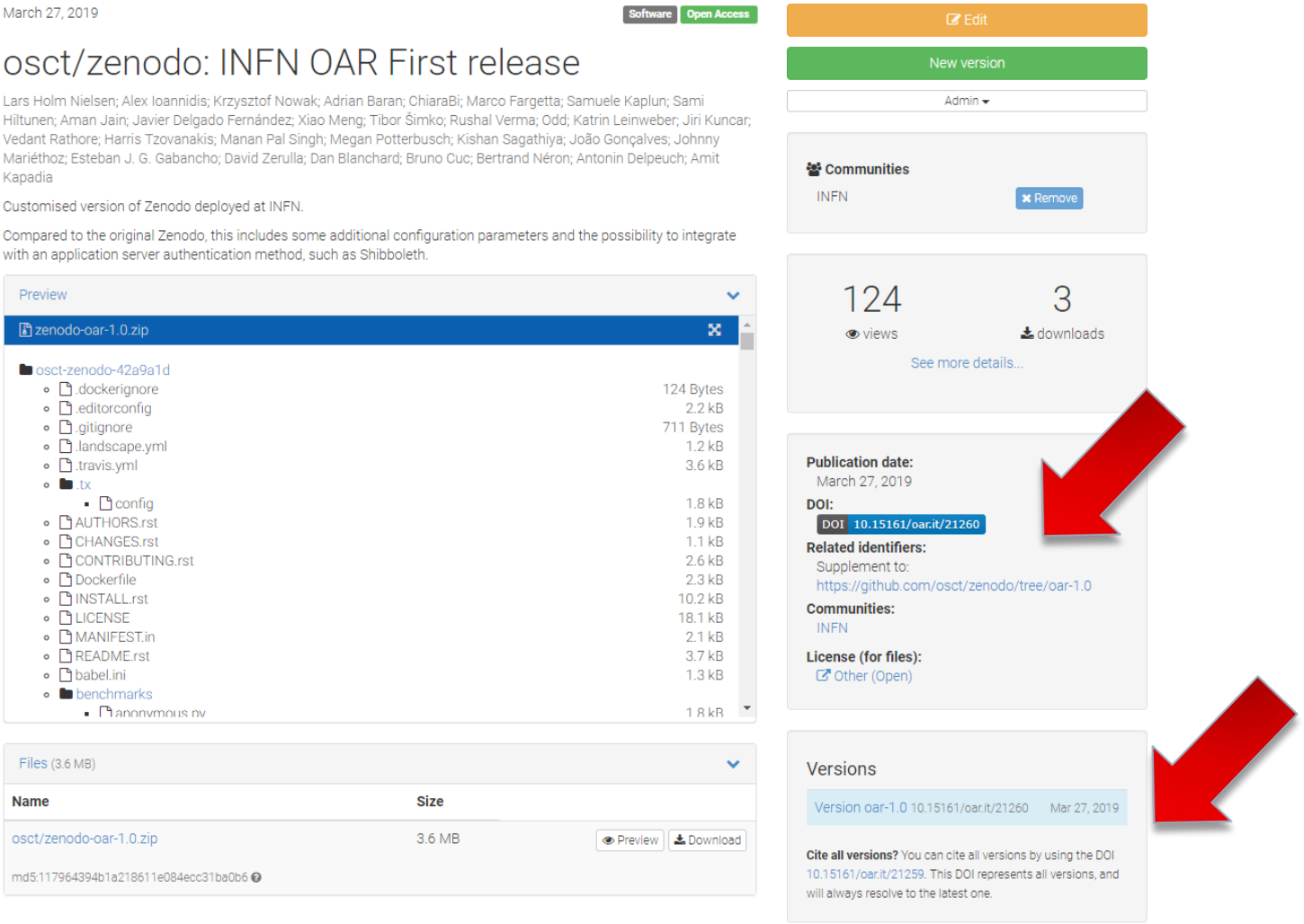
Upload form – digital assets



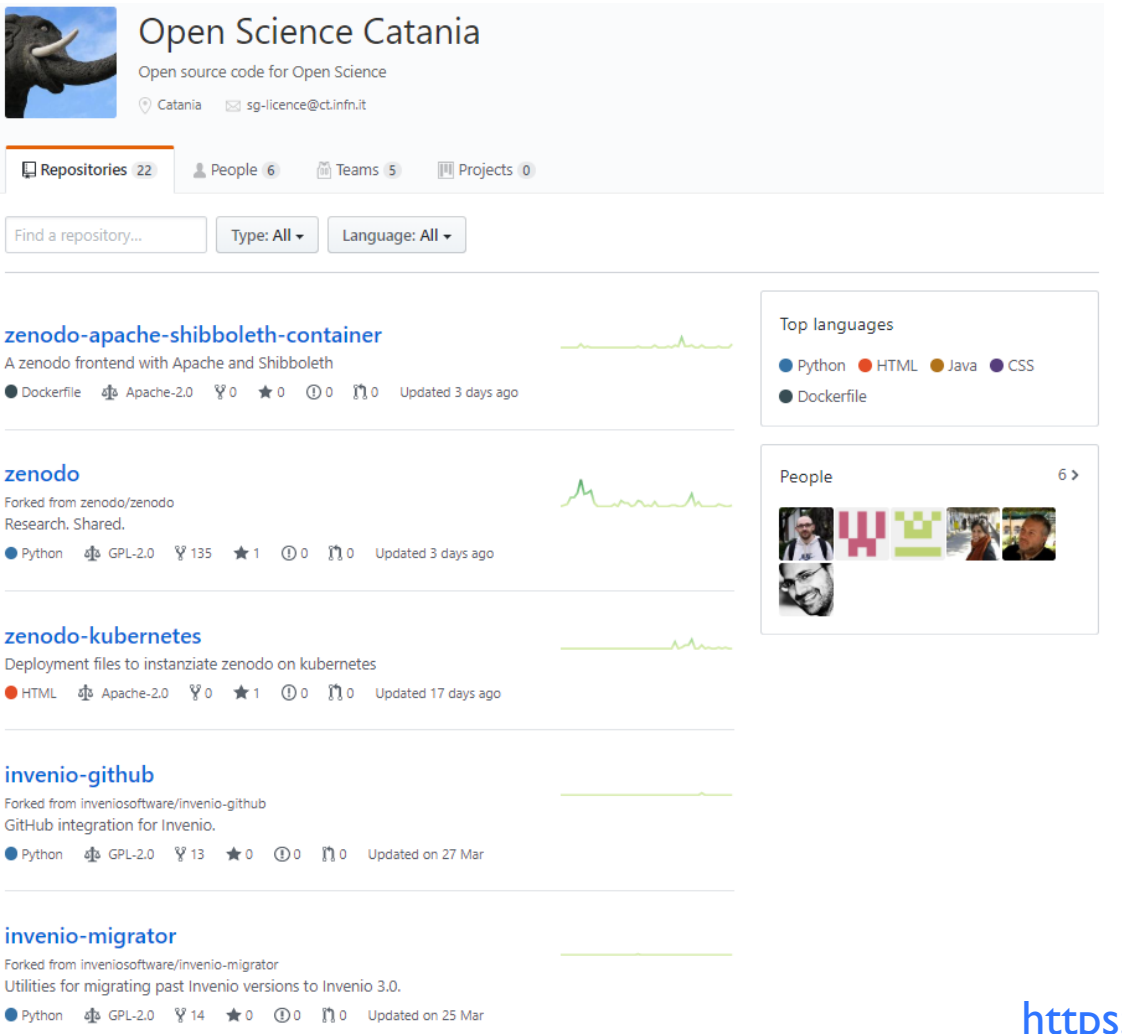
Upload form – Funders



Record details

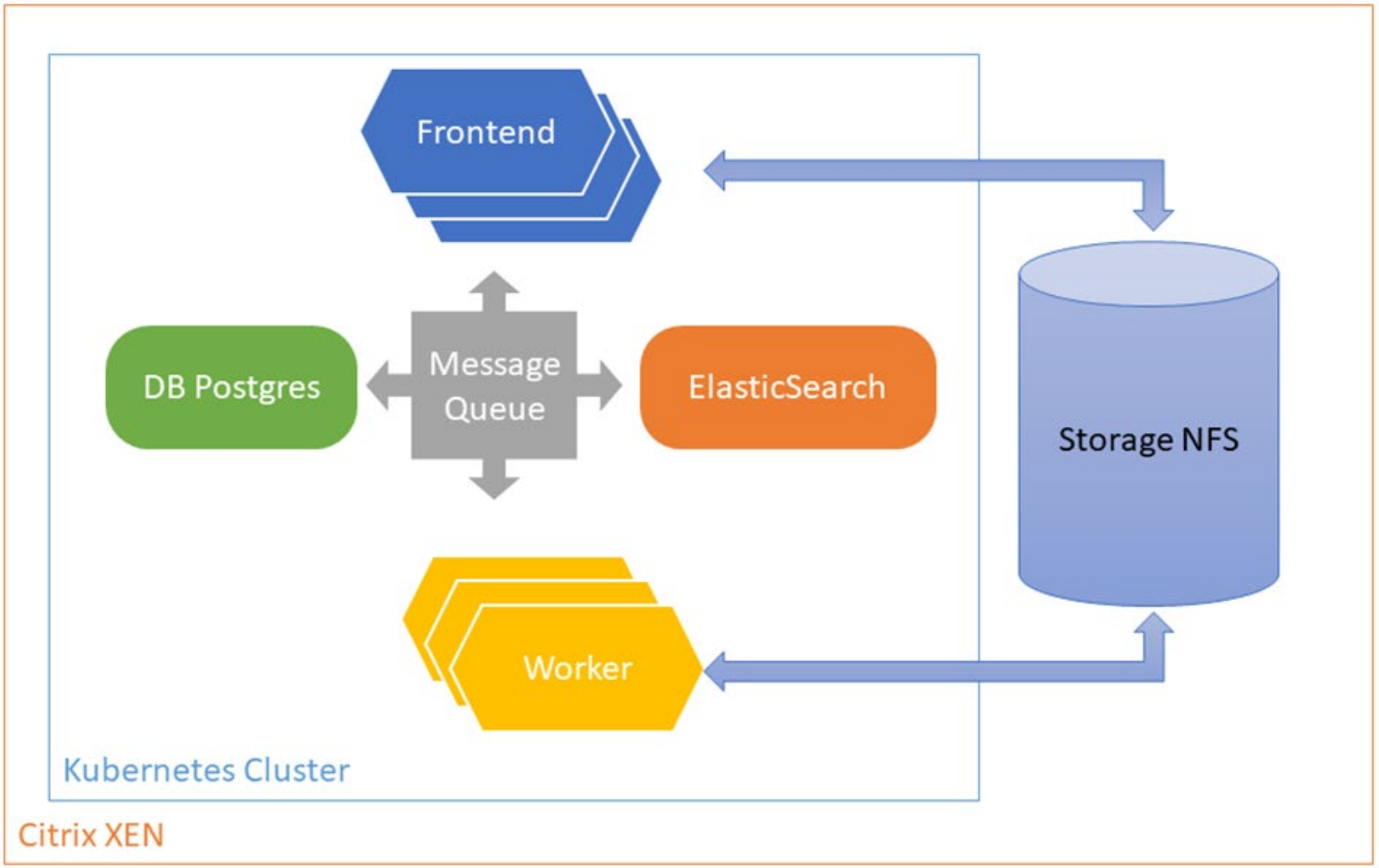


Code available on GitHub

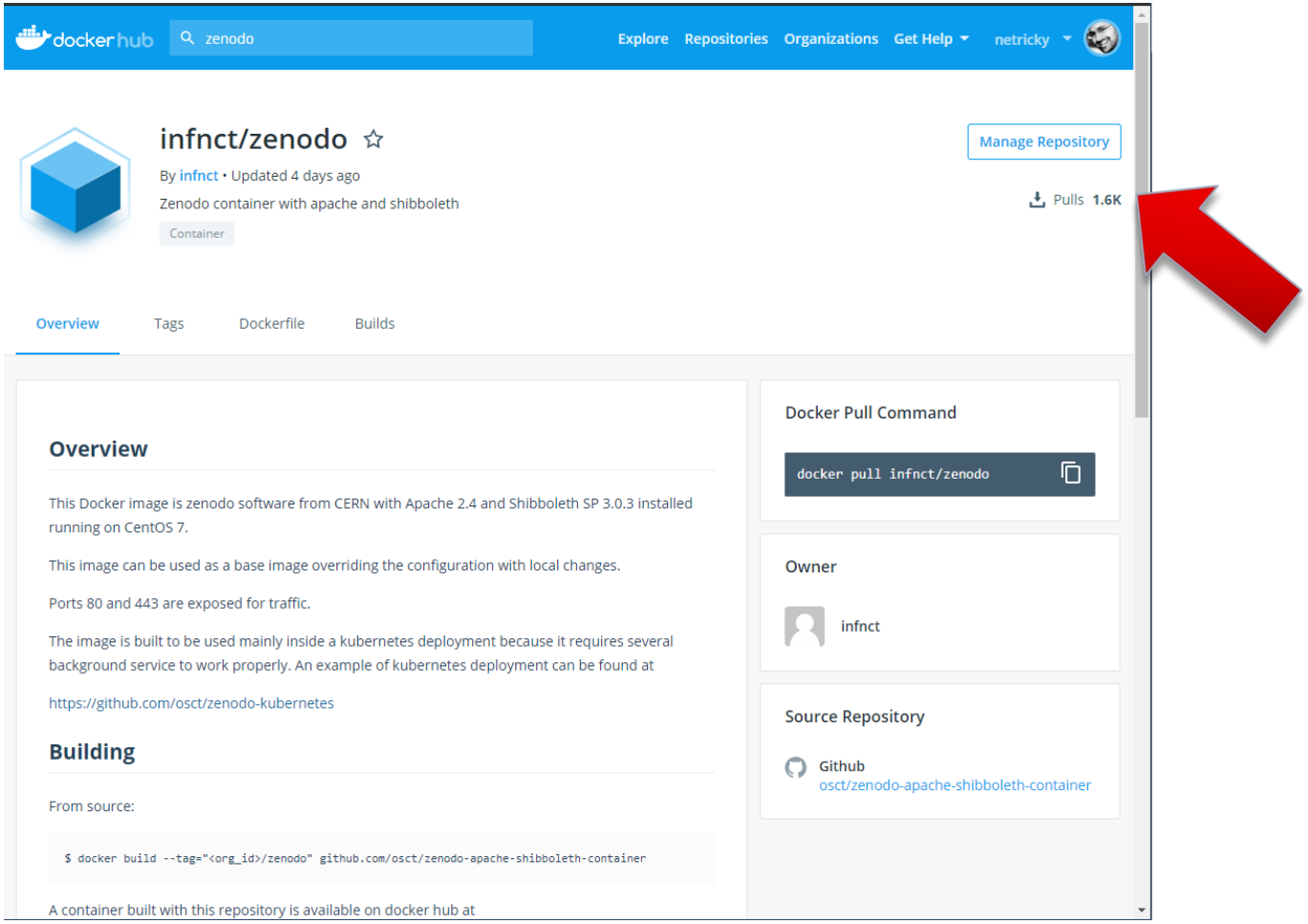


https://github.com/osct

Deployment layout
(micro-service based; highly and easily scalable)

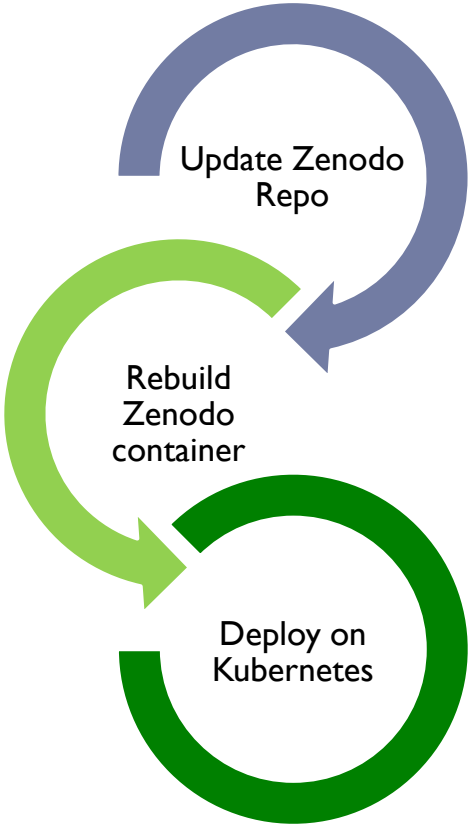


Continuous delivery

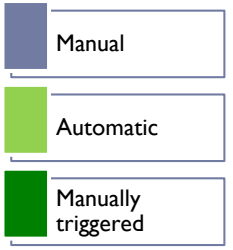


https://hub.docker.com/r/infnct/zenodo

Build process



The whole chain can be integrated in CI/CD system for full automatic test and deployment



Current and future activities

- Integration with OpenAIRE
  - Automatic harvesting of INFN publications from other repositories
  - Make available new uploaded assets to OpenAIRE communities
- Conceptual Design Report (CDR) under evaluation by INFN Management
  - OAR proposed to be the INFN "FAIR" repository

Grazie !