
10 YEARS
EUDAT
EUDAT Conference 2026
25-27 November
The Grandior Hotel, Prague
VSB TECHNICAL UNIVERSITY OF OSTRAVA
IT4INNOVATIONS NATIONAL SUPERCOMPUTING CENTER
10 YEARS
EUDAT

EUDAT: Innovating Services for the Next Data Ecosystem









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10 YEARS EUDAT

EUDAT Collaborative Data Infrastructure
Data shared and preserved across borders and disciplines

EUDAT Conference 2026

Innovating Services for the Next Data Ecosystem

Sander Apweiler (FZJ), Johnnes Lares (CSC), Alessandro Petrocelli (Trust-IT),
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EUDAT service suite

- EUDAT service suit supports the whole research data life-cycle
- Services can be used by a wide range of research areas
- Services are already be used by many communities
- Services can be integrated in communities workflow

Documentation for all services available at:
https://docs.eudat.eu



B2ACCESS Updates

- Integrated with EOSC AAI
  - Several new Implementations on B2ACCESS
- Improvement in group management
- Continuous updates and adoptions to AARC guidelines
- Rework of group membership information transfer to B2DROP
- Outlook
  - Ongoing adaptions to EOSC AAI requirements
  - Integration with EUDAT portal to centralize user’s management possibilities

B2DROP Update

- New version of B2SHAREbridge
  - Supporting new B2SHARE versions
  - Fetching data from B2SHARE to rework on them
  - Creating new versions of B2SHARE records
- Switch authentication protocol
  - Change from SAML to OIDC
  - Allows easier integration of B2DROP in other services
- Outlook
  - Enhance integration with EUDAT portal
  - Integration with B2SAFE

B2SAFE Update

- Improvements on data staging
  - Including RAM buffers for staging on HPC systems
  - Modular architecture for easy integration of remote repositories
- Workflow integration
  - YAML-based workflows with declarative syntax
  - Graphical workflow builder
  - HEAppe support
- Outlook
  - Enhancement on generic data support
  - Enhancement on integration within the EUDAT service suite
  - Exploring opportunities to integrate with other EOSC nodes

For interesting use-cases visit the "Data in Motion"-session at 16.11. 09:30

B2SHARE

Publishing & Usability

- Redesigned deposit interface
- Preview before publication
- Browse files inside ZIP archives

Administration & maintenance

- Administration panel
- Record deletion requests
- Tombstone pages for removed records

Communities & curation

- Configurable submission review
- Community membership requests
- Community administrator role



Metadata & FAIRness

- ORCID/ROR vocabularies
- Community metadata vocabularies
- I-ADOPT variable support

Integrations & import

- Link datasets to B2INST instruments
- Remote files with availability checks
- Support for custom importers

- B2SHARE extensions / adaptations
- InvenioRDM capabilities

Main improvements since B2SHARE v2

New service: B2INST

Motivation:

Research equipments (scientific instruments) are involved in research workflows.

How to **integrate** instruments & research equipment into your FAIR (data) ecosystem?

How to **connect** instruments to the scientific digital landscape?

How to allow **instrument discovery** across platforms?

How to **reuse** the instrument reference in datasets, publications, and external research tools?

New service: B2INST

Motivation:

Research equipments (scientific instruments) are involved in research workflows.

B2INST provides persistent identifiers that can be used to seamlessly link research outcomes (data, publication, etc) to the scientific instruments.

How to **integrate** instruments & research equipment into your FAIR (data) ecosystem?

How to **connect** instruments to the scientific digital landscape?

How to allow **instrument discovery** across platforms?

How to **reuse** the instrument reference in datasets, publications, and external research tools?

Persistent Identifier (PID): Assign PIDs to instruments

Share metadata: Describe manufacturer, model, owner, scientific context using a PIDINST-aligned profile

Search: Discover instruments across platforms

Reuse everywhere: (Re-)use the instrument reference in datasets, publications, etc and external research tools.

B2INST - service to reference, describe and register (scientific) instruments

Instrument Name

Instrument Description

Persistent Identifier

Other Identifiers

Basic Metadata

Optional Files (manuals, pictures of the instrument, etc)

Versioning

Published on Apr 30, 2026 | Version 1

Metadata-only

LI-COR Odyssey Classic 9120 — Human and Animal Physiology, WUR

Two-channel near-infrared (NIR) fluorescence imaging system designed for quantitative Western blot detection. The Odyssey Classic 9120 simultaneously scans at 700 nm and 800 nm, producing two-color, low-background images of NIR-dye–labeled antibodies on nitrocellulose or PVDF membranes with linear dynamic range. Typical applications include quantitative Western blotting, in-cell Western assays, and small-molecule fluorescence imaging..

PID: 21.11157/psf97-zv353

Basic metadata

Identifier	**Identifier Type:** Handle | **Identifier Value:** 21.11157/psf97-zv353
Schema version	1.0
Alternate identifiers	**Type:** SerialNumber | **Value:** ODY-1576 **Type:** Other | **Value:** ASGHAP20080256 | **Name:** InventoryNumber — WUR Animal Science Group HAP asset tag **Type:** Other | **Value:** DDW03040II | **Name:** InventoryNumber — secondary maintenance/inventory code
Dates	**Type:** Commissioned | **Date:** 2008
Instrument type	**Name:** Near-infrared fluorescence imager | **Identifier Type:** URL | **Identifier Value:** https portal/imaging-systems/odyssey-classic.html **Name:** Western blot scanner | **Identifier Type:** URL | **Identifier Value:** https://www.licorb systems/odyssey-classic.html
Manufacturer	**Name:** LI-COR Biosciences | **Identifier Type:** URL | **Identifier Value:** https://www.licor.co
Model	**Name:** Odyssey Classic 9120
Owner	**Name:** Human and Animal Physiology | **Contact:** vincent.deboer@wur.nl | **Identifier Type** https://www.wur.nl/en/research-results/chair-groups/animal-sciences/human-and-animal-p **Name:** Wageningen University & Research | **Identifier Type:** Other | **Identifier Value:** ht
Measured variables	• Fluorescence intensity at 700 nm • Fluorescence intensity at 800 nm
Related identifiers	**Relation:** IsDescribedBy | **Type:** URL | **Value:** https://www.licorbio.com/support/answer-portal/imaging-systems **Name:** LI-COR Odyssey Classic product page **Relation:** HasComponent | **Type:** URL | **Value:** https://github.com/PyLabRobot/pylabrobot | **Name:** PyLabRobo software used to drive this instrument (scan triggering, file retrieval, metadata capture)

Docs » PIDINST White Paper » 4. PIDINST metadata schema

4. PIDINST metadata schema

Manufacturer

Model

InstrumentType

RelatedIdentifier

AlternateIdentifier

Furthermore, in the case of a complex instrument, it can make sense to issue PIDs for individual components, such as an individual detector in a larger experimental station. In this case, the relation between the complex instrument and its components should be established by creating links between the respective PIDs.

The links established using this property are particularly useful as they allow the automatic aggregation of a rich set of information about the instrument. Each *RelatedIdentifier* needs to have subproperties *relatedIdentifierType* and *relationType* to specify the type of the related PID and the type of the relation respectively.

If the instrument instance is also registered elsewhere, aside from the persistent identifier, *AlternateIdentifier* is the place to store a reference to these register entries. Common use cases are the serial number attributed by the manufacturer or inventory number used by the owner. But also other instrument databases or access portals may hold an entry for the instrument that should be referenced from the PIDINST metadata.

The subproperty *alternateIdentifierType* needs to specify the kind of the alternate identifier.

B2INST implements PIDINST (RDA WG)

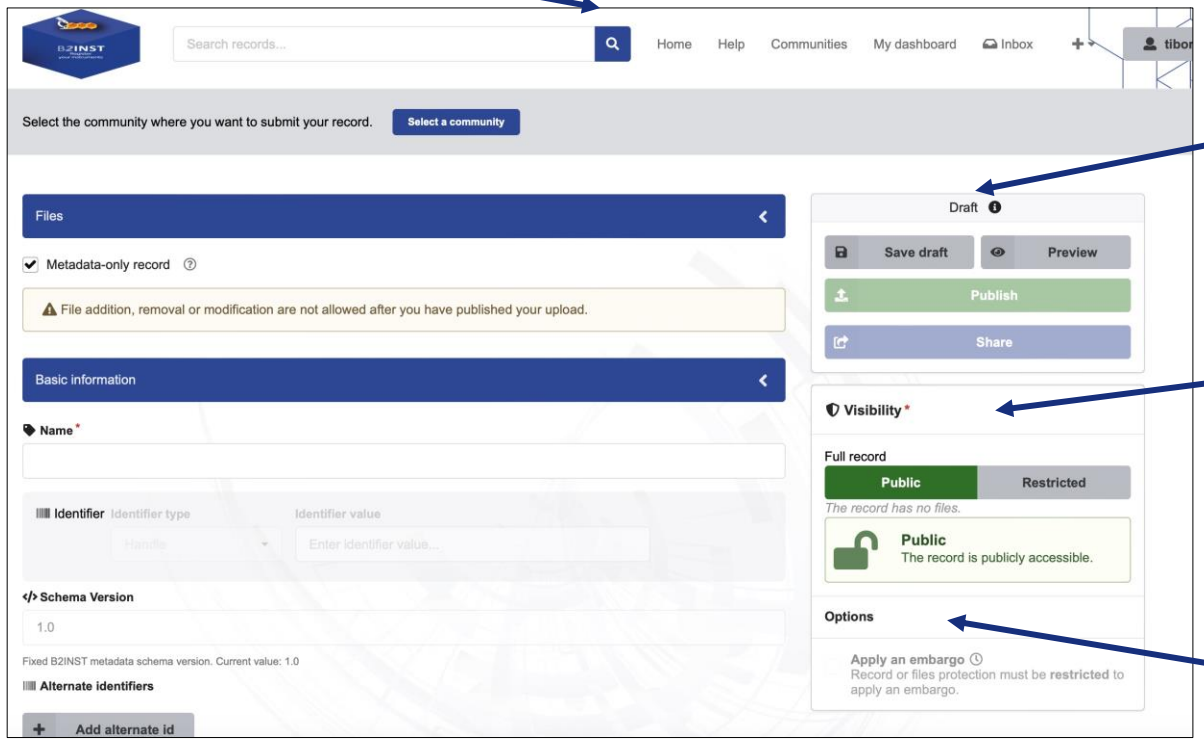
Resources

Name	Size

You should consider using instrument PIDs
(… and using B2INST for that)!

New service: B2INST (cont'd)

Community support



Moderation process

Restrict visibility

Support embargo

Integrations:

- B2SHARE
- B2FIND
- SMS
- RSpace
- EOSC AAI (via B2ACCESS)

**Consider using instrument PIDs…
(… and use B2INST for that)!**

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The EUDAT Portal

One door to ten years of services

Alessandro Petrocelli

CTO at Trust-IT Services · EUDAT Technical Architect

Good services. But how do I get them?

- **B2DROP**
- B2SHARE
- B2SAFE
- B2FIND
- B2HANDLE
- B2INST new

First integrated,
the rest is coming

EUDAT Portal

Sign in
Choose
Order
Use

One login: **B2ACCESS / MyAccessID**

FOR TEN YEARS

Communities that know their users.

TODAY, ALSO

A door anyone can open.

Inside the door



Version 1: the core is in place



One login

B2ACCESS or MyAccessID, the EOSC login



One catalogue

EUDAT services, plus services from other providers



Order and use

Provisioned automatically, no tickets



Groups

Create a group, invite your colleagues



Credits

See and plan what is used



AI assistant

Ask about services, orders and storage

Next: finish, integrate, simplify

1

Finish it

Close the gaps of version 1, starting with B2DROP end to end

2

Integrate every service

All EUDAT services in the portal. New ones, like B2INST, from day one

3

Design with researchers

A UI & UX study with real users, so it is easy from the first click

Start from what the researcher wants to do

I WANT TO…	…THE PORTAL TAKES ME TO
Sync & share my files →	B2DROP
Find data →	B2FIND
Publish my data →	B2SHARE
Keep my data safe →	B2SAFE
Get a persistent identifier →	B2HANDLE

Same services. A researcher's way in

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In 2036, a researcher opens any door in EOSC

What should they find?

Let's build the answer together

portal.eudat.eu

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eudat.eu/eudat-conference-2026