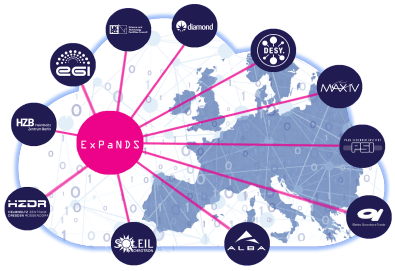
# PaN FAIR implementation framework

## Sustainability sheet

To enable FAIR data and support open science for PaN national RIs, the FAIR implementation framework of ExPaNDS WP2 consists of:

- Recommendations on incorporating FAIR into **research data management policies**
- An analysis of the **metadata** available across the PaN experimental lifecycle, their priority for FAIR and the modalities to generate and record them
- A review of current and potential uses of **PIDs** and how these contribute to FAIR for RIs
- Templates and use cases for **active Data Management Plans (DMPs)**
- A formal **self-assessment** exercise exploring how workflows and data management processes at partner RIs support FAIR research




### Target audiences

- Policy makers
- Data stewards
- Data managers
- Data infrastructure team
- Data librarians
- PaN user community

### Benefits

- **Common understanding** of a facility's level of FAIRness and of what is important for FAIR and why
- **Better alignment** across facilities on data policies, metadata schemas, DMPs and the use of PIDs
- Discover **current practices and tools** relevant to PaN RIs
- Help with the **prioritisation** of actions to be taken on the FAIR journey

### Accessibility and documentation

All the constituent documents of the FAIR implementation framework are openly accessible:

- FAIR data policy framework (1) and its summary guidance note (2)
- Metadata framework (3)(4) and its summary guidance note (5)
- Advanced PIDs infrastructure (6)
- DMP framework (7)(8)
- FAIR self-assessment (9)

### Feedback mechanism

**Structured discussions** were employed to involve the community in building the framework, as presented in the report on the promotion of FAIR (10). See plans for sustainability for a longer term approach on community feedback.

### Licence

CC BY 4.0 (11)

### Competitors

- The FAIR data policy framework builds on and expands a 2011 PaN data policy framework (12) developed by the PaN-data Europe project. In practice, this 2011 framework still influences the policy landscape of national PaN facilities.
- Many FAIR assessment tools are being developed in the EOSC ecosystem, e.g. F-UJI (13) but these typically apply to datasets or data repositories rather than experimental processes found in RIs.
- Data stewardship wizard (DSW) tool (14) and other tools can support DMPs.

### Technology readiness

**Prototype**, e.g. the metadata framework was adopted by DAPHNE4NFDI (15) to refine the metadata fields technique by technique

*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 857641.*

### Plans and conditions for long-term sustainability

As discussed during ExPaNDS closing event, the responsibility for the PaN FAIR implementation framework will be taken further by LEAPS WG3 (16) in the frame of the special interest groups currently being shaped, with possible additional support from:

- OSCARS competence centre
- OSCARS open calls
- HMC (17)
- RDA PaNSIG (18)
- Partner facilities under the FAIR data management MoU

### Exploitability potential

- Other PaN facilities from LEAPS (19) and LENS (20)
- Any future new PaN facility
- Other types of accelerator-based or physics-oriented facilities (e.g. cyclotron)

### Conditions to increase exploitability

- Add workflows to the PaN training catalogue (21) describing the FAIR toolkit for PaN RIs and presenting scientific metadata to record for each technique with the ways to encode them (ex: Nexus)
- Publish the data policy framework in FAIRsharing.org (22)
- Present and refine the PaN FAIR implementation framework in the frame of the FAIR-IMPACT project (23)
- Present the DMP framework at the RDA IG on active DMPs (24)
- **Share adoption stories**
- Create a webpage with wizards guiding users on e.g. metadata collection
- Present the updated PaN FAIR implementation framework to RDA's PaNSIG (18)

### Links

(1) https://doi.org/10.5281/zenodo.5205825
(2) https://doi.org/10.5281/zenodo.6090282
(3) https://doi.org/10.5281/zenodo.4312825
(4) https://doi.org/10.5281/zenodo.6799105
(5) https://doi.org/10.5281/zenodo.7680072
(6) https://doi.org/10.5281/zenodo.5905351
(7) https://doi.org/10.5281/zenodo.5636096
(8) https://doi.org/10.5281/zenodo.7223438
(9) https://doi.org/10.5281/zenodo.7246802
(10) https://doi.org/10.5281/zenodo.7572045
(11) https://creativecommons.org/licenses/by/4.0/legalcode
(12) https://doi.org/10.5281/zenodo.3738498
(13) https://www.f-uji.net/
(14) https://guide.ds-wizard.org/
(15) https://www.daphne4nfdi.de/english/index.php
(16) https://leaps-initiative.eu/about/organisation/
(17) https://helmholtz-metadaten.de/en
(18) https://rd-alliance.org/groups/research-data-needs-photon-and-neutron-science-community.html
(19) https://leaps-initiative.eu/
(20) https://lens-initiative.org/
(21) https://pan-training.eu/
(22) https://fairsharing.org/
(23) https://fair-impact.eu/
(24) https://rd-alliance.org/groups/active-data-management-plans.html

*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 857641.*