ExPaNDS

Annual report on training activities, workshops held, materials published and investigations performed - YEAR 2.

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Abstract

This document presents year 2 activities in the 'training' area of the ExPaNDS project. During the second year Work Package 5 (WP5) activities focused on the coordination with PaNOSC WP8 dedicated to training activities, organisation of first events and the development of the training platform's first prototype. During this period, ExPaNDS also released the first version of its detailed training plan. Means to mitigate the impact of COVID-19 pandemic on the project and its activities are also presented.

Licence

ExPaNDS
European Open Science Cloud Photon
and Neutron Data Services

Executive Summary

Training is an essential part of the ExPaNDS project and it will be performed in two different ways:
- Workshops will be organised by different facilities
- An e-learning platform will be used to collect and publish training material accessible to users and staff of Photons and Neutrons (PaN) facilities

During the second year Work Package 5 (WP5) activities focused on the coordination with PaNOSC WP8 dedicated to training activities, organisation of first events and the development of the training platform's first prototype. During this period (September 2020 – August 2021), ExPaNDS also released the first version of its detailed training plan.

The first FAIR workshops for ExPaNDS were held remotely on the 1st and 2nd October 2020. A second workshop took place in April 2021 (EOSC Workshop, 6th and 7th April 2021). Due to the Covid-19 crisis, these workshops were done remotely, allowing attendees to stay in their facilities for safety reasons. These workshops were recorded, making them re-usable, and easily findable on the e-learning platform.

The Helmholtz-Zentrum Dresden Rossendorf (HZDR) released the first prototype of the training catalogue and presented it during the mid-term review meeting in June 2021: https://pan-training.hzdr.de. First material entries are already available on the platform.

Next steps of WP5 activities will be:
- Deployment of the training catalogue (and periodic updates)
- Follow-up of the upcoming workshops
- Support technical WPs in providing training materials and strengthen links to WP6
- Adoption of the training catalogue: Promoting these through ExPaNDS, PaNOSC, LEAPS & LENS

In addition, WP5 members will follow his involved in the training & skills task force of the INFRAEOSC-5 projects. The mission of this task force is to coordinate actions between the 5 selected projects of the INFRAEOSC-5 call, and to seek common points between the projects and develop synergies.

Report on training activities

For this report we will firstly outline the description of work per task, describe the progress completed to date, and list the next steps and events coming up.

T5.1	Organising at national RIs' a series of staff and users training events (SOLEIL)
Status:	On-going
Description of work:	*Lead partner: SOLEIL, Contributors: HZDR, UKRI, PSI, DESY, DLS, EGI* The purpose of T5.1 is to promote the outcomes of the catalogues and services provided by ExPaNDS for EOSC by organising a series of events. As a reminder, a total of 6 workshops will be organised by ExPaNDS partners and associates in the framework of this task, with the following objectives: • to promote FAIR principles for PaN RIs (T5.1.1 – M12), • to develop common rules and best practices between national RIs and harmonise the provision of the EOSC services (T5.1.2 – M12), • to educate and train developers and facility staff on how to deploy and support their own workflows enabling a long-term viability and sustainability of the data analysis services (T5.1.3 – M34), • to educate and train metadata catalogue services within data management and data life cycle management (T5.1.4 – M34), • to educate and train Photon and Neutron users in the use of the data analysis services (T5.1.5 – M35)

Progress:	Regarding T5.1.1 activities, the first **FAIR workshop was held on the 1st and 2nd of October 2020**. It was held remotely. It was organised by the WP2 of ExPaNDS. Registrations/attendees and breakdown:
	    Fair for Facilities Event – 01.10.2020
	       • Total registrations: 144
	       • Total attendees: 115
	       • Breakdown: ExPaNDS – 74; PaNOSC – 8; Other (another EU Horizon Grant, University or company) – 33
	    The FAIR Experiment – 02.10.2020
	       • Total registrations: 128
	       • Total attendees: 98
	       • Breakdown: ExPaNDS – 63; PaNOSC – 9; Other another EU Horizon Grant, University or company) – 26
	Meeting materials are available in the ExPaNDS training platform:
	https://pan-training.hzdr.de/materials/fair-for-facilities
	https://pan-training.hzdr.de/materials/the-fair-experiment
	Final data policy framework for Photon and Neutron Research Infrastructures (PaN RIs), considers how data policies for research infrastructures should be framed, in the light of supporting open science and FAIR data. The corresponding WP2 deliverable is also available on the training catalogue: https://pan-training.hzdr.de/materials/expands-d2-3-final-data-policy-framework-for-photon-and-neutron-ris
	
	Regarding T5.1.2 activities, the **EOSC Workshop took place on the 6th and 7th April 2021** (online):
	Registrations: 92

T5.1	Organising at national RIs' a series of staff and users training events (SOLEIL)
	• Total attendees – 6th April 2021: 67 • Total attendees – 7th April 2021: 57 Breakdown: • 51 - attendees were from ExPaNDS Member facilities – ALBA, DESY, Diamond, EGI Foundation, HZDR, HZB, MAX IV, PSI, STFC /UKRI and SOLEIL • 15 - attendees were from PaNOSC Member facilities – CERIC-ERIC, ELI, ESRF, European XFEL and ILL • 26 - attendees were classified as 'other', this is either another EU Horizon Grant, University or company. The event itself was hosted on the Diamond ExPaNDS Zoom platform and was set up as a "Meeting". **Meeting materials** are available in the ExPaNDS training platform: https://pan-training.hzdr.de/materials/delivering-data-services-to-eosc The corresponding milestone (M5.1, First pilot national training event organised and performed) is due on M24 (August 2021) and has been achieved.
Next steps:	Remote webinars accessibility online has been tested with success during the first half of the project. WP6 provided all the tools necessary to allow creation and hosting of these events remotely. The format of these remote workshops will be adjusted following the topics and the evolution of the COVID-19 crisis. The next virtual event (Symposium for librarians and data policy staff) has already been scheduled for September 2021. It will include a general presentation of the training platform (https://pan-training.hzdr.de/) and of its functions/tools. The table in the Annex presents the ExPaNDS training plan (version of August 2021).

T5.2	Evaluation of available e-platforms and provision of a training demonstrator (HZDR)
Status:	On-going
Description of work:	*Lead partner: HZDR, Contributors: SOLEIL, EGI* The purpose of this task is to contact the e-platforms providers (ESRF for PaNOSC and EGI for EOSC-hub) to define together the pre-requisites to maximise and expand the use of the platforms as appropriate. WP2, WP3 and WP4 will work closely with WP5 and WP6 to deliver tailored specification for each of the online training. The output will be a definition of the most suitable training platform in accordance with the requirements and recommendations made by the targeted e-platform providers. A demonstrator for using e-learning platforms will be developed and provided.
Progress:	A training task force was established to discuss the training portal infrastructure and coordination with PaNOSC WP8. A joint Github organization was established to develop the e-learning platform and the training catalogue (PaNOSC and ExPaNDS). The e-learning platform was refurbished because of our task force (Apr 2020 ff). HZDR participated in the "Train the Trainer" Workshop organized by PaNOSC (Feb/Mar 2021). **The first prototype of our ExPaNDS Training Catalogue** based on TeSS is available as a development instance at the HZDR (Sep 2020 - Mar 2021, https://pan-training.hzdr.de/). The catalogue is used to reference existing training materials at the PaN facilities but also training

T5.2	Evaluation of available e-platforms and provision of a training demonstrator (HZDR)
	developed by the ExPaNDS project. This training catalogue is complementary with the e-learning platform, people who want to index specific documents (a specific link to a github/gitlab repository, link to different training datasets…) will be able to use the training catalogue. Furthermore, the training catalogue will index courses developed on the e-learning platform. Work performed during this first period laid the foundation of the evaluation of various e-learning platforms to develop a concept for our portal architecture **"Evaluation and Demonstrator of an e-Learning Platform, D5.4" at HZDR (M24).** The portal architecture concept is aligned with PaNOSC's WP8. Detailed information is available on D5.4. SOLEIL also opened and fulfilled (start date: 1st of September 2021) a position for task 5.2 and task 5.3.
Next steps:	The training demonstrator prototype with a first synchronisation between the PaNOSC e-learning platform and the ExPaNDS training catalogue is intended in 2021 by HZDR and SOLEIL. For the next period, ExPaNDS plans to expand the PaNOSC e-learning platform with a catalogue collecting PaN related training material. Both platforms are of equal value and intended to complement each other using an overall PaN training portal as an entry point for our training resources. Our demonstrator for a PaN training material catalogue gives a first impression of our developments in ExPaNDS WP5. Future visitors of our catalogue can filter PaN related training materials (metadata), such as wikis, repositories, e-learning courses (Moodle), videos or websites in one central application. Detailed information on future work is available on D5.4. WP5 members will follow his involved in the training & skills task force of the INFRAEOSC-5 projects.

T5.3	Collection, Preparation and Publishing of Training Material (SOLEIL)
Status:	On-going
Description of work:	*Lead partner: SOLEIL, Contributors: HZDR, EGI, UKRI, PSI, DESY* The purpose of this task is to provide the training materials to foster the uptake of ExPaNDS services in the existing e-learning platforms. WP5 will support the collection of the material provided by the technical work packages. WP2, WP3 and WP4 will prepare and publish the training materials. This will ensure training material, such as Moodles, Wiki medias, modules and information material is disseminated in a consistent form: - FAIR data guidelines, common rules and best practices for the Photon and Neutron community (Task 2.6, WP2); - Standard dataset definition (WP3) and PaN reference data sets (WP4); - Long term viability and sustainability of the data analysis services developed by ExPaNDS (Task 4.5, WP4)
Progress:	The material to be created as training material is clearly stated in the ExPaNDS proposal. These categories will be available on the e-learning platform: FAIR data guidelines for the PaN community, definition and reference data sets, data analyses services.

T5.3	Collection, Preparation and Publishing of Training Material (SOLEIL)
	During this period (September 2020 – August 2021), **ExPaNDS** also released the **first version of its detailed training plan**. The training plan table can be found in the Annex. This is a living document that could evolve with new project results or could be adapted to fit with updated constraints due to the COVID-19 crisis. Moreover, the **first material entries** from HZDR, DESY, CERIC, PaNOSC and ExPANDS and two training workflows on "Pulmonary arterial hypertension research" and "Terahertz Spectroscopy" **are already available in our PaN training catalogue**.
Next steps:	Periodic catch-up meetings will be organised between the WP5 team and the "technical" WP leaders and co-leaders to follow the development and production of training materials that will be added in the PaN e-learning platform.

T5.4	Monitoring and Measuring of training effectiveness
Status:	Started at M24 (August 2021)
Description of work:	*Lead partner: HZDR, Contributors: SOLEIL, DLS* In connection with the various workshops and training activities WP5 will gather user feedback in the form of surveys and usage statistics. This task will be performed closely together with WP2, WP3, WP4 and notably WP6. The outcome will be collated,analysed and presented in the form of a final report.
Progress:	This task started at M24 (August 2021).
Next steps:	**WP5 collaborates with WP6** on the preparation of meeting surveys. The target grpup of this survey will be the participants attending the workshops. Evaluation surveys were also sent to the participants attending our two first workshops (see T5.1) and will be further developed and analysed during the next period.

Technical KPIs	Value	Previous value
Number of attendees to the workshops (ExPaNDS / PaNOSC / other)	188/32/85	- (08.2020)
Number of subscription to the e-learning platform (ExPaNDS / PaNOSC / other)	-	- (08.2020)

Annex

WP Task	Type of training	Topic	Targeted audience/stakeholders	Tentative date	Status
WP1 T5.1.2	Workshop (online)	Develop common rules and best practices between national RI's and harmonize the provision of the EOSC services[1]	IT staff of ESFRI and national PaN RIs[2]	M12	Done – 6-7 Apr. 2021
WP2 T5.3	Workshop (online, - hybrid)	Workshops on sharing best practices for PIDs within ExPaNDS and PaNOSC RIs	ExPaNDS/PaNOSC RIs	>M17	First session organized in January 2021 by WP2 with content provided by WP3 and PaNOSC. Next session to be scheduled (M26, WP6 involvement TBD)
WP2 T5.3	Guidelines	Data Policy Framework First draft released at M12. Final version available at M24	Facility scientist of ESFRI and national PaN RIs	M12 - M24 - M30	Complete M24[3]
WP2 T5.1.1	Workshop (online)	Promote FAIR principles[4]	Facility scientist of ESFRI and national PaN RIs	M12	Done – 1- 2 Oct. 2020
WP2 T5.3	Seminar (online)	Symposium for Librarians and data policy staff[5]	PaN librarians and data managers	M25	Scheduled in Sept. 2021
WP2 T5.3	Workshop (hybrid - online, TBD)	Metadata Framework First draft released at M15	Facility scientist of ESFRI and national PaN RIs	M29 - M30	On-going
WP3 T5.3	Workshop WIKI	Delivering data services to EOSC: OAI-PMH, metadata, harvesting,	Open to ESFRI and national PaN RIs via	M20	Done – April 2021

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[1] https://pan-training.hzdr.de/events/expands-workshop-on-eosc

[2] Stakeholders "ESFRI and national PaN RIs" include LEAPS, LENS and CERIC, ELI…

[3] https://pan-training.hzdr.de/materials/expands-d2-3-final-data-policy-framework-for-photon-and-neutron-ris

[4] https://pan-training.hzdr.de/events/expands-fair-workshop

[5] https://pan-training.hzdr.de/events/expands-symposium-for-librarians-and-data-managers

WP Task	Type of training	Topic	Targeted audience/stakeholders	Tentative date	Status
		SciCat, ICAT, B2FIND, OpenAIRE, research data	the training platform[6]		
WP3 T5.3	WIKI GitHub	ExPaNDS NexusOntology[7] It is expected that this ontology will be maintained by the Nexus International Advisory Committee (NIAC).	IT and Facility scientist of ESFRI and national PaN RIs + NIAC	M21	On- going
WP3 T5.3	Guidelines for users (User guide, targeted examples for PaN community, tutorials…)	EOSC data catalogue services: SciCat document and provide technical information on systems, APIs and user interfaces	IT of ESFRI and national PaN RIs	M31 - M34	
WP3 T5.1.4	Workshop (online): Presentation of the User Guidelines for PaN	Educate and train IT staff and scientists on the metadata catalogue services	IT of ESFRI and national PaN RIs	M34	
WP4 T5.1.3	Workshop (hybrid - online, TBD)	Educate and train developers and facility staff on how to deploy and support their own workflows of the data analysis services	IT and Facility staff of ESFRI and national PaN RIs	M34	
WP4 T5.1.5	Workshop (hybrid - online, TBD)	Educate and train Photon and Neutron users in the use of the data analysis services	End User of ESFRI and national PaN RIs + TBD	M35	
WP5 T5.2/T5.3	Seminar (2h, online) + video demonstrating the catalogue	How to customize and use the training catalogue: Register new external materials (available on Zenodo, GitHub, websites, …), introduce (not execute) workflows and promote events	Facility scientist of ESFRI and national PaN RIs	M25 - M30	

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[6] https://pan-training.hzdr.de/materials/delivering-data-services-to-eosc

[7] https://github.com/ExPaNDS-eu/ExPaNDS-nexus-ontology/blob/master/README.md

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