D5.3 Annual report on training activities, workshops, materials published and investigations performed - YEAR 3.

Document Control Information

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Abstract

This document presents year 3 activities in the 'training' area of the ExPaNDS project. During the third year, Work Package 5 (WP5) activities focused on coordination with PaNOSC WP8 (which is dedicated to training activities), organisation of workshops, participation at networking events and the development and subsequent deployment of the training platform. As part of the grant a unique portal has been published: https://pan-training.eu/. The new training portal includes the Moodle platform and additionally allows access to all training assets. During this period, ExPaNDS also released an updated version of its detailed training plan. Training materials were added to the platform on a regular basis and to date (31/08/2022) the platform has gathered 175 materials, 245 events

and 9 workflows. The content was contributed by ExPaNDS, PaNOSC, EGI, LEAPS and LENS partners (among others) or was added automatically into this portal.

Licence

Executive Summary

Training is an essential part of the ExPaNDS project and it has been performed in two distinct ways:

- Workshops have been organised by different facilities.
- A training platform has been used to collect and publish training material accessible to users and staff of Photons and Neutrons (PaN) facilities.

During the third year, Work Package 5 (WP5) activities focused on coordination with PaNOSC WP8 (which is dedicated to training activities), organisation of workshops, participation in network events and the development and subsequent deployment of the training platform.

A hands-on session on the PaN ontologies API (Online, 17th February 2022) and a Workshop on Metadata Catalogues (Online, 4th April 2022) were organised. These allowed us to create a dedicated learning path that gathers three workshops and all related materials (videos, guidelines, repositories). A first technical workshop on the Virtual Infrastructure for Scientific Analysis (VISA) portal demonstration, set up and distribution was also organised (hybrid meeting - Dolní Břežany, 14th June 2022).

We have created a unique training portal. It is available to the entire community via: https://pan-training.eu/. Our new training portal includes the Moodle platform and additionally allows access of all training assets in a dedicated training catalogue developed by ExPaNDS. Training materials were added to the platform on a regular basis and to date (31st August 2022) the platform gathers 175 materials, 245 events and 9 workflows. During this period, ExPaNDS also released an updated version of its detailed training plan.

Next steps of WP5 activities will be:

- Further development of the training catalogue (and periodic updates);
- Multiple levels of engagement with upcoming workshops;
- Support technical WPs in providing training materials and strengthening links with WP6;
- Adoption of the training catalogue: continue to promote it through ExPaNDS, PaNOSC, LEAPS & LENS and users organizations.

In addition, WP5 members will follow the development in the training & skills task force of the INFRAEOSC-5 projects through the participation in webinars and networking meetings.

EXPANDS

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Report on training activities

We will first 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:	ongoing
Description of work:	**Lead partner: SOLEIL** **Contributors: HZDR, UKRI, PSI, DESY, Diamond, 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. 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 Photon and Neutron Research Infrastructures (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 PaN users in the use of the data analysis services (T5.1.5 – M35).
Progress:	**Main activities** in this task are: Objectives of the T5.1 sub-tasks are continuously fine-tuned to meet the community needs. Remote or hybrid webinars have been organised with success during the third year of the project. WP6 provided all the tools necessary to allow creation and hosting of these events remotely. During this period, a **"learning path" on Metadata Catalogue services including PaN ontologies** was created. The **workflow** is available on the training platform[1] . It gathers the workshop on delivering data services to EOSC (organised in April 2021) and **two additional events organised in year 3** (linked to task **T5.1.4**) as well as all related materials (videos, presentations, guidelines, repositories). Details on these two new events are provided below: • **Hands-on session on the PaN ontologies API (online, year 3: 17th February 2022)[2,3]** This demonstration workshop included talks about PaN-ontologies-api service, SciCat search-api integration, reference search-api integration and description of

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[1] https://pan-training.eu/workflows/metadata-catalogue-services
[2] https://pan-training.eu/materials/expands-photon-and-neutron-experimental-techniques-panet-ontology
[3] https://pan-training.eu/materials/pan-ontologies-api

T5.1	Organising at national RIs a series of staff and users training events (SOLEIL)
	the expected behaviour of each search-api, setting up the services (for SciCat, as a reference), the PaNET ontology as well as the "inelastic x-ray small angle scattering" example.

● **Workshop on Metadata Catalogues (online, year 3: 4th April 2022)**[4]

Different solutions for the implementation of a data catalogue are in use, the most common ones are ICAT and SciCat. Some ExPaNDS partners still need to make their choice. This workshop aimed to assist this decision making by presenting ICAT and SciCat and highlighting the technical differences. Statistics for the Workshop on Metadata Catalogues are summarised below: 56 registrations (ExPaNDS affiliation: 40; PaNOSC affiliation: 4; Other affiliation: 12).

Concerning data analysis services (**T5.1.3 and T5.1.5**):

● A first technical **Workshop on Virtual Infrastructure for Scientific Analysis (VISA) portal demonstration, set up and distribution** was organised during the ExPaNDS-PaNOSC meeting that took place at the premises of ELI Beamlines in Dolní Břežany, on the outskirts of Prague (Czech Republic) on the **14th of June 2022 (hybrid meeting).**[5]

This first technical workshop was the basis for the creation of a second VISA workshop scheduled for September 2022 (see next steps).

Dedicated meetings between the WP5 team and facilities' staff are organised to work on workflows .

To **target the users' community**, a special session dedicated to **ExPaNDS results (notably for data analysis, T5.1.5) and how to access resources** via the training platform was scheduled at the General Assembly of the European Synchrotron and Free Electron Laser User Organisation (ESUO). This event took place on the 29th and 30th of August 2022 at the Synchrotron SOLEIL. It gathered 47 attendees including 35 representatives of diverse user's communities of the 27 member countries within ESUO, LEAPS representatives and 6 guest speakers. One representative of ESFRI, one of ENSA (European Neutron Scattering Association) and an observer delegate from Ukraine also participated in the meeting. The Ukrainian delegate informed the attendees about the needs of the Ukrainian users' community.

The ExPaNDS poster was also presented during the dedicated session and distributed to the attendees.

The table in the **Annex** presents the detailed ExPaNDS training plan (version effective as of 31st August 2022). It summarises events organised in the framework of the ExPaNDS WPs. This document is periodically reviewed and updated.

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[4] https://pan-training.eu/materials/workshop-on-metadata-catalogues
[5] https://pan-training.eu/events/panosc-expands-face-to-face-meeting-5a96471d-5a53-42cd-a870-8d5e19d130a5

T5.1	Organising at national RIs a series of staff and users training events (SOLEIL)
Next steps:	The **next VISA workshop** (data analysis, **T5.1.3 and T5.1.5**) has been scheduled on the **16thSeptember 2022.**[6]
	This online half-day workshop aims to demonstrate to beamline scientists the possibilities offered by VISA for data analysis and to gather IT staff around the table to discuss the development and further deployment of the platform. The first session of the workshop will be a great opportunity to showcase the implementation of VISA at PaN RIs throughout ExPaNDS and PaNOSC with partner' demos and illustrates its use for scientific users and others. The second session in the afternoon will focus on presentations about VISA development and deployment (on OpenStack and other infrastructures), paving the way for a roundtable discussion on the future of VISA: sustainability and future collaborations.
	For the remaining six months of the project, WP5 will continue to work closely with other ExPaNDS WPs. The detailed ExPaNDS training plan (Annex, version of August 2022) will be periodically reviewed and updated to adapt it to be as close as possible to the needs of the community.

T5.2	Evaluation of available e-platforms and provision of a training demonstrator (HZDR)
Status:	ongoing
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 agree upon the prerequisites to maximise the use of the platforms as appropriate. WP2, WP3 and WP4 will work closely with WP5 and WP6 to deliver tailored specifications for each of the online trainings. 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:	The evaluation of the available e-platforms and provision of a training demonstrator was summarised in D5.4 *Evaluation and Demonstrator of an e-Learning Platform*[7] (HZDR (M24)) and **the code** of the ExPaNDS platform **is now available to the community** on GitHub.[8] **The platform is open to the community**. **A common PaN training portal** now groups the catalogue and the e-learning platform under the same domain name (**https://pan-training.eu/**). PaN-specific developments made includes: Complete redesign to create a PaN training portal with a unique identity and to harmonise

T5.2	Evaluation of available e-platforms and provision of a training demonstrator (HZDR)
	the e-learning platform developed by PaNOSC and the ExPaNDS catalogue, automated scrapers that feed the catalogue with content from PaNOSC's e-learning system and further sources, integrating umbrellaID as the federated login, using the PaNET ontology as a list of keywords, user analytics, open-source map for events. Finally, some small bug fixes have been added to the original TeSS codebase. For more details refer to deliverable D5.5 *Dedicated websites and e-platforms with the teaching materials*[9]. This document provides references for the websites, source code, documentation, and further material. It also includes the next steps in the development of the platform. The activities described guarantee that the entire data treasure of PaN related training materials can be advertised and found with our dedicated PaN training website easily.
Next steps:	For the remaining six months of the project, WP5 will work closely with other ExPaNDS WPs to better integrate their technical work in the platform. Uploading to Zenodo directly from the platform is also under development. D5.5 includes the detailed next steps in the development of the platform (including plans to start the process of registering the training portal as an EOSC service).

T5.3	Collection, preparation and publishing of training material (SOLEIL)
Status:	ongoing
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 are now available on the training platform: FAIR data guidelines for the PaN community, definition and reference data sets, data analyses services. During this period (September 2021 – August 2022), **ExPaNDS** released an updated version **of its detailed training plan**. The training plan table can be found in the **Annex**.

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[9] https://doi.org/10.5281/zenodo.7023247

T5.3	Collection, preparation and publishing of training material (SOLEIL)
	As of the end of August, there are 175 materials, 245 events and 9 workflows in the training catalogue. Resources are either created manually or integrated in the platform via scrapers developed in the framework of T5.2. Out of the 175 materials there are different types. The category "resource type" is used in the catalogue to distinguish them. The majority have been tagged as videos (78), but also include slides (17), git/Git/github/Git project (5), document (12), tool (9) and jupyter notebook (6).There are also 48 materials (Moodle courses) from the e-learning platform. The **content providers** for the materials include the PaNOSC (48 Moodle courses are available in the e-learning platform) and the ExPaNDS projects (31 materials developed in the framework of the project) as well as external providers such as RIs and ERICs. External providers use the platform to share their own materials. Among them CERIC-ERIC, SOLEIL and ILL with 39, 15 and 8 materials available in the platform, respectively. **All findable ExPaNDS (WP2, WP3, WP4) related materials that are relevant to the PaN community have been uploaded to the catalogue**. ● WP2 was very active producing materials related to FAIR data (workshops and guidelines). 11 materials were developed in the framework of this WP and are available via the platform. ● In addition to all materials from WP3 (12), a workflow showcasing a "Learning path: Metadata catalogue services including PaN ontologies" has been created in the platform. ● Concerning materials on definition and reference data sets and data analyses services, workflows detailing the use cases found in deliverable D4.4 (WP4) have been created or are in progress.
Next steps:	Periodic meetings will continue between the WP5 team and the "technical" WP leaders and co-leaders (PEB meetings are held every two weeks, dedicated meetings, working sessions to define workflows) to follow the development and production of training materials that will be added to the PaN catalogue.

T5.4	Monitoring and measuring of training effectiveness
Status:	started at M24 (August 2021)
Description of work:	***Lead partner: HZDR*** ***Contributors: SOLEIL, DIAMOND*** 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). To increase the visibility of the ExPaNDS activities on targeted communities and strengthen links, the projects partners attended several network events: ● EOSC-France days

T5.4	Monitoring and measuring of training effectiveness
	4th- 5th April 2022 Brigitte Gagey (SOLEIL) delivered a presentation ● Workshop (in French): EOSC, a resource for research 8th April 2022 (online) Ana Valcarcel Orti (SOLEIL) delivered a presentation ● LEAPS LENS monthly IT staff meeting 9th May 2022 Poster (online) Uwe Konrad (HZDR) delivered a presentation ● LEAPS meets Quantum 15th – 20th May 2022 in Elba Oliver Knodel (HZDR) created a poster ● ESUO General Assembly meeting 29th – 30th August in Paris Saclay Majid Ounsy (SOLEIL) delivered a presentation and the display of a poster
Next steps:	**WP5 will collaborate with WP6** on the preparation of meeting surveys. The target group of this survey will be the participants attending the workshops. Evaluation surveys were also sent to the participants attending our workshops (see T5.1) and will be further developed and analysed during the next period. The next participation to a network meeting will take place at: ● EGI meeting Poster 20th – 22nd of September 2022 in Prague Oliver Knodel (HZDR) will display a poster

Technical KPIs	Value	Previous value
Number of attendees to the workshops (ExPaNDS / PaNOSC / other)	284/61/157	188/32/85 (08.2021)
Number of users in the PaN training portal (ExPaNDS / PaNOSC / other)	109/106/596	- (08.2021)

Annex

WP Task	Type of training	Topic	Targeted audience/ stakeholders	Date/ Tentative date	Status
WP1 T5.1.2	Workshop (online)	Develop common rules and best practices between national RIs and harmonise the provision of the EOSC services[10]	IT staff of ESFRI and national PaN RIs[11] facility scientist and staff of ESFRI and national PaN RIs	M12	Done - 6th- 7th Apr. 2021
WP2 T2.4/ T2.6/ T5.3	Workshop series (online)	Workshop 1: Best Practice Sharing Meeting - DOIs/PIDs for Datasets - Policy and Implementation Workshop 2: Persistent Identifiers (PIDs) for Facility Research[12]	ExPaNDS / PaNOSC RIs	M17/ M26	Both workshops were completed. **First workshop** 28th January 2021, organised by WP2 with additional content provided by WP3 and PaNOSC. **Second workshop** 22nd October 2021, organised by WP2 with additional content provided by JLSRF (Jülich),

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[10]

https://pan-training.eu/materials/develop-common-rules-and-best-practices-between-national-ri-s-and-harmonize-the-provision-of-the-eosc-services

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

[12] https://pan-training.eu/materials/persistent-identifiers-for-facilities-research-workshop

WP Task	Type of training	Topic	Targeted audience/ stakeholders	Date/ Tent ative date	Status
					B2INST (GWDG), HMC Matter (HZB), and DataCite
WP2 T2.4/ T2.6	Guidelines	Advanced infrastructure for PIDs in PaN RIs[13]	Facility scientist and staff of ESFRI and national PaN RIs	M31	Completed - March 2022
WP2 T2.1	Guidelines	Data Policy Framework First draft released at M12. Final version released at M24[14]	Facility scientist and staff of ESFRI and national PaN RIs	M12 - M24 - M30	Completed - September 2021
WP2 T2.1/ T2.6/ T5.3	Guidance Note	Guidance note related to Draft Data Policy Framework Revised Guidance note related to Final Version Data Policy Framework[15]	Facility scientist and staff of ESFRI and national PaN RIs	M18/ M30	Draft version completed - January 2020 Final version completed - February 2022
WP2 T2.6/ T5.1.1	Workshop Series (online)	Promote FAIR principles[16] Workshop 1: FAIR for Facilities[17] Workshop 2: The FAIR Experiment[18]	Facility scientists and staff of ESFRI and national PaN RIs	M12	Done - 1st - 2nd Oct. 2020 Videos available via the training catalogue
WP2 T2.6/ T5.3	Seminar (online)	Symposium for Librarians and Data Managers[19]	PaN librarians and data managers	M25	Done -

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[13] https://pan-training.eu/materials/advanced-infrastructure-for-pids-in-photon-and-neutron-ris
[14] https://pan-training.eu/materials/expands-d2-3-final-data-policy-framework-for-photon-and-neutron-ris
[15] https://pan-training.eu/materials/expands-guidance-note-key-policy-elements-within-a-photon-and-neutron-research-infrastructure-data-policy-framework-revised-final-version
[16] https://pan-training.eu/events/expands-fair-workshop
[17] https://pan-training.eu/materials/fair-for-facilities
[18] https://pan-training.eu/materials/the-fair-experiment
[19] https://pan-training.eu/events/expands-symposium-for-librarians-and-data-managers

WP Task	Type of training	Topic	Targeted audience/ stakeholders	Date/ Tentative date	Status
					30th September 2021
WP2 T2.6/ T5.3	Presentation (online - external speakers)	Assessing the FAIRness of a prototypical PaN instrument at BESSY II[20]	Facility scientists and staff of ESFRI and national PaN RIs	M27	Done - 15th November 2021 Video available via the training catalogue
WP2 T2.3/ T2.6/ T5.3	Workshop (online)	Workshop to present and get feedback on the metadata framework and its implementation at PaN instruments[21] (Related to metadata framework)	Facility scientists and staff of ESFRI and national PaN RIs	M31	Done - 2nd March 2022 Video available via the training catalogue
WP2 T2.3/ T5.3	Guidelines	Metadata framework and recommendations for FAIR PaN data management First draft released at M16[22]	Facility scientists and staff of ESFRI and national PaN RIs	M16 - M34	Draft version completed - 14th December 2020 Final version publication - July 2022[23]
WP2 T2.2/ T5.3	Guidelines	Data Management Plans for PaN RIs First deliverable on DMPs for PaN RIs[24] Second deliverable on Active DMPs for PaN RIs – due Nov 2022	Facility scientists and staff of ESFRI and national PaN RIs	M27/ M39	First deliverable completed - November 2021 Second deliverable - ongoing

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[20] https://pan-training.eu/materials/beamline-fairness-assessment-presentation
[21] https://pan-training.eu/materials/fair-metadata-workshop
[22] https://pan-training.eu/materials/draft-recommendations-for-fair-photon-and-neutron-data-management
[23] https://pan-training.eu/materials/final-recommendations-for-fair-photon-and-neutron-data-management
[24] https://pan-training.eu/materials/rdmo-research-data-management-organiser

WP Task	Type of training	Topic	Targeted audience/ stakeholders	Date/ Tentative date	Status
WP2 T2.2/ T2.6/ T5.3	Document or video (TBD)	Data Management Planning for PaN RIs	Facility scientists and staff of ESFRI and national PaN RIs	M36	ongoing
WP2 T2.5/ T2.6	Guidelines	Self-evaluation Photon and Neutron RIs for FAIR data certification – publication expected Nov 2022	Facility scientists and staff of ESFRI and national PaN RIs	M39	ongoing
WP2 T2.5/ T2.6	Workshop series (online)	Promote and discuss FAIR self-assessment exercise Workshop 1: Presentation of the FAIR self-assessment questions and report template – scheduled for 6th July 2022. Note that this workshop will not be recorded Workshop 2: Reporting of outcomes from FAIR self-assessment – planned for late Sept 2022	Facility scientists and staff of ESFRI and national PaN RIs	M35/ M37	ongoing
WP3 T5.3	Wiki. Linked to Workshop Develop common rules and best practices between national RI's and harmonise the provision of the EOSC services	Delivering data services to EOSC: OAI-PMH, metadata, harvesting, SciCat, ICAT, B2FIND, OpenAIRE, research data[25]	Open to ESFRI and national PaN RIs via the training platform	M20	Done - April 2021

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[25] https://pan-training.eu/materials/delivering-data-services-to-eosc

WP Task	Type of training	Topic	Targeted audience/ stakeholders	Date/ Tentative date	Status
WP3 T5.3	WIKI GitHub Document	ExPaNDS NexusOntology[26] 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	Done Published on the training platform NeXus ontology and mapping dcat ontology and nexus
WP3 T5.3	Document GitHub	PaNET ontology[27]	IT and facility scientist of ESFRI and national PaN RIs	M31	Completed
WP3 T5.3	Document and GitHub	Metadata Catalogue Release[28]: how a self-contained, stand-alone metadata catalogue release was developed for facilities to test and try locally	IT and facility scientist of ESFRI and national PaN RIs	M24	Done - August 2021
WP3 T5.3	Guidelines for users (User guide, targeted examples for PaN community, tutorials…)	EOSC data catalogue services: SciCat/ICAT document and provide technical information on systems, APIs and user interfaces[29]	IT of ESFRI and national PaN RIs	M31 - M34	Completed
WP3 T5.1.4	Workshop (online): Presentation of	Educate and train IT staff and scientists on	IT of ESFRI and national PaN RIs	M32	Done - 4 April 2022

[26] https://pan-training.eu/materials/expands-nexusontology-machine-readable-ontology-of-the-nexus-definitions
https://pan-training.eu/materials/expands-mapping-dcat-ontology-and-nexus
https://pan-training.eu/materials/expands-d3-2-ontologies
[27] https://pan-training.eu/materials/expands-photon-and-neutron-experimental-techniques-panet-ontology
https://pan-training.eu/materials/pan-ontologies-api
https://pan-training.eu/materials/expands-d3-2-ontologies
[28] https://pan-training.eu/materials/metadata-catalogue-release
[29] https://pan-training.eu/materials/common-search-api-definition
https://pan-training.eu/materials/report-on-status-gap-analysis-and-roadmap-towards-harmonised-and-federated-metadata-catalogues-for-eu-national-photon-and-neutron-ris
https://pan-training.eu/materials/demonstrate-icat-and-scicat-released-with-apis-compatible-with-expands-federated-eosc-services
https://pan-training.eu/materials/scicat-ingestion-approaches

WP Task	Type of training	Topic	Targeted audience/ stakeholders	Date/ Tent ative date	Status
	the User Guidelines for PaN _Learning path associated (workflow)_	the metadata catalogue services[30]			
WP3 T5.3	Workshop (online)	Promote PIDs: options for persistent identifiers for raw data and the metadata to be registered along with those identifiers	IT and facility staff of ESFRI and national PaN RIs	M37	On-going
WP4 T5.1.5	Workshop on the Virtual Infrastructure for Scientific Analysis (hybrid)	VISA portal demo, set up and distribution	IT staff of PaNOSC and ExPaNDS projects	M34	Done - 14 June 2022 online - Prague
WP4 T5.1.5	Workshop (online)	Educate and train PaN users in the use of the data analysis services	IT, facility staff and end user of ESFRI and national PaN RIs + TBD	7M37	Ongoing - VISA workshop planned on the 16th September 2022 Special session at the EUSO GA on the 29th - 30th August 2022 Presentation + Poster
WP3/ WP4 T5.1.3	Workshop or training session (hybrid/online)	Educate and train developers and facility staff on how to deploy and support their own	IT and facility staff of ESFRI and national PaN RIs	M34 – M40	Ongoing, dedicated meetings between

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[30] https://pan-training.eu/materials/workshop-on-metadata-catalogues
https://pan-training.eu/workflows/metadata-catalogue-services

WP Task	Type of training	Topic	Targeted audience/ stakeholders	Date/ Tentative date	Status
		workflows of the data analysis services			WP5 and the facilities staff
WP5 T5.2/ T5.3	Series of seminars + poster + video demonstrating the catalogue	How to customise 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 – M42	Done - Seminars that took place up to date: **Symposium for Librarians and data policy staff** 30th September 2021 Publishing the experiment Oliver Knodel (HZDR) **2nd European PaN EOSC Symposium 2021** 26th October 2021 TELBE Data Analysis workflow and the PaN training platform UX Jan-Christoph Deinert (HZDR) **Workshop (in French): EOSC, a resource for research**

WP Task	Type of training	Topic	Targeted audience/ stakeholders	Date/ Tent ative date	Status
					8th April 2022 Ana Valcarcel Orti (SOLEIL) **LEAPS LENS monthly IT staff meeting** 9th May 2022 Poster Uwe Konrad (HZDR) **LEAPS meets Quantum** 15th - 20th May 2022 in Elba Poster Oliver Knodel (HZDR) **ExPaNDS – PaNOSC meeting** hybrid Prague 14th - 15th June 2022 Antoine Padovani (SOLEIL) **ESUO General Assembly meeting** 29th - 30th August in Paris Majid Ounsy (SOLEIL)

WP Task	Type of training	Topic	Targeted audience/ stakeholders	Date/ Tentative date	Status
					EGI meeting Poster submitted 20th - 22nd September 2022 in Prague Poster A video is also available on the training platform[31]

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[31] https://pan-training.eu/about

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