



The Training Catalogue for Photon and Neutron Data Services

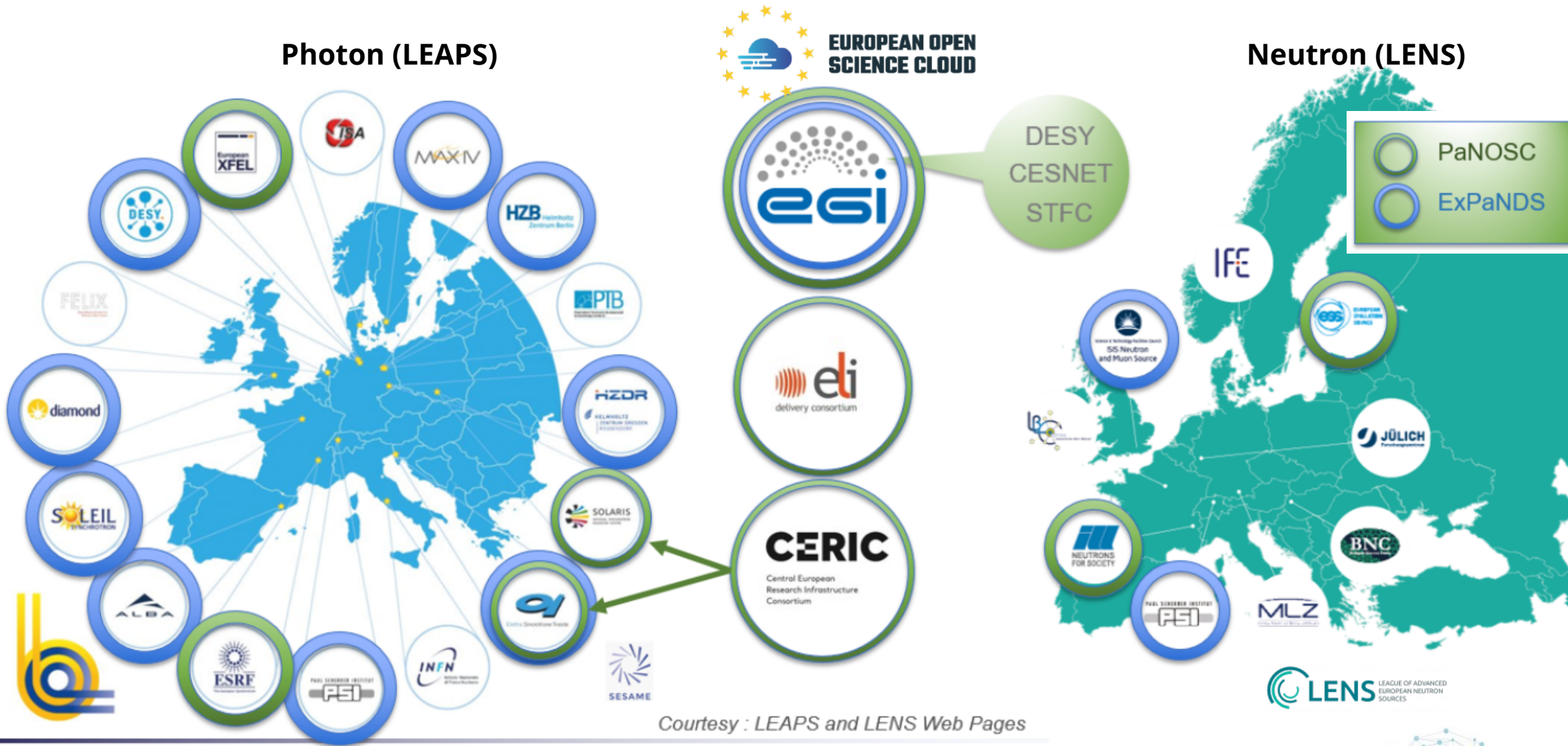
Training & skills for EOSC

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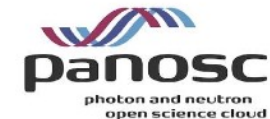


PaNOSC and ExPaNDS projects have received funding from the European Union's Horizon 2020 research and innovation programme under grant agreements 823852 and 857641, respectively.

ExPaNDS and PaNOSC in the PaN EU Project Landscape



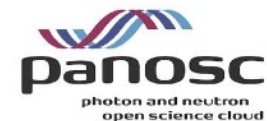
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Our Contribution to Training and Learning in the ExPaNDS and PaNOSC Projects

- The **lack of a central platform for PaN Teaching and Learning** has been identified by the PaN facilities.
- We evaluated available, **state of the art technologies for teaching** and data collection platforms. DOI [10.5281/zenodo.5171766](https://doi.org/10.5281/zenodo.5171766)
- We have recognised that a simple, **openly accessible catalogue** of materials, where anyone can add relevant content for the community, is particularly important.
- We introduced a PaN training **catalogue** and an **e-learning** platform:
 - to **collect** existing material,
 - to **announce** events and
 - to **create/store** courses.
- We are **re-using** successful projects developed by:

- **Elixir** (TeSS),
- **SINE2020** e-neutrons and
- **AAI: UmbrellaID/eduTeams**.



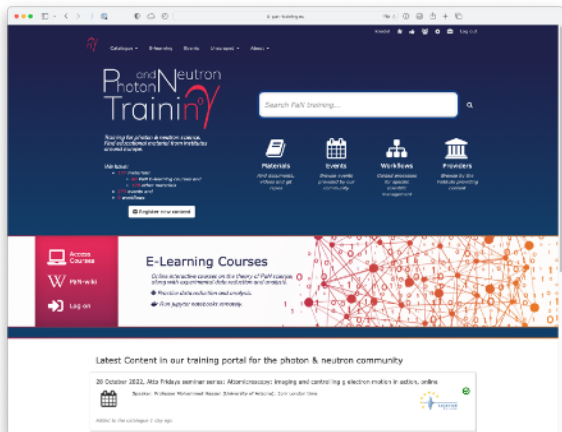
PaN Training Catalogue and E-Learning Platform combined in one Overall Portal

ExPaNDS



pan-training.eu

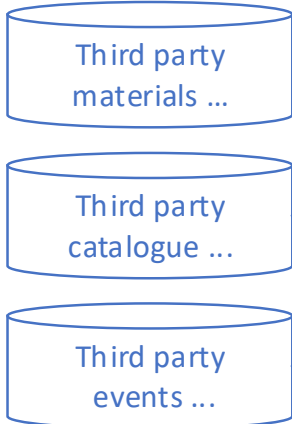
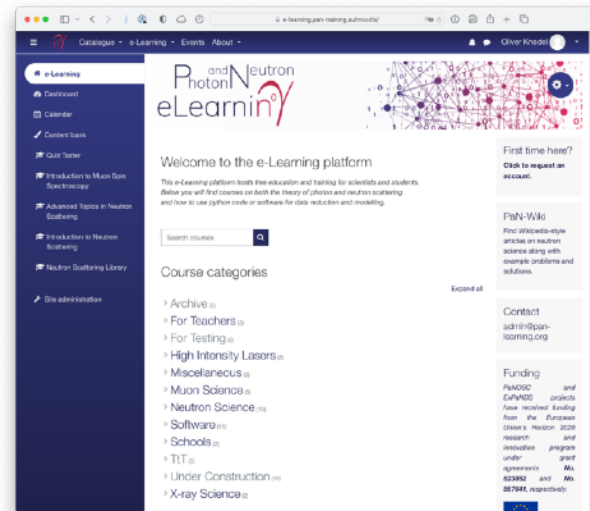
e-learning.pan-training.eu



Central place to access all ExPaNDS / PaNOSC training materials and our e-learning platform, define training workflows to guide the scientist through the materials, harvest events and other e-learning platform courses from external providers or PaN RIs:

The central e-learning platform for blended learning courses with PaN content and additional features:

- Jupyter notebook integration,
- Simulations (neutrons, VINYL),
- Virtual lab and
- Wiki.



- Website,
- GitHub,
- Video (youtube),
- Training datasets, (from Zenodo)
- Workshop minutes,
- ...



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Training and Learning Platform PaN-training.eu — An Overview

Log in to add events or materials

Support in finding the most suitable system for new content

Latest Content in our training portal for the photon & neutron community

28 October 2022, Atto Fridays seminar series: Attomicroscopy: imaging and controlling g electron motion in action, o
Speaker: Professor Mohammed Hassan (University of Arizona); 3pm London time
Added to the catalogue 1 day ago

umbrella
umbrellaID: Confidentiality for a lifetime

Our E-learning platform

Log in to access courses

Welcome to the e-Learning platform

This e-Learning platform hosts free education and training for scientists and students. Below you will find courses on both the theory of photon and neutron scattering and how to use python code or software for data reduction and modelling.

Search courses

Course categories

- For Teachers (2)
- High Intensity Lasers (2)
- Miscellaneous (2)
- Muon Science (5)
- Neutron Science (14)
- Software (6)
- Schools (2)
- X-ray Science (1)

Log in

Remember username

Lost password? Log in using your account on:

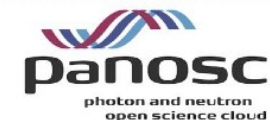
- Federated Log in

First time here? Click to request an account.

PaN-Wiki
Find Wikipedia-style articles on neutron science along with example problems and solutions.



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Materials, Metadata and the Possibility to Search for Specific Topics & Methods

Add your own materials

Subscribe to mail alerts

Materials, events and workflows are all openly accessible

Apply complex filters on our metadata

Search by keyword, scientific method, audience, author, ...

Add rich metadata to allow a more specific search

Social media share buttons and like-feature to sort content

Virtual Infrastructure for Scientific Analysis (VISA) Workshop

Keywords: VISA, expands, PaNOSC, remote data analysis services

Resource type: slides

Licence: Creative Commons Attribution 4.0

Language: English

DOI: 10.5281/zenodo.7108457

Related events:

- Online workshop for the Virtual Infrastructure for Scientific Analysis (VISA) platform (ended)

Authors: Jean Francois Perrin, Fabio Dall'Antonia, Silvan Schoen, Eric Moge, Tim Wetzel, Enric Querol Baladi, Andrea Manzi, Ludovic Leroux



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Integration of the E-learning Courses in the PaN Training Catalogue

- Under **materials**, the metadata of all courses available on the E-learning platform is **openly accessible** without registration.
- On the E-learning platform the content is only available after logging in.
- **Automated harvesting** of the metadata from the E-learning system.

E-learning courses are listed under materials

The E-learning platform requires authentication

The metadata of the courses is accessible without log in

Welcome to the 2022 PaNOSC Summer School

The platform provides an integration of JupyterLab



A Place for PaN-related Events

The image displays a collage of screenshots from the pan-training.eu website. The top-left screenshot shows the homepage with a search bar and navigation menu. The top-right screenshot shows a detailed event page for '24-28 October 2022, Photodynamic Therapy and Photodiagnosis Update 2022, Nancy, France', including a map and metadata. The bottom-left screenshot shows a filtered list of events with various filters like 'Date Added', 'Scientific topic', and 'Country'. A red arrow points from the event list to the detailed event page.

Automated harvesting of events from different content providers

Rich metadata for on- and offline events with additional metadata and maps

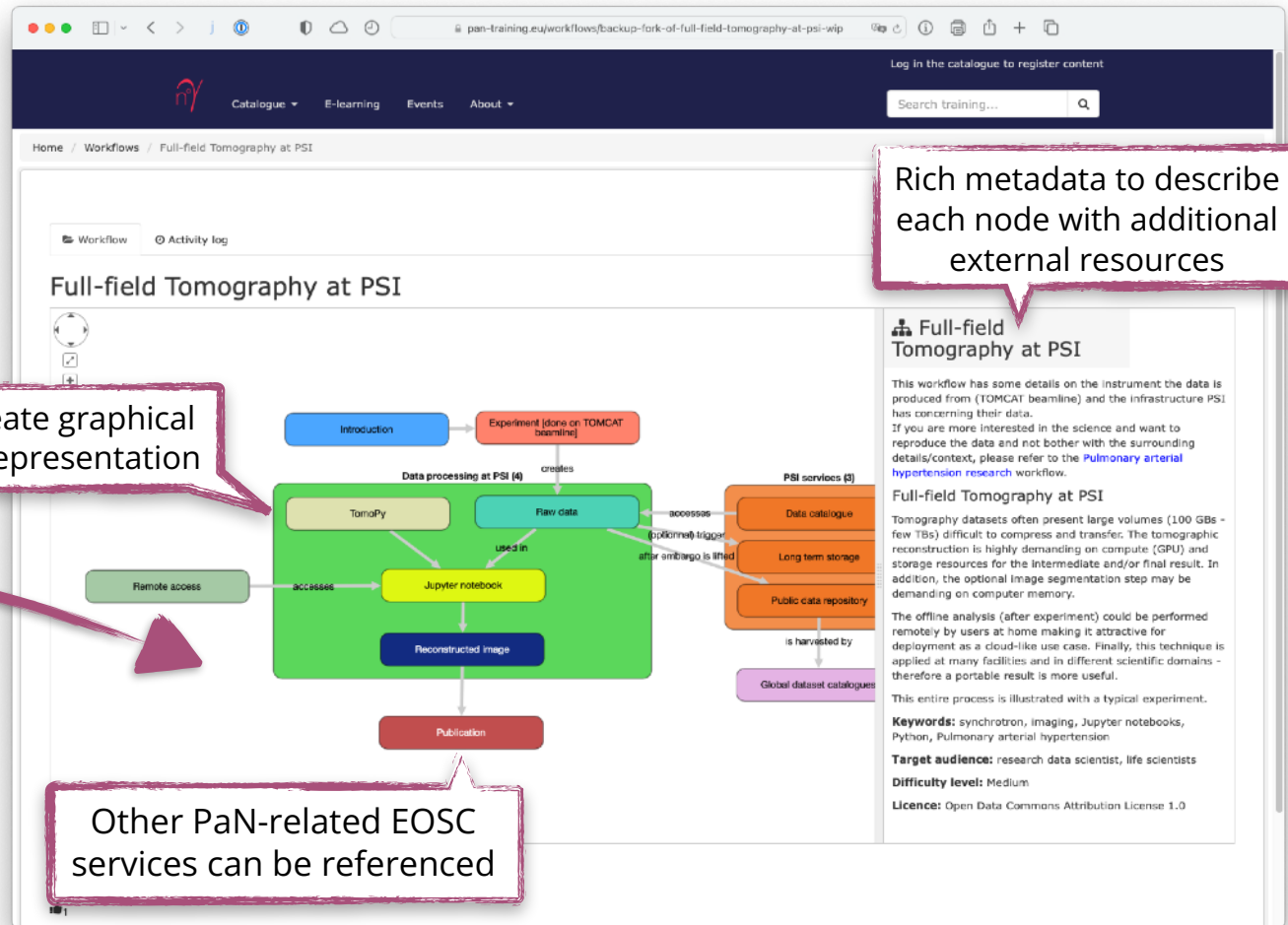
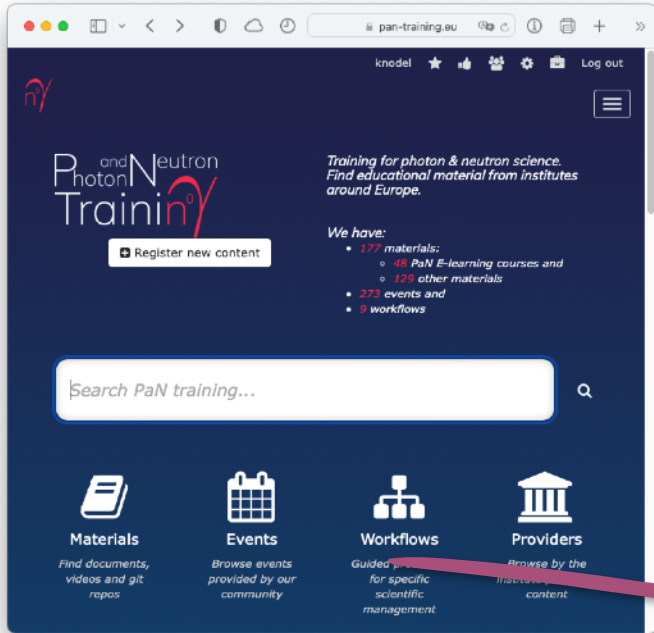
Social media share buttons and like-feature to sort content



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Different Materials with Dependencies: Training Workflows



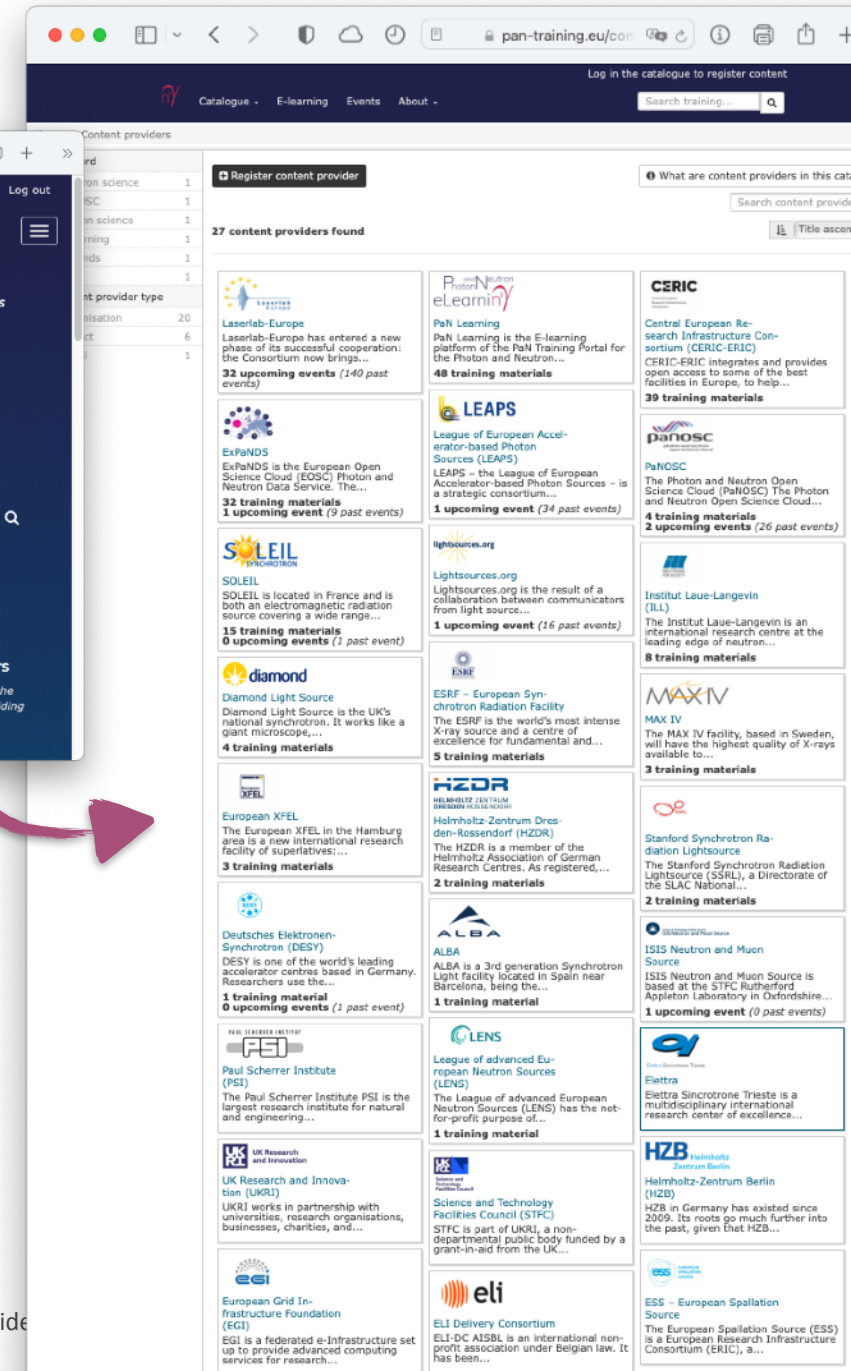
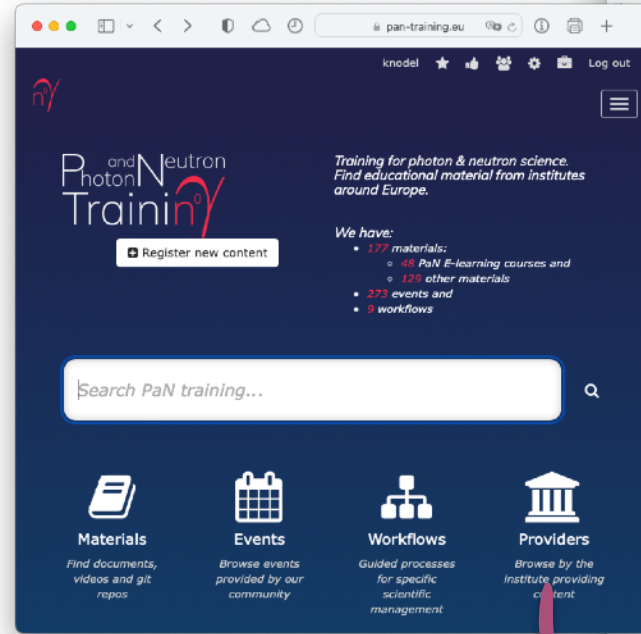
- With **training workflows** we can show dependencies between **materials**, **datasets** and **interactive analyses** services.
- The workflow are static, but intuitive and easy to create.

➔ Empowering PaN scientists to use the **EOSC**!



Training and Learning Platform: The Community

- Our portal depends on content from our community.
- With the **content provider** dashboard we can browse the content from our community members:
 - Facilities and Research Institutes (RIs),
 - Projects, consortiums or initiatives,
 - Service providers for the scientists.



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Slide

Adding Resources to the Most Appropriate Part of the Platform

The image illustrates the process of adding resources to the PaN-training.eu platform through a series of screenshots and a decision tree.

Decision Tree:

- Question: "Is the material (website, article, report, project deliverable, video, git repository, e-learning course, ...) available online?"
 - Yes:** "Is the material or the collection of material available as a single resource without dependencies?"
 - Yes:** "The resource can be registered as a material in our catalogue: or when it is just an event:"
 - Buttons: Register material, Register event
 - No:** "The resources can be described in a workflow to show dependencies between the materials:"
 - Button: Register workflow
 - No:** "Is it necessary to create the material completely from scratch?"
 - Yes:** "You can create a new E-learning course in our moodle (provides Jupyter support):"
 - Button: Create E-learning course on pan-learning

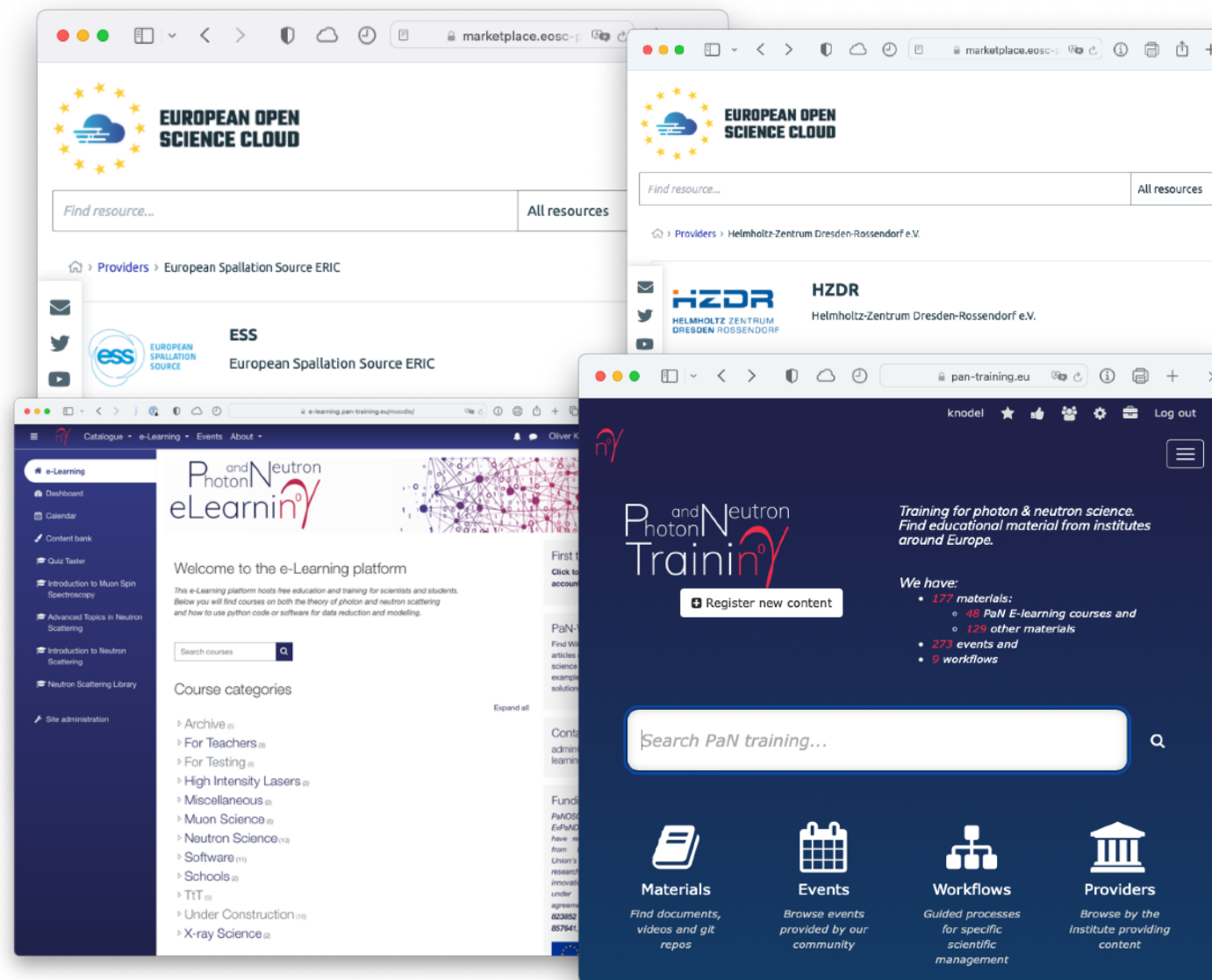
Other Screenshots:

- Home Page:** Shows the "Register new content" button and navigation menus for Materials and Events.
- New material Form:** A form with fields for Title, URL, and Short description, and a "What are training materials?" section.
- eLearning Course Page:** Shows the "Creating a new E-learning course" page with a list of required information: Login name, Full name, Short name, Visibility, and Required resources.



Two Projects, Two Systems, One Uniform Training Portal

- The **next step** is the registration as an EOSC resource:
 - **pan-training.eu** → HZDR
 - **e-learning.pan-training.eu** → ESS
 - (Registration of the services delayed due to smaller issues with the domain)
- The transition from one system to another is **seamless**, regardless of the starting point.



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Further Information

- The PaN training platform pan-training.eu
- PaN e-learning e-learning.pan-training.eu
- PaN e-learning Help docs.pan-training.eu
- ExPaNDS expands.eu, [@ExPaNDS_eu](https://twitter.com/ExPaNDS_eu)
- PaNOSC panosc.eu, [@PaNOSC_eu](https://twitter.com/PaNOSC_eu)

For enquiries, information, or assistance;
contact our support desk at pan-training@hzdr.de

 github.com/pan-training/training-catalogue

Thanks to *all* team and project members from ExPaNDS and PaNOSC, as well as ELEXIR for the development of TESS!



Publications:

Knodel, Oliver, & Konrad, Uwe. (2021). Demonstrator for using e-learning platforms for PaN (1.0). Zenodo. DOI [10.5281/zenodo.5171766](https://doi.org/10.5281/zenodo.5171766)

Knodel, Oliver, Konrad, Uwe, Valcarcel-Orti, Ana, & Padovani, Antoine. (2022). The Training Catalogue for Photon and Neutron Data Services (2.1). Zenodo. DOI [10.5281/zenodo.6786282](https://doi.org/10.5281/zenodo.6786282)

Knodel, Oliver, & Padovani, Antoine. (2022). D5.5 Dedicated websites and e-platforms with the teaching material (1.0). Zenodo. DOI [10.5281/zenodo.7023247](https://doi.org/10.5281/zenodo.7023247)

Knodel, Oliver, Padovani, Antoine, & Schwabe, Julia. (2022). Training-catalogue for the Photon and Neutron Data Services (1.0.0). Zenodo. DOI [10.5281/zenodo.7015079](https://doi.org/10.5281/zenodo.7015079)

