

# ExPaNDs

**European Open Science Cloud Photon  
and Neutron Data Services**

## The Training Catalogue for Photon and Neutron Data Services

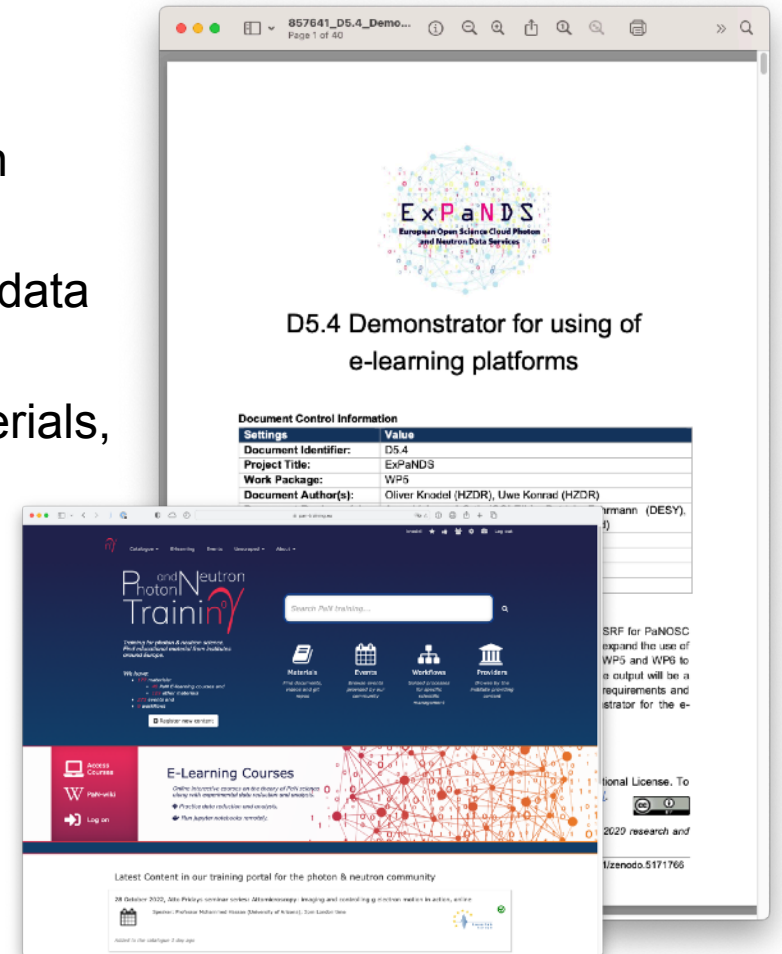
Oliver Knodel (HZDR), Antoine Padovani (SOLEIL), Clara Albert (SOLEIL), Ana Valcarcel-Orti (SOLEIL), Uwe Konrad (HZDR), Marta Gutierrez (EGI), Giuseppe La Rocca (EGI)



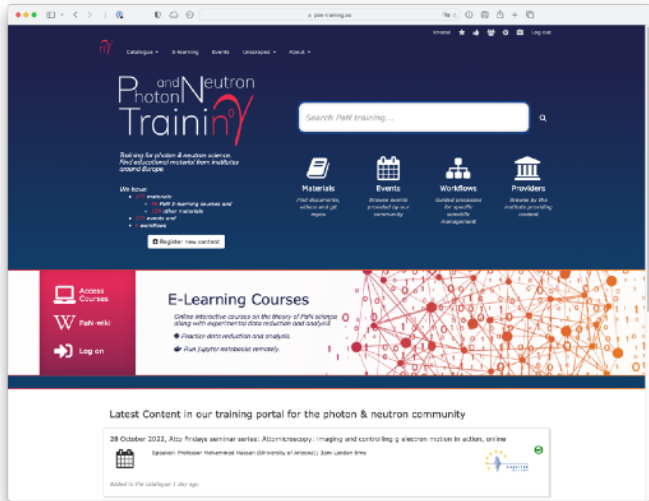
PaNOSC and ExPaNDs projects have received funding from the European Union's Horizon 2020 research and innovation programme under grant agreements 823852 and 857641, respectively.

# Our Contribution to Training and Learning

- 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 (D5.1 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



ExPaNDS



pan-training.eu

panosc

e-learning.pan-training.eu

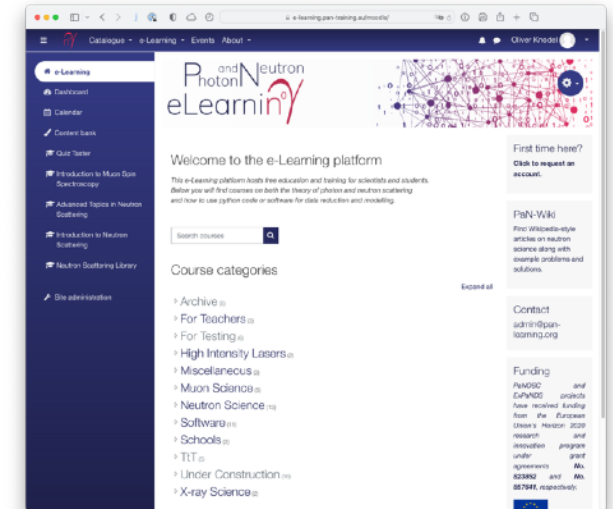
Central place to access all ExPaNDS / PaNOSC training materials and our e-learning platform, define training workflows to guide the scientist through the materials, harvest events and other e-learning platform courses from external providers or PaN RIs:

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



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.



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

The image displays two screenshots of the PaN-training.eu website. The left screenshot shows the main homepage with a search bar, navigation menu, and a list of categories: Materials, Events, Workflows, and Providers. A callout box labeled "Powerful search" points to the search bar. Another callout box labeled "Log in to add events or materials" points to the "Log out" link in the top right corner. The right screenshot shows the e-Learning platform interface, featuring a search bar, a list of course categories, and a login form. Callout boxes include "Our E-learning platform" pointing to the eLearning logo, "Log in to access courses" pointing to the login form, and "umbrella" pointing to the umbrella logo. A large callout box labeled "Latest content from both platforms" points to the "Latest Content" section on the main page.

Log in to add events or materials

Powerful search

umbrella  
umbrellaID: Confidentiality for a lifetime

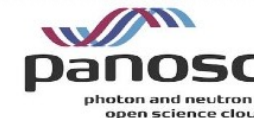
Our E-learning platform

Log in to access courses

Latest content from both platforms



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

Register 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

New in PaN-training: **zenodo** background uploader



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# Integration of PANOSC's E-learning Courses in the PaN Training Catalogue

- Under **materials**, the metadata of all courses available on PANOSC's E-learning platform is **openly accessible** without registration.
- On our E-learning platform the content is only available after logging in (UmbrellaID).

The screenshot shows the PaN Training Catalogue website. The main content area displays a list of courses under the 'Materials' section. A callout box points to the course listings, stating: "E-learning courses are listed under materials". The sidebar menu is open, showing various navigation options. A callout box points to the course metadata, stating: "The metadata of the courses is accessible without log in". The right side of the image shows a separate page for the "PaNOSC Summer School 2022", which includes a welcome message and a list of focus days. A callout box points to the JupyterLab integration, stating: "The platform provides an integration of JupyterLab". Another callout box at the top right states: "The E-learning platform requires authentication".

Photon and Neutron  
eLearnin<sup>o</sup>y



umbrellaID: Confidentiality for a lifetime

EXPANDS  
The training portal for the photon and neutron scattering community  
European Union's Horizon 2020 agreement 857641 and 823852

# A Place for PaN-related Events

pan-training.eu

Training for photon & neutron science. Find educational material from institutes around Europe.

We have:

- 177 materials
- 48 PaN E-learning courses and 129 other materials
- 273 events and 9 workflows

Register new content

Search PaN training...

Materials: Find documents, videos and git repos

Events: Browse events provided by our community

Automated harvesting of events from different content providers

pan-training.eu

Catalogue E-learning Events About

Home / Events

Date Added: Anytime

Scientific topic: neutron scattering 1

Event type: Workshops and courses 27, Meetings and conferences 3

Online: Only show online events

Country: United States of America 6, France 2, Germany 2, Spain 2, Argentina 1, Austria 1, Chile 1, Cuba 1, India 1

30 events found

Introduction to Synchrotron and XFEL Radiation – Techniques and Applications, 11 - 30 April 2024

7-11 November 2022, XI International Meeting of Photonics and Photonics, Havana, Cuba, 7 - 12 November 2022

16-18 November 2022, Ultra-fast Science and Technology Spain meeting (USTS 2022), Malaga, Spain, 16 - 19 November 2022

Optica Laser Congress and Exhibition, 11 - 15 December 2022, Barcelona, Spain

27 November - 2 December 2022, Advances in the Fundamental Understanding of Halide Perovskites, at the Materials Research Society (MRS) Fall Meeting, Boston, USA, 27 November - 3 December 2022

12-16 December 2022, 2nd Workshop on Molecular...

24-28 October 2022, Photodynamic Therapy and Photodiagnosis Update 2022, Nancy, France

Content provider: Laserlab-Europe

Laserlab-Europe has entered a new phase of its successful cooperation: the Consortium now brings together 35 leading institutions in laser-based inter-disciplinary research from 18 countries. Together with associate partners, Laserlab covers the majority of European member states. 24 laboratories offer access to their facilities for research teams from Europe and beyond, kindly supported by EC funding. Lasers and photonics, one of only five key enabling technologies identi... Read more

24-28 October 2022, Photodynamic Therapy and Photodiagnosis Update 2022, Nancy, France

https://www.laserlab-europe.eu/events-1/conferences/conference-calendar/24-28-october-2022-photodynamic-therapy-and-photodiagnosis-update-2022-nancy-france

Start: Monday, 24 October 2022 @ 09:00

End: Saturday, 29 October 2022 @ 00:00

Venue: Rue de la Citadelle

City: Nancy

Country: Meurthe-et-Moselle

Country: France

Postcode: 54100

Event type: Meetings and conferences

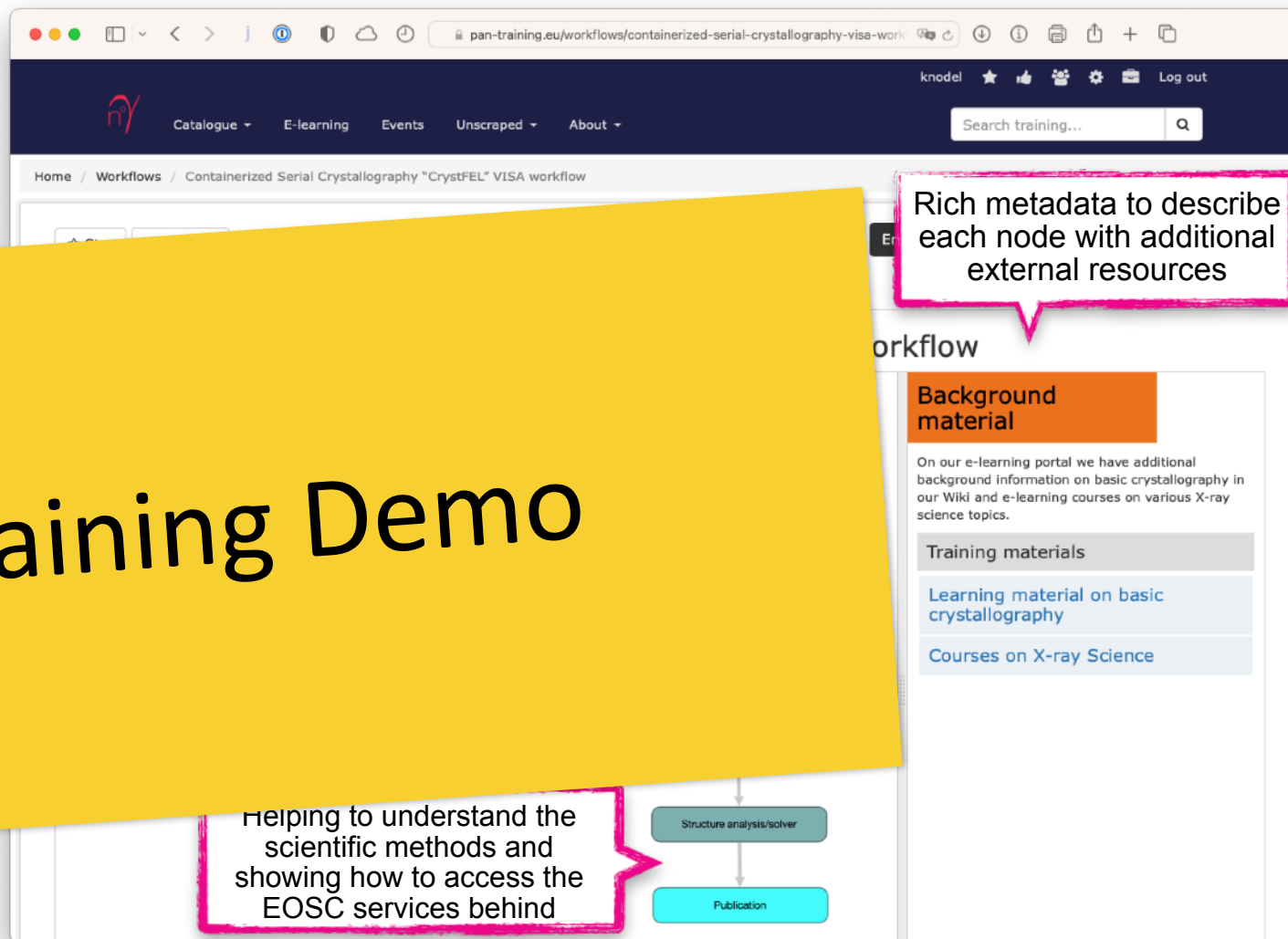
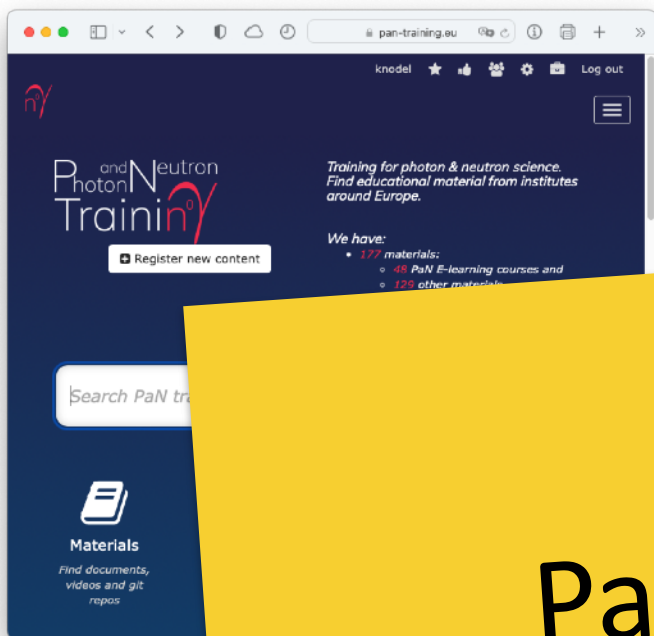
Rich metadata for on- and offline events with additional metadata and maps



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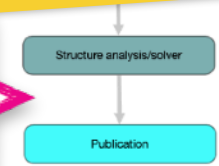
# Different Materials with Dependencies: Training Workflows



PaN-Training Demo

Rich metadata to describe each node with additional external resources

Helping to understand the scientific methods and showing how to access the EOSC services behind



- With **training** dependencies and **interactive**

- The workflow is **easy to create** and **easy to use**

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



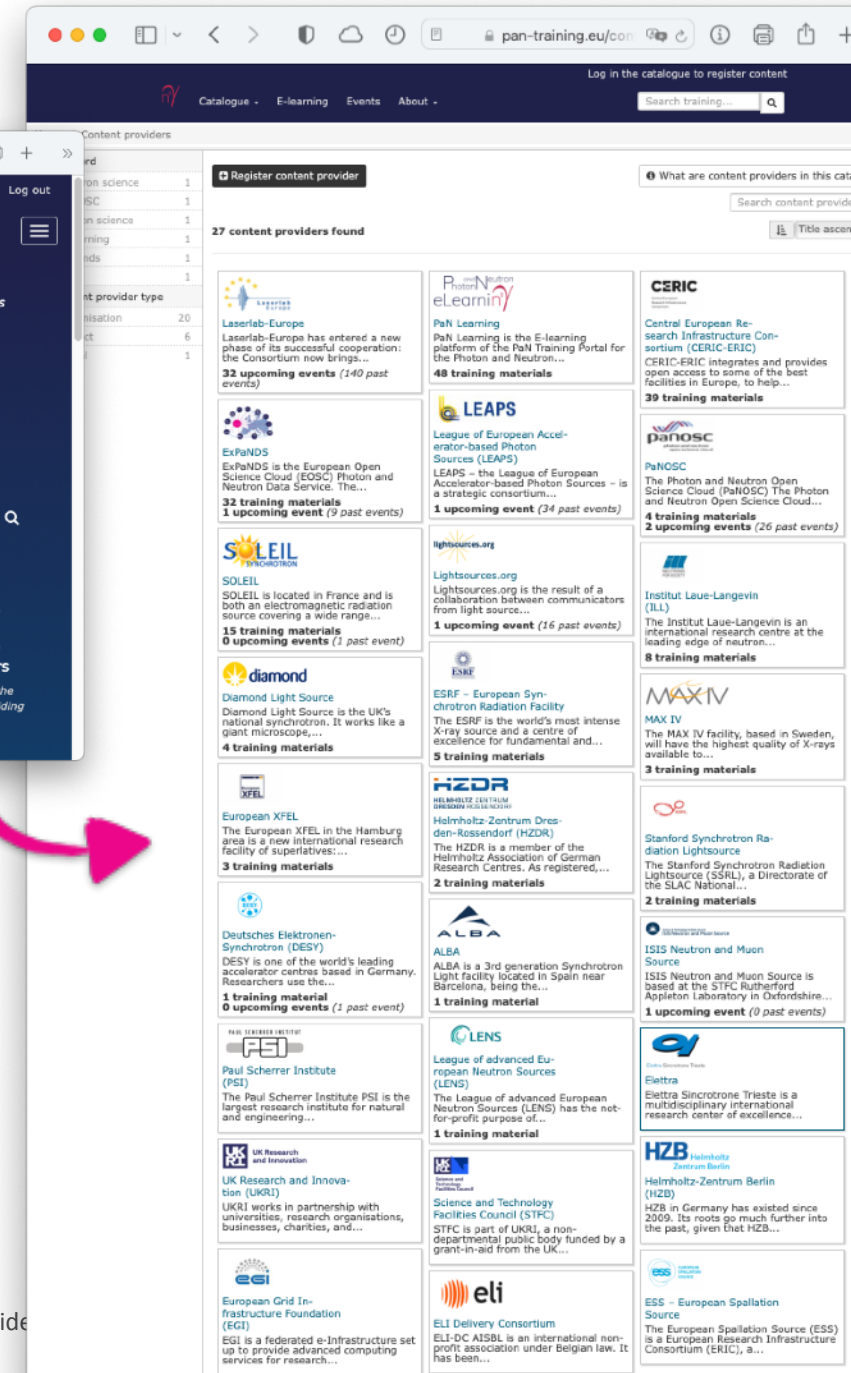
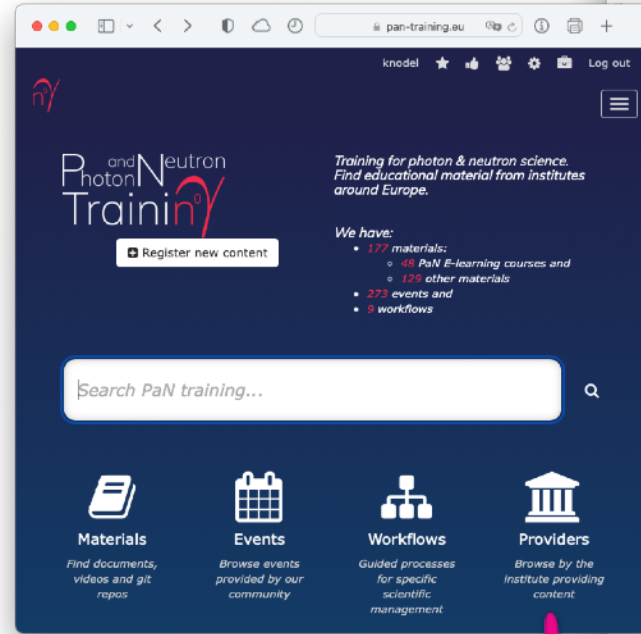
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# Training and Learning Platform: The Community

- 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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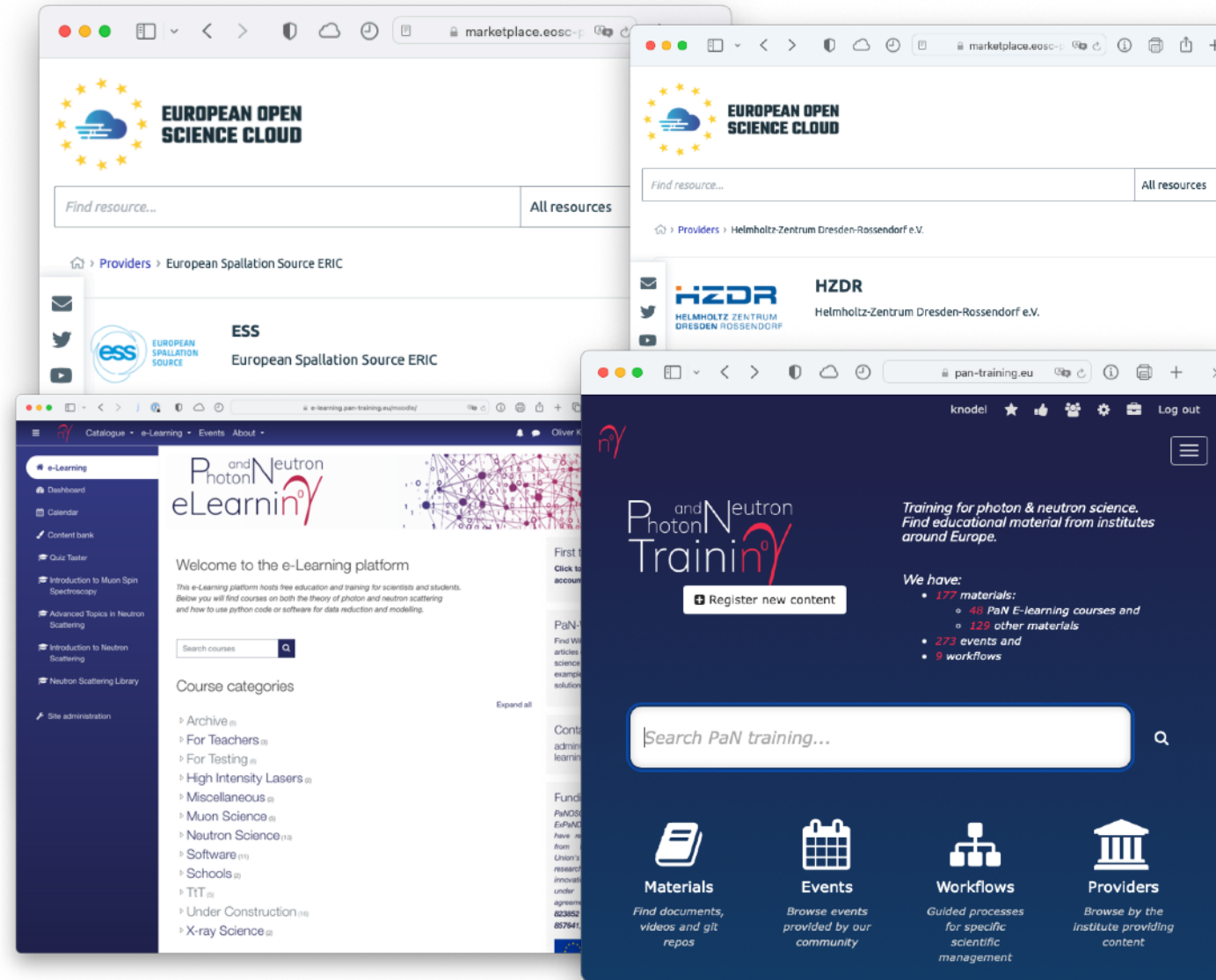
Slide

# Two Projects, Two Systems, One Uniform Training Portal

- Registration as EOSC resources:
  - [pan-training.eu](https://pan-training.eu) → HZDR
  - [e-learning.pan-training.eu](https://e-learning.pan-training.eu) → ESS
- The transition from one system to another is **seamless**, regardless of the starting point.



**EUROPEAN OPEN  
SCIENCE CLOUD**



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# Further Information

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

For enquiries, information, or assistance;  
contact our support desk at [pan-training@hzdr.de](mailto:pan-training@hzdr.de)



[github.com/pan-training/training-catalogue](https://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)



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