

## Task 8.4 Staff training in e-learning platform (M13-M42)

Leader: ESS. Contributors: ESRF, ILL, XFEL.EU, ELI, CERIC-ERIC

A workshop will be prepared and held during the project to foster uptake of the e-learning platform by the PaNOSC beneficiaries.

In the workshop, the participants will be trained in using the platform for developing both passive and interactive training material for their own teaching.

after M30

Mentoring to developers of training material will be provided subsequently to the workshop. During the mentoring phase new functionality from Task 8.2 and Task 8.3 will be introduced.

Likewise, the mentoring phase will be used to retrieve feedback on usability.

Besides providing a service to the PaNOSC facilities, this task is also seen as an important step to ensure the sustainability of the e-learning platform.

A report covering lessons learned from the workshop and mentoring phase and with an outlook to the future will be delivered (D8.2 - M42).

# Phases of course development



- Course responsible appointed for each course to be developed in WP8
- Recruiting development team
- Completion of course outline
- Curriculum specification
- Production/collection of learning material in text format and/or manuscripts for videos etc.
- Hiring external contractors (e.g. for video production)
- Converting learning material to e-learning formats
- Implementing learning material at e-neutrons
- Learning management at e-neutrons

# Prerequisites for e-neutrons workshop



- In order to make efficient use of the e-neutrons course (in the green phase) the red and blue phases need to be completed first
- Should ESS make separate workshops to coach other facilities for the red and blue phases?

# Which courses to produce in WP8



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## Task 8.5 Staff training in data stewardship (M25-M32)

**Leader:** ELI. Contributors: ESRF, ILL, XFEL.EU, ESS, CERIC-ERIC

The purpose of this task is to upgrade staff's skills in data stewardship. At workshops targeting staff at the PaNOSC beneficiaries and other interested RIs (e.g. national facilities), the FAIR principles will be promoted and the toolset of a modern data culture (concept of PID's, Orcid, DataCite, etc.) will be introduced. Moreover, the developed PaNOSC policies and services (WP2-WP5) will be introduced in the context of employing proper data stewardship procedures. **Course material in the form of videos, how-to's, webinars, and testimonials from fellow scientists already following such practices, will be available from the e-learning platform, which also will be used for developing interactive course material (e.g. quizzes) based on existing functionalities and functionalities developed in Tasks 8.2 and 8.3.** In this way the material can also be used by others and for self-learning. A report covering lessons learned from the workshop and mentoring phase and with an outlook to the future will be delivered (D8.1 - M32).

## Task 8.6 Training materials to foster the uptake of PaNOSC services (M31-M42)

**Leader:** ELI. Contributors: ESRF, ILL, XFEL.EU, ESS, CERIC-ERIC

The aim of this task is to ensure that adequate self-training material is available to enable users to use the services developed in this project (WP3-5 and Task 8.1) for their own needs. Thus a set of training material, which enables trainees to retrieve stored open access data using services from WP3, analyse them using services from WP4, and also perform a virtual experiment using services from WP5 and analyse these data using services from WP4. This task will thus be done in close collaboration with WP3-5. **The training material will be based on the e-learning framework and made available through the e-learning platform. Videos and Jupyter tutorials linked to the virtual facility are anticipated to be the preferred didactical tools.** The services together with this training material will be presented at relevant user meetings of the participants and the observers from the PaN community.

## Task 8.7 Introductory course to materials science LSFs in the European Research Area (M31-M42)

**Leader:** ESS, Contributors: ESRF, ILL, XFEL.EU, ELI, CERIC-ERIC

An e-learning course will be developed for students with the purpose of introducing them to the specific strengths of each of the PaNOSC beneficiaries. This will be based on the existing technology in the e-neutrons.org as well as on new functionality and training material developed in this WP. Most noticeably the students will be able to compare the outcome of virtual experiments for the same sample at different instruments at multiple facilities and analyse the data. The tutorials will also show and discuss discrepancies between virtual and real experiments. **The e-learning course will specifically contain functional Jupyter tutorials that guide the students through making a virtual experiment at multiple facilities, analyse and compare the results including with results from real experiments. A quiz will also be available that demonstrates that students understand basic concepts of light- and neutron scattering techniques and that they got the expected outcome from the virtual experiments and analysis exercises.**

## Task 8.8 PaNOSC schools for students (M42-M48)

**Leader:** ELI, Contributors: ESRF, ILL, XFEL.EU, ESS, CERIC-ERIC

At least one summer school for graduate students will be organised towards the end of the project in collaboration with the Hercules school for neutron and synchrotron radiation (see Letter of Support). The purpose of the course is to 1) enable scientists to better leverage the European Research Area by guiding scientists towards the facility where the cost-benefit is the highest, 2) promote the FAIR principles, and 3) introduce students to the services developed in PaNOSC. The course will be based on the materials developed in this WP. In collaboration with WP9, other channels for courses will be investigated and exploited, such as the facilities' user meetings.

Only T 8.2 & 8.3 complete M30!

Who will produce learning material?

ESS contributes to production of learning material?