Workshop on the Role of Innovation in the Nuclear Back-End: Harnessing Robotics and Advanced Technologies for Safer, More Efficient Activities

When?

**31 March 2025 - 4 April 2025**

Workington, United Kingdom

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[Register for the event](http://www.oecd-nea.org/confdb/confdb/conf?id=988)

The Nuclear Energy Agency (NEA) and Sellafield Ltd are jointly organising an international workshop on innovative technologies for the nuclear back-end, focusing on the opportunities, benefits and challenges in increasing safety and efficiency. Complementing other technical and academic conferences, this workshop leverages the NEA's unique position and Sellafield's expertise to create a neutral forum for all stakeholders. The goal is to identify good practices and policies that will drive the successful implementation of cutting-edge technologies in the nuclear back-end.

The nuclear back-end offers significant opportunities for advancement. Challenges such as ageing facilities, waste management, and the decommissioning of complex and legacy sites, are catalysts for innovation. In addition, the demand for efficient, cost-effective solutions in the back-end has made it an ideal ground for demonstrating and deploying new technologies.

Recognising this potential, the NEA established two dedicated working groups: the [Expert Group on the Application of Robotics and Remote Systems in the Nuclear Back-end (EGRRS)](https://www.oecd-nea.org/jcms/pl_25235/expert-group-on-the-application-of-robotics-and-remote-systems-in-the-nuclear-back-end-egrrs) and the [Working Party on Technical, Environmental and Safety Aspects of Decommissioning and Legacy Management (WPTES)](https://www.oecd-nea.org/jcms/pl_81764/working-party-on-technical-environmental-and-safety-aspects-of-decommissioning-and-legacy-management-wptes%22%20%5Co%20%22Working%20Party%20on%20Technical%2C%20Environmental%20and%20Safety%20Aspects%20of%20Decommissioning%20and%20Legacy%20Management%20%28WPTES%29). Their insights have shaped the workshop's programme, ensuring it addresses key challenges while fostering innovation.

Far from being a hurdle, the nuclear back-end serves as a driving force for technological progress. Existing sites and current challenges provide ideal environments for the rapid development and application of new technologies. These advancements have the potential to benefit the entire nuclear supply chain, offering effective solutions for sustainable waste management and decommissioning across past, present and future nuclear power plants, as well as fusion technologies.

[Download the agenda](https://www.oecd-nea.org/upload/docs/application/pdf/2025-02/draft_programme.pdf)

316.74 KB

Objectives

* Review the technological needs and constraints at back-end sites;
* Identify the implementation challenges of innovative technologies;
* Share success stories and lessons learnt to improve future deployments;
* Anticipate the impacts of adopting disrupting technologies, particularly in areas like cybersecurity, human factors and advanced reactors;
* Enable the stakeholders to share their perspectives and establish common ground;
* Facilitate networking amongst professionals in the nuclear energy industry.

Programme

***Main technical programme***

The main technical programme will take place from **1-3 April 2025.**The full agenda will be released in due course.

Topics will include:

* Innovation success stories and challenges;
* Policy implementation to support innovation;
* Human factors;
* SMRs and future back-end needs;
* Cyber security, AI and digital technologies;
* Panel sessions with Q&As.

***Site visits (Limited capacity)***
Site visits will be held **before and after** the technical programme.
Key locations include:

* **Sellafield**
* **RAICo Center**

*Please note that site visits are subject to limited capacity, and early registration is recommended. Additionally, the co-host reserves the right to grant access to their facilities based on internal security policies.*

Location

The workshop will take place at the [Energus conference centre](https://energus.co.uk/) in Workington, United Kingdom

**Address:**Blackwood Road | Lillyhall | Workington | Cumbria | CA14 4JW

**Telephone:** (+44) 01900 605665

*Recommended location for hotels:* Cockermouth, Cumbria

Shuttle buses will be available to transport attendees from Cockermouth to the conference venue.

Participants travelling from outside the UK are reminded to [apply for an electronic travel authorisation (ETA) - GOV.UK](https://www.gov.uk/guidance/apply-for-an-electronic-travel-authorisation-eta)

Registration

Deadline: 28 February 2025
Limited Capacity: 200 Participants

**Registration fees:**

* **Full price:** 175€
* **Young professionals** (must have graduated within the last 3 years)**:** €100.

*The registration fee includes attendance to all technical sessions, site visits (limited capacity) as well as lunch and refreshments throughout the workshop.*

Programme Committee

International experts

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| BARR, Cynthia | US NRC |
| BERBEN, Peter | Engie |
| BOING, Larry | Argonne National Laboratory |
| BRAUNROTH, Thomas | GRS |
| CHUNILAL, Rav | Sellafield Ltd |
| DONNELLY, Michael | Sellafield Ltd |
| KIM, Jae-Hee | KAERI |
| TJERNLUND, Nicklas | Vattenfall  |
| VARGOVČÍK, Ladislav | Technical University of Košice |

OECD Nuclear Energy Agency Secretariat

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| BAKER, Una | Division of Radioactive Waste Management & Decommissioning (RWMD) |
| GRASSI, Gabriele | Division of Radioactive Waste Management & Decommissioning (RWMD) |
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