

Bratislava, 2nd December 2016

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*European Learning Initiatives
for Nuclear Decommissioning and
Environmental Remediation*

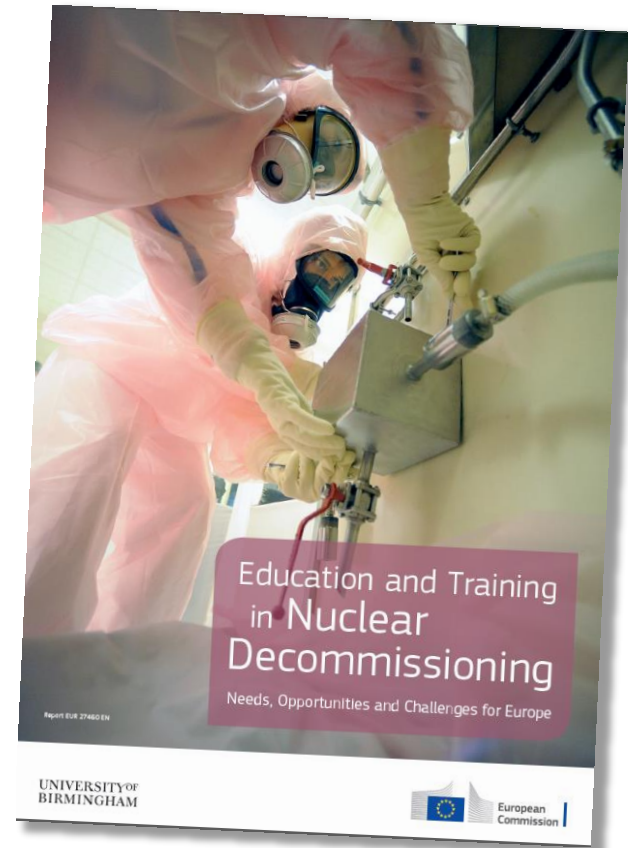


Offering and promoting dedicated Education and Training (E&T) opportunities

JRC organised jointly with the University of Birmingham in April 2015 a seminar on Education and Training in Nuclear Decommissioning, in an attempt to answer to the questions:

- **What are the E&T needs ?**
 - **What are the opportunities, what does already exist ?**
 - **How can we attract young talent ?**
- Outcome of the seminar is published in a joint report with orientations on the way forward to support Education and Training in Nuclear Decommissioning in the EU.

<https://ec.europa.eu/jrc/en/publication/education-and-training-nuclear-decommissioning-needs-opportunities-and-challenges-europe>



How can we stimulate interest and future talent?

The JOB is not well known but is attractive...

- Decommissioning is in reality **much more** than clearing, cleaning and demolishing; decommissioning projects usually present an appealing technological challenge, requiring creative solutions.
- Decommissioning is an emerging activity involving on the average young people; related jobs offer many possibilities for **career development**.
- Decommissioning offers also tremendous opportunities for people who have developed expertise in reliable technologies or experience in managing projects and who are interested in **mobility**.
- A job in decommissioning is, in general, **secure**; young engineers and scientists graduating after studies dedicated to decommissioning are almost certain to find a job.
- Actually, decommissioning provides a service to society and can be considered as a **'noble cause'**: decommissioning is aiming to restore a safe environment and demonstrates that closing the nuclear energy cycle is feasible.

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*"European Learning Initiatives
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Purpose:

Stimulate vocational training in nuclear decommissioning and waste management in the EU, by:

- creating a European 'pool of training initiatives' offering at different locations a series of courses, visits and practical studies;
- presenting complementing modules, reducing duplication;
- harmonizing the learning outcomes;
- offering an EU 'quality label' or 'endorsement' to those initiatives contributing to qualitative competence building in decommissioning and waste management.

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Approach:

- Training split in (1-2 week) complementing modules, at different locations
- **Generic modules**
 - and **Specific, topical modules:**
 - 1 Decommissioning Metrology
 - 2 Decontamination and Dismantling Techniques
 - 3 Waste and Material Management
 - 4 Decommissioning Planning and Cost Assessment
 - 5 Decommissioning Safety and Environmental Impact Assessment
 - 6 Decommissioning Programme and Project Management
 - 7 Environmental Remediation and Site Release
- Complemented with **e-Learning** modules
- Complemented with **Internships** (in case H2020 funding is granted)

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Audience:

Professionals with higher education diploma ("EQF 6, 7 or 8")

Target:

- professionals **who have acquired experience in the nuclear sector** but who re-focus their career to nuclear decommissioning projects (e.g. professionals who are employed in a nuclear installation which is anticipated to be shut down and who are expected to be involved in the future decommissioning)
- professionals who have experience with a **non-nuclear industrial sector** but who re-focus their career to nuclear decommissioning projects, after having followed an induction training to the nuclear domain
- professionals with already experience in **decommissioning and waste management**, but who want to acquire more in-depth knowledge on the subject

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Benefits from a joint European approach:

➤ *Visibility and clarity:*

- possibility to **promote** the training by joint advertising to interested employers/trainees,
- enhanced clarity for the employers and interested trainees on the **outcomes** and **quality** of the anticipated training;

➤ *Synergies:*

- possibility **sharing** of courses, teachers or facilities to visit
- reducing organisational burden and maximising output using **common** tools and databases, including also IAEA tools, making the training more relevant and up-to-date
- maximising the use of the **expertise** available in each of the training organisations (particularly for the specific modules)

➤ *Increased opportunities:*

- possibility for trainees to **gradually** develop expertise by combining (over the years) different modules;
- possibility to integrate also **(funded) trainees** from third countries

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Qualification of the programme:

- I. Defining a system for qualification of ELINDER courses**
 - Definition of minimum criteria for a qualified course under ELINDER
 - Setting up a committee for ensuring the qualification of courses

- II. Development of ECVET competence-based qualification system in decommissioning**
 - Development of 'Job Taxonomy' in nuclear decommissioning ; designing qualifications and related learning outcomes for nuclear decommissioning
 - Adapting training programme accordingly
 - Determination of a future certification organisation for VET in nuclear decommissioning

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Parties for this MoU:

- ❖ CEA, France
- ❖ KIT, Germany
- ❖ University of Birmingham, UK
- ❖ STUBA, Slovakia
- ❖ SCK•CEN, Belgium
- ❖ T.U. Delft, The Netherlands
- ❖ UTARTU, Estonia
- ❖ NUVIA, Europe
- ❖ SOGIN, Italy

- ❖ ENEN
- ❖ ENSTTI
- ❖ ENS
- ❖ FORATOM
- ❖ JRC, EC

IAEA: not a party of the MoU
but will sign a separate
practical arrangement

