

AUGMENTED CINCH

Augmented cooperation in education and training in nuclear and radiochemistry

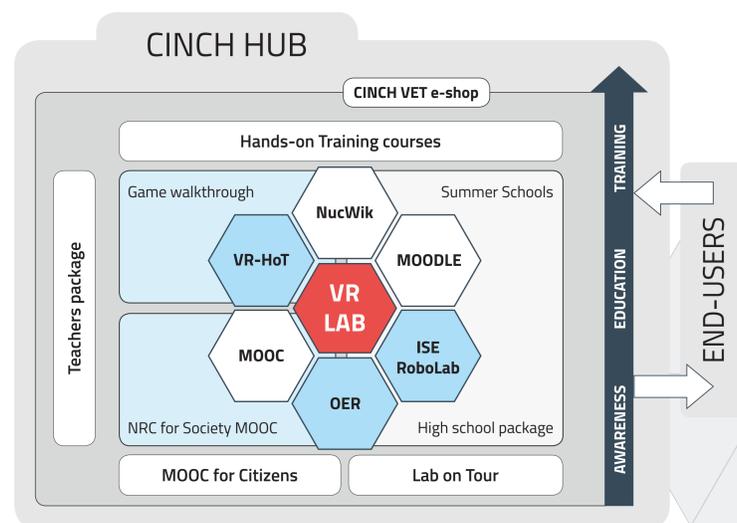


Expertise in nuclear and radiochemistry (NRC) is of strategic relevance to the whole nuclear energy sector, from safe nuclear installation operations to decontamination and decommissioning, and waste management. The non-energy fields of NRC applications are even broader and range from life sciences – radiopharmaceuticals, radiological diagnostics and therapy – through to dating in geology and archaeology, (nuclear) forensics and safeguards, radiation protection and radioecology.

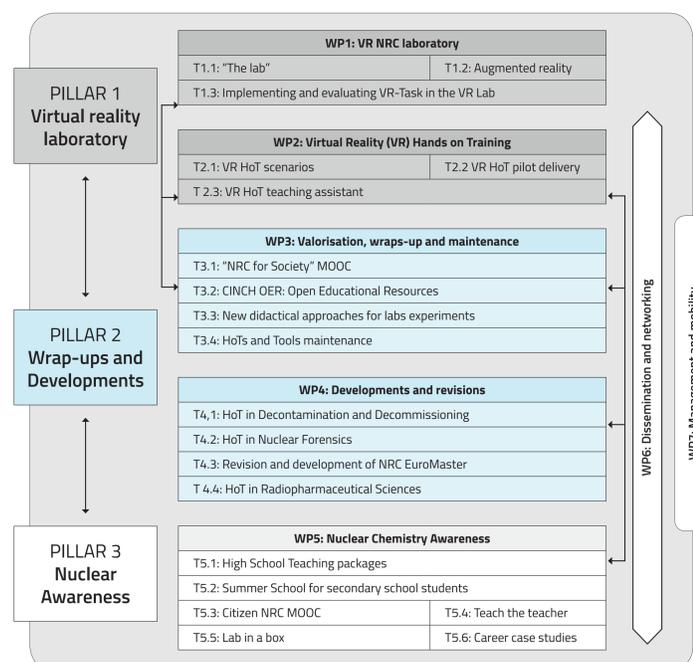
The **A-CINCH** project primarily addresses the young generation's loss of interest for nuclear knowledge by focusing on secondary education, using a "Learn through Play" concept to engage with students and teachers. The **A-CINCH** augments CINCH teaching tools developed in the three previous CINCH projects – CINCH, CINCH II and MEET-CINCH – with the state-of-the-art three-dimensional (3D) virtual reality (VR) environment to complete the existing toolbox for radiochemistry education. It is our belief that including a sophisticated VR radiochemistry lab and integrating it with traditional teaching, training, and advanced distance-learning methods will make the NRC field more attractive for younger generations and enhance the learning outcome of the very expensive, but indispensable, hands-on training.

CINCH teaching tools

- state-of-the-art **3D VR NRC laboratory (VR-LAB)**
- **Massive Open Online Courses (MOOCs)**
- **CINCH MOODLE** e-learning platform for Nuclear Chemistry
- **RoboLab** remote operated robotic experiments
- **Interactive Screen Experiments (ISE)**
- **NucWik database** of teaching materials
- **Flipped Classroom concept** providing improved interaction between teachers and students
- **Hands-on-training courses (HoT)** in "real" radiochemistry laboratories across Europe
- **CINCH VET e-shop** offering, presenting and organising all types of NRC courses
- High School Teaching Package, Summer Schools for high school students, Teach the Teacher package, Lab on Tour toolkit

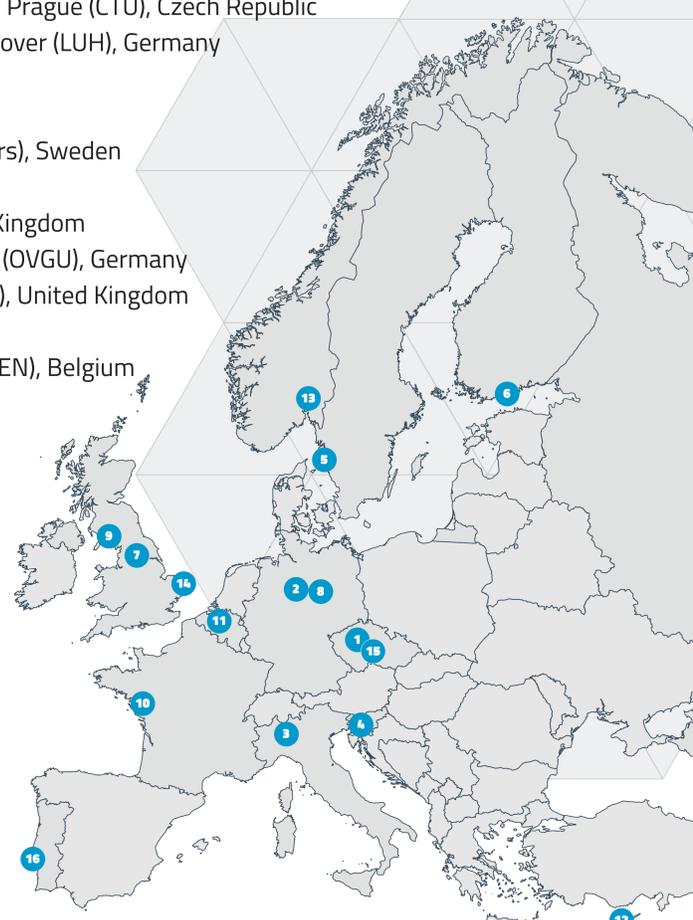


Organisation of the work



List of partners

- 1 Coordinator: Czech Technical University in Prague (CTU), Czech Republic
- 2 Gottfried Wilhelm Leibniz University Hannover (LUH), Germany
- 3 Politecnico di Milano (Polimi), Italy
- 4 Institut Jozef Stefan (JSI), Slovenia
- 5 Chalmers Tekniska Hoegskola Ab (Chalmers), Sweden
- 6 Helsingin Yliopisto (UH), Finland
- 7 University of Leeds (UNIVLEEDS), United Kingdom
- 8 Otto-von-Guericke University Magdeburg (OVGU), Germany
- 9 National Nuclear Laboratory Limited (NNL), United Kingdom
- 10 Institut Mines-Telecom (IMT), France
- 11 European Nuclear Education Network (ENEN), Belgium
- 12 University of Cyprus (UCY), Cyprus
- 13 Universitetet i Oslo (UiO), Norway
- 14 The Secretary of State for Environment, Food and Rural Affairs (CEFAS), United Kingdom
- 15 Evalion s.r.o. (Evalion), Czech Republic
- 16 Instituto Superior Tecnico (IST), Portugal



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Contact

Czech Technical University in Prague (www.cvut.cz)
Mojmír Němec, mojmir.nemec@fjfi.cvut.cz

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www.nrc-network.org



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www.cinch-project.eu

