



MEET-CINCH Partnership

- 1 Coordinator: Gottfried Wilhelm Leibniz University Hannover (LUH, Germany)
- 2 Czech Technical University in Prague (CTU, Czech Republic)
- 3 Chalmers University of Technology (CHALMERS, Sweden)
- 4 University of Helsinki (UH, Finland)
- 5 University of Cyprus (UCY, Cyprus)
- 6 Jozef Stefan Institute (JSI, Slovenia)
- 7 University of Leeds (UNIVLEEDS, United Kingdom)
- 8 National Nuclear Laboratory Ltd. (NNL, United Kingdom)
- 9 Politecnico di Milano (POLIMI, Italy)
- 10 Evalion Ltd. (EVALION, Czech Republic)
- 11 Commissariat à l'énergie atomique et aux énergies alternatives (CEA, France)
- 12 Réseau Européen pour l'enseignement des Sciences Nucleaires (ENEN, France)

Contact

Prof. Dr. Clemens Walther
Institut für Radioökologie und Strahlenschutz
Leibniz Universität Hannover
Herrenhäuser Str. 2
30419 Hannover

Telephone: +49 511 762 3312
Fax: +49 511 762 3008

Project webpage: www.cinch-project.eu

European Network on Nuclear and Radiochemistry
Education and Training: nrc-network.org
nucwik.wikispaces.com – CINCH-created wiki for learning
aids in Nuclear Chemistry
moodle.cinch-project.eu – CINCH-created e-learning
platform for Nuclear Chemistry

meet  cinch

MEET-CINCH

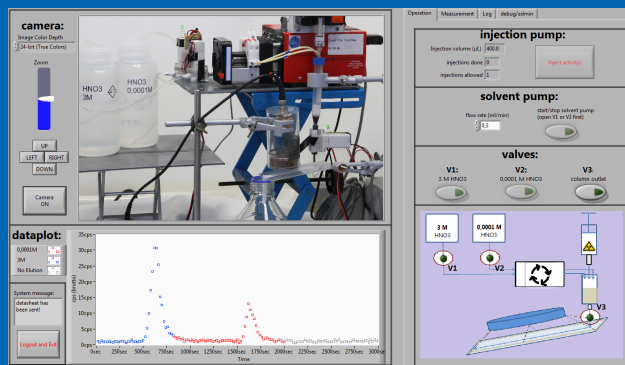
A MODULAR EUROPEAN EDUCATION AND
TRAINING CONCEPT IN NUCLEAR AND RADIO
CHEMISTRY



This project has received funding from the Euratom
research and training programme 2014–2018 under grant
agreement No. 754 972.

In 2010–2016 a series of two “CINCH projects” – CINCH-I: Cooperation in Education in Nuclear Chemistry, and CINCH-II: Cooperation and training in Education in Nuclear Chemistry – was supported within Euratom FP7. The projects aimed at mitigating the special skill-based deficits within nuclear chemistry at master and doctorate levels and the decline of number of staff qualified in this field. The projects were built around the well-proven five-phase (Analysis, Design, Development, Implementation, Evaluation) Systematic Approach for Training (SAT) developed by IAEA; while CINCH-I dealt with the first three phases of the process, CINCH-II concentrated on the Implementation. Additionally, evaluation mechanisms were proposed and tested on the pilot courses developed during the projects. European Network on Nuclear and Radiochemistry Education and Training (nrc-network.org) was established within CINCH-II project.

The MEET-CINCH project does not aim at sustainability of CINCH-I and CINCH-II only – its main aims are to pro-actively bring the results achieved so far to their end-users (CINCH VET – Vocational Education and Training – e-shop), significantly contribute to attracting new talents and increasing the nuclear (chemistry) awareness by developing a MOOC – Massive Open On-line Course, and investigate the applicability of the modern Flipped (Inverted) Classroom concept in the nuclear chemistry teaching and training field.



With IonLab, one of the six remote-controlled experiments, a student is able to perform radionuclide separations followed by an online detection. It can be used to demonstrate the potential of ion-exchangers and chromatographical methods in radioanalytics. This experiment is set up to perform a separation of Sr-90 and Y-90 but can be adapted to various separation schemes using modern resins for extraction chromatography.

Aims and Objectives

The main objectives of MEET-CINCH are as follows:

► To extend the number of VET courses developed in the previous projects and make them better available to the end-users. To reach this objective:

- the CINCH-II VET Syllabus will be updated to cover all the courses developed and demonstrated under CINCH, CINCH-II and MEET-CINCH projects
- several new courses will be completed and brought up to the pilot level. These courses will make use of combination of all the existing tools – e.g. RoboLab exercises, Computers in Science exercises, CINCH Moodle course management system – and will both use and expand the teaching material available from NucWik.
- a new platform – CINCH VET e-shop – will be launched that will provide easy access to and details of all courses brought at least to a pilot level. This platform is expected to be a major contribution to the sustainability of the results achieved in all the mentioned projects.

► To attract new talents to the nuclear field. This will be achieved by increasing the awareness of the importance of Nuclear and Radiochemistry for society by:

- developing and offering a MOOC on NRC's importance. In addition to increasing the awareness, this is expected to increase the number of students that select a career path which includes a NRC component
- developing a teaching package aimed for use in highschoools for 16–18-year-old pupils. The package will demonstrate the importance of NRC for society and future work opportunities. This activity is also expected to increase the number of students that select an education that includes a NRC component, small or large
- establishing a Mobility Fund that will facilitate participation of students and young researchers from other “chemistry” Euratom joint projects, such as e.g. BIFROST and GENIORS, in lab courses and summer schools provided by MEET-CINCH or other activities.

► The modern Flipped Classroom (or so called Inverted Classroom) concept will complement the available tools for teaching and training in the nuclear and radiochemistry field. In conjunction with the NucWik database of teaching materials, a set of the RoboLab remote operated laboratory experiments and the CINCH Moodle distant learning management platform MEET-CINCH will provide a comprehensive toolkit, available in the VET e-shop. The end user will be able to compile courses tailored to individual needs from this flexible modular base of teaching material.

Organization of the Work

Organisation of the project is built around three pillars:

1. Nuclear Awareness aiming on general public and secondary school students,
2. Sustainability and Evolutionary Developments aiming at vocational education and training (VET) of NRC professionals,
3. Novel Education and Training Approaches aiming both at university students and VET, supported by three cross-cutting activities:
4. Mobility, 5. Management, 6. Ethics requirements.

