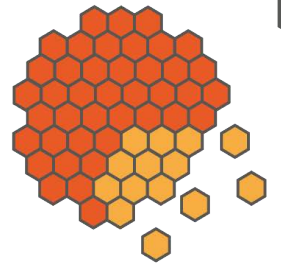


**GRE@T-  
PIONEER**



**PIONEERING  
EDUCATION  
IN NUCLEAR  
REACTOR  
PHYSICS &  
SAFETY**



# Get In Touch

[great-pioneer.eu](http://great-pioneer.eu)



[@GREATPIONEER\\_EU](https://twitter.com/GREATPIONEER_EU)



[GREAT-PIONEER](https://www.linkedin.com/company/great-pioneer)



This project has received funding from the Euratom research & training programme 2019-2020 under the Grant Agreement n°890675. The content of this document reflects only the author's view. The European Commission is not responsible for any use that may be made of the information it contains.

# ABOUT THE PROJECT

**GRE@T-PIONEER** is an EU-funded project that is developing specialised education and training resources for post-graduate students in nuclear reactor physics, modelling, and safety by forming an alliance of expert partners.



**10 PARTNERS**



**8 COUNTRIES**



**36 MONTHS**

The project officially started in November 2020 and is coordinated by Chalmers University of Technology.

## 6 Course Themes

- ◆ Nuclear Data For Energy And Nonenergy Applications
- ◆ Neutron Transport At The Fuel Cell And Assembly Levels
- ◆ Core Modelling for Core Design
- ◆ Core Modelling for Transients
- ◆ Reactor Transients, Nuclear Safety and Uncertainty and Sensitivity Analysis
- ◆ Radiation Protection in a Nuclear Environment

## The Alliance



# THE NEXT GENERATION OF NUCLEAR SCIENTISTS

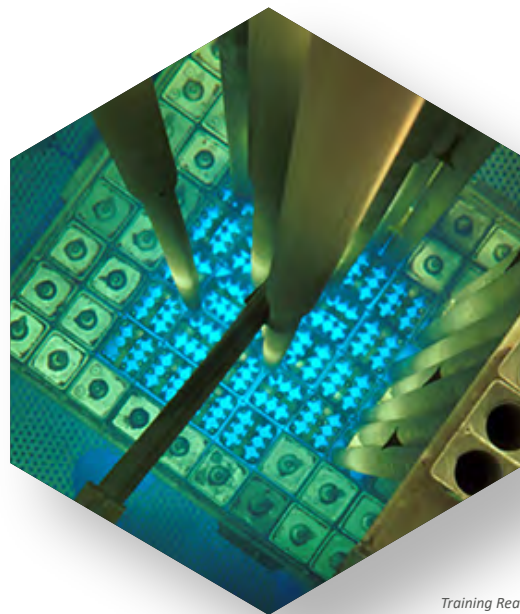
**ATTRACTING NEW STUDENTS TO STUDY NUCLEAR REACTOR SAFETY AND PHYSICS IS BECOMING INCREASINGLY DIFFICULT...**

Education needs innovative change, so actions must be taken to strengthen the European graduate nuclear engineering education network. New, attractive and accessible training resources are needed, such as the courses offered by GRE@T-PIONEER.

The project offers materials that allows students to fully comprehend topics relating to the physics and modelling of nuclear reactor cores.

## Materials and Tools

- Introductory webcasts
- Handbooks
- Video Lectures
- Online Quizzes
- Hands-on training using programming, simulations, and/or laboratory exercises in nuclear facilities/research reactors



*Training Reactor of the Budapest University of Technology and Economics*

## Innovative Teaching Methods:

- A COHERENT SET OF COURSES:**  
Modules will be designed so as to tell a cohesive story
- FLIPPED CLASSROOM:**  
Lectures and materials are available on the web and before class
- BLENDED LEARNING:**  
The courses will rely on the use of different resources, either online or face-to-face
- FEEDBACK LOOPS:**  
Both students and teachers can give feedback on the content and implementation of the modules
- ACTIVE LEARNING:**  
Students will participate in engaging activities in the classroom, either on-site or remotely, with support from teachers