What was ‘Chain Reaction’?

Chain Reaction was a three-year project funded by the European Commission. It aimed to develop Inquiry Based Science Education (IBSE) across twelve partner countries: United Kingdom, Italy, Slovakia, Turkey, Bulgaria, France, Slovenia, Germany, Greece, Ireland, Jordan, and Georgia.

The project provided interactive and engaging IBSE professional development to teachers from each participating country using ‘tried and tested’ inquiry based science resources. Following the initial professional development course, participating teachers delivered a series of exciting and student-focused lessons which explore research-based projects using an IBSE approach encouraged by Chain Reaction.
Using critical thinking, reasoning and problem solving skills, students in the 14-16 age groups worked together to research scientific scenarios. Students summarised their work in presentations that were shared at national student celebration events called National Express Yourself Conferences. These annual national events took place in each partner country and celebrated science and the work completed by the students.

The presentations encouraged students to detail the inquiry processes that they engaged in and to communicate their findings in creative and imaginative ways. The National Express Yourself Conferences were held in the University of Limerick each year. Along with student presentations, there were engaging ‘inquiry’ activities for students to exercise their critical thinking, reasoning and problem solving skills that they developed in school as part of the project.
The Chain Reaction project team also arranged for practicing scientists to visit the participating schools and act as role models for the students by sharing their work and encouraging young people to consider science related careers. After their school visit, the role models attended the National Express Yourself Conference to support and judge the student presentations.

Each year, the students, teachers and role models would vote for a winning student presentations. The winning team of 5 students, along with their 2 teachers, would travel to an annual International Conference to showcase the work of selected school students from each partner country. Interestingly, the students and judges (teachers and role models) always agreed on the winning team!

The Chain Reaction model project recruited new teachers from different schools each year, ensuring a large number of teachers and students are able to participate. The project also provided a strong and sustainable IBSE framework both for teacher educators and for teachers, along with resources tailored to each partner's individual cultural and curricular needs. Science teachers are able to build their knowledge and skills, learning independently as well as being part of a wider teacher network.

Chain Reaction was rooted in problem solving and inquiry based learning principles, aimed to actively involve students in their science studies, and enabled them to experience the excitement and challenges of experimental and investigative science, and develop as science active citizens.