

Norwegian Teachers Programme 2013

Below there is a list of European Education Projects of which CERN is a member.

Discover the COSMOS

Discover the COSMOS demonstrates innovative ways to involve teachers and students in eScience through the use of existing e-infrastructures in order to spark young people's interest in science and in following scientific careers. It aims to support policy development by:

a) demonstrating effective community building between researchers, teachers and students and empowering the latter to use, share and exploit the collective power of unique scientific resources (research facilities, scientific instruments, advanced ICT tools, simulation and visualization applications and scientific databases) in meaningful educational activities, that promote inquiry-based learning and appreciation of how science works

b) demonstrating effective integration of science education with e-infrastructures through a monitored-for-impact use of eScience activities, which will provide feedback for the take-up of such interventions at large scale in Europe and

c) documenting the whole process through the development of a roadmap that will include guidelines for the design and implementation of effective educational and outreach activities that could act as a reference to be adapted for stakeholders in both scientific research outreach and science education policy.

Website | <http://discoverthecosmos.eu>

Portal | <http://portal.discoverthecosmos.eu>

PATHWAY

PATHWAY brings together experts in the field of science education research and teachers' communities, scientists and researchers involved in pioneering scientific research, policy makers and curriculum developers to promote the effective widespread use of inquiry and problem based science teaching techniques in primary and secondary schools in Europe and beyond.

The aim of the project is to set the pathway toward a standard-based approach to teaching science by inquiry, to support the adoption of inquiry teaching by demonstrating ways to reduce the constraints presented by teachers and school organization, to demonstrate and disseminate methods and exemplary cases of both effective introduction of inquiry to science classrooms and professional development programmes, and finally to deliver a set of guidelines for the educational community to further explore and exploit the unique benefits of the proposed approach in science teaching. In this way the project team aims to facilitate the development of communities of practitioners of inquiry that will enable teachers to learn from each other.

Website | <http://www.pathway-project.eu>

Go-Lab

The Go-Lab Project (Global Online Science Labs for Inquiry Learning at School) is a European collaborative project co-funded by the European Commission ([Seventh Framework Programme](#)) and uniting 19 organisations from twelve countries. Go-Lab concentrates on providing access to online laboratories in order to enrich classroom experience in schools as well as learning activities out-of-class. The overall aim of the Go-Lab Project is to provide students an opportunity to gain hands-on experience in science by conducting experiments using modern laboratory equipment by themselves, deepen their knowledge in fundamental sciences, and to motivate them for making scientific carrier in the future.

Go-Lab creates an infrastructure (the Go-Lab Portal) to provide access to a set of online labs from worldwide renowned research organizations, such as European Space Agency ([ESA](#), the Netherlands), European Organisation for Nuclear Research ([CERN](#), Switzerland), Núcleo Interactivo de Astronomia ([NUCLIO](#), Portugal), as well as multiple universities and institutions. These online labs can be used by universities, schools, instructors, students and lifelong learners to extend regular learning activities with scientific experiments that can be conducted not only by teachers as a demonstration, but also by students themselves giving them real experience of scientific work. To support pedagogical and methodological aspects of this approach, the Go-Lab Portal will include a social network for teachers allowing them sharing and discussing their experiences and providing mutual support. Further, Go-Lab will support community of teachers interested in using online labs in their classes by offering [workshops](#) introducing the use of online virtual experimentations and remote laboratories as well as inquiry-based science teaching techniques. This will allow instructors to upgrade their current teaching practices and get their students engaged in science topics by undertaking active guided experimentation carried out on top-level scientific facilities.

Website | <http://www.go-lab-project.eu>

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