SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
LIFT OFF - PRIMARY AND SECONDARY SPACE EDUCATION (1)

Author: Mr. Josef Sobra
Czech Space Office, Czech Republic

Dr. Francesco Sarti
European Space Agency (ESA), Italy
Dr. Premysl Stych
Czech Republic
Mr. Jaroslav Urbar
Charles University, Czech Republic

EARTH OBSERVATION EDUCATION - PROGRAMME AND TOOLS FOR SCHOOLS IN THE CZECH REPUBLIC

Abstract

Since the Czech Republic joined ESA in 2008, the Czech Space Office, the Charles University in Prague and the European Space Agency started several joint activities for the promotion of Earth Observation (EO) techniques and applications, in order to create awareness and build up capacity and skills for the use of remote sensing from space, in the country. Such activities are essential for education of the young generations, who should become from their early age naturally familiar with EO/GIS tools and data in order to be eager to use them later in their own research or in their profession, whenever making use of geoinformation.

These education training activities cover several levels of audience: secondary schools, universities and research institutes (preparation of future Principal Investigators for ESA EO data).

Starting from the top levels, two training courses have been jointly organised so far in Prague: (i) course on radar interferometry attended by 25 Czech university students, in 2008; (ii) ESA advanced training course on land remote sensing in 2009, which received great interest from the Czech scientific community. Since then there has been an observable increase of interest among Czech students and scientists in the ESA education opportunities like thematic workshops or EO specific YGT positions in ESA, which Czech students can attend or apply for. Moreover, there will be many future opportunities for Czech students, like the ESA EO Summer Schools, the ESA Advanced training courses, the Changing Earth Science Network etc.

On the lower levels, several activities have been started regarding education in secondary schools, where EO can provide useful, interesting and motivating tools for teaching and understanding subjects like Geography, Geology, Physics and others. For this purpose, projects like GeoNetCab and GLOBE Europe can be useful vehicles supporting the development of EO skills in secondary schools in Czech Republic, eg. by training a new generation of motivated secondary schools teachers who may become future trainers in this field. This is the objective targeted by dedicated international workshops organised by CSO, ESA, EGU etc. (like the annual GIFT workshop in Vienna).

Moreover, ESA tools like Eduspace and its embedded SW and GIS tools (Leoworks) can be adapted by including examples and exercises of particular interest for the region, making use of recent data acquired over the Czech Republic and addressing problems and themes of interest for Czech schools like lyceums of natural science or technical high schools.