

GETTING READY TO SERVING THE WEST BALKAN REGION IN ENVIRONMENT PROTECTION: REGPOT 2007-3 Project No 204374

3. Connecting Research Centres from all over Europe (REGPOT)

Vladica Cvetković, Suzana Erić, Kristina Šarić

University of Belgrade – Faculty of Mining and Geology, Đušina 7, 11000 Belgrade, Serbia
cvladica@rgf.bg.ac.rs, suzanaeric@yahoo.com, kristinas@rgf.bg.ac.rs

The REGPOT-2007-3 Project RESTCA-TERCE-NIPMSS (No 204374) is aimed at reinforcing technical and human capacities for environmental studies in Serbia and Slovenia. It provides a critical support of two promising research centers for study of solid pollutants: *University of Belgrade - Faculty of Mining and Geology, Serbia (UB-FMG)* and *Geological Survey of Slovenia (GeoZS)* by establishing the partnership among each other and among them and *Institute of Geosciences, University of Frankfurt, Germany (GUF)*.

The project adopts the idea that the enlargement of the European Research Area (ERA) is best to achieve by identification and strategic support of promising centers within the EU peripheral regions, especially those which cultivate a synergy of basic and applied science disciplines. The project follows an *up-bottom* approach targeting the FP7 research priority related to environment, in particular to industrial waste. A vast majority of industrial waste in Serbia and adjacent regions is related to the processes of mining and energy production. The investigation of such waste material is only possible if all the general geological, mineralogical, crystallographic and geochemical issues are fully understood. The project is aimed at ensuring that UB-FMG and GeoZS are among the few institutions with such capabilities in the West Balkan (WB) region.

The RESTCA-TERCE-NIPMSS project addresses the following five objectives: 1. Strengthening the cooperation and networking between the beneficiaries, and this also includes: a) setting-up a brain-gain environment at the targeted institutions by translating research experience from the ERA, and b) increasing their overall training abilities. 2. Improving technical standards for chemical characterization of solid pollutant minerals at the UB-FMG, and that encompasses: a) purchasing a Scanning Electron Microscope equipped with Energy Dispersive System (SEM-EDS), b) upgrading the existing XRD system, and c) configuring a new laboratory centre. 3. Promoting the GeoZS and UB-FMG to national/regional centers of excellence for studies of pollutant minerals, which particularly includes: a) spreading the information about the project to a wide spectrum of stakeholders, and b) promoting the project results to decision-making institutions in Serbia and Slovenia. 4. Establishing a basis for better networking among the WB institutions and between WB and ERA as well as promoting the FP7 ideas in this region, which also involves: a) dissemination of scientific information at the regional level and b) providing conditions for a better response to further FP calls in the WB region. 5. Counterbalancing the effects of 'brain drain' in Serbia, and that also comprises: a) restoring the contacts with Serbian PhD students and researchers who work abroad, and b) increasing the student interest for studying earth and environmental sciences.

A set of project activities, starting from May 1st 2008, has resulted in achieving all the so far scheduled deliverables. The purchase, supply and installation of a multi-purpose high performance, high/low vacuum analytical SEM (JSM-6610LV), along with a MINI CL cathodoluminescence detector, Oxford INCA 350 Energy Dispersive System, and a sputter

coating device (BALTEC-SCD-005) were completed in June 2009, and the instrument was installed in early September 2009. In addition, the existing XRD device at the UB-FMG (PW1050) has been upgraded by an X-ray generator, high voltage cable, water cooler, Mo X-ray tube shield housing, and a shutter control box. The supply of both instruments was accompanied with necessary adjustments and reconstructions of the laboratory infrastructure. Simultaneously, a line of knowledge transfer activities were undertaken, as well, and the most important are: 1) various staff and student mobility aimed at establishing the networking among the beneficiaries, 2) organization of a short course entitled '*Principles and application of SEM-EDS systems*' at the UB-FMG (April, 27-30th 2009), 3) opening two post-doc positions at the UB-FMG, 4) organization of the workshop entitled "*Environmental geochemistry - Anthropogenic impact on the human environment in SE Europe*" at the GeoZS (October 6-9, 2009), 5) organization of a workshop entitled "*Advanced analytical techniques in applied Earth science*" at the UB-FMG (February, 18-26, 2010), 6) project promotions at various occasions, including the occasion of the International Year of Planet Earth 2007-2009.

By the project end (April, 30th 2011), the main positive impact will be evident through the generation of a real scientific progress in the targeted research centers in Serbia and Slovenia without creating strong dependence. This will be a step forward in harmonizing the scientific system in EU and in setting-up research-intensive clusters across Europe and along its periphery. Besides, various positive impacts will be measurable on the national level, such as: a general improvement of scientific research in Serbia in terms of human and technical capacities, counterbalancing the 'brain-drain' process, and establishing synergy between the research groups dealing with fundamental and applied science. A long term positive achievement of the project will be in creating and promoting a research cluster with a strong commitment to serve the West Balkan society in solving its environmental problems.