SUSTAINABLE DEVELOPMENT OF A RESEARCH CENTER IN BANAT REGION AND DANUBE FLOW AREA THROUGH SCIENTIFIC RESEARCH AND ENVIRONMENTAL SIMULATION TOOLS TO ASSES AND EVALUATE POTENTIAL THREATS. ACRONYM: ENVIROBANAT

Goal of the project

Strengthening the cross border cooperation in Banat region, development of two state-of-the-art research laboratories in the field of environmental protection and contribution to the development and increase visibility of regional scientific research actors and opportunities.

Short description of the project

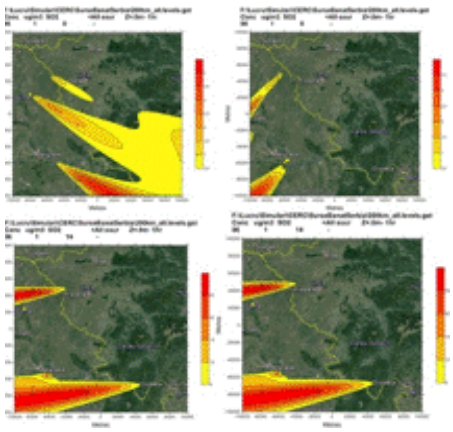
We started the project having in mind the improvement of the quality of life for communities in Banat region and increasing the overall competitiveness of research capabilities and visibility in cross border area. It this century development without environmental concern isn't possible as we should think about sustainable actions only. In this respect, the Envirobanat project comes to support NGO's, industries and societies with valid, relevant and accessible data regarding current state of air and surface water quality in Banat region, with high resolution scientific equipment's and relevant research capabilities, both in manpower and research infrastructure and with well-trained experts.

Project implemented by

- Politehnica University of Timisoara
- University of Novi Sad, Technical Faculty "Mihajlo Pupin" Zrenjanin

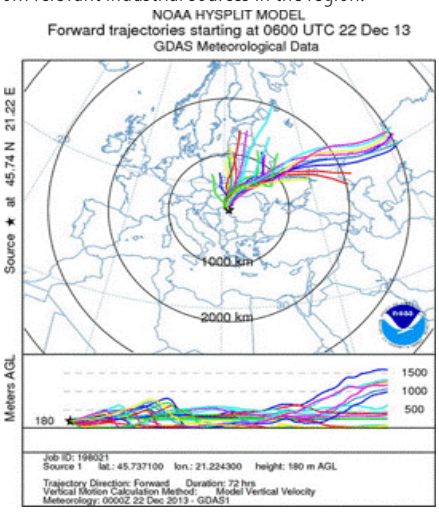
Implementation period

12.06.2013 – 11.06.14



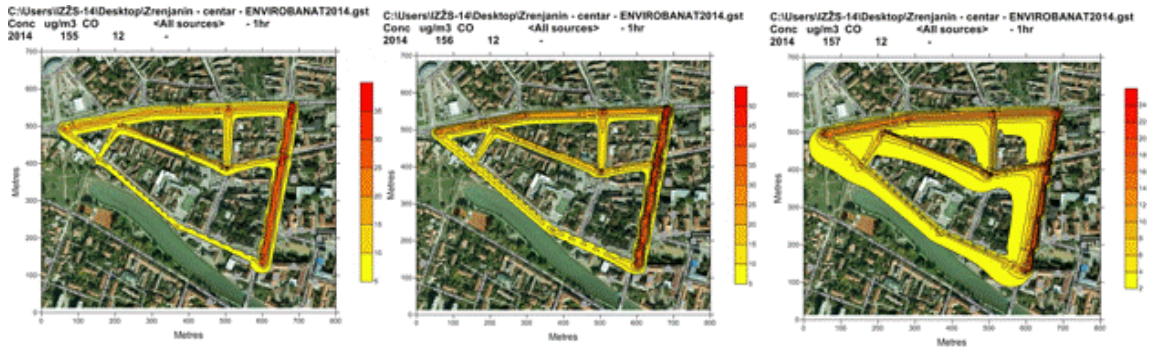
Main activities

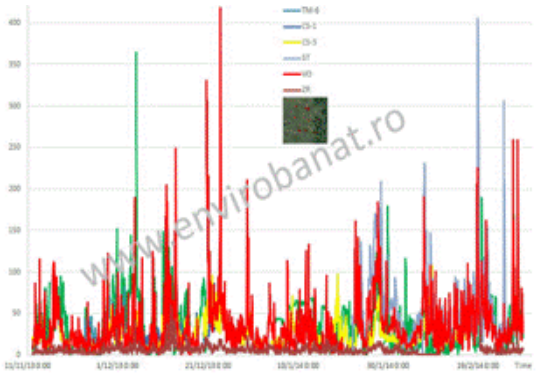
- In-situ monitoring of surface water quality on Danube and its main tributaries (pH, nitrite/nitrate, COD/DO, Fe, Phosphor, suspended matter;
- Collection of air quality data from over 10 continuous air quality monitoring stations in Romanian and Serbian Banat regions;
- In-situ monitoring of airborne particles, concentration and aerodynamic sizing in the range of 0.3 ÷ 20 μm;
- Organizing two major scientific conferences, one in Timisoara and one in Zrenjanin;
- Organizing training sessions for knowledge transfer (air quality dispersion tools, PM10 sizing and monitoring techniques) for Serbian students and experts
- Realization of several studies for air pollutants dispersion in Banat area from relevant industrial sources in the region.

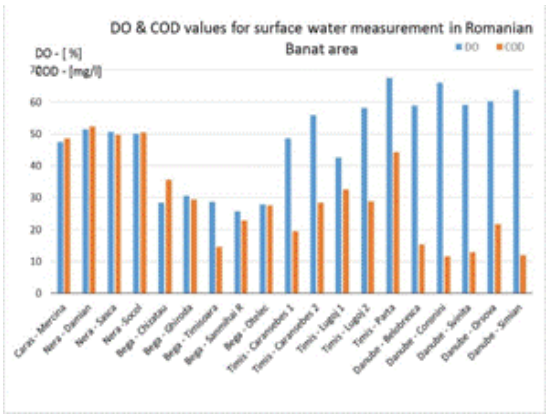


Results

- Creation and development of an extensive air – NO/NO2, CO, SO2, benzene, toluene, xylene, particle concentration (PM10, PM4, PM2.5 & PM1), mass distribution and size distribution (0.3 ÷ 20 μm) – and surface water quality parameters (pH, NO2-, NO2-, P, suspended matter, BOD, COD, DO) for Banat region and Danube tributaries, downloadable from www.envirobanat.ro;
- Acquisition of high-end/high resolution equipment's for air and water quality research;
- Extensive training of 15 Serbian students in the use of Cambridge Environmental Research ADMS5 and ADMS Road atmospheric dispersion modelling systems;
- Extensive training of 12 Serbian students in the use of PHOENICS – computation fluid dynamics software for environmental studies;
- Extensive training of 19 Romanian students in the use of GRIMM instruments – Application of laser diffraction particle sizing;
- Organization of two regional conferences, in Zrenjanin and Timisoara;

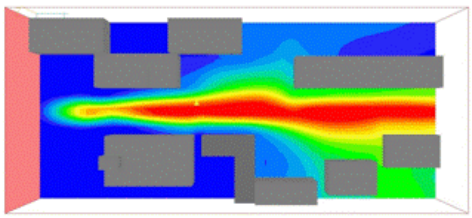






Applicability and transferability of the results

All obtained results are available for download via project webpage www.envirobanat.ro, in form of individual files, pdf or database. The project outputs provides significant tools to support local and regional universities, NGO's and authorities in their effort to contribute to regional economic growth by means of durable medium and long term development strategies.



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