



## **R.E.E.L.D. (Economical and Ecological Reconstruction of the Danube Flood Plain) Campaign: airborne LIDAR data and GIS technique outputs**

Adrian Covăsnianu (1), Ovidiu-Gelu Tudose (2), Marius-Mihai Cazacu (1), Iulian Nichersu (3), Michel Memier (4), and Ioan Balin (2)

(1) "Al.I.Cuza" University, Romania, (2) EnviroScopY SA, PSE - EPFL, Lausanne, Switzerland, (3) INCDD (Danube Delta National Research Institute), Tulcea, Romania, (4) Sintegra Sarl, Meylan – Grenoble, France

The study is the synthesis of the REELD (Economical and Ecological Reconstruction of the Danube Flood Plain) 2007 campaign and its applications, but also presenting the final results of the project. This unique work, by resolution and surface covering, performed in 2007 over the whole Romanian Danube plain resulted in a high resolute digital terrain and digital surface models covering over 700.000 ha. Using this extremely accurate terrain model, derivate applications were performed such as analyze of the actual geomorphologic processes (gullies, landslides, etc.), land cover dynamics, urban development indicators and also hydrological modeling for forecast and risk prevention.