

DIGISOIL

Title : Integrated system of data collection technologies for mapping soil properties

Priorité Thématique	Appel	Domaine	Instrument
Cooperation/ Environnement	FP7-ENV-2007-1	ENV.2007.3.1.2.1.	STREP
Coordonnateur	Chef Projet BRGM	Services concernés	Durée (mois)
BRGM (F)	G. GRANDJEAN (ARN)	ARN	36

Abstract

The multidisciplinary DIGISOIL consortium intends to integrate and improve in situ and proximal measurement technologies for the assessment of soil properties assessment and soil degradation indicators, going from the sensing technologies to their integration and their application in (digital) soil mapping (DSM). In addition, our SMEs experience will allow to take into account the feasibility of such developments based on economical constraints, reliability of the results and needs of the DSM community. In order to assess and prevent soil degradation and to benefit from the different ecological, economical and historical functions of the soil in a sustainable way, there is an obvious need for high resolution and accurate maps of soil properties. The core objective of the project is to explore and exploit new capabilities of advanced geophysical technologies for answering this societal demand. To this aim, DIGISOIL addresses four issues covering technological, soil science and economic aspects: (i) the validation of geophysical (in situ, proximal and airborne) technologies and integrated pedo-geophysical inversion techniques (mechanistic data fusion) (ii) the relation between the geophysical parameters and the soil properties, (iii) the integration of the derived soil properties for mapping soil functions and soil threats, (iv) the evaluation, standardisation and sub-industrialization of the proposed methodologies, including technical and economical studies.

List of participants:

No	Organisation Name	Country
1	Bureau de Recherches Géologiques et Minières (BRGM)	France
2	INRA	France
3	Université catholique de Louvain (UCL)	Belgium
4	Forschungszentrum Juelich GmbH (FZJ)	Germany
5	Joint Research Centre of Ispra (JRC)	Italy
6	Geological Institute of Romania RO (GIR)	Romania
7	University of Padonia (UPA)	Hungria
8	ABEM (ABEM)	Sweden
9	Galileo Avionica (GAV)	Italy
10	University of Firenze (UNIFI)	Italy