



Project factsheet - Assessment grid

PROJECT OVERVIEW	
Project Ref. No.	DRP0200783
Project title	Danube Region Programme
Acronym	GeoNetSee
Priority axis	1. - A more competitive and smarter Danube Region
SO	1.1 - AdvancedTechnologies
Lead partner	University of Belgrade
Lead partner country	Serbia (RS)
Lead partner legal status	Public
Project duration	30
Total Interreg Funds	1433024.00
Total Eligible Budget	1791280.00

Project Summary

GNSS observations are widely used for monitoring tectonic displacements and deformations. These applications require high positioning accuracy and continuous observations are needed to be able to detect even small displacement rates. Although GNSS sensors have been used in these tasks, the spread of the technology was limited due to the high costs of the GNSS receivers. GeoNetSee will create a solution for monitoring unstable terrain and artificial structures, which will include a geosensor network and a platform for collecting, processing, and visualizing collected data in real-time. An innovation chain of technology and knowledge-intensive activities within the DRP region will be created to close off innovation gaps and the uptake of advanced technologies for a smarter and greener Danube region. The project will rely on existing infrastructure, experience, and knowledge from previously implemented and ongoing projects of similar character managed by project partners (GIMS, RISE, GeoTwinn (Horizon); EXA4MIND, safEarth, RESPONSa (Interreg); eTeren, BORIS, SoFPAS, GeoSES (infrastructure EU funded projects); MontePN, TRMODELL (innovative and IPA); URMA (European Space Agency funded project)). The strong support and cooperation with the associated strategic partners (Rescue and Protection Directorate in Montenegro, Innovation and Entrepreneurship Center Tehnopolis, Public Water Management-Vode Vojvodine, Directorate for emergency situations in Serbia, Traffic Institute CIP, Ministry of Natural Resources and Spatial Planning in Slovenia, Federal Administration for geodetic and property affairs in Bosnia and Herzegovina, Microrisc from Czech Republic, Hungarian Public Roads, Hungarian State Railway, Romanian Space Agency, Disaster Competence Network Austria) will increase the impact of GeoNetSee results. This cooperation will have a positive impact on regional policies and strategies implementation and ensure the project's long-lasting sustainability in accordance with the legal framework. A collaborative digital platform that brings together universities, institutes, SMEs and governmental bodies will be established. This platform, called the Danube Collaborative Center (DCC) will share all collected data, research findings, best practices, and expertise in multidisciplinary domains. DCC will foster partnerships and collaboration with similar EU organizations and commissions, to leverage existing expertise, share resources, and align efforts in data collection, analysis, and knowledge sharing. As it will connect the DRP region, stakeholders and different research domains, it will transcend existing political borders and provide an opportunity for "vertical" communication between stakeholders (problem givers) and researchers (problem solvers). By DCC platform development the legacy of the Project is ensured as with the available large amount of easily accessible specialized data the future transfer of knowledge and good practice will be guaranteed and solutions can be harmonized even outside the DRP area. The solution will include the

installation of permanent CORS stations in Serbia, Montenegro, and Bosnia & Herzegovina, that would join the European Plate Observing System (EPOS) which also includes the EUREF Permanent global positioning satellite systems (GNSS) Network (EPN). This will provide added value to the GeoNetSee and ensure bi-directional data flow between GeoNetSee digital platform and EPOS network. The project will include transnational cooperation to complement national and regional mainstream with innovative and coordinated policy, planning and pilot-tested led delivery. Partner countries are part of the Eurasian tectonic plate and thus the importance of the European Terrestrial Reference System 89 (ETRS89) usage is crucial. The GeoNetSee will contribute to the improvement of the spatial resolution of the EPOS network for monitoring the movement of tectonic plates in the DRP region. The installation of new locations for permanent GNSS monitoring contributes to the understanding of geodynamic processes in the area of the Danube basin, and they can also be used for permanent observation of all-natural and artificial structures of interest. The real-time terrain and facility monitoring service will ensure timely community response to ground movement and facility deformation, which can result in material damage and loss of life. Unstable terrain knows no national borders, and the GeoNetSee offers a solution that is important for all members of the DRP region and beyond. Using cloud technologies, anyone can access relevant data and detect measurement values that exceed the tolerance threshold. In this way, a large amount of data is provided, which would enable further research and application of geosensor networks outside geodesy, for example in domains of geotechnical, geological analyses, damage, and risk assessments, planning adequate prevention, preparedness, response, and recovery measures, etc.

LIST OF PROJECT PARTNERS

No.	Institution name	Country	Total Interreg funds	Total eligible budget
SFEE	University of Belgrade	Serbia (RS)	241264.00	301580.00
RGI	Geological Institute of Romania	România (RO)	86272.00	107840.00
SFTN	University of Novi Sad	Serbia (RS)	86272.00	107840.00
SGS	Geosolutions Ltd.	Serbia (RS)	58816.00	73520.00
BiHGS	Geological Survey of Federation of Bosnia and Herzegovina	Bosnia and Herzegovina (BA)	73792.00	92240.00
BiHBU	International Burch University	Bosnia and Herzegovina (BA)	86976.00	108720.00
SURVIOT	SURVIOT Monitoring Ltd.	Magyarország (HU)	73792.00	92240.00
HCE	Budapest University of Technology and Economics	Magyarország (HU)	86272.00	107840.00
ANast	nast consulting ZT GmbH	Österreich (AT)	82784.00	103480.00
MCE	University of Montenegro	Crna Gora (ME)	86272.00	107840.00
MoD	MoDrone Ltd.	Crna Gora (ME)	210368.00	262960.00
FEECS	VSB-Technical university of Ostrava, Faculty of electric engineering and computer science	#esko (CZ)	87600.00	109500.00
GeoZS	Geological Survey of Slovenia	Slovenija (SI)	86272.00	107840.00
HGI-CGS	Croatian Geological Survey	Hrvatska (HR)	86272.00	107840.00
TOTAL (EUR)			1433024.00	1791280.00

LIST OF ASSOCIATED PARTNERS

No.	Institution name	Country
MCE	Ministry of Interior, Rescue and Protection Directorate	Crna Gora (ME)
MoD	Innovation and Entrepreneurship Center Tehnopolis	Crna Gora (ME)
SFTN	Public Water Management Company Vode Vojvodine	Serbia (RS)
SFEE	Directorate for emergency situations	Serbia (RS)
SGS	Traffic Institute CIP	Serbia (RS)
BiHBU	Federal Administration for Geodetic and Real Property Affairs	Bosnia and Herzegovina (BA)
GeoZS	Ministry of Natural Resources and Spatial Planning, Natural Disaster Risk Reduction Division	Slovenija (SI)
FEECS	Microrisc	#esko (CZ)
RGI	Romanian Space Agency	România (RO)
HCE	Hungarian State Railway	Magyarország (HU)
SURVIOT	Hungarian Public Roads Nonprofit Company	Magyarország (HU)
ANast	Disaster Competence Network Austria	Österreich (AT)