

SC5-08-2017

Large-scale demonstrators on nature-based solutions for hydro-meteorological risk reduction

Proposal:

Integrated NBS system for DRR



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Organization & Services

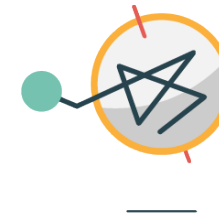
15 years as Project Manager and Consultant in Collaborative Innovation Management across Europe and worldwide for Universities, Business, Governments, Third sector.



**BUSINESS INNOVATION
CONSULTING**



PROJECT MANAGEMENT



STRATEGIC NETWORKING



COACHING



REPORTING

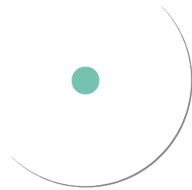


**DISSEMINATION
AND COMMUNICATION**

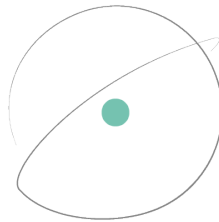
Description of the research interest



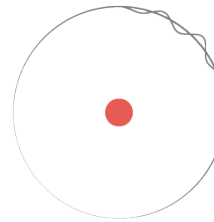
Experienced in different yet interconnected areas:



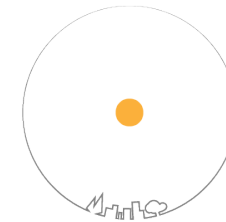
OPEN AND SOCIAL INNOVATION



SPACE APPLICATIONS



DISASTER RESILIENCE



FUTURE CITIES

Relevant previous projects or activities:

FP7-LAMPRE (LAndslide Modelling and tools for vulnerability assessment Preparedness and REcovery management) –

FP7-CATCH (Carbon-Aware Travel CHOICES)

FP7-ISTIMES (Integrated System for Transport Infrastructures surveillance and Monitoring by Electromagnetic Sensing)

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Overall objectives

Co-design and deploy an innovative locally-attuned **Nature Based Solution (NBS) system** for hydro-meteorological risk reduction and land management planning, integrating social and cultural aspects and climate change effects.



The system will be co-developed and tested through multi-stakeholder participation and **large-scale demonstrations** in vulnerable rural and natural areas in Europe and Turkey.

Specific objectives



1. Co-design a multi-stakeholder **concept** for land management and planning enabling innovative, systemic, locally-attuned NBSs for hydro-meteorological risk reduction, at watershed/landscape scale
 2. Develop a **comprehensive framework for comparing** green and blue/grey/hybrid solutions
 3. Develop innovative business models boosting NBS market, overcoming socio-cultural and political **barriers**
 4. 8 Develop **methodologies, tools and best practices** to design, implement, maintain, replicate and up-scale NBSs
 6. Develop a **consolidated evidence-base** proofing the economical, social, cultural and environmental viability of NBS for hydro-meteorological DRR and climate change adaptation
 7. Develop a long-term self-sustainable **open data platform** to knowledge accrual and exchange
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Expected results



1. **Integrated system** enabling development and implementation of **NBS** for land management and planning
2. **Comprehensive framework** for dynamic comparison of NBS
3. **Recommendations** to overcome barriers, innovative business models and new financial to boost the NBS market for integrated DRR
4. Innovative **methodologies, tools and best practices** for implementing NBS
5. EU-wide **scientific evidence-base** for NBS viability
6. Long-term, pan-European, sustainable, **open data platforms** for NBSs

Consortium - profile of known partners



No	Partner Name	Type	Co.	Role in the Project
01	Università degli Studi di Padova	RTD	IT	Hydrology And Watershed Management. Design of Natural Based Solutions
02	Watermotion	SME	NL	Environmental flow dynamics (computer-based flood modelling)
03	DARES Tech	SME	ES	EO and remote-sensing based environmental modelling 1) underneath aquifer monitoring and modeling for risk assessment (large and huge subsidence and lack of fresh water for human consumption) 2) forest area monitoring (biomass, deforestation, identification of green areas) 3) large scale crop health monitoring 4) other risk related with severe meteorological events
04	European Academy of Bozen/Bolzano (EURAC)	RTD	IT	Monitoring and service development based on EO for management of natural resources. Support to: 1) Mountain tourism 2) Ecosystem processes 3) Natural hazard (landslide and flood)

Consortium - required partners



No	Expertise	Type	Country	Role in the project
01	Ecology	RTD		Assessment of ecological resilience. Sustainable agriculture.
02	Civil engineering & Territorial planning	RTD		Implementing NBS into integrated risk management procedures for land use
03	Climatology/Geology	RTD		Assessment hydro-meteorological / climatological hazards
04	Social Science and Humanities	RTD		Policy regulatory framework; socio-cultural acceptance of NBS
05	Nature Based Solutions design	IND/ SME		Developing and integrating NBS
06	Regional and Local authorities		Various (incl. TR)	end-users, helping to implement pilots in rural and natural areas
07	Financial Institutions			Assessing the insurance value of nature

THANK YOU



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