

Project ficheTANDEM Forzan – "Idrogeological risk"

TITLE OF THE PROJECT	Hydraulic risk models for the monitoring and evaluation of the hydrogeological performances of hydraulic works in minor watercourses - Mo.Idra
Funding programme	INTERREG Italia-Austria
Summary of the project	Through the study and monitoring of the territory, the project aims to develop and test cross-border models of hydraulic risk, including warning systems for the population and assessment systems for the hydrogeological performances of the works (bridges, bridleways, etc.). The general objective of the project is in fact to guarantee, through suitable works of ordinary and extraordinary maintenance, realized with eco-sustainable techniques, the correct functioning of the hydraulic works of the minor watercourses present in the cross-border territory, in order to reduce the risk for the population, during extreme events caused by climate change. The project also proposes the active involvement of the population and tourists through specific information campaigns. Municipality of Santa Giustina (BL) - IT
Partners	Municipality of Talmassons (UD) - IT Municipality of Comeglians (UD) - IT Central Institute of Meteorology and Geodynamics - Research and Innovation Unit (Wien) – AT
Challenges	 The challenges faced by the project are the following: to reduce the risk of cross-border population exposure to adverse hydrogeological events caused by climate change; to increase the resilience of cross-border territories at major hydrogeological events.
	The general objective of the project consists in the development of common strategies aimed at improving the hydrogeological and
Objectives	 landscape system to prevent risk situations in case of extreme events. In particular, the project aims to: improve the real knowledge of the dynamics of weather phenomena for a better management and usability in safety of the territory; increase the awareness of the population and tourists about the active role they can play in maintaining the landscape and for hydrogeological safety of territories around minor watercourses.



	The project contributes to the achievement of the objectives of the
Contribution to programme's objectives	Italy-Austria Programme as it aims to develop common strategies for improving the hydrogeological and landscape systems to react in occasion of extreme meteorological events. This in order to prevent risk situations for the population, i.e. promoting cross-border coordination between different actors (local and basin administrations, civil
	protection bodies, etc.). This coordination will take the form of actions to share and compare the monitoring data of the cross-border territory, collected trough the project, that will be used for the creation of shared hydraulic models.
European dimension of the project / European added	The added value of cooperation derives from the partners' need to address and solve problems related to hydrogeological risk, problems that find optimal solutions only if developed according to collaborative approaches, that go beyond administrative and territorial boundaries
value	and that are based on the respective competences and experiences of the different partners.
Contribution to other policies	ONU Agenda 2020-2030 - GOAL 13 - TARGET 13.1 Strengthening resilience and adaptive capacity to climate risks and natural disasters in all countries; TARGET 13.2 Integrating measures to combat climate change into national policies, strategies and plans; TARGET 13.3 Improving education, awareness raising and human and institutional capacity on climate change in the areas of mitigation, adaptation, impact reduction and early warning. GOAL 11 - TARGET 11.5: By 2030, significantly reduce the number of deaths and the number of people affected by disasters, including water-related disasters, and substantially reduce direct economic losses relative to global gross domestic product, with a particular focus on protecting the poor and people in vulnerable situations. Alpine Convention - climate change; natural hazards; water management; land use planning. EUSALP macrostrategy - to improve risk management and to better manage climate change, including major natural risks prevention. Regional Landscape Plan (RLP) - to integrate landscape protection and enhancement in landscape transformation processes. Regional Rural Development Plans (RDPs) - any initiative that could
	contribute to the achievement of cross-cutting objectives of innovation, environment and climate change mitigation and adaptation (i.e. restoring, preserving and enhancing ecosystems related to agriculture and forestry and). Mountain catchment area (BIM) - protection of the rights of mountain people in the responsible use of water resources.





Synergy and complementarity	ADAPT Project, co-funded by the INTERREG Italy-France Maritime Program, which aims to make Italian and French cities in the Upper Tyrrhenian Sea more able to adapt to the consequences of climate change, with particular reference to floods caused by 'water bombs'. INADEF project, co-funded by the INTERREG Italy-Austria Program, which develops an alarm system that recognizes debris flow events with greater advances by linking the prediction of precipitation in the short term (1-3 hours) with hydrological and trigger models. SedInOut Project, co-financed by the INTERREG Italy-Austria Program that provides for the development of a risk management methodology through the evaluation of sediment availability for mass transport in mountain environment.
	WP1: Project management activities WP2: Communication activities
Description of the project and organisation in WPs	WP3 – Study and monitoring of the territory. The WP is aimed at creating cross-border hydraulic models updated in the light of climate change, also through the use of innovative technologies. Task 1 - Bibliographic/scientific study aimed at collecting information and data on the hydrogeological characteristics of river basins and historical meteorological data in the area. OUTPUT: open-source cross-border geo-referenced and multitemporal open-source database. Task 2 - Territorial surveys of minor watercourses and related vegetation cover finalized. OUTPUT: orthophotos and three-dimensional mapping of the cross-border territory. Task 3 - Creation of risk models, including warning systems for the population and systems for the evaluation of the hydrogeological resistance of the works (bridges, weirs, etc). WP2 - Implementation of pilot projects that foresee hydrogeological defence works according to sustainable techniques in harmony with the territory of cooperation. Task 1 - Drafting, in close collaboration with the Civil Protection bodies, of cross-border guidelines for the intervention of the bodies in charge in case of emergency. Task 2 - Creation and installation of information billboards (multilingual) with QR code at the pilot action sites.
	WP3 - Active involvement of population and tourists in maintaining the landscape for hydrogeological safety purposes. Task 1 - Definition of operational vademecum of good practices for cross-border land management by the population. Task 2 - Public information and "training" actions for the population and tourists.





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Output and result indicators Durability / sustainability	The output and results indicators of the project are:
	number of cross-border data collected in relation to small
	watercourses;
	 number of cross-border hydraulic models developed;
	• number of cooperation agreements between bodies involved in the
	management of the territory signed.
	The models produced will continue to be used after the completion of
	the project, as the installed billboards. Both instruments constitute
	essential elements for the active defence of the territories and,
	consequently, their use will be guaranteed by the need of local
	authorities and organisations to guarantee hydraulic safety in case of
	extreme events.
Innovative character	The new elements of the project (i.e. which are not yet available in the
	territories of the cooperation area) can be summarised below:
	shared territorial mapping at cross-border level of minor
	watercourses;
	Shared cross-border risk definition and hydrological warning
	system.
Target groups	Municipalities and regional technicians
	Professional orders (architects, engineers, geologists, foresters)
	Municipal Police
	Civil protection agencies
	Civil population/local associations
	• Tourists
Budget	700.000,00 €

