Interreg Alpine Space | Co-funded by the European Union | DiMark

PROJECT TITLE: DiMark Transnational Network for Linking Digital Earth Observation to Freshwater Markers for Better Understanding of Water-connected Climate Change Adaptation and Risk Prevention in Alpine Region

ACRONYM: DiMark

Project duration: 36 months (01.09.2024 – 31.08.2027)

Alpine lakes are facing anthropogenic challenges led by touristic pressures and eutrophication, worsening over time with climate change. Frequent cyanobacterial and algal blooms caused by eutrophication make waters unsuitable for drinking, recreation, and industry. Blooms are accompanied by decreased biodiversity and oxygen depletion, posing a risk to water ecosystem; cyanotoxins in blooms pose also a health risk. The challenges mentioned above can be addressed using novel satellite-based solutions and improved cooperation between academia and decisionmakers.The project objective is to improve freshwater management, using novel ecosystem-based approaches for climate change adaptation and disaster risk prevention. The project will develop two innovative ready-to-use solutions: (1) an online visualisation tool with maps of the Alpine area for inspecting and comparing the water state, based on important freshwater markers, and (2) a model for cyano-risk prevention, enabling sustainable lake management while minimising health risk.Solutions will be developed using a multi-stakeholder co-development process, including academia, policy, SME, NGO and citizen stakeholders. The DiMark Transnational Network and Alpine lakes management strategy will enhance the sustainability of project results. The innovative aspect of the DiMark project is linking freshwater markers to satellite data. Establishing these links in a transnational approach is essential because some countries have experts for satellite data analyses, while others have experts for freshwater markers. In addition, water state depends on watersheds stretched across more countries (including border Alpine lakes). The project's main beneficiaries will be national/regional lake managers, decision makers and citizens who will experience better water quality and safety. Main results/changes are: (i) improved water quality, (ii) better response in case of water disaster management and (iii) improved lake biodiversity.

PROJECT PARTNERS:
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Edmund Mach Foundation, Italy
Regional Agency for Environmental Protection and Prevention of Veneto, Italy
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