

Proposal for EU partnership for [EU Interreg NextMed](#): Environmental Protection Intelligence and Cooperation (EPIC)

Climate change affects the Mediterranean significantly more than the world average, with air and sea temperatures expected to increase by 2 to 3°C by 2050 and up to 5°C by 2100¹. Rising inequality, biodiversity loss, the growing impact of climate change and unrelenting pressure on natural resources could lead to irreversible environmental damage in the Mediterranean basin². Many Mediterranean countries (in the South and the East) are living under high economic pressure with little budget available for adaptation. All these factors together make the Mediterranean Basin a climate change hotspot.

Ministries of Environment and Environmental Agencies throughout the region have established comprehensive legislative frameworks aimed at climate change mitigation, environmental management, and disaster risk. Yet, a fundamental challenge remains the enforcement of these policies, often hindered by inadequate financial, technical and human resources, a lack of political will,³ insufficient collaboration and data sharing between agencies, and limited community engagement and awareness. In particular, southern Mediterranean countries face significant barriers due to a lack of law enforcement, which impedes proper management of environmental issues. **Lack of successful enforcement of these environmental laws, regulations and policies is leading to a failure to stop environmental degradation and increased impact of climate change disasters on humans.** The primary focus for effective environmental management in the Mediterranean must shift from drafting new policies to enforcing existing legislation. Addressing these enforcement challenges is crucial to translating policy into actionable results. This includes strengthening the legal and administrative mechanisms involved in enforcement, as outlined by the Mediterranean countries under the Barcelona Convention and its Protocols.

In response to these challenges, the **EPIC (Environmental Protection Intelligence and Cooperation) project** has been developed to address the urgent need for effective environmental regulation enforcement, which is crucial for climate change adaptation and disaster risk prevention. This initiative aligns with the EU's priority, emphasized by [recent legislation](#) enacted on March 26, 2024, mandating tougher sanctions and an extended list of offenses, with a directive for member states to adapt their national rules within two years.

EPIC proposes a comprehensive, AI and technology-driven platform designed to transform how environmental laws are enforced across the Mediterranean. The system will leverage legal AI to rapidly interpret environmental laws, enable community reporting of environmental infractions, and assist environmental police in efficiently preparing enforcement actions. Featuring incident reporting, live map tracking, learning modules and data analytics, EPIC is crafted to unify and streamline the enforcement process, transitioning from a reactive to a proactive, intelligence-led model. This strategic approach aims to enhance legal enforcement efficiency and promote community engagement in environmental protection, thereby promoting a unified transnational strategy to address climate-related risks and illegal environmental activities effectively.

Moreover, **EPIC** supports the European Union's call for harmonized action and enforcement mechanisms, directing resources towards 'hot spots' or areas of heightened risk to ensure targeted, impactful interventions⁴. By leveraging technology and AI, including new and existing technological opportunities, to ensure harmonized actions across the Mediterranean, EPIC boosts the capabilities of environmental agencies and empowers

¹ [UNEP/MAP and Plan Bleu, 2020.](#)

² idem

³ European Environment Agency. (2006). EEA Report No 4/2006. Retrieved [online](#)

⁴ Papamichael, I., Voukkali, I., & Zorpas, A. A. (2022). Mediterranean: Main environmental issues and concerns. Euro-Mediterranean Journal for Environmental Integration, 7(477-481). <https://doi.org/10.1007/s41207-022-00336-0>



communities. This approach not only tackles the immediate challenges of enforcement but also contributes to the broader goals of promoting climate change adaptation, disaster risk prevention, and resilience, taking into account ecosystem-based approaches. Through this initiative, the Mediterranean region can advance towards sustainable development, ensuring that its unique environmental and economic attributes are preserved and enhanced for future generations.

Proposed project to NextMed:

Environmental Protection Intelligence and Cooperation (EPIC) is a 30-month initiative in line with *Objective 2.2 Promoting climate change adaptation and disaster risk prevention, resilience taking into account ecosystem-based approaches* that aims to transform the enforcement of environmental laws and enhancing climate change adaptation across Jordan, Lebanon, Egypt, and the EU. The core is the development and implementation of an AI-powered digital tool, EPIC, housed in each participating country's Ministry of Environment, or relevant environmental enforcement agency. This tool leverages legal AI to automatically interpret environmental laws, enabling efficient case preparation and coordination by environmental police and facilitating direct community reporting of infractions. The project encompasses setting up project governance, customizing the EPIC platform to meet specific country needs, developing and delivering targeted training for enforcement agencies and community groups, and implementing pilot projects to refine the platform. These efforts are supported by open data sharing with the public, ongoing communication campaigns to raise stakeholder awareness, continuous evaluation to assess impact, and policy advocacy to ensure alignment with national and regional environmental strategies. This multi-faceted approach aims to promote a proactive, intelligence-led enforcement framework, enhancing community engagement and ensuring more effective environmental governance, which leads to a stronger foundation for disaster risk resilient communities.

Partners:

This project combines regional expertise and leverages technology to address the pressing challenge of climate change and ecosystem degradation, bringing together [Siren Associates](#), based in Jordan with 16 years' experience in technology-facilitated community-based approaches to addressing crime and safety in MENA, and [Siren Analytics](#) in Lebanon is a regional innovator in AI and tech-for-good for public governance with expertise in Learning Management Systems (LMS), [CEDARA](#), based in Egypt, with its trusted relationships with Ministries of Environments across the region and policy expertise and AWO's expertise working on environmental concerns with the Ministry of the Environment in Jordan and their active community engagement in empowering women to be the voice of the community.

The EPIC Consortium is **seeking an environmental partner in the EU**, who will take on the following role in supporting the EPIC project:

- Provide localized technical expertise on environmental policies and issues.
- Collaborate with environmental institutions/police to thoroughly understand their specific needs, processes, limitations, and the real-world challenges they face in environmental enforcement to inform the development of EPIC.
- Manage, support and provide guidance for the implementation of pilot projects, including support, coordination and feedback from government agencies at a local level on using the EPIC system.
- Conduct in country communications campaigns on EPIC, in line with consortium communication strategy.
- Participate in bi-annual cross country sharing of insights and best practices through structured knowledge exchanges.