CALL TEXT AND SUPPORTING INFORMATION

Call: Section 1 – Water Management 2023

Topic 1.1.1-2023 (IA) Integrated adaptive wastewater management plans in the Mediterranean region

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Thematic Area water management

Topic 1.1.1 (IA) Integrated adaptive wastewater management plans in the Mediterranean region.

	
Alignment with SRIA	Thematic area 1 Water management 1.2 Sustainable, integrated water management
Alignment with EU Policies	EU Green Deal: Preserving our environment: Protecting our biodiversity and ecosystems, Zero pollution Action Plan Water Framework Directive Biodiversity Strategy

Challenge

Along with agricultural sources (e.g., chemical fertilisers and livestock manure), wastewater discharges from urban areas and industries remain an important source of pollutants in the Mediterranean region. Additionally, urban runoff, stormwater overflows, and discharges of untreated waters from small-scale agglomerations and individual systems are increasingly important sources of nutrients, heavy metals, micro-pollutants and micro-plastics. As a result of population growth in Mediterranean coastal areas, pollutant loads from wastewater treatment facilities and from runoff from urban and farming areas to sensitive ecosystems are also projected to increase. Due to pharmaceuticals, personal care products and microplastics not being degraded in the treatment plants, wastewater effluents still show residual toxicity for aquatic ecosystems and potentially threaten human health. Excess nutrient losses to inland and coastal waterways lead to eutrophication through oxygen depletion and algal blooms, destroying aquatic life and reducing biodiversity in affected areas. All this will impact the capacity of inland and coastal ecosystems to provide services such as tourism, aquaculture and fisheries, which are of utmost importance for people's livelihood. At the same time, the generated load of pollutants has significant consequences for the economy by increasing water purification costs for municipal and industrial uses. Integrated adaptive management plans of wastewater need to be established, including a combination of measures targeting substances at source, promoting new circular economy business models to improve resource recovery and water reuse, incentivising the development of improved technologies, and aligning governance systems to changing climate and evolving societal ambitions.

Scope

Proposals submitted to this call are expected to develop wastewater treatment and reuse approaches in connection with nutrient and energy recovery and cost-effective design solutions for managing and minimising micro-pollutants. This is an area with a strong policy emphasis potentially contributing to solving multiple problems at once: nutrient pollution and eutrophication, increasing prices of fertilisers and lack of access to/depletion of raw phosphates, water scarcity and depletion of water resources in the Mediterranean, water pollution including contaminants of emerging concern with public health implications. Some of the past and ongoing projects in this domain have the potential to offer a part of the solution. Yet, to arrive at effective recycling of nutrients and wastewater reuse without further spreading pollution, we also need to solve the microplastic pollution in wastewater and pollution from pharmaceutical products and other contaminants that are not removed from wastewater currently. A project that would holistically look at these issues and integrate existing solutions (both green, for instance, nature-based solutions and grey) would contribute to the challenges faced by countries in the Mediterranean region.

Topics to consider include:

- Demonstrate the feasibility and limits of circular nutrient management by recovering and recycling nutrients from (agricultural, urban, and industrial) wastewater and sewage sludge to prevent them from entering aquatic environments and lower the need for traditional fossil-based fertilisers
- Upgrade of wastewater treatment plants to better trap micro-pollutants and micro-plastics and improve conditions for increasing water reuse and better management of sewage sludge
- Optimise the energy consumption of the sector and encourage the uptake of energy efficiency technologies leading to energy savings and reduction of Greenhouse Gas Emissions
- Strengthen the uptake of digital solutions for permanent tracking of potential pollutants at the inlet and outlet of the wastewater facilities
- Plan a surveillance system for COVID-19 in large wastewater treatment plants as a rapid and reliable source of information on the spread of current and future variants of the virus and other emerging pathogens
- Involve national, regional and local authorities, industry, farmers and consumers in the analysis of governance options and costs of improved access to sanitation in Mediterranean countries

Proposals should perform these tasks using a business model that guarantees the functioning of the network and its services beyond the lifespan of the project.

Proposals should set a clear plan on how they will collaborate with other projects selected under this and any other relevant topic by participating in joint and common communication and dissemination activities.

In particular, projects are expected to build links with the EU Mission "Restore our ocean and waters by 2030", and in particular with the Mission lighthouse in the Mediterranean Sea basin, which focuses on piloting solutions for the prevention and elimination of pollution, including nutrient pollution (in particular the coordination and support actions under the Horizon Europe topic HORIZON-MISS-2021-OCEAN-03-02) and with the Mission Implementation Support Platform for monitoring and networking activities. The projects are expected to contribute to the EU Mission "Restore our ocean and waters by 2030" Water knowledge system.

Due to the specific challenge of this topic, and in line with our principles of allowing maximum participation from Southern Mediterranean Countries to foster both North-South and South-South cooperation, the following additional eligibility criteria apply: "In addition to the minimum number of participants set out in the standard eligibility conditions (section 5.1.3 of the PRIMA Annual Work Plan 2023) consortia must include at least one independent legal entity established in any of the MPCs[1]*.*

Expected impacts

- Creation of new market opportunities for recovered or recycled nutrients;
- Improvement of the energy efficiency of the wastewater treatment sector to move towards carbon and energy neutrality
- Reduction of the eutrophication of Mediterranean coastal and inland water bodies and protection and restoration of affected ecosystems (incl. ecosystem services provision).
- Increased awareness and changes in practices and behaviours of urban and agricultural communities and industries towards more sustainable ones can contribute to preventing and reducing nutrient pollution.

Key Performance Indicators

- Contribution of recycled nutrients to the overall nutrients used for agricultural production (%)
- Decrease in inputs of nutrients into soils and aquatic environments (%)
- SDG #6 Indicator 6.3.2 "Proportion of bodies of water with good ambient water quality."

[1] Mediterranean Partner Countries (MPC) are considered the Third Countries associated to Horizon 2020 (AC): Israel, Tunisia, and Turkey and the Third Countries (TC) having concluded international agreements for scientific and technological cooperation setting out the terms and conditions of their participation in PRIMA: Algeria, Egypt, Jordan, Lebanon and Morocco

Contributions to EU policies, HE Mission and Partnerships

The proposal should indicate linkages to relevant EU policies and objectives in the context of the European Green Deal and relevant EU Missions and Partnerships. In particular with the EU Mission Restore our ocean and waters by 2030

Contribution to SDGs

The proposals should indicate their contribution to relevant SDGs and methodology to contribute to reporting SDG indicators.

Table 1. Supporting information for Section 1 call for Proposals, Topic 1.1.1

Type of action	**Innovation Action (IA)**
The total indicative amount allocated to this call	**EUR 8.2 million**
Funding level	According to Horizon 2020 Rules. 70% (except for non-profit legal entities, where a rate of 100% applies).
Technology Readiness levels (TRL)	**TRL 6-8** Proposals should clearly state the starting and end TRLs of the key technology or technologies targeted in the project.
Budget and duration of grants	PRIMA considers that proposals requesting a contribution from the EU in the range of **EUR 4.1 million** and with a duration of **36 months** would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submitting and selecting proposals requesting other amounts or duration.
Eligibility conditions for participation	Please refer to section 5.1.1 of the PRIMA Annual Work Plan 2023 for the List of countries eligible for funding.

Specific additional requirements for the calls 2023	*Due to the specific challenge of these topics, and in line with our principles of allowing maximum participation from Southern Mediterranean Countries to foster both North-South and South-South cooperation, the following additional eligibility criteria apply:* *"In addition to the minimum number of participants (3 legal entities) set out in the standard eligibility conditions (mentioned above), consortia must include at least one additional independent legal entity established in any of the MPC.* *So the eligibility rules can be read as follows:* At least four legal entities established in at least three different countries considered as PRIMA Participating States, out of which: -at least one must be established in an EU Member State or a third country associated with Horizon 2020 and not being an MPC -at least two must be established in third country/countries bordering the Mediterranean Sea (MPC): Algeria, Jordan, Israel, Tunisia, Morocco, Lebanon, Egypt, Turkey." Examples: Germany-Greece-Morocco-Turkey is eligible Germany-Greece-Morocco entity 1-Morocco entity 2 is eligible Germany entity 1-Germany entity 2-Greece-Morocco IS NOT ELIGIBLE, lack of the 4th partner from a MPC France-Algeria-Egypt is NOT ELIGIBLE, lack a 4th partner that can be from a MPC OR from a EU PRIMA PS
Submission and evaluation procedure	The call will be organised according to a two-stage submission process. A first-stage proposal (maximum ten pages) must be submitted within the first-stage submission deadline. Successful applicants in the first step will be invited to the second step to submit a full proposal (**maximum 50 pages**). A timeline for submitting and evaluating applications can be found in Table 6 of the PRIMA Annual Work Plan 2023.
Evaluation rules	The award criteria, scoring, thresholds and weightings for IAs listed in part 5.1.7 of the PRIMA Annual Work Plan 2023 will be used.
Grant agreement	PRIMA MGA (multi-beneficiary), based on Horizon 2020 MGA.
Consortium agreement	Participants in projects resulting from this call for Proposals must conclude a consortium agreement before the PRIMA grant agreement's signature.