

PRIMA CYPRUS INFODAY 2023

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PRIMA Project Officers

@PRIMAPROGRAM #PRIMAInfoday



RESEARCH
& INNOVATION
FOUNDATION



PRIMA
PARTNERSHIP FOR RESEARCH AND INNOVATION
IN THE MEDITERRANEAN AREA



PRIMA is supported under
Horizon 2020, the European Union's
Framework Programme
for Research and Innovation

4 THEMATIC AREAS

MANAGEMENT OF WATER



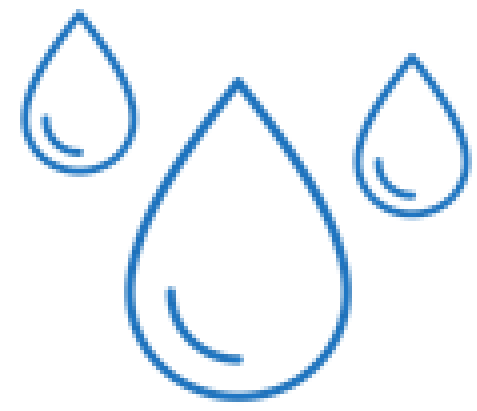
FARMING SYSTEMS



AGRI-FOOD VALUE CHAIN



Background SRIA



MANAGEMENT OF WATER

Integrated and sustainable management of water for arid and semi-arid Mediterranean areas



FARMING SYSTEMS

Sustainable farming systems under Mediterranean environmental constraints



AGRO-FOOD VALUE CHAIN

Sustainable Mediterranean agro-food value chain for regional and local development



NEXUS theme

Background Programme Structure



*PRIMA Decision <https://eur-lex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:32017D1324&from=EN>

Highlights Calls 2023

Section 1, four Calls for proposals

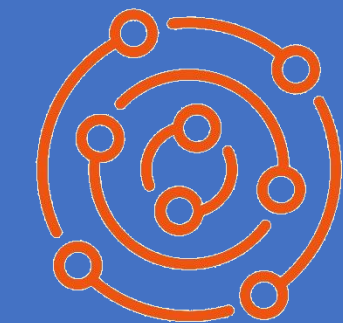
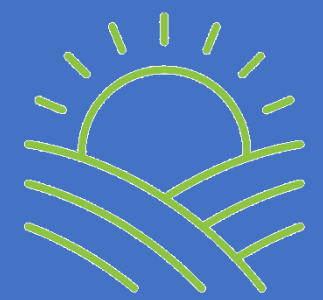
THEMATIC AREAS

Management of water

Farming systems

Agro-food value chain

WEFE Nexus



4 Topics



one Call for contest

WEFE Nexus Award

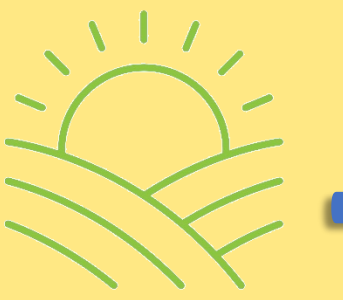
Section 2, a single multi-topic Call

THEMATIC AREAS:

Management of water

Farming systems

Agro-food value chain



3 Topics

Highlights Calls 2023

Budget

Section 1 Calls

Section 1 Call 1

Section 1 Call 2

Section 1 Call 3

Section 1 Call 4

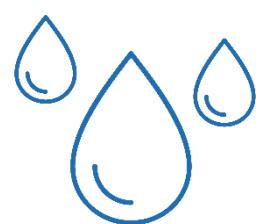
Indicative EU contribution

8 200 000

8 200 000

8 250 000

8 200 000



SECTION 1



69M EUR



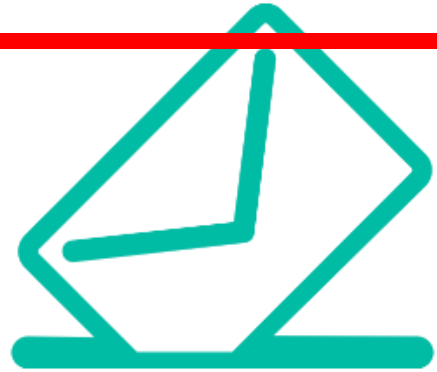
>1.5 M€

SECTION 2

Highlights Calls 2023

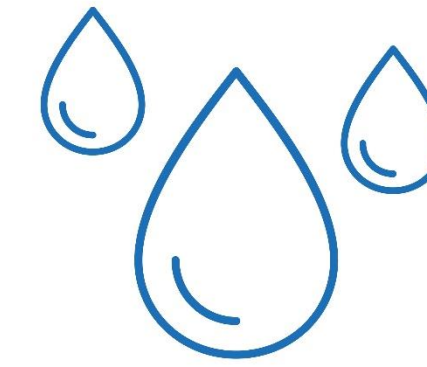
Calendar

Section	Call publication and opening	Submission deadline Stage 1	Evaluation results Stage 1	Submission deadline Stage 2	Evaluation results Stage 2
1	25/01/2023	22/03/2023	16/06/2023	06/09/2023	20/11/2023
2	25/01/2023	29/03/2023	23/06/2023	13/09/2023	11/12/2023

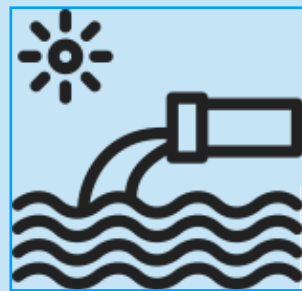


PRIMA Calls for Proposals Section 1 2023

Water management topic – Section 1



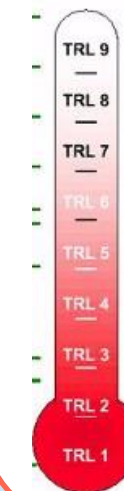
Topic 1.1.1 IA



Integrated adaptive wastewater management plans in the Mediterranean region

Topic
Water
management

S1



**TRL
6-8**

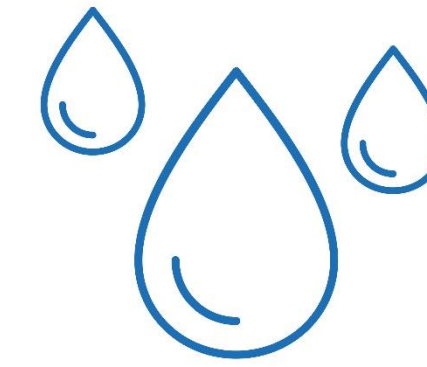

8.2 M€


2

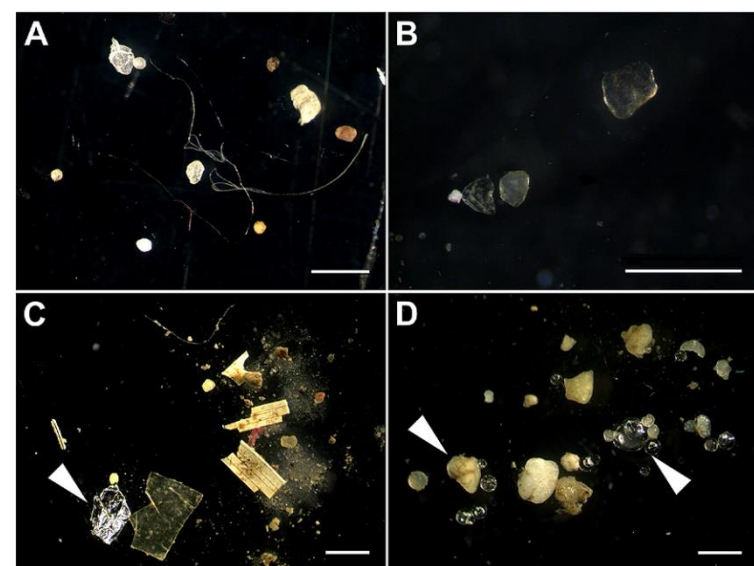
Submission deadline Stage 1: 22/03/2023

Water management topic – Section 1

Challenge



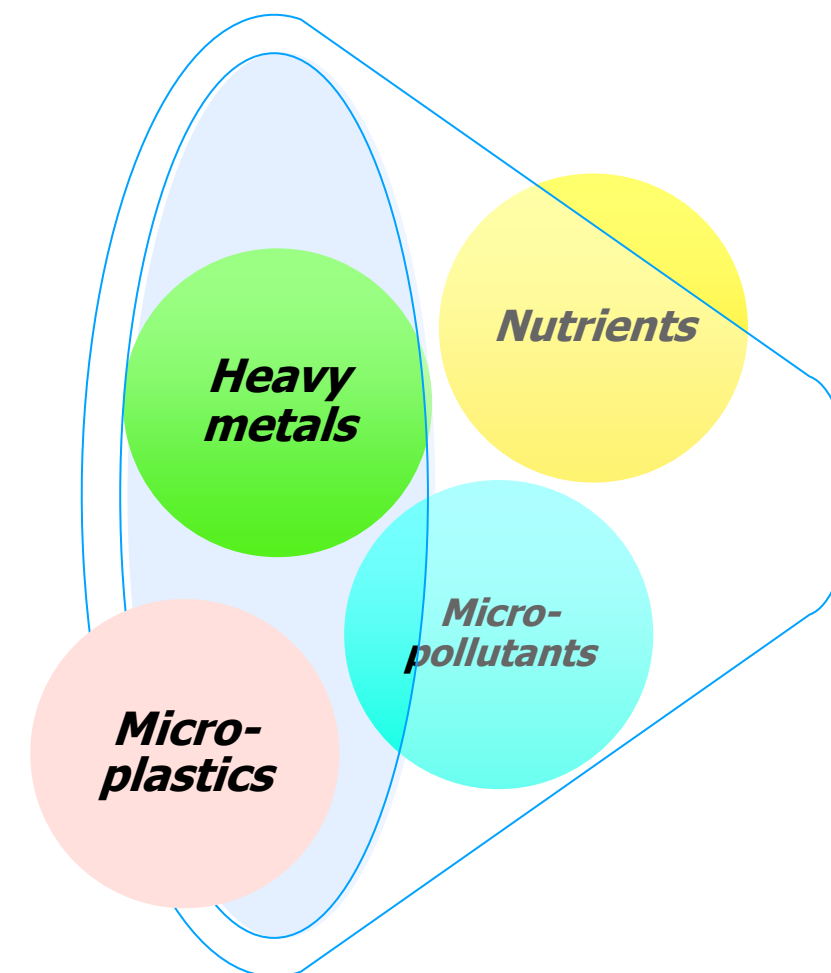
Agricultural and industrial sources, urban runoff and improperly treated wastewater discharges are leading to...



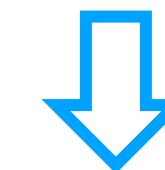
By Martin Wagner et al. - Wagner et al.: Microplastics in freshwater ecosystems: what we know and what we need to know. In: Environmental Sciences Europe. 26, 2014, doi:10.1186/s12302-014-0012-7, CC BY 4.0, <https://commons.wikimedia.org/w/index.php?curid=3950778>



Weerayuth Kanchanacharoen, Tubería de descarga industrial y de fábrica de aguas residuales en el canal y el mar



...**increased pollution** of Med water bodies & related aquatic ecosystems!



- eutrophication, destruction of aquatic life, reduction of biodiversity
- impact on ecosystems services, economy (tourism, aquaculture, fisheries) and Med people's livelihoods
- potential threats to human health
- increasing water purification costs for municipal/industrial use

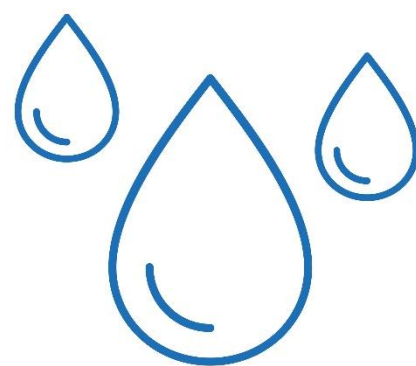


Photo: Dr. Jennifer L. Graham | US Geological Survey / eutrophication & hypoxia on Flickr (CC BY-NC-ND)

In addition to this, the Med faces issues like **water scarcity and depletion**, the increasing prices of **fertilisers**....



Water management topic – Section 1



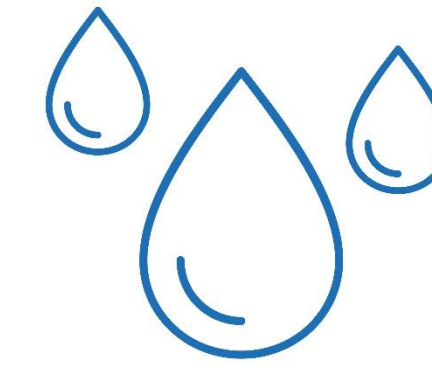
Scope

Issues mentioned should be addressed holistically through **wastewater management plans** based on new *circular economy business models* and integrating *green (incl. NBS) and grey solutions*

Demonstrating the recovery & recycling of nutrients from wastewater/sewage sludge	⇒	<i>prevent nutrient pollution in aquatic environments and lower need for fossil-based fertilisers</i>
Upgrading WW treatment plants	⇒	<i>trap micro-pollutants/micro-plastics, increase water reuse and better sewage sludge management</i>
Optimising energy consumption , encouraging uptake of energy efficient tech	⇒	<i>energy savings and reduction of GHG emissions</i>
Strengthening uptake of digital solutions	⇒	<i>tracking of potential pollutants at the inlet and outlet of the WW treatment facilities</i>
Planning surveillance systems for COVID-19 in large WW treatment plants	⇒	<i>source of information on the spread of the virus and other emerging pathogens</i>
Involve national, regional, local authorities, industry, farmers and consumers	⇒	<i>analyse governance options and costs of improved access to sanitation in Med countries</i>

Proposals to outline links w/ other projects and the EU Mission "Restore our ocean and waters by 2030" (Water Knowledge System, Implementation Support Platform for Coordination and Monitoring, Med Sea Basin Lighthouse)

Water management topic – Section 1



Expected Impacts



Market opportunities for recovered or recycled nutrients



Improve energy efficiency of wastewater treatment, towards carbon and energy neutrality



Reduction of the eutrophication in water bodies; protection and restoration of affected ecosystems

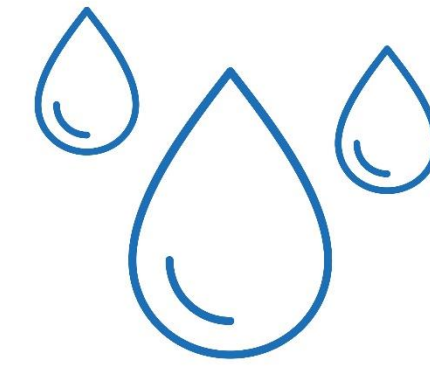


Changes in practices (society, agriculture, industry) towards more sustainable ones to prevent and reduce nutrient pollution

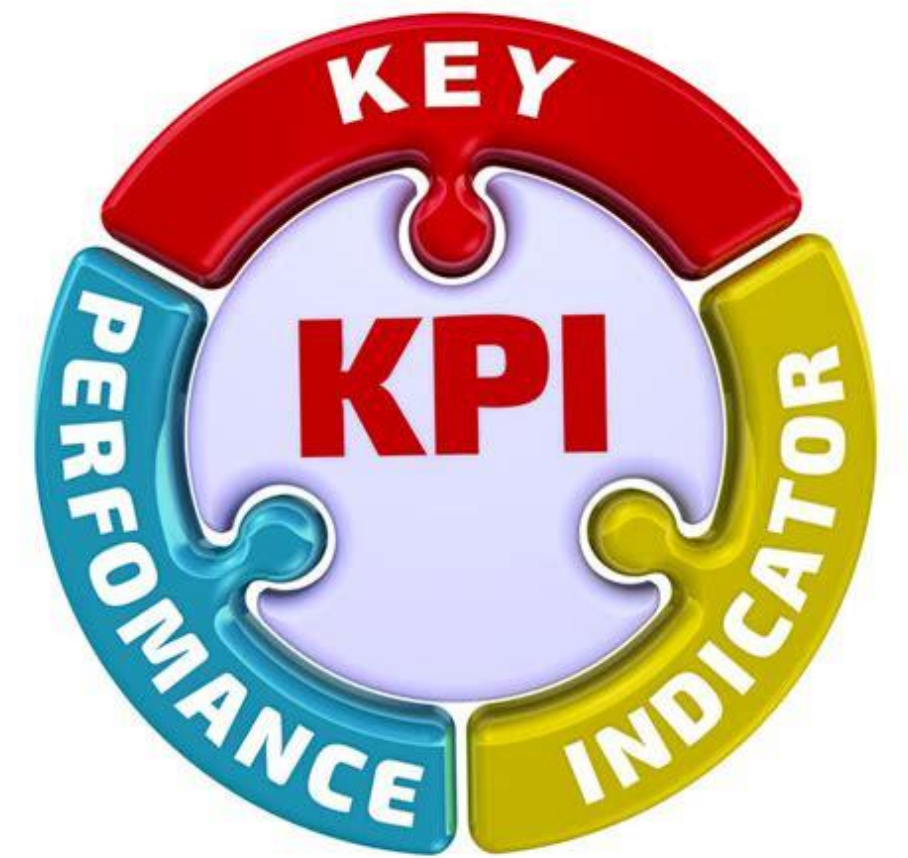
A farmer applies fertilizer on his rice field. IRRI Photo (Isagani Serrano)
Part of the image collection of the International Rice Research Institute (IRRI).

Water management topic – Section 1

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"



Farming systems topic – Section 1

Topic 1.2.1 **IA** **S1**

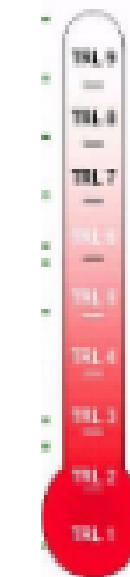
In collaboration
with EU Mission
Soil Deal for Europe



**Actions to restore and return degraded
lands in the Mediterranean region into
productive agroecosystems**



8.2 M€



TRL 6-8



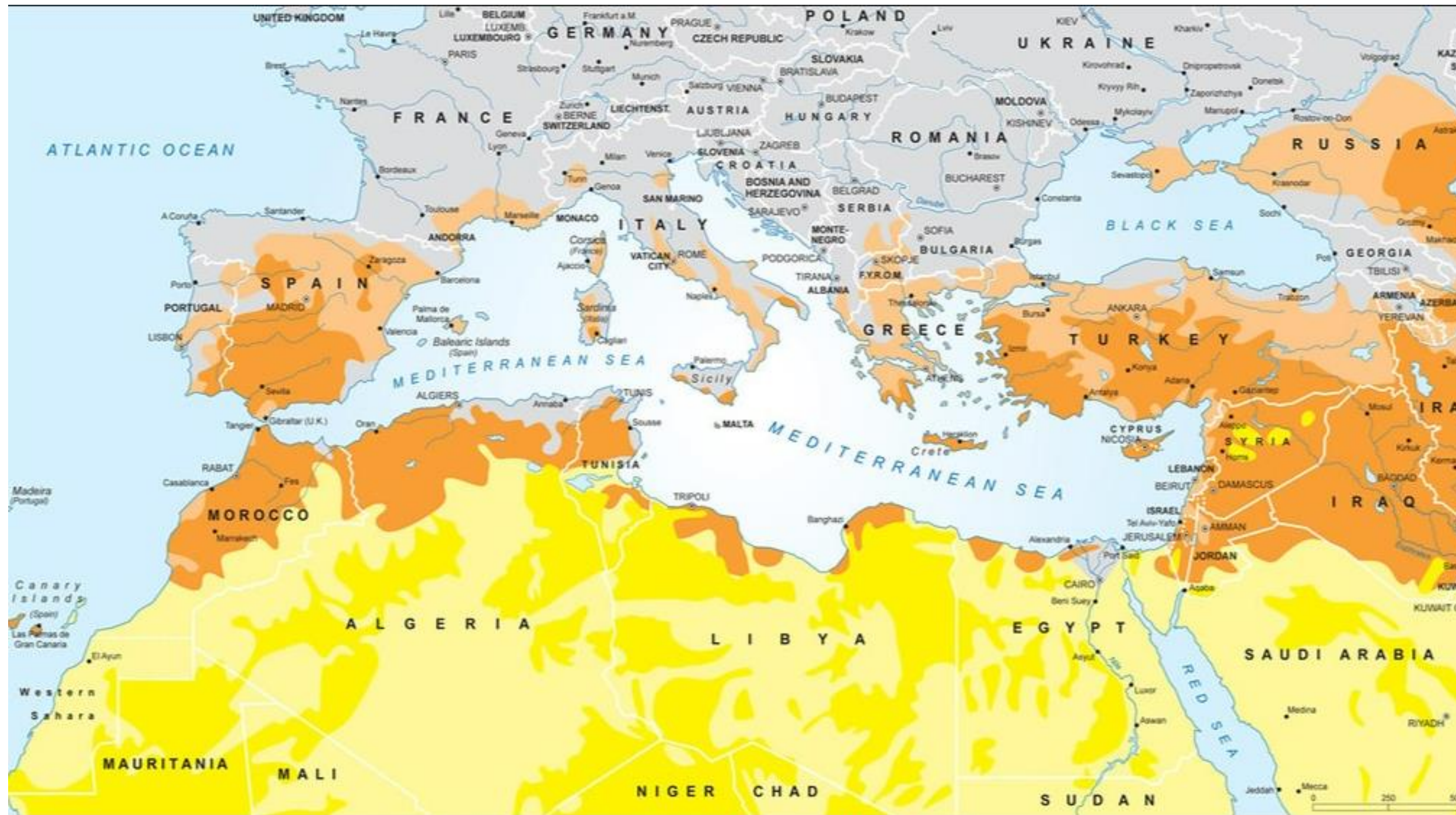
2

Submission deadline Stage 1: 22/03/2023

Challenge



MISSION SOIL



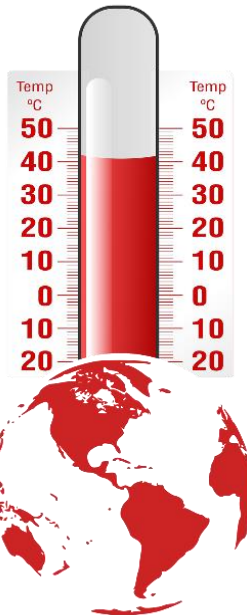
Environment and Security in the Mediterranean: Desertification



Sources: Natural Resources Conservation Service, Plan Bleu, Times Atlas of the World



- About 25% of land in Southern, Central and Eastern Europe is at high or very high risk of desertification
- More than 1/3 of the Med Drylands are already affected by desertification



DESERTIFICATION

- leads to a loss of biodiversity and soil cover
- compromises agricultural activities
- has severe socio economic consequences on vulnerable populations - smallholders



Scope



**RESTORE THE LANDS ALREADY AFFECTED BY DESERTIFICATION
AND TURN THEM INTO PRODUCTIVE AGRO-ECOSYSTEMS**

Approach

RESTORE BIOLOGICAL-ECOLOGICAL CYCLES **USING EXISTING / ALREADY TESTED ECO-FRIENDLY SOLUTIONS (Practices, Technologies, Varieties....) **AND SCALE IT/THEM UP****

WORK AT A LARGE SCALE TO DEMONSTRATE TO STAKEHOLDERS – LAND MANAGERS – FARMERS- POLICYMAKERS THE BENEFITS OF YOUR SOLUTION **IN REAL LIFE CONDITIONS**

CIRCULAR ECONOMY – RECYCLING – REUSING- **NATURE BASED SOLUTIONS – **VALORIZE ECOSYSTEM SERVICES****

ESTIMATE AND ANALYSE THE COST/BENEFITS OF THE PROPOSED SOLUTION

DEVELOP **ORGANIZATIONAL / BUSINESS MODELS TO SUSTAIN THE ACTION AFTER THE END OF THE PROJECT** (creation of new value chains - new market activities- jobs for Young and women ...)



Approach



- Take advantage of **THE RESULTS (AND SITES)** of previous Projects and create synergies

PRIMA projects

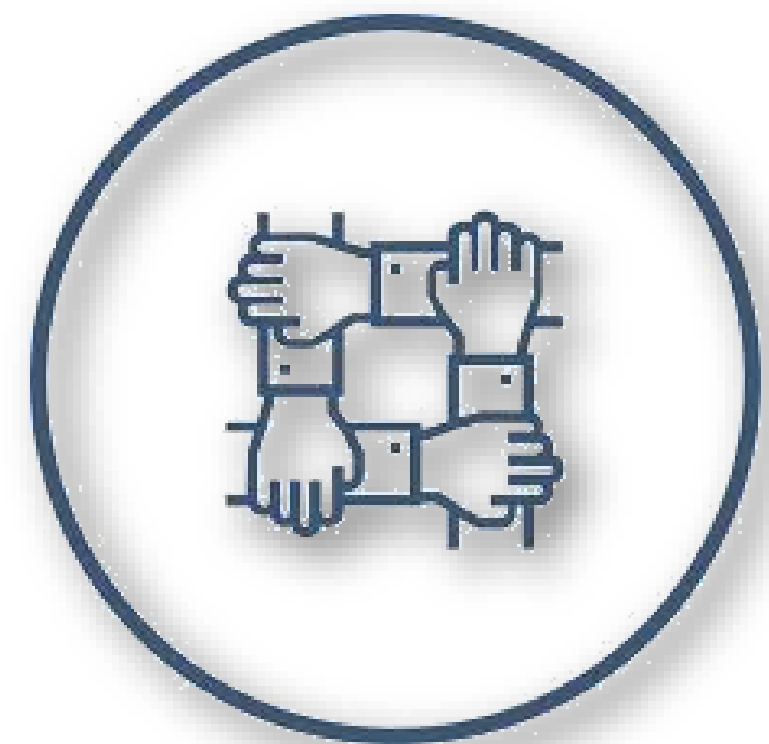
ex: *Call 2021: Sustainable soil and water management for combating land degradation and desertification and promoting ecosystem restoration*

*Call 2022 in collaboration with the EU Mission Soil: Developing **integrated soil data for the Mediterranean Region**: a gateway for sustainable soil management*



H2020 # HORIZON EUROPE

- **Adopt Multi actors approach and co-construction of the proposal** (scientists, land planners, farmers, municipalities, private sector, citizens...)
- **Create links with the #EU MISSION SOIL and the #PRIMA WEFE COMMUNITY OF PRACTICE** by developing common activities, living labs, capacity building, knowledge sharing....



Expected Impacts

- **LARGE-SCALE DEMO SITES, PREFERABLY LOCATED IN SOUTHERN COUNTRIES**
- **Restored desertified landscapes:** improve the functionality of ecosystems and landscapes to continue providing ecosystem goods and services, and offer proven and **cost-effective solutions for land restoration**
- **Increased biodiversity, soil health, and food production**
- **Decreased land degradation.** Increased /stabilized the surface of lands suitable for cultivation and other related ecosystem services.
- **Contribute to improving employment, especially for women and youth**



KPI: KEY PERFORMANCE INDICATORS



- Hectares of desertified areas restored
- Number of innovative solutions applied for land restoration
- Number of business models deployed
- Number of stakeholders engaged



Contributions to EU policies, HE Mission and Partnerships

- EU Soil Strategy for 2030
- Biodiversity Strategy for 2030
- EU Adaptation Strategy for climate change



Call 2023 Food Value Chain Topic

TOPIC 1.3.1-2023 (RIA)

Increasing agri-food supply chain (**cereal**) resilience in the MENA region.



DEADLINE FOR STAGE 1 : 22/03/2023

Challenges

World food prices hit a record high
in 2022



Environment

Climate Changes
Deforestation
Drought
Desertification
Floods



Geopolitical Conflicts

Russia-Ukraine War
Food Export Conflicts
Oil Pricing
Political instability in the Region
& COVID



Socio-Economic

Population Growth
Unemployment
Poverty, Low Income
Immigration
Supply Chain Disturbance

War, Pandemic & Climatic Stresses
fuel a sharp rise in **GLOBAL HUNGER**

Challenges



Cereals, the key to food security in the Mediterranean

For more about Cereals in the Mediterranean, check PRIMA: <https://prima-med.org/cereals-the-key-to-food-security-in-the-mediterranean%E2%82%AC%91>

FAO Report “The Importance of Ukraine and the Russian Federation For Global Agricultural Markets and the risks associated with the war in Ukraine”, 2022

(<https://www.fao.org/3/cb9013en/cb9013en.pdf>)

CEREALS IMPORT DEPENDENCY

Cereals are essential for a large part of the Mediterranean population. They are the basis for dishes such as pasta or couscous, indispensable in Mediterranean cuisine.

Cereals provide the most energy, carbohydrate, and essential source of protein, fiber, lipids, a wide range of minerals, and vitamins.

Due to Cereals’ **nutritional** richness, **cultural** aspects, and **heritage**, the **Southern Mediterranean countries consume the highest wheat per capita, about 128 kg, twice the world average.**

30-50% of their Cereals imports come from **Russia and Ukraine**, one of the world’s major food-exporting regions. The war in the area has disrupted agricultural production and trade. Not only have prices dramatically spiralled, but food scarcity is also a real risk: shelves of some bakeries are beginning to empty.

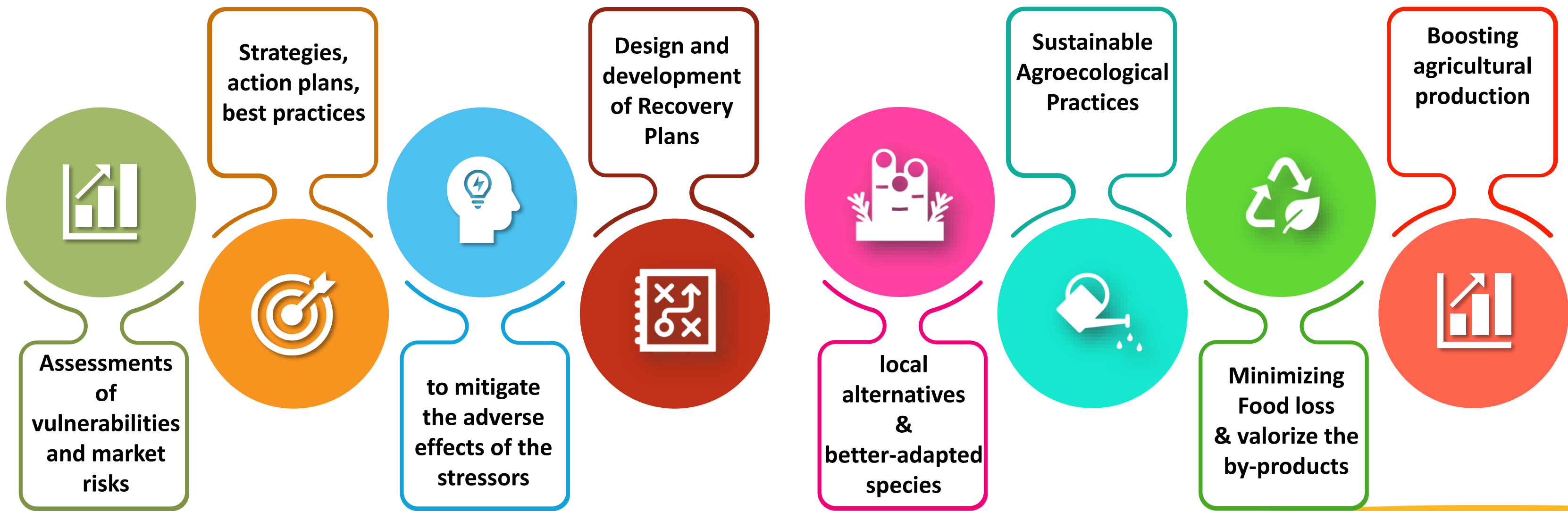
Climate change has long been **challenging cereal farming** in the Mediterranean area. With rising temperatures and decreasing rainfall, plantations are growing in more stressful environments, leading to a drastic drop in yields if their resilience is not increased.

Scope

Increase the Resilience and Reliability of the Med. Food Supply Chain

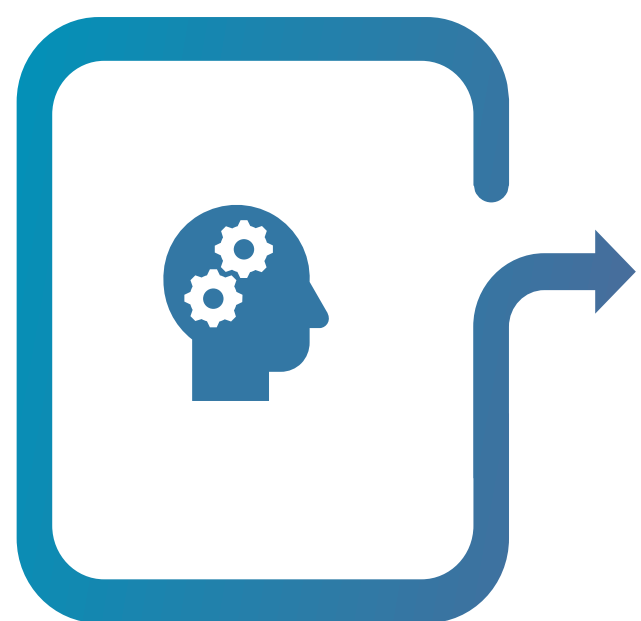


RECOMMENDATIONS & SOLUTIONS

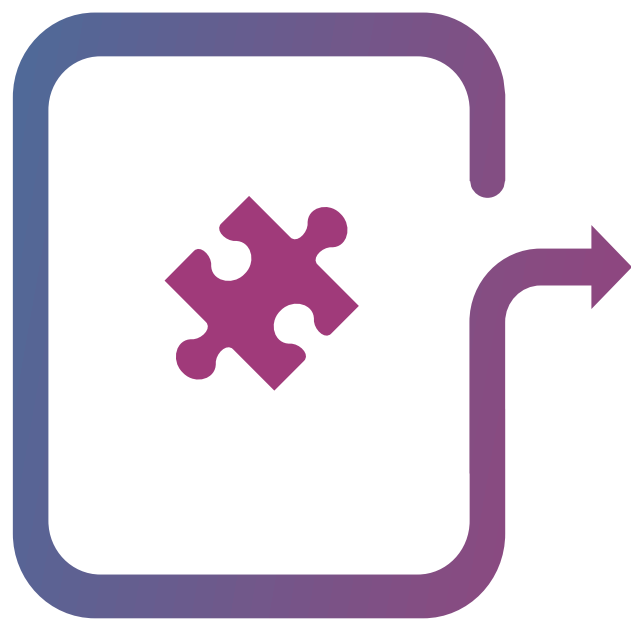




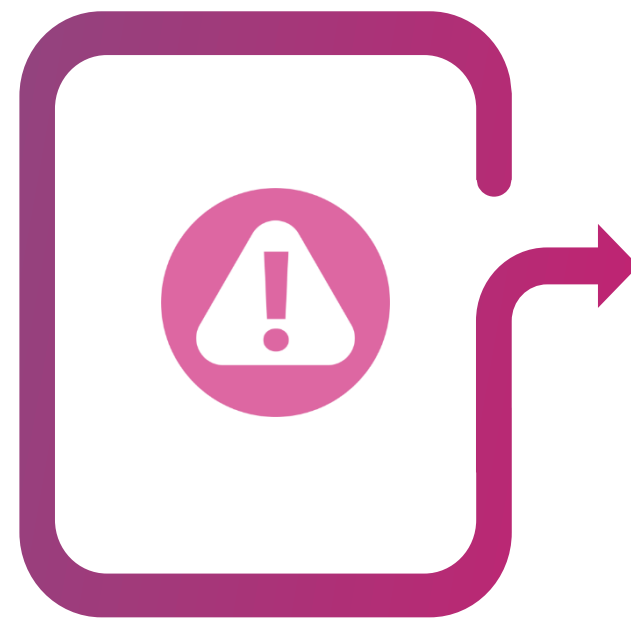
Expected Impacts



Definition of the short and long-term drivers

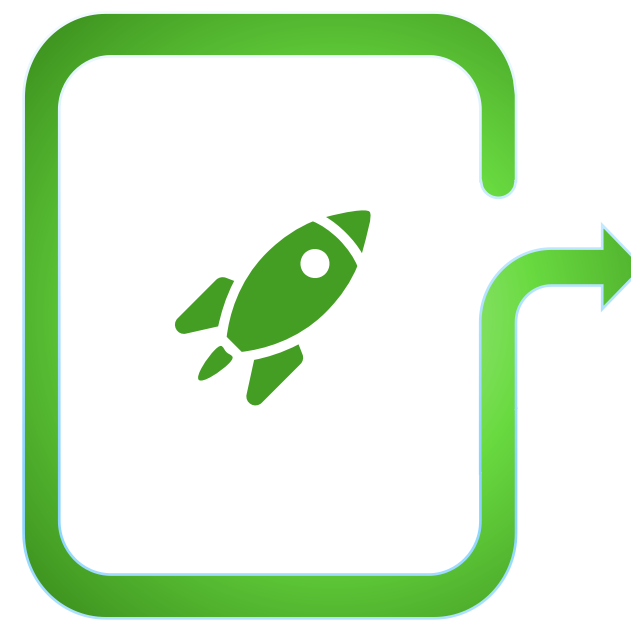


Defining the Vulnerabilities, dependencies, and critical infrastructures of the food systems, and supply chain

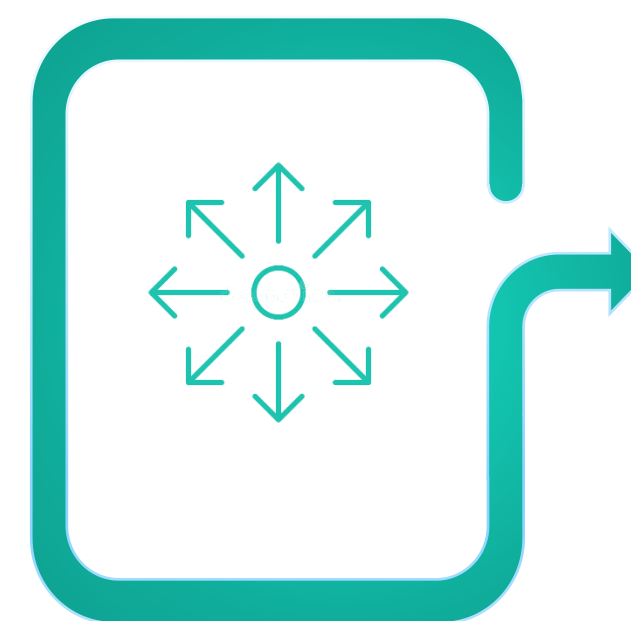


Improved preparedness to deal with risks that may threaten the cereals supply chain.

Availability of data and platforms



Streamline local food environments



Diversification of food sourcing also exploiting digital solutions



Risk assessment and Evidence-Based strategies, action plans



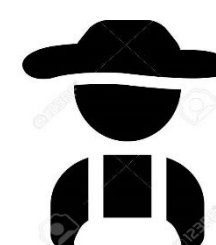
Develop innovative solutions



Scientists



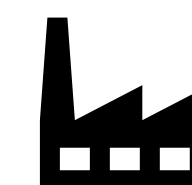
Policymakers



Small Farmers



Small Farmers




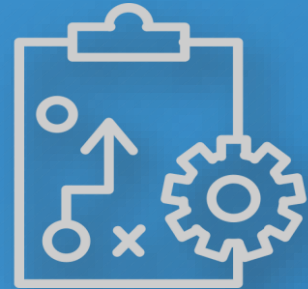

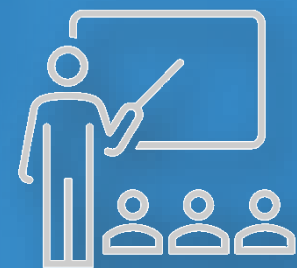

Companies



SMEs



Key Performance Indicators

- # of identified drivers of change affecting the cereals supply chain 
- # of strategies and action plans to ensure appropriate cereals supply during unforeseen crises 
- # of solutions aiming to diversify food 
- # of training workshops/public events on the markets conducted to streamline local food environments 
- # of Solutions aiming to improve the supply chain of cereals 

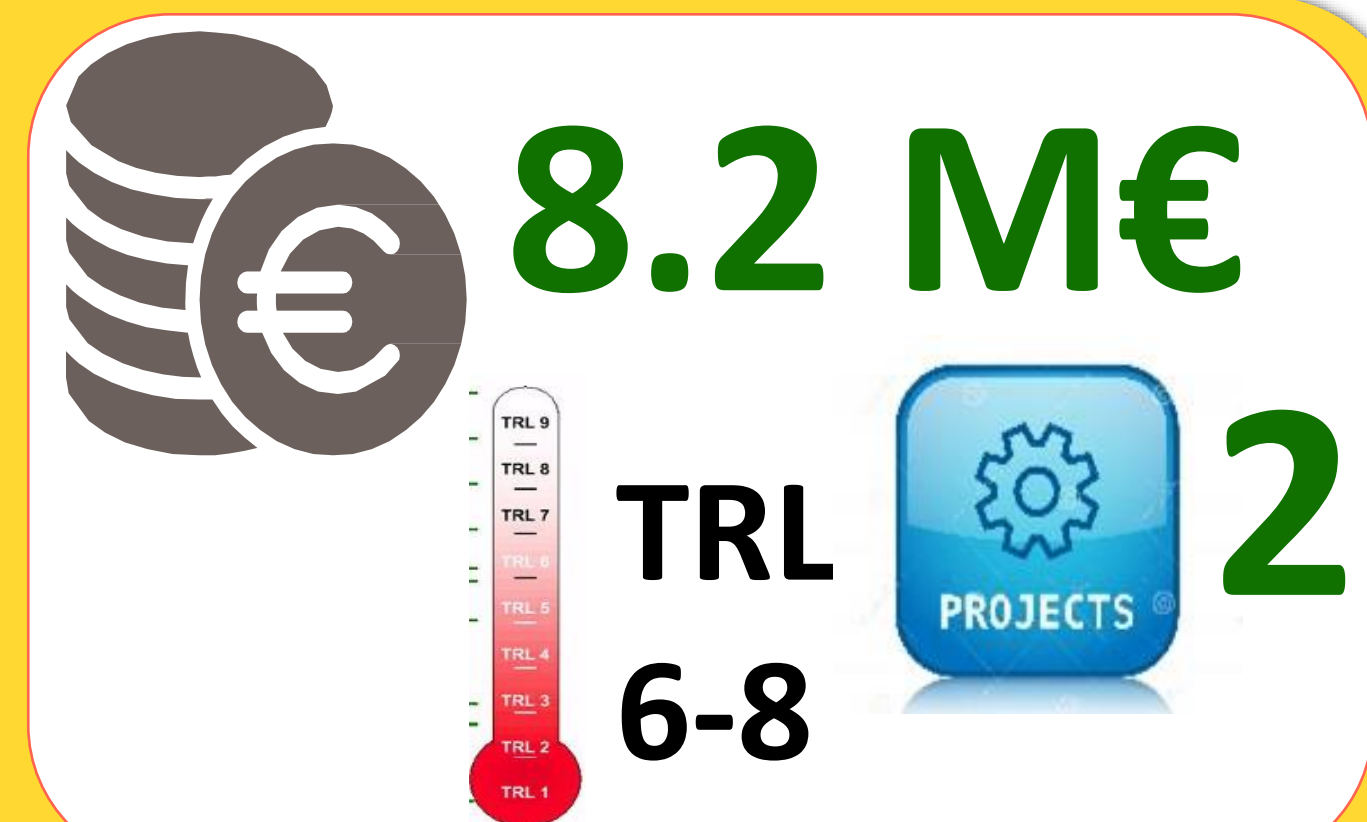
+ Project-Specific KPIs



Calls 2023 W.E.F.E Nexus Topics

Topic 1.4.1 (IA)

Accelerate adaptation and mitigation to climate change in the Mediterranean region by deploying WEF E nexus solutions.



Submission deadline Stage 1: 22/03/2023

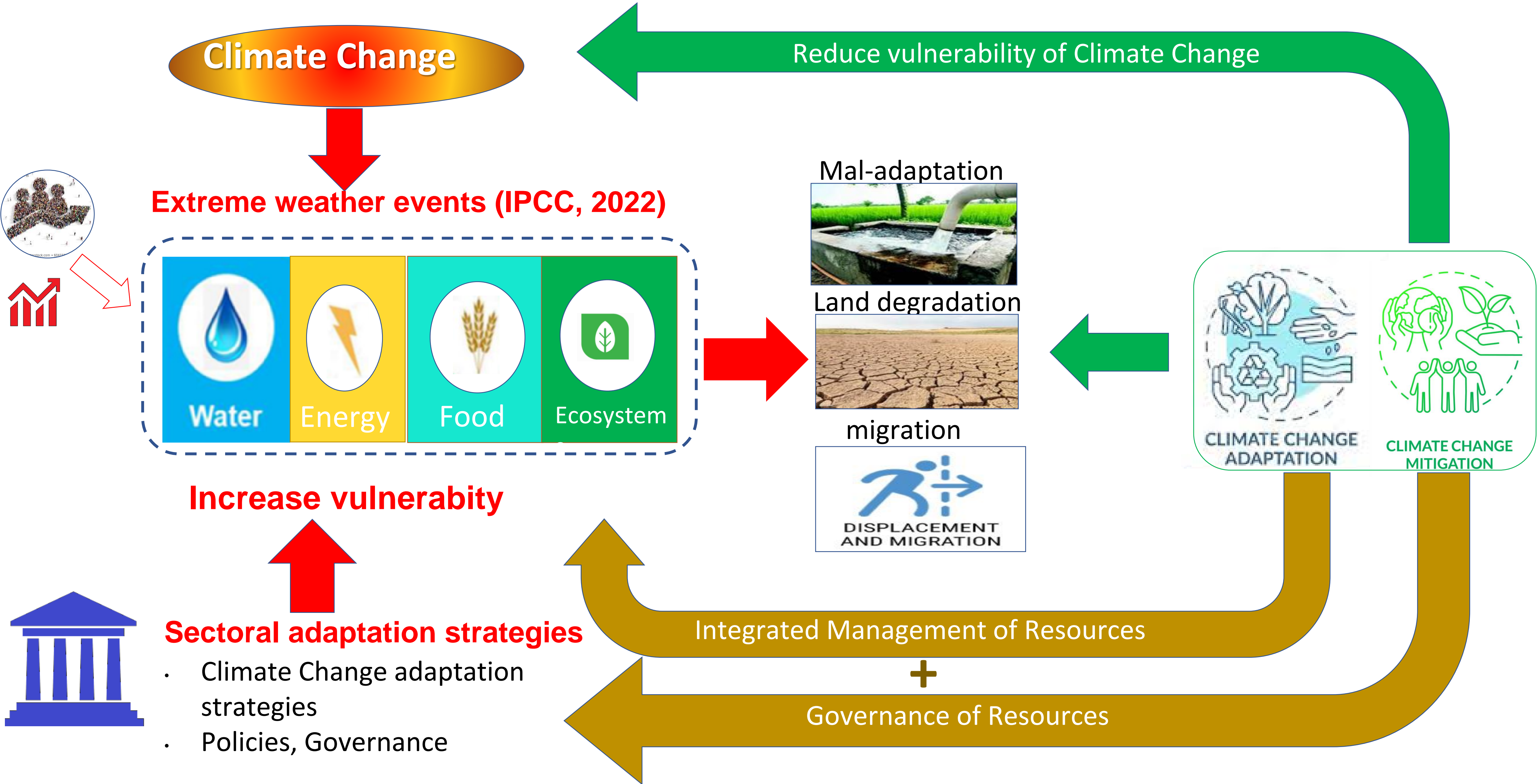
WEFE NEXUS AWARD

Successful implementation of management practices of WEF E resources at the local or regional scale of the Mediterranean Region.



Submission deadline : 22/05/2023

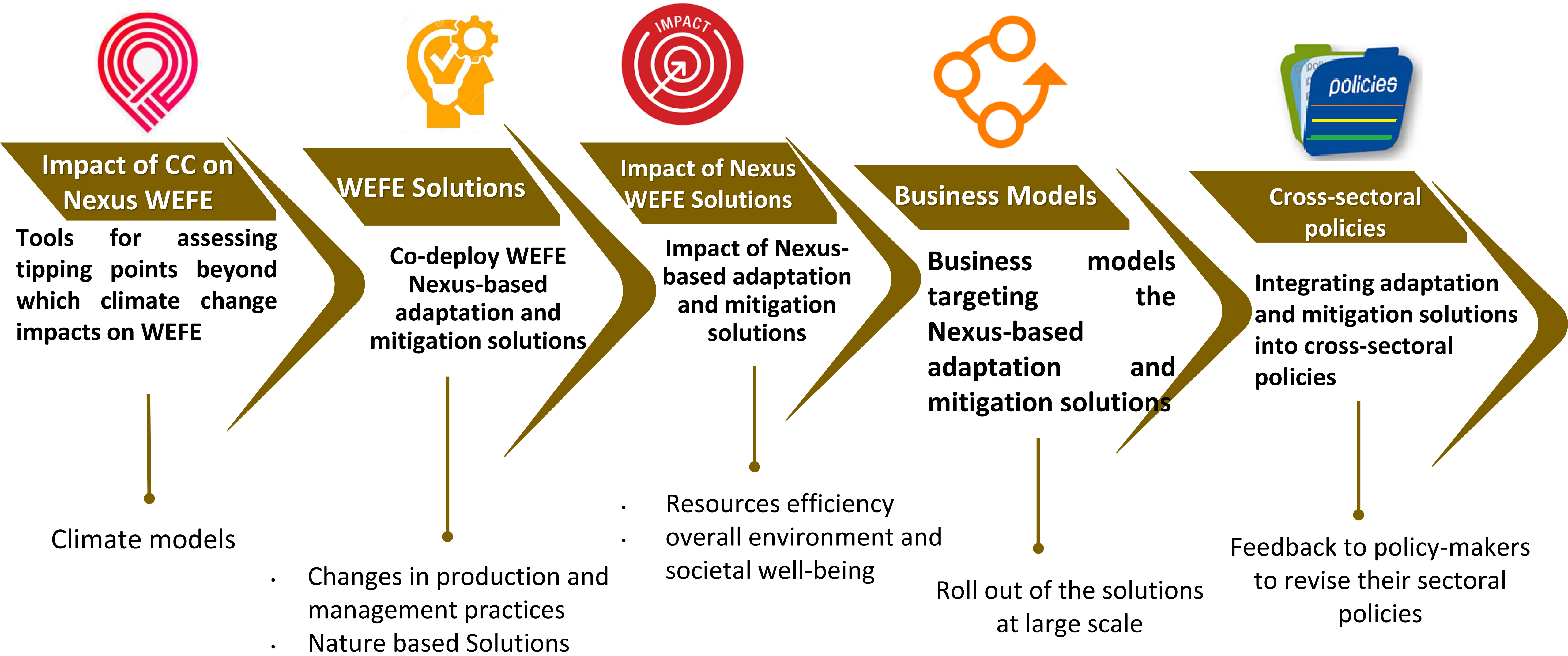
CHALLENGE



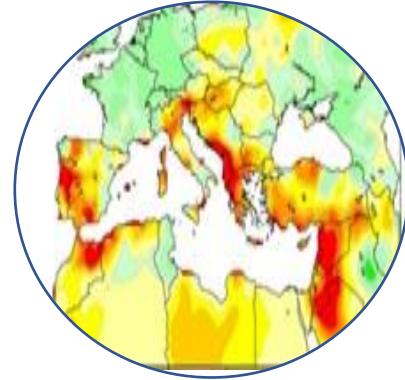
SCOPE



Climate Adaptation and Mitigation strategies



SCOPE: Particular attention



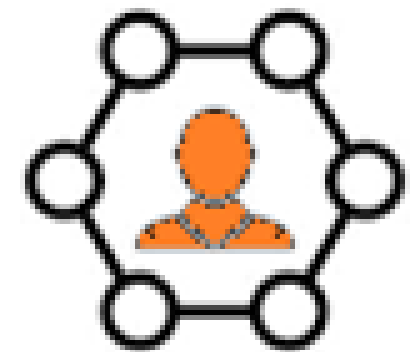
Large scale demonstrations sites

Ovoid small scale demonstration sites/Pilots



Funded Projects

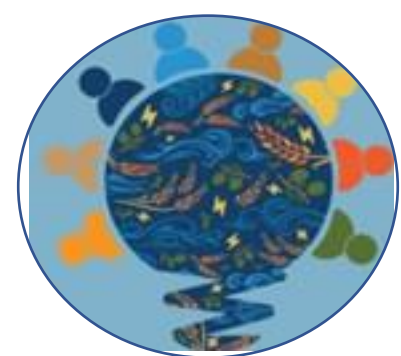
Lessons learned from the Nexus projects by developing a close partnership during the implementation



Stakeholders engagement



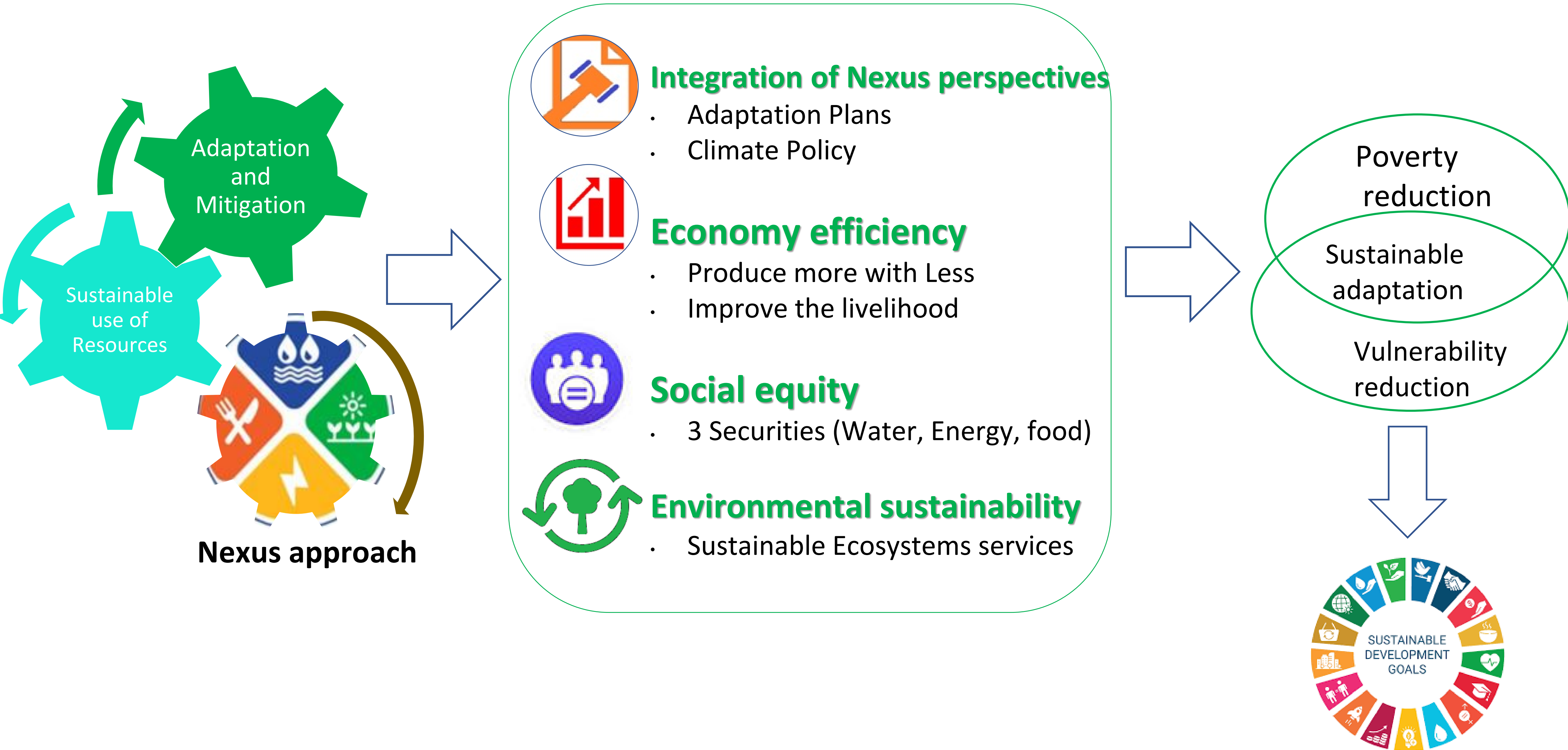
Encourage participation of stakeholders in the planning, implementation, and monitoring of WEF E nexus solutions



Links with PRIMA WEF E Community of Practice

Cross-organization collaboration and knowledge sharing

Expected Impacts



Key Performance Indicators



Number of Nexus-based adaptation and mitigation solutions able to minimize shock, risks, and vulnerability and address impacts and risks associated with climate change



Number of engaged stakeholders and end-users



Number of business models of Nexus-based adaptation and mitigation solutions developed

Highlights Calls

2023

PRIZES



2 PRIZES
OF 10.000 € EACH



to excellent research teams have demonstrated the successful implementation of combined management practices of Water, Energy, Food, and Ecosystem (WEFE) resources at local or regional scale in the Mediterranean area

Links with the WEFE Community of practice.





The PRIMA programme is an Art. 185 initiative supported and founded under Horizon 2020, the European Union's Framework Programme for Research and Innovation

THANK YOU

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PRIMA

PARTNERSHIP FOR RESEARCH AND INNOVATION
IN THE MEDITERRANEAN AREA



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Prima-med YouTube

<https://prima-med.org/>