

2023 Section 2 Calls

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



Water Management topic – Section 2

Topic 2.1.1 RIA

New governance models to define best practices for sustainable water management and conflict mitigation

Submission deadline Stage 1: 29/03/2023







Water Management topic – Section 2 Challenge

Climate change

• Risk of conflict when no common agreement exists on sharing water resources

- Need for new governance models based on data
- Involvement of all relevant stakeholders at the local, national or transboundary levels





Water stress Drought & Flooding

Food Insecurity





Water Management topic Scope

Contribute to water sustainability & security in the MED:

Bring together;

- Stakeholders
- Administrations
- Non-state actors
- Innovative technologies

• Optimise water use

- Avoid depletion
- Create knowledgeable action
- Change dynamics of water demand & supply

- Map water resources
- Establish methodologies based on monitoring & modelling
- Technical solutions for information gaps
- Response to climateinduces risks
- Optimise water storage
- Preserve water in a circular economy context





- Examine governance solutions
- Analyse water tariff
 systems & prices
- Identify inefficiencies
- Identify impact on environment & water security
- Propose alternative models & instruments:
 - -affordability-cost recovery-willingness to pay

- Review legal frameworks & agreements
- Propose measures that guarantee fair & sustainable access
- Balance conflicting interests
- Minimise future conflict
- Enhance stakeholder participation
- Scale-up of existing practices





Water Management topic – Section 2 (Expected Impacts

Mitigation and prevention of current and future water conflicts under climate change conditions through

> -developing necessary governance solutions

-fair allocation of water resources

Elaboration of participation and governance models resulting in improved coordination of water users & stakeholders

Transboundary waters level

Adopt multilateral management agreements for strengthened cooperation among countries



Basin level

Increased water security and strengthened protection of depleted water bodies & water-related ecosystems, stemming from adopting innovative technical solutions with appropriate legal, economic and governance instruments



Water Management topic – Section 2 Key Performance Indicators

Provide specific KPIs to measure the outcomes of your project:

Number of newly developed water rights systems ensuring the right allocations for water users









Water Management topic – Section 2 Links with EU Policies and Missions

context of the European Green Deal, Water Framework Directive (WFD), and relevant EU Missions and Partnerships.

Links with SDGs

contribute to reporting SDG indicators.



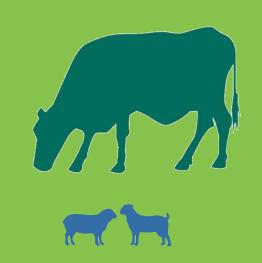


Proposals should indicate their contribution to relevant EU policies and objectives in the

Proposals should indicate their contribution to relevant SDGs and methodology to

Farming Systems topic – Section 2

Topic 2.2.1 RIA



renewable energy sources with circular farming systems.

Submission deadline Stage 1: 29/03/2023









Farming Systems Topic – Section 2 Challenge

Non-sustainable agricultural practices



Increase in water and inputs used for irrigation and fertilisation

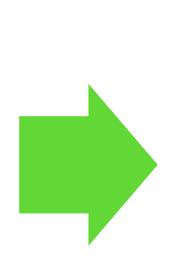
External factors -COVID-19 -Ukranian war





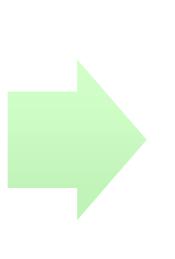






Increase in cost of production **Decrease in farmers** income **Increase in GHG emissions** Harm adaptive capacity of agro ecosystems to climate change

Increase in energy & inputs prices



Unbearable production costs for smallholders





Farming Systems Topic – Section 2 Scope

Develop integrated farming systems

- -Using renewable energy
- -Decrease GHG emissions

-Maximise use/reuse of waste and inputs Reusing treated wastewater & sewage sludge

Open field or protected farming systems

-Innovative, actionable and affordable

-Minimize costly use of external inputs

-Optimize resource use

-Greehouses, aeroponic, hydroponic, aquaponic and cascade systems

-Eco-friendly practices

-Enhance integrated utilization of farm waste or agro-food byproducts





Open fields

Greenhouse conditions

-Improve passive accumulation of heat

-Carbon dioxide enrichment

Closed soilless farming systems

Ensure sustainability -Hydroponics -Aquaponics -Vertical farming



Farming Systems Topic – Section 2 Scope

Ensure more carbon-neutral farming operations Limit the impact of high energy prices on smallholders coupled w/ renewable energy .solar, .geothermal, .wind,

.biomass/waste

Estimate farm's energy **consumption & CO2** emissions

-ICT

-loT

-nano-technologies

-sensor devices







Demonstrate socioeconomic feasibility

-Consider complexity of new integrated farming operations

-Consider need for specific skills related to simultaneous farming of diversified products

Involve stakeholders/multiactor approach (policymakers, public authorities, farmers)

Living lab - test proposed solutions

Policy makers - scale up, disseminate, replicate at larger scale

Facilitate farmers' adoption guarantees, concessional loans, subsidies

Capacity building

Awareness raising



Farming Systems Topic – Section 2 **Expected Impacts**

Decrease in CO2 equivalent emissions by using alternative sources of local and renewable energy

Improving the overall efficient use of water, fertilizers, and nutrients in Med. farming systems by adopting a circular bioeconomy approach

Reduce the dependency on conventional energy suppliers







Improve the overall land productivity by integrating different cropping systems

Use of local energy from renewable sources

Reducing the impacts of climate change on Med. farming systems

Farming Systems Topic – Section 2 **Key Performance Indicators**

Number of sustainable practices applied

Reduction of external use of entrants

Number of business models

Reduction of food costs production costs

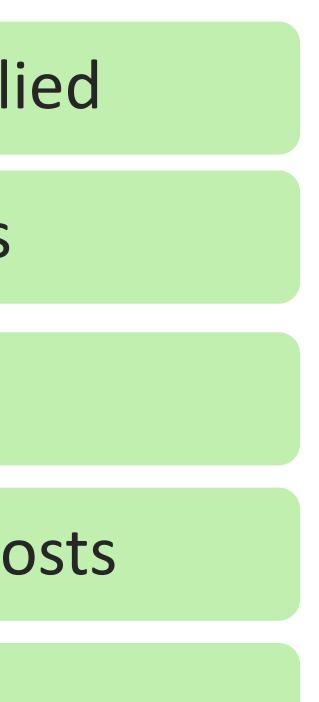
Reduction of GHG













Links with EU Policies and Missions

the European Green Deal and relevant EU Missions and Partnerships

- **European Green Deal**
- EU 2030 Energy Strategy
- **Circular Economy Action Plan**
- Water Reuse Regulation
- Methane Strategy

Links with SDGs

contribute to reporting SDG indicators.





Proposals should indicate linkages to relevant EU policies and objectives in the context of



Proposals should indicate their contribution to relevant SDGs and methodology to



Agro-Food Value Chain topic – Section 2 🖓

Topic 2.3.1 RIA

Assessing novel antimicrobial food packaging and coating materials to reduce food waste to improve safety in the Mediterranean food supply chain

Submission deadline Stage 1: 29/03/2023







Agro-Food Value Chain topic – Section 2 Challenge

Inadequate facilities Poor maintenance of proper conditions

Biodegradable packaging materials

-Food contamination & spoilage -Loss of nutrients

-Sustainable, env. friendly, cost-effective -Prevent food deterioration -Preserve/prolong food quality & shelf-life





Environmental concerns

New food packaging technologies

-Minimise hazards of foodborne pathogens -Predict & enhance shelflife

Agro-Food Value Chain topic – Section 2 👰 Scope

Novel, cost-competitive and versatile biodegradable food packaging/coating materials

- **Control packaging** atmosphere
- Prevent food spoilage
- Cause no env. Damage

Bioplastics/biocomposites for food packaging

- Determine env. impact
- Eco. Feasibility

Microbiome solutions

- Predictable and sufficient shelf life
- Substitute antimicrobial chemical agents

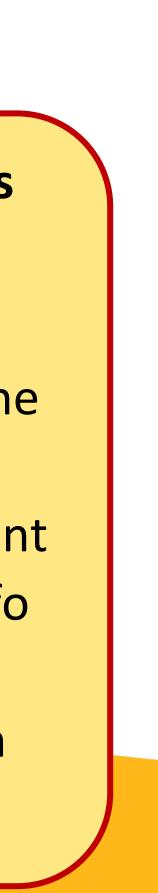


Tailor for different traditional Med. food categories and processing techniques/technologies

- raw
- cooking
- fermentation
- Dehydration

ICT-based solutions

- Reduce waste lacksquare
- Improve lacksquareefficiency of the supply chain
- Provide relevant actors with info on storage & transportation conditions



Agro-Food Value Chain topic – Section 2 👰 Scope

Sound business models

- Benefit all actors in value chain
- Maximise biomass valorisation
- Protect biodiversity/enviro nment
- Secure food systems

Establish local

- Demonstrate replicability in Med
- Low bio-economy lacksquareactivities
- Validate market



sustainability-oriented **bio-based value chains**

acceptance

Multi-actor approach

Active engagement & communication

- Stakeholders
- End-users
- Food systems producers, retailers, households, chefs



Agro-Food Value Chain topic – Section 2 **Expected Impacts**

Introduce new environmentallyfriendly techniques to reduce food waste

Demonstrate the efficacy of bio-based materials for packaging to improve food safety and reduce food waste that meets market requirements.





Reduce the need chemical treatments by using agricultural by-products and control pathogenic bacteria while preserving food's nutritive and organoleptic properties

Job creation and job retention activities with equal gender opportunities.



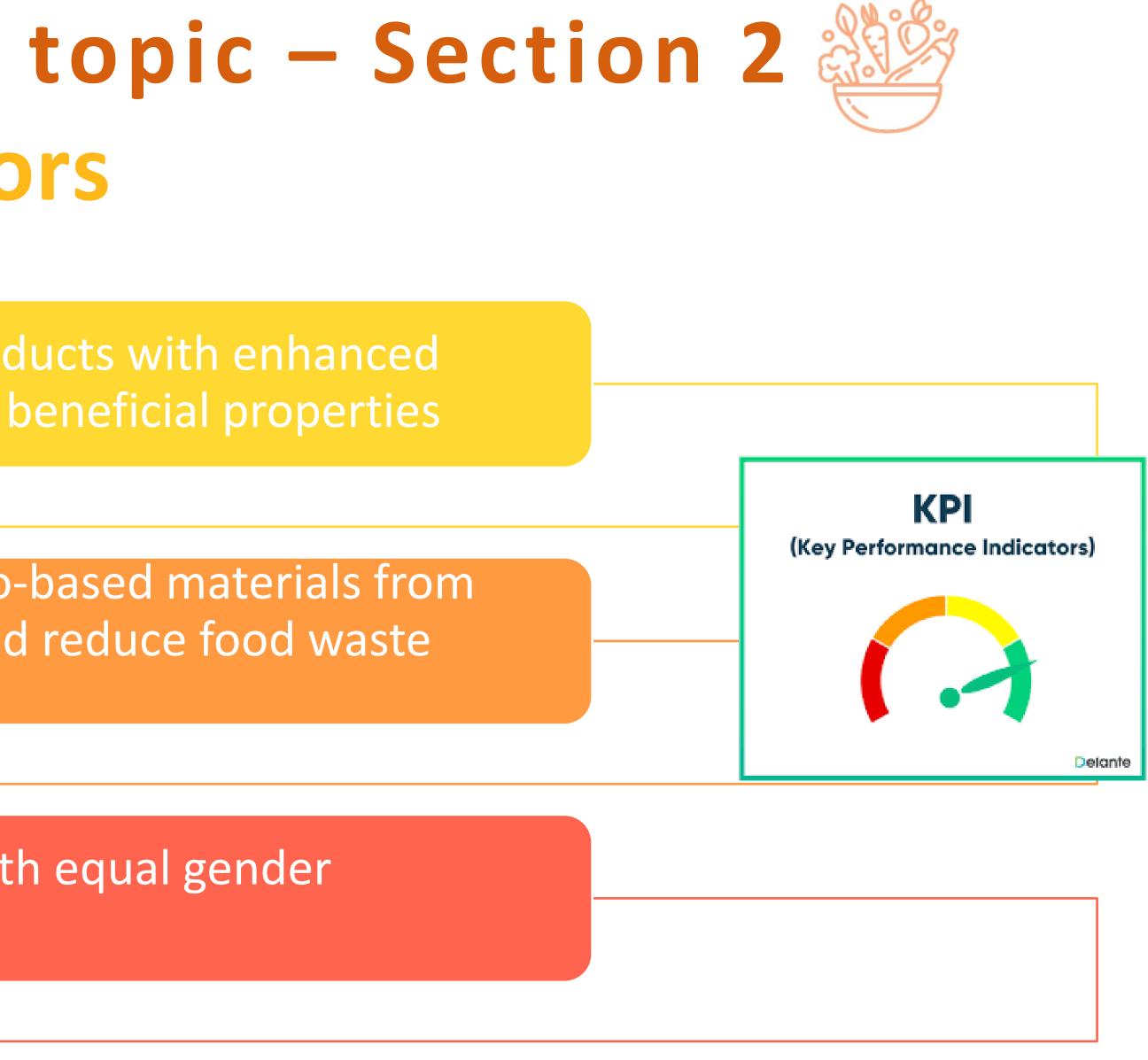
Agro-Food Value Chain topic – Section 2 Key Performance Indicators

Number of newly designed food products with enhanced shelf-life, quality and health-related beneficial properties

Number of developed Innovative bio-based materials from packaging to improve food safety and reduce food waste meeting market requirements

Number of jobs created/retained with equal gender opportunities





Links with EU Policies and Missions

the European Green Deal and relevant EU Missions and Partnerships.

- Farm-to-Fork Strategy
- Waste Framework Directive
- EU Food 2030 R&I Policy (Circularity and resource efficiency)
- **Circular Economy Action Plan**
- **EU Plastics Strategy**

Links with SDGs

contribute to reporting SDG indicators.





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