

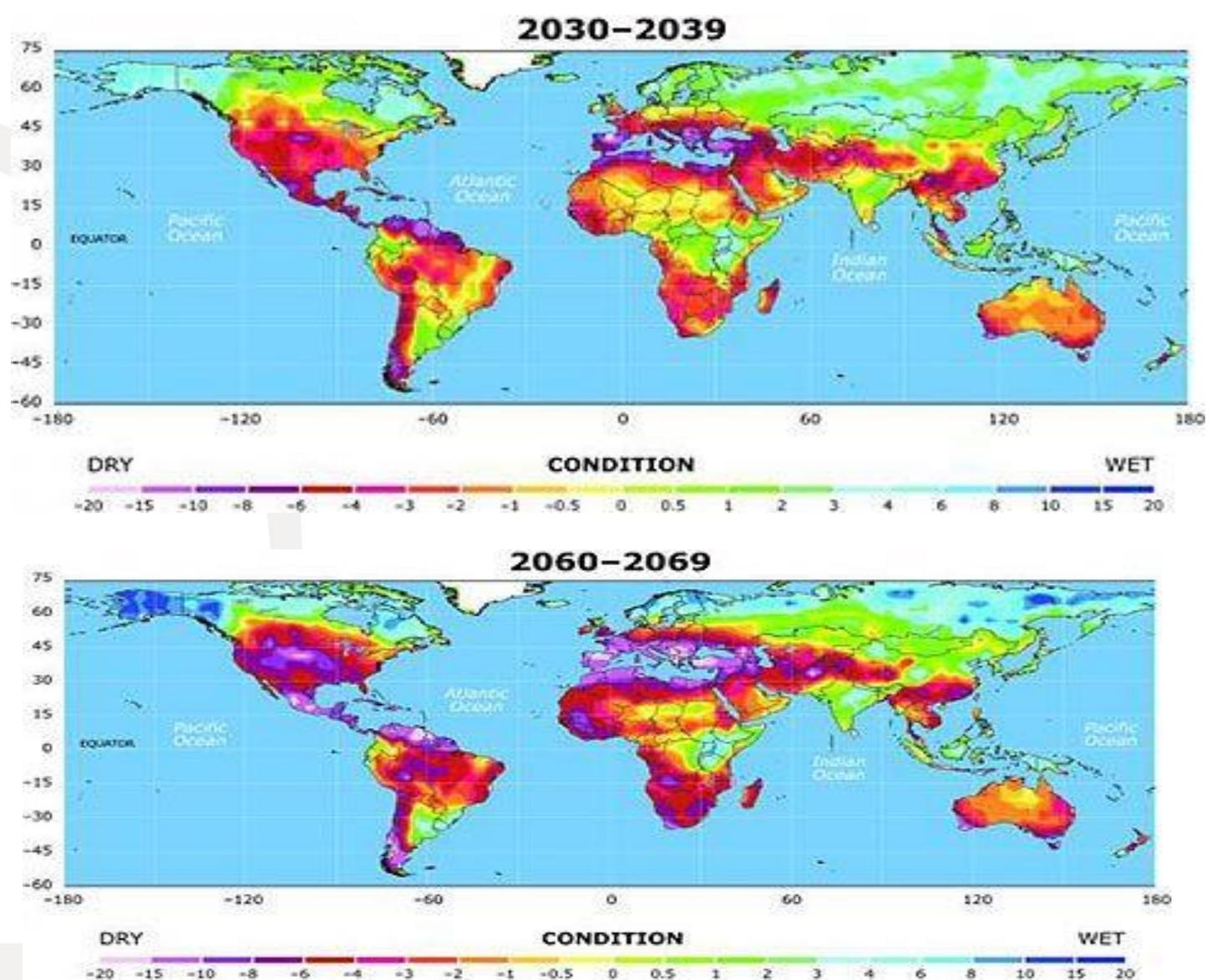


PRIMA

PARTNERSHIP FOR RESEARCH AND INNOVATION
IN THE MEDITERRANEAN AREA

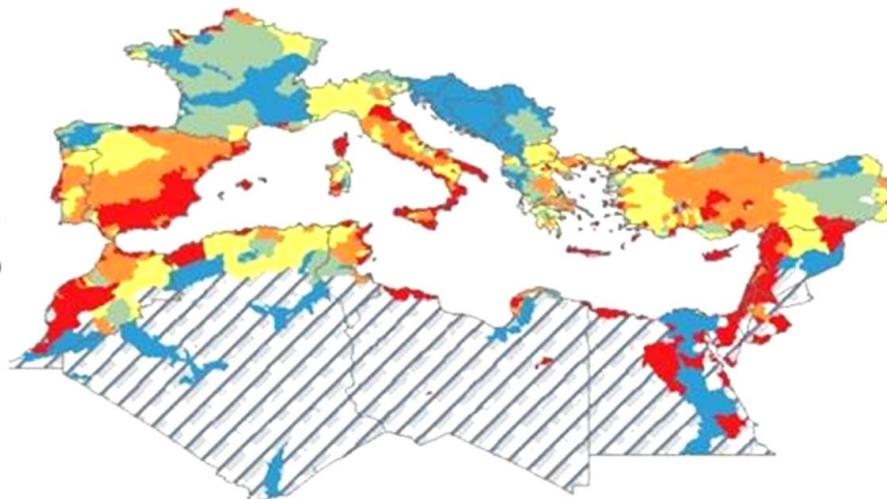
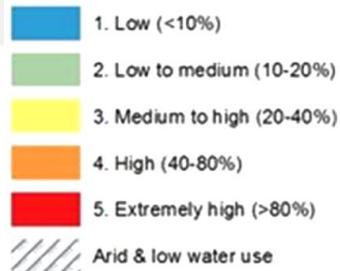
Angelo Riccaboni

Chair Fundació PRIMA, Barcelona
Professor of Business Administration
University of Siena, Italy

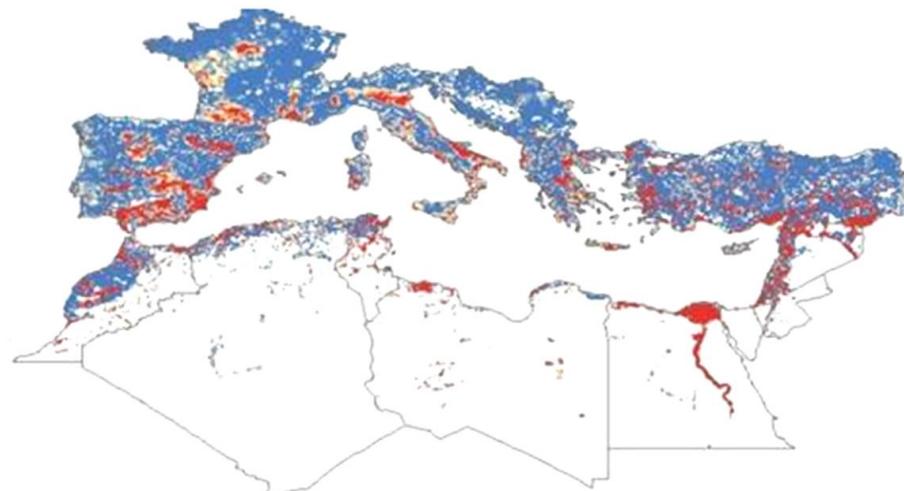
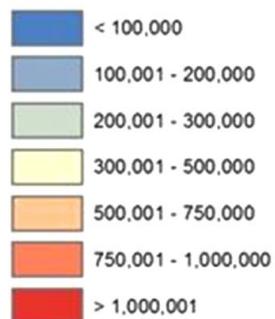


Strong effect of climate change on drought in the MED Area

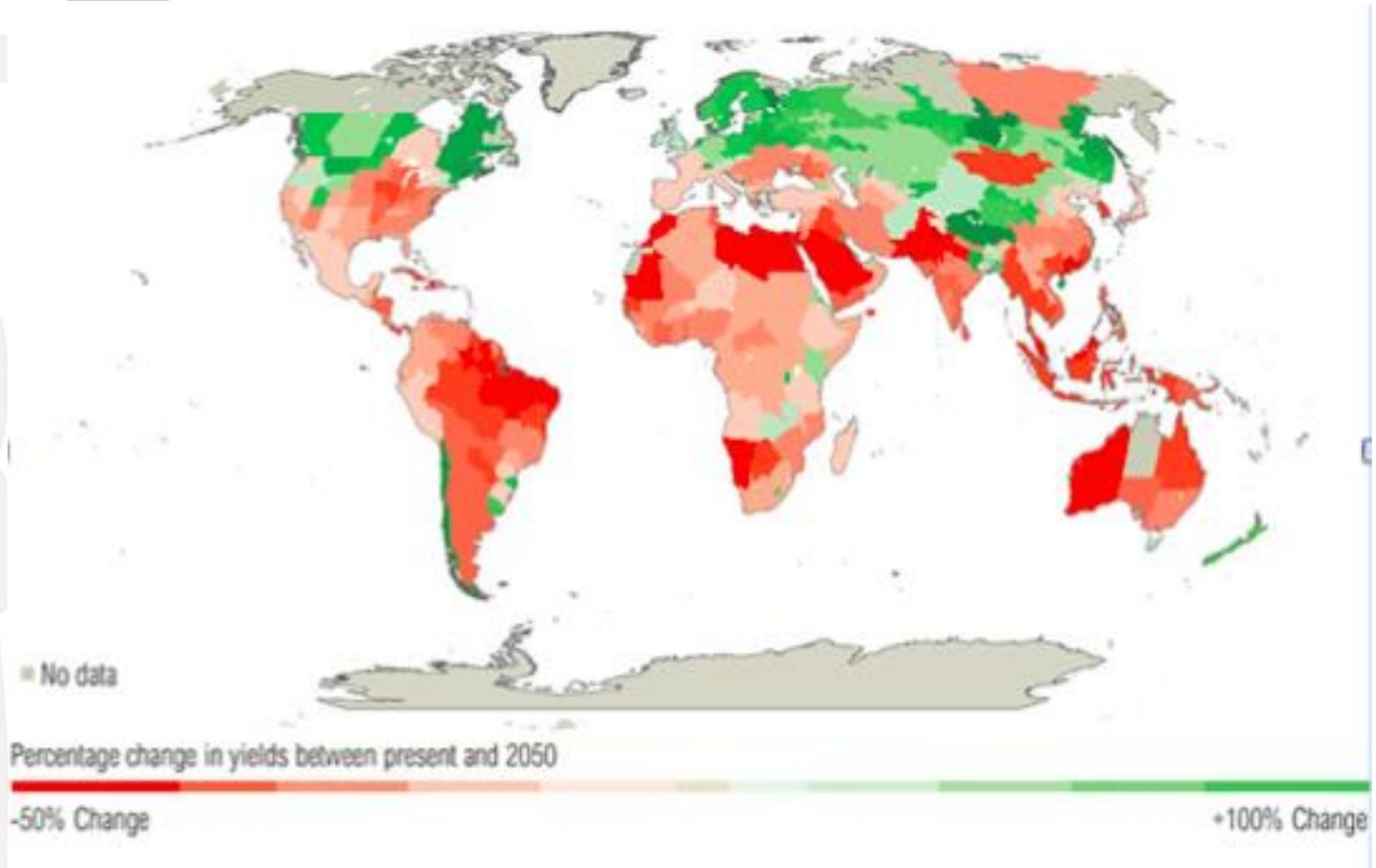
Water stress



Water needs (m3)



Severe water stress affects MED Countries
Strong water needs for Agriculture, up to 85%



Reduction in crop yields and overexploitation of natural resources

	Sustainable Nitrogen Management Index
France	0.38
Egypt	0.66
Croatia	0.67
Italy	0.70
Greece	0.70
Turkey	0.79
Slovenia	0.82
Algeria	0.83
Malta	0.87
Morocco	0.87
Spain	0.90
Bosnia & Herzegovina	0.90
Lebanon	0.91
Israel	0.94
Tunisia	1.00
Albania	1.00
Jordan	1.06
Cyprus	1.13
Montenegro	1.10
Portugal	1.14

Low sustainability of MED farming systems

- Declining genetic diversification of food crops and animal breeds
- Local varieties replaced by a small number of improved non-native varieties
- Speeded up by climate change



Agro-biodiversity loss



Unbalanced population growth

	Sustainable Nitrogen Management Index
France	0.38
Egypt	0.66
Croatia	0.67
Italy	0.70
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SDSN SDG Index 2017

Need for more & healthier food

MED Food Value Chains

1. Lack of integration

- ✓ Within the supply chain
- ✓ Within the food system
- ✓ Within the sector

2. Lack of entrepreneurship & technological and organisational innovation

3. Lack of infrastructures

Strong competition based on price
Loss of opportunities and jobs

MED agri-food systems

a.
A means and an end towards achieving the SDGs

b.
MED social and environmental challenges -> MED food systems
-> MED societies and environment

c.
MED challenges do not know borders





How to deal with
MED environmental and social challenges?

**Technological, social and organisational
Innovations**



Gov R&D expenditure > 2% GDP:
3 MED Countries only

In the past: important R&I initiatives
with fragmentation and overlapping

Integrated Research & Innovation initiatives needed



PRIMA

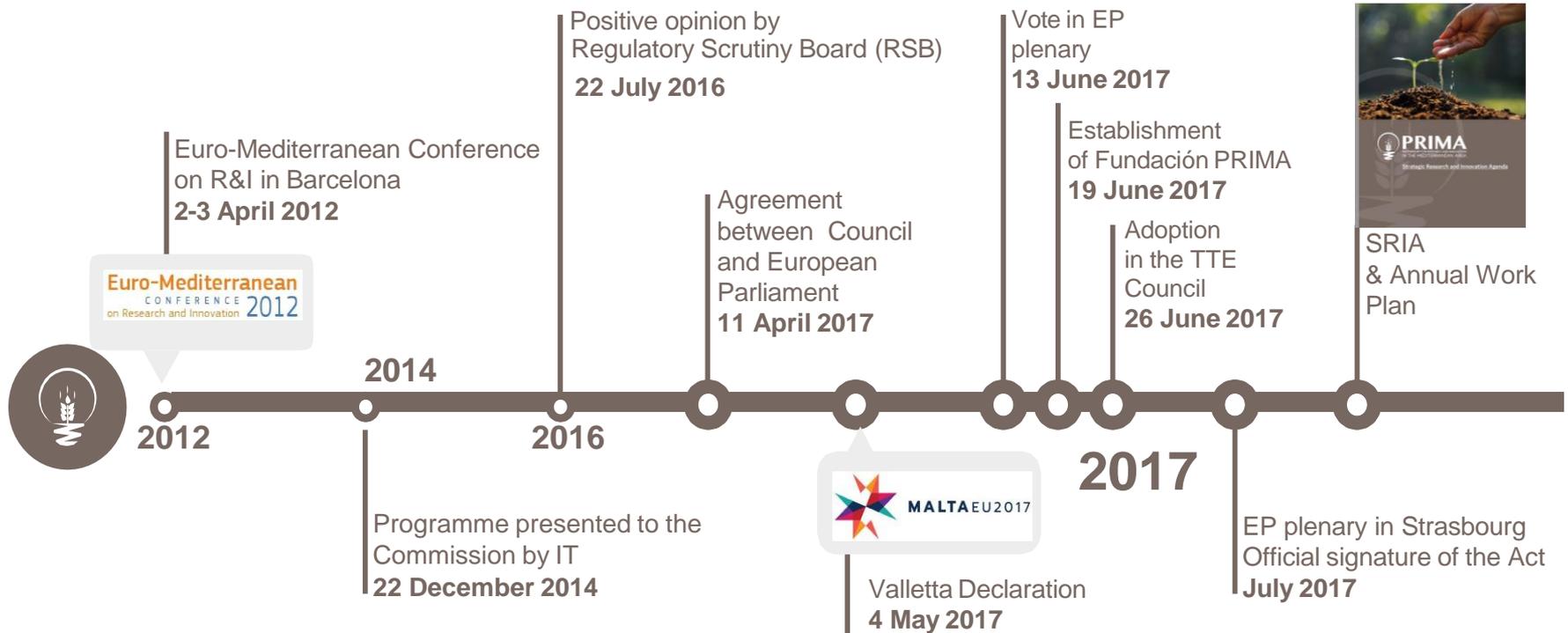
**An integrated Research and Innovation Programme on
food systems and water resources**

19 Countries, 11 EU and 8 SEMCs, and the EC

Equal footing through Governance and organisational
mechanisms

500 million euro budget over 7 years
managed by
PRIMA Foundation, located in Barcelona

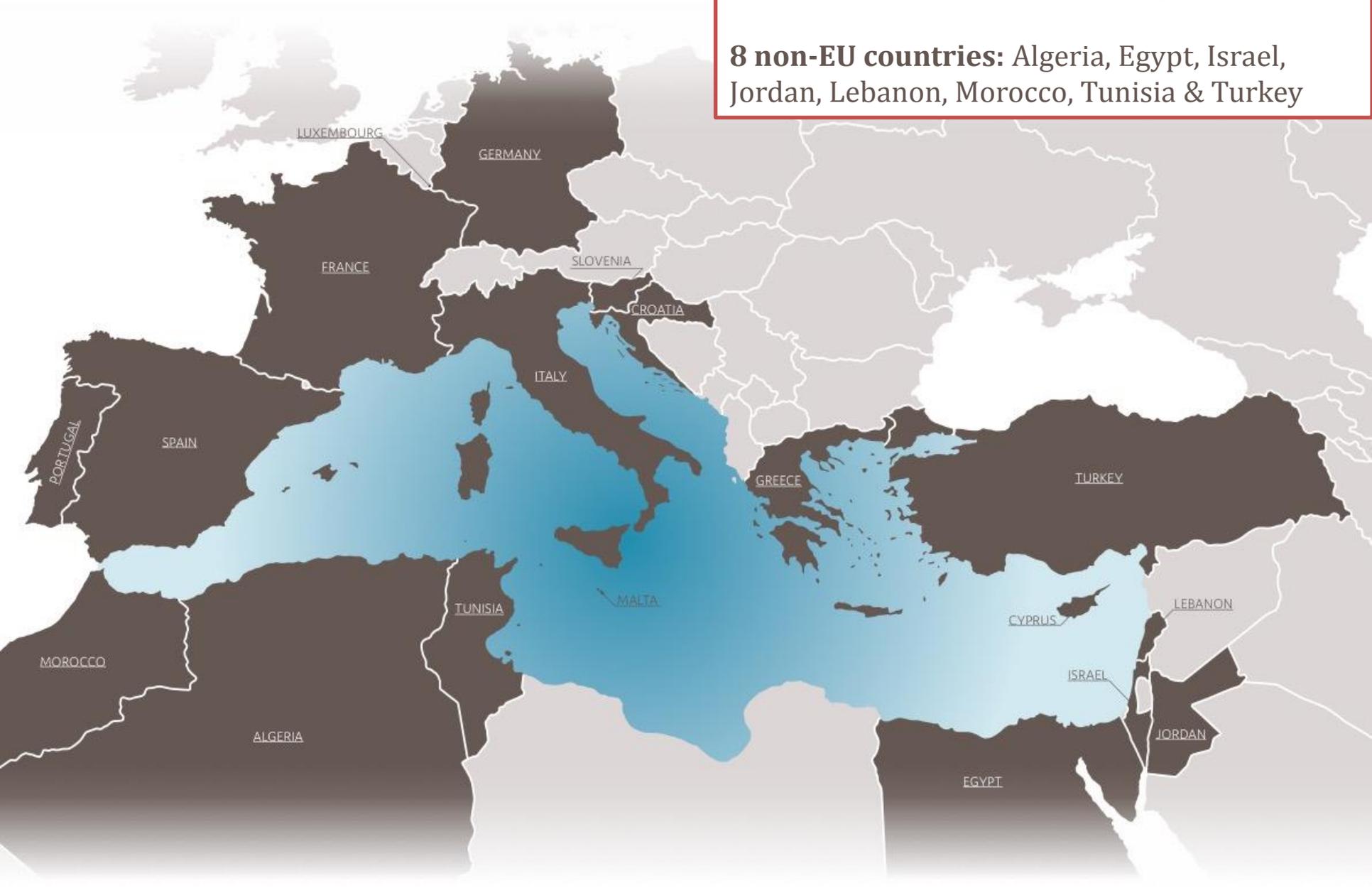
History of PRIMA



PRIMA Participating States

11 EU Countries: Croatia, Cyprus, France, Germany, Greece, Italy, Luxembourg, Malta, Portugal, Slovenia & Spain

8 non-EU countries: Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Tunisia & Turkey





Vision

“ Inclusive, healthy and prosperous Mediterranean societies through innovative solutions in agro-food and water systems, contributing, by the end of the programme, to sustainable use of natural resources, economic growth and stability. ”





Mission

“ To achieve, support and promote integration, alignment and joint implementation of **R&I initiatives** under a **common** research and innovation **strategy to address the diverse challenges in water scarcity, agriculture, food security** ”



PRIMA Impacts

Economic

- Increase in production and efficiency
- Access to new markets
- Greater funding options (InnovFin programme)
- Large-scale aggregate economic impacts

Social

- Political stability and reduced migration

Environmental

- Biodiversity conservation
- Sustainable farming practices

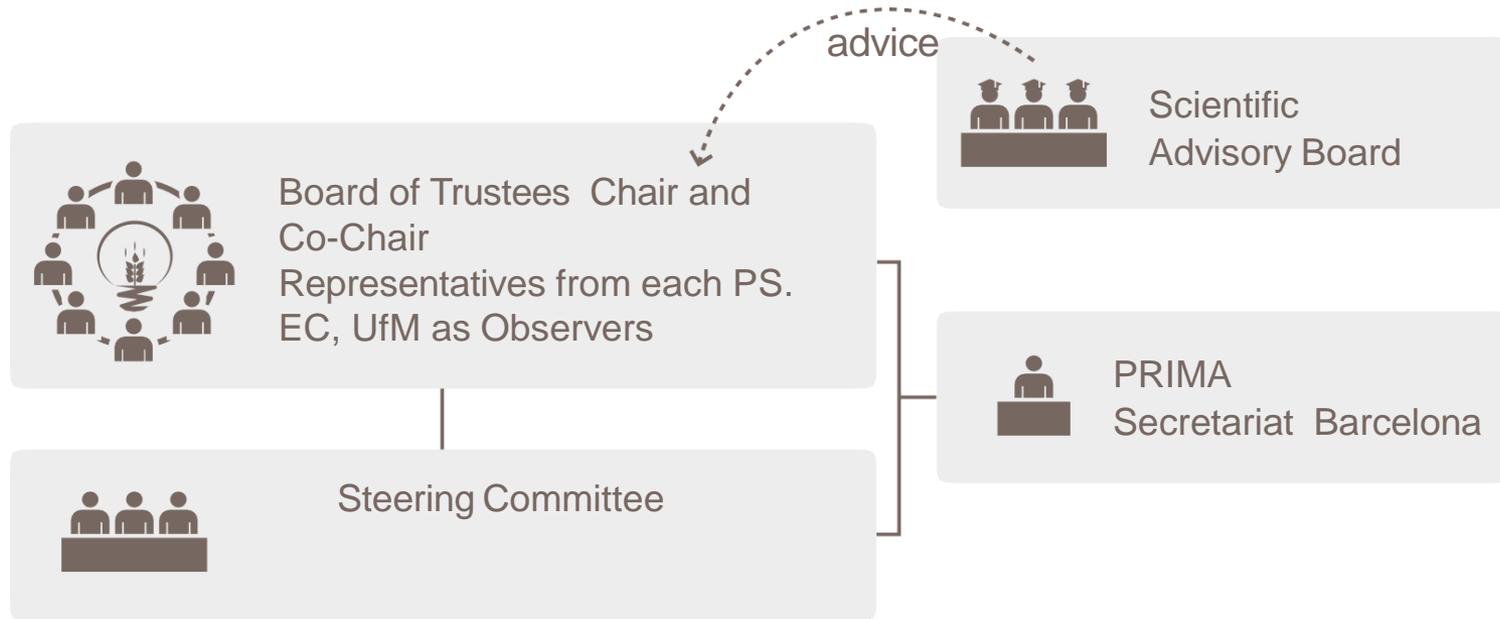


PRIMA Main Features

- Equal footing
- Long-term commitment and orientation
- Research, Innovation and Adoption of solutions. avoiding fragmentation and duplications
- A common MED-wide 10-year Strategic Research and Innovation Agenda
- Institutional relationships with MED stakeholders (end users, communities, enterprises, governments) are central



PRIMA Foundation Governance



PRIMA operates as an independent legal private entity



19 June 2017
Foundation under Spanish law



19 PSs members of
Foundation



Financial contribution
€ 274,000 PSs
€ 220.000 EU





#PRIMA_EU

#OpenToTheWorld

PRIMA is recognisably the greatest achievement to date in Euro-Med cooperation in research and innovation. It will seek to ensure that two of people's most basic needs are met: **access to clean water and nutritious food.**

Commissioner for Science,
Research and Innovation

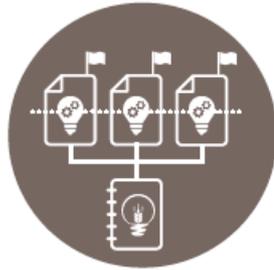
Carlos Moedas



Strategic Research and Innovation Agenda SRIA



How to address MED Challenges ?



ALIGNMENT OF NATIONAL R&I PROGRAMMES

Orientation of relevant national research and innovation programmes towards the implementation of the strategic agenda.



CRITICAL MASS OF ACTORS AND RESOURCES

Involvement of all relevant public and private sector actors in implementing the strategic agenda by pooling knowledge and financial resources to achieve the necessary critical mass.



STRENGTHENING R&I CAPACITIES

Strengthening of the research and innovation funding capacities and of the implementation capabilities of all actors involved including SMEs, academia, non-governmental organisations and local research centres.

3 Main Thematic Areas



- **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

Thematic Area 1



MANAGEMENT OF WATER

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

RESEARCH AND INNOVATION PRIORITY	LINK TO OPERATIONAL OBJECTIVE	MAIN ACTIONS	TRL
1 Water resources availability and quality within catchments and aquifers	 2/LAND AND WATER SUSTAINABILITY	RIA	2 to 5
2 Sustainable, integrated water management	  2/LAND AND WATER SUSTAINABILITY 3/WATER GOVERNANCE SYSTEMS	RIA and CSA	3 to 6
3 Irrigation technologies and practices	 1/WATER SAVING SOLUTIONS	RIA and IA	4 to 8
4 Use of alternative water resources	  1/WATER SAVING SOLUTIONS 3/WATER GOVERNANCE SYSTEMS	RIA and IA	5 to 8

Thematic Area 2



FARMING SYSTEMS

Sustainable farming systems under Mediterranean environmental constraints

RESEARCH AND INNOVATION PRIORITY	LINK TO OPERATIONAL OBJECTIVE	MAIN ACTIONS	TRL
1 Adaptation of agriculture to climate change	 4/ SMART AND SUSTAINABLE FARMING	RIA	2 to 5
2 Developing sustainable and productive agro-ecosystems	 4/ SMART AND SUSTAINABLE FARMING	RIA and IA	2 to 7
3 Preventing the emergence of animal and plant diseases	 5/ PESTS AND PATHOGENS IN FARMING	RIA	2 to 6
4 Developing farming systems able to generate income, to create employment and to contribute to a balanced territorial development	 4/ SMART AND SUSTAINABLE FARMING	RIA and CSA	2 to 5

Thematic Area 3

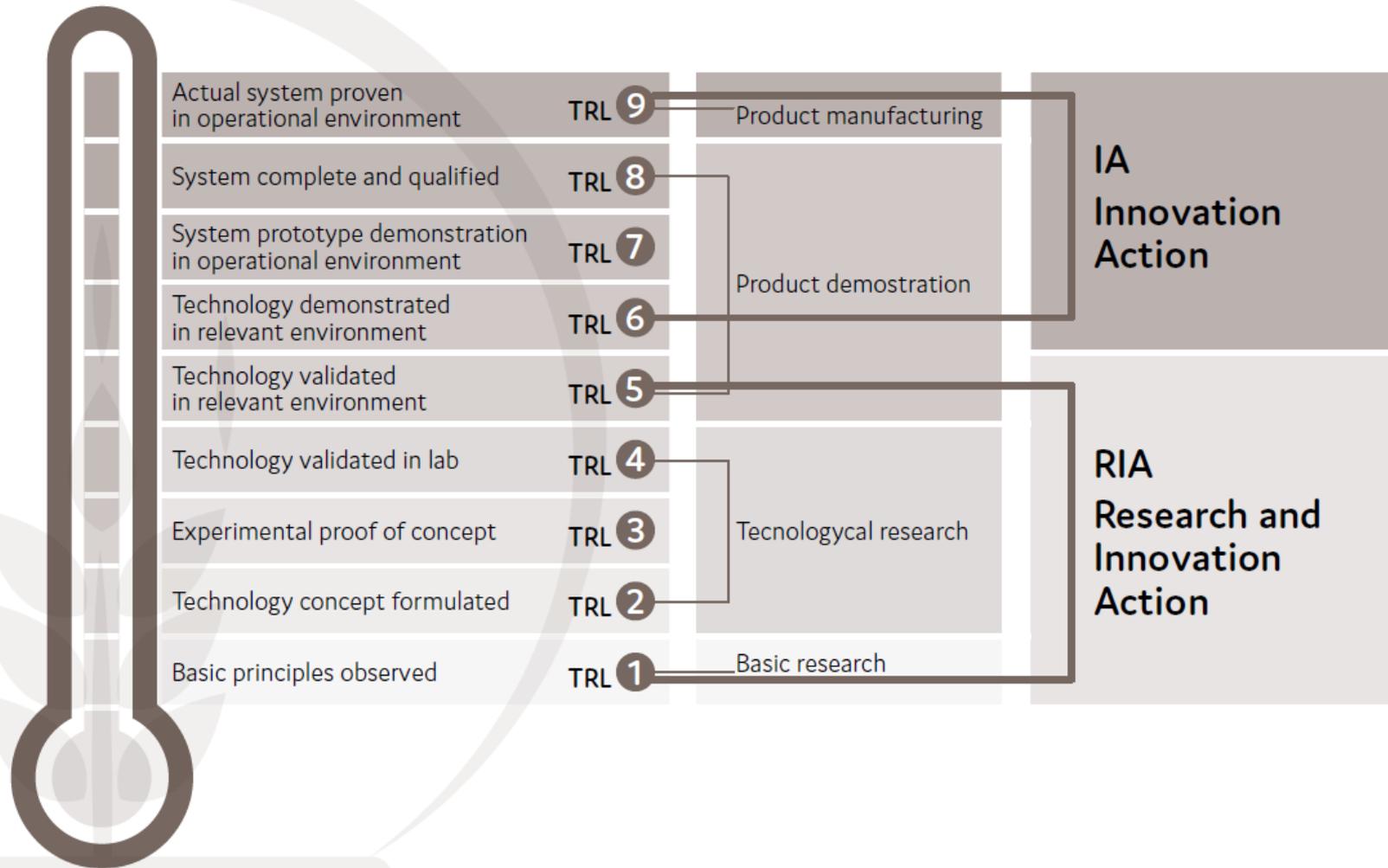


AGRO-FOOD VALUE CHAIN

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

RESEARCH AND INNOVATION PRIORITY	LINK TO OPERATIONAL OBJECTIVE	MAIN ACTIONS	TRL
1 Valorising food products from traditional Mediterranean diet	 6/ NUTRITION AND HEALTH	RIA and CSA	2 to 7
2 Food Safety in local food chains	 7/ REDUCE LOSSES AND WASTES	RIA	2 to 6
3 Implementation of innovation in the Agro-food chain, promoting higher quality, sustainability and competitiveness, with particular reference to smallholders	  7/ REDUCE LOSSES AND WASTES 8/ NEW AGRO-FOOD BUSINESS MODELS	RIA and IA	4 to 8
4 Implications of dietary shifts and sustainable diets for the Med populations and food industry	 6/ NUTRITION AND HEALTH	RIA and CSA	2 to 6

Technology Readiness Levels (TRLs)



Cross-cutting themes and activities

Cross-cutting themes



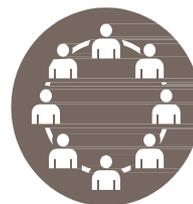
**SOIL
SUSTAINABILITY**



**FOOD
SECURITY**



**DIGITAL
REVOLUTION**

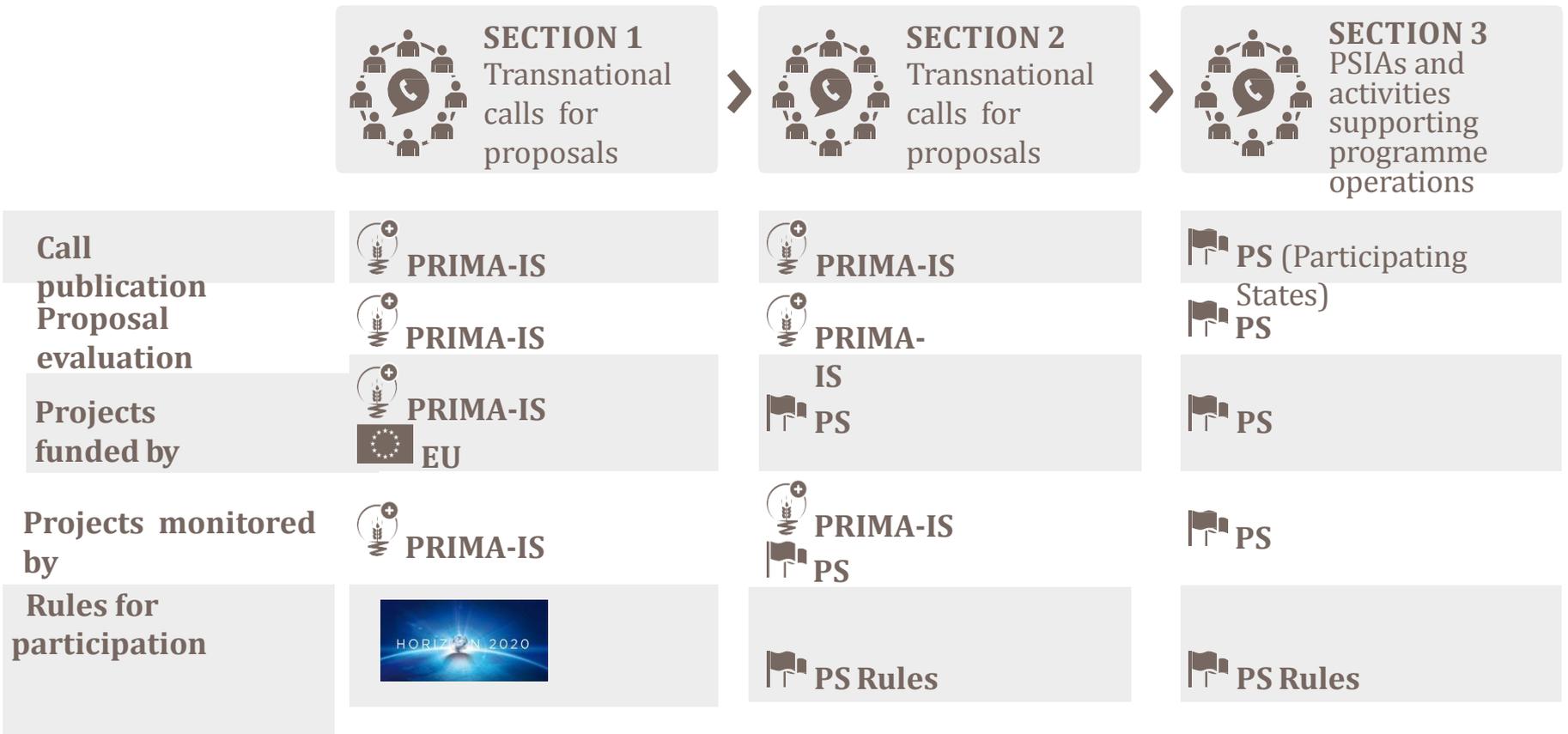


**SOCIO-
ECONOMIC
RESEARCH
AND
STAKE-
HOLDERS
INVOLVEMENT**



**CAPACITY
BUILDING**

PRIMA programme structure





Type of Grants

RIA Research and Innovation Action	IA Innovation Action
<p>Funding available for collaborative research projects tackling clearly defined challenges which can lead to the development of new knowledge or new technology.</p>	<p>Funding available for closer-to-the-market activities including prototyping, testing, demonstrating, piloting, scaling-up etc. for new or improved products, processes or services.</p>

Rules of participation

- a. Minimum number of participants: **3**
- b. Consortia: at least 3 independent legal entities established in 3 different PRIMA Participating States, of which:
 - **At least one is established in a Member State**
 - **At least one is established in a third country bordering the Mediterranean sea : Algeria, Egypt, Jordan, Lebanon, Morocco, Tunisia, Turkey or Israel.**



Section 1: RIA and IA calls

		1 Water reuse and water desalination for agricultural and food production	RIA	100%
		2 Improving the sustainability of Mediterranean agro-ecosystems	RIA	100%
		3 Implementing innovation in Mediterranean Agri-food chains by smallholders and SMEs	IA	70%



SECTION 1

Indicative Call 2018

Submission on-line:
www.prima-med.org
(under construction)

january



Preannouncement
15/01/2018

february



Opening of the
submission website
1° Stage
February 2018

march

april



Indicative
deadline for
applications -
1° Stage
April 2018

may



Evaluation results
are planned to be
available on or
before these
dates **1° Stage**
June 2018

june



Opening of the
submission website
2° Stage
August 2018

july



Indicative
deadline for
applications -
2° Stage
September
2018

august

september

october

november

december



Evaluation results
are planned to be
available on or
before these dates
2° Stage
December 2018

Section 2: RIA calls

THEMATIC AREA	CALL TOPIC	
	<ul style="list-style-type: none">1.1 Water resources availability and quality within catchments and aquifers;1.2 Sustainable, integrated water management;1.3 Irrigation technologies and practice.	RIA
	<ul style="list-style-type: none">2.1 Adaptation of agriculture to climate change;2.2 Preventing emergence of animal and plant pests and diseases;2.3 Farming Systems able to create employment and territorial development.	RIA
	<ul style="list-style-type: none">3.1 Valorising food products from traditional Mediterranean diet;3.2 Food safety and quality in local food chains;3.3 Health effects of the dietary shifts and promotion of healthy and sustainable diets for the Med populations.	RIA



SECTION 2

Indicative Call 2018

Submission on-line:
www.prima-med.org
(under construction)

january



Preannouncement
15/01/2018

february



Opening of the
submission website
1° Stage
February 2018

march

april



Indicative
deadline for
applications -
1° Stage
March 2018

may



Evaluation results
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1° Stage
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june



Opening of the
submission website
2° Stage
August 2018

july



Indicative deadline
for applications -
2° Stage
September
2018

august

september

october

november

december



Evaluation results
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2° Stage
December 2018



SECTION 3

PSIAs (Participant States Initiated Activities) & Activities supporting PRIMA

- Capitalization on results achieved by research and innovation projects;
- Networking, engagement and communication to stakeholders;
- Synergies with other related initiatives;
- Potential impact of PRIMA on Mediterranean societies including migrations;
- Enhancing Youth entrepreneurship;
- Assessment of PRIMA impacts in SDGs perspective.



PRIMA Impact indicators

		IMPACT INDICATORS	
		KPIs	SDGs Implementation ¹
General goals	 Innovation for MANAGEMENT OF WATER	<ul style="list-style-type: none"> Number of applied R&I solutions to the challenges of water management SDG# 6 - 06.21 Biochemical oxygen demand in rivers SDG# 6 - 06.24 Nitrate in groundwater SDG# 6 - 06.26 Phosphate in rivers every year SDG# 6 - 06.41 Water exploitation index (WEI) 	
	 Innovation for FARMING SYSTEMS	<ul style="list-style-type: none"> SDG# 2 - 2.4.1 Proportion of agricultural area under productive and sustainable agriculture SDG# 2 - 2.5.2 Proportion of local breeds classified as being at risk not-at-risk or at unknown level of risk of extinction SDG# 11 - 11.3.1 Ratio of land consumption rate to population growth rate. 	 
	 Innovation for AGRO-FOOD VALUE CHAIN	<ul style="list-style-type: none"> SDG# 12 - 12.3.1 Global food loss index Percentage Increase in Mediterranean agro-food products exported Percentage decrease in Food imports dependency (%Imports/consumption) 	
	 Economic Growth/ Competitiveness	<ul style="list-style-type: none"> New water and food quality oriented business models and strategies Start-ups created adopting organisational and technological innovation SDG# 10 - 10.2.1 Proportion of people living below 50 per cent of median income, by sex, age and persons with disabilities SDG# 8 - 8.1.1 Annual growth rate of real GDP per capita 	 
	 Diet/Health/Well-being	<ul style="list-style-type: none"> Decrease in overweight population percentage (of which obese) by sex and by Country SDG# 6 - 6.1.1 Proportion of population using safely managed drinking water services 	
	 Migration	<ul style="list-style-type: none"> Multidimensional Poverty Index (SDG) by Country^{2,3} 	

Outcome indicators



KEY PERFORMANCE INDICATORS ADOPTED TO MEASURE THE IMPACT OF THE PRIMA PROGRAMME

Specific objective #1

ALIGNMENT OF NATIONAL R&I PROGRAMMES

Outcome Indicators

- Number of new programmes integrating national initiatives in the scope of PRIMA;
- Number of harmonized national rules for participation in PRIMA activities;

Specific objective #2

CRITICAL MASS OF ACTORS AND RESOURCES

Outcome Indicators

- Number and type of stakeholders involved;
- Networks of researchers/ innovators stemming from PRIMA projects;
- Number of Entreprises/Organisations increasing PRIMA funds.

Specific objective #3

STRENGTHENING R&I CAPACITIES

with particular attention to entrepreneurship skills and innovation culture

Outcome Indicators

- Number of capacity building activities supported in terms of number of fellowships trainees (MSc, PhDs) and mobility schemes;
- Number of new young entrepreneurs adopting technologies/organisational innovations developed in the frame of PRIMA projects.

Outcome indicators

<p>1/ MANAGEMENT OF WATER</p> <ul style="list-style-type: none"> 1 Water resources availability; 2 Sustainable integrated water management; 3 Irrigation technologies; 4 Use of alternative water resources 	<ul style="list-style-type: none"> • Number of new modelling routines for determining basic components of water cycle related to groundwater accumulation; • Number of efficiency enhanced technologies for wastewater treatment for unconventional renewable water resource production; • Number and efficiency performance of new irrigation technologies and scheduling protocols and models; • Number of water treatment technologies for specific irrigation requirements.
<p>2/ FARMING SYSTEMS</p> <ul style="list-style-type: none"> 1 Adaption of agriculture to climate change; 2 Developing sustainable and productive agro-ecosystems; 3 Preventing emergence of animal and plant diseases; 4 Developing farming systems, create employment etc. 	<ul style="list-style-type: none"> • Number of new varieties/species adaptable to climate change; • Improved Knowledge of soil erosion mechanisms to enhance fertility and mitigate salinization under conditions of water scarcity improving nutrient balance; • Number of integrated solutions for pest and diseases management for plant and animal production systems; • Number of innovations in farming systems developed enabling sustainable and efficient agriculture and food systems.
<p>3/ AGRO-FOOD VALUE CHAIN</p> <ul style="list-style-type: none"> 1 Valorising food products; 2 Food safety in local chains; 3 Implementation of innovation in the agro-food chain; 4 Implications of dietary shifts. 	<ul style="list-style-type: none"> • Number of new food products with enhanced shelf-life, quality and health-related beneficial properties; • Number of innovative solutions aimed to improve quality control mechanisms and techniques throughout supply chains; • Number of business models for quality and sustainability adapted to SME and smallholders; • Number of raising awareness campaign promoting an environment conducive to healthy food choices through appropriate incentives and information provision to consumers and policy makers.

Thematic Areas and Priorities

Operational indicators

OPERATIONAL INDICATORS

KPIs

Development of a SRIA

- Number of meetings/events/participants

Joint transnational calls for proposal

- Number of calls, number of proposals submitted/funded;
- time to contract, time to grant, time to pay.

Networking activities, Stakeholder involvement, Knowledge-sharing/Dissemination, Mobility/Training

- Number of events;
- Participation of industry/society in the implementation;
- Number of events/schemes;
- Number of participants.

The next future

1. Spring 2018: Launch of first calls
2. Preparation of partnerships for calls
3. Creation of a strong PRIMA Platform Network among research centers, universities, enterprises, consumers

PRIMA aims in short

1. To strengthen MED Area's knowledge and innovation base, to meet water and food needs
2. To promote mutual understanding and capacity-building, building bridges between nations
3. To foster economic growth in a sustainable and inclusive way

Key role of researchers, innovators, enterprises and food value chains to implement Agenda 2030



PRIMA

PARTNERSHIP FOR RESEARCH AND INNOVATION
IN THE MEDITERRANEAN AREA

THANK YOU FOR YOUR ATTENTION

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www.prima4med.org