



**Proceedings from the Workshop**

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*PRIMA Synergies with EU, Regional and International Organisations*

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## EXECUTIVE SUMMARY

Environmental and social changes are deeply affecting the Euro-Mediterranean agri-food systems and water resources. Climate change, unsustainable agricultural practices, over-exploitation of natural resources, new lifestyle behaviours (diet, physical activity, socio-cultural practices) and struggling smallfarmers put a strain on the sustainable development of the Region, with major impacts on societies. The increased complexity and multidimensionality of such social, economic and environmental challenges can only be addressed through common efforts and the pooling of resources underpinned by research and innovation.

Although there are initiatives addressing challenges related to water and agricultural production, PRIMA complements them by considering Mediterranean specificities, enabling more geographic and problem-based research orientations. Identifying possible synergies and complementarities among PRIMA and other R&I funding initiatives paves the way for strategic and long-term outcomes, such as better cooperation and coordination to address the fragmented landscape of R&I initiatives. Coordination between PRIMA and international initiatives including other European-led Mediterranean programmes – and consistency with the objectives of the Union for the Mediterranean (UfM) Water Agenda and the action plan of the UfM Nexus Task force – should be strengthened to deal with fragmentation and duplicated effort.

### Objectives of the workshop

In order to achieve these objectives, the General Secretariat for Research and Technology of the Ministry of Development and Investment (GSRT) organised the *Workshop on PRIMA Synergies with EU and International Initiatives* aiming at gathering EU and international initiatives and sharing information, best practices and lessons learnt on the following issues:

- Adoption of innovation in developing countries and experiences or schemes supporting the creation of frugal innovation
- Enhancing cooperation by establishing links and mechanisms for systematic dialogue and the sharing of information and data (e.g. infrastructures, capacity building, knowledge hubs, dissemination activities, etc.)
- Exploring opportunities for synergies at the strategic, implementation and project level, including the alignment of national funding rules with a view to maximize impact and facilitate the uptake of results by end-users and society at large.

### Organisation of the workshop and agenda

The Workshop was organised around four sessions starting in the afternoon of 21 November and continuing in the morning of 22 November. The workshop opened with a welcome speech by the GSRT (Secretary General), followed by a representative of the European Commission and the Chairs of PRIMA.

Three keynote speeches addressed the subject, *Thinking the future: scaling up social and frugal innovation in the Mediterranean area*. The speakers covered various aspects of innovation support at the policy and implementation level, presenting examples from the field as follows:

- Learning from frugal innovations in agri-food and water, presented by Peter Knorringa (CFIA)
- Nurturing agri-food innovations: the case of Agrytech, Lebanon, presented by Ramy Bou-Jawdeh (Berytech)
- Mission approach: how to harness the power of innovation for societal challenges, presented by Pavel Misiga (European Commission)

The keynote speeches were followed by three sessions organised as panel discussions covering the following subjects:

- *Exchange of experiences and practices towards the adoption of innovation* – The panellists were Costas N. Papanicolas from EIT Climate, Paloma Mallorquin from BBI JU, Roger Garcia from SwitchMed and Tarek El Arabi from EU-Africa Partnership FNSSA

- *Exchange of experiences and practices towards national programme alignment: infrastructure sharing, North-South relationships* – The panellist were Maurice Héral from JPIs (Water & FACCE), Martin Heibel from ENI CBC MED, Ana Lucia Weinberg from EDCTP, Giuseppe Provenzano from UfM, Cristina Huertas from LifeWatch ERIC and Claudia Zoani from MetroFood RI project
- *Dissemination of good practices, knowledge transfer and capacity development* – The panellist were Maroun Moujabber from CIHEAM, Phoebe Koundouri from SDSN, Charles Kleinermann from ICARDA and Andy Zynga from EIT Food.

The panellists introduced their subjects with short presentations followed by a discussion addressing questions by a moderator, and from the audience.

The Workshop was closed by the PRIMA Chairs and the rapporteur drawing conclusions from the two days of discussion and providing an outlook or overview of the next steps.

### **Participating initiatives and audience**

The Workshop brought together 70 representatives of the most relevant initiatives within the research and innovation ecosystem, a number of PRIMA Scientific Advisory Committee members, coordinators of PRIMA selected projects, as well as individual experts. The invited EU initiatives were carefully chosen to share either a similar legal framework of implementation (art. 185/art. 187 TFEU), or a common regional area of implementation, the Mediterranean area, or common thematic areas (food, water, farming).

### **Main conclusion of the Workshop**

Agri-food systems and water resources in the Mediterranean basin are deeply affected by climate change, unsustainable agricultural practices, over-exploitation of natural resources and broader social changes threatening the region's sustainable development. Regarding climate change, all climate models predict that the eastern Mediterranean and the Middle East region will be heavily affected, with significant negative impacts on agriculture, water resources and local economies.

The complexity and interdependency of the problems demand coordinated efforts and pooling of resources in research and innovation. At the policy level, a systemic approach involving all relevant actors as well as addressing all the elements and their complexity is necessary.

The concept of **R&I Missions** under the next EU Framework Programme for Research and Innovation, "Horizon Europe" (2021-2027), provides a coordinated response to these challenges. The application of this systemic approach could help PRIMA to define its objectives in terms of the envisaged climate transition, and a long-term perspective on investments, focusing on collaboration and exploitation of synergies.

To promote innovation, a holistic approach that follows the whole innovation lifecycle, shifting from lower to higher technology readiness levels (TRL), is necessary.

At the same time, the local conditions and needs should also be taken into consideration. The scarcity of resources and lower GDP of southern Mediterranean societies demand the use of **frugal innovation** approaches that deliver smart and simple solutions with the functionality that is really needed to improve living conditions for local populations. Frugal innovation is essential in the agri-food sector as the relevance of established practices and knowledge is challenged by climate change, while new technologies bring risks and new dependences on suppliers and platform owners. However, to be successful, a **change of mindset towards simplicity and functionality is necessary**. A frugal approach is also beneficial for advanced countries, and the adoption of frugal lenses in Horizon Europe calls for proposals could increase the relevance of EU innovation strategies for poorer producers and consumers.

In countries with **weak and fragmented innovation systems**, support for innovation needs to be systemic by addressing the whole innovation cycle. For new or innovative ideas to reach the market, an entire ecosystem needs to be in place, **especially for start-ups**. In the absence of essential elements or strong links within the start-up ecosystem, initiatives aiming to support start-ups should develop the missing elements and reinforce

the connections covering the whole cycle, from the formulation of an idea to early-stage funding, to prototyping to scaling up and eventual market readiness and internationalisation.

The coordination and pooling of resources requires exploitation of synergies among PRIMA, other European initiatives addressing challenges related to water and agricultural production, also among participating countries. Along with the challenges, there are also significant opportunities for collaboration which can be addressed at the strategic, implementation, learning and networking levels.

At the **strategic level**, the alignment of national programme's research agendas and priorities could minimize duplication of effort and promote pooling of resources to address the same challenges from different perspectives.

Furthermore, the alignment of strategies between initiatives and participating countries needs to go beyond the creation of a strategic research and innovation agenda (SRIA). In order to achieve the alignment, SRIAs should be effectively communicated to participating countries and inform the national policymaking processes.

At the **implementation and project level**, launching of joint calls or co-funding of projects is the most obvious way to collaborate. However, joint calls also pose a challenge due to differences in participation, eligibilities and funding rules, and the misalignment of implementation and payment schedules. A more pragmatic approach is to bring together projects from different initiatives with shared interests and encourage coordination during their implementation by co-organising events and joint missions or sharing infrastructures and results. Another approach, which requires more coordination among initiatives, is the creation of a pipeline of projects where initiatives support the projects at different levels of maturity with the aim of upscaling the eventual results. In this scenario, projects from other initiatives with low-TRL results could be supported by PRIMA to reach a higher level of market readiness. Similarly, research results of high TRLs produced by PRIMA projects could be supported by other initiatives to create start-ups and commercialise their output.

European research infrastructures of pan-European interest such as the **LifeWatch ERIC** and **MetroFood RI project** could be used for storing and distributing the data produced by PRIMA projects. Projects can also benefit from collaborating either remotely or on the premises of the facilities/infrastructures in areas such as metrology and standardisation, agri-ecosystem characterisation, food analysis, food packaging testing and characterisation, and for improving food production and consumption.

Collaboration in **training and capacity building** is another area of cooperation at the project level, where PRIMA projects could benefit from services provided by other initiatives. The available services are quite diverse, and therefore a clear understanding of each PRIMA project's needs is important before selecting the most appropriate services. Several capacity-building services adopt an **early engagement approach**, focusing on students, while some focus on professionals and SMEs. Others target citizens to raise awareness and encourage behavioural change. The services also vary according to the type of knowledge and capacity building they offer, including:

- Scientific knowledge and research training (PhD or postdoc)
- Professional knowledge for farmers, professionals, SMEs
- Development of specific skills and competencies (leadership, entrepreneurship)
- Coaching activities
- Raising awareness and public engagement

**Mutual learning** at the level of the initiatives is also an area for collaboration with high potential to improve cooperation and the delivery of results. Learning from the experiences of others by sharing good and bad practices could focus on a variety of issues related to the content or the management of the initiatives. An issue that was regarded as very important by Workshop participants is how to monitor and measure the impact of an initiative, and how to communicate the impact to the funding organisations and the public. Lastly, collaboration between initiatives could increase their **communication and networking** potential and

strengthen the 'voice' of the region and its lobbying capacity. Cooperation could also expand the audience of the initiatives.

In addition to the above dimensions of collaboration among initiatives, there are specific issues that are important for strengthening the cooperation between North and South either within the same initiative or across initiatives:

- Adoption of an **equal footing and equal treatment approach** at the level of the initiative and the level of the projects where partner countries and organisations participate in all decisions, such as the criteria for calls, selection of projects, decisions at the project level, implementation decisions, etc.
- Ensuring **greater visibility** of the work/results by researchers from the South, including authorship and speaking opportunities, is essential
- Pursuing **common benefits** on both sides of the Mediterranean area
- Building capacity for empowering the participation from the partner countries and enabling them not only to participate successfully but also to initiate and lead projects

All presentations are available from the PRIMA website, [www.prima-med.org](http://www.prima-med.org) and GSRT website, [www.gsrt.gr](http://www.gsrt.gr)

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## List of abbreviations/acronyms

BBJ JU	Bio-based Industries Joint Undertaking
BIC	Bio-based Industries Consortium
ENI CBC MED	Cross-border Cooperation in the Mediterranean within the European Neighbourhood Instrument
CC	Climate change
CFIA	Centre for Frugal Innovation in Africa
CGIAR	Consultative Group for International Agricultural Research
CIHEAM	International Centre for Advanced Mediterranean Agronomic Studies
CIHEAM	Centre International de Hautes Études Agronomiques Méditerranéennes
CSA	Coordination and Support Action
CSIC	Spanish National Research Council
CSP-DSW	Concentrated Solar Power – Desalinated Sea Water
DAFNE	Donors and Foundations Network in Europe
DESIRA	Digitisation: Economic and Social Impacts on Rural Areas
EDCTP	European and Developing Countries Clinical Trials Partnership
EIT	European Institution of Innovation and Technology
EMME	Eastern Mediterranean and the Middle East region
ERA	European Research Area
ERIC	European Research Infrastructure Consortium
ESFRI	European Strategy Forum for Research Infrastructures
FACCE (JPI)	Food security, Agriculture and Climate Change (Joint Programming Initiative)
FNSSA	( <i>EU-Africa R&amp;I Partnership on</i> ) Food and Nutrition Security and Sustainable Agriculture
FOSC	( <i>ERA-Net Cofund on</i> ) Food Systems and Climate
GHG	Greenhouse Gas
HLPD	High-Level Policy Dialogue
ICARDA	International Centre for Agricultural Research in Dry Areas
ICRE8	International Centre for Research on the Environment and Economy
IPM	Integrated Pest Management
IRC	International Research Consortium
JPI	Joint Programming Initiative
KIC	Knowledge and Innovation Community
MAP	Mediterranean Action Plan
MENA	Middle East and North Africa region
MS	Member States
P2P	Public-Public Partnership (in the context of this report)
PPP	Public-Private Partnership
PESD	Political Economy of Sustainable Development Lab
PRDs	Poverty Related Diseases
PRIMA	Partnership for Research and Innovation in the Mediterranean Area
QOOT	Lebanon Agri-food Innovation Cluster
R&I	Research and Innovation
RDI	Research, Development and Innovation
RINEA	Research and Innovation Network for Europe and Africa
SCP	Sustainable Consumption and Production
SDG	Sustainable Development Goals
UN SDSN	(United Nations) Sustainable Development Solutions Network
SRIA	Strategic Research and Innovation Agenda
SME	Small and Medium-sized Enterprise



## PRIMA Synergies with EU, Regional and International Organisations

TCIP	Theory of Change and Impact Pathway
TRL	Technological Readiness Level
UfM	Union for the Mediterranean
UN	United Nations
UNIDO	United Nations Industrial Development Organisation
VC	Venture Capital

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## Disclaimer

This publication reflects the views only of the author. The European Commission, the PRIMA Programme and the GSRT cannot be held responsible for any use which may be made of the information contained therein.

# 1 Introduction

Environmental and social changes are deeply affecting the Euro-Mediterranean agri-food systems and water resources. Climate change, unsustainable agricultural practices, over-exploitation of natural resources, new lifestyle behaviours (diet, physical activity, socio-cultural practices) and struggling small landholders put a strain on the sustainable development of the region, with major impacts on societies. The increased complexity and multidimensionality of such social, economic and environmental challenges can only be addressed through common efforts and pooling of resources underpinned by research and innovation.

Although there are various initiatives addressing challenges related to water and agricultural production, PRIMA complements them by focusing on Mediterranean specificities, enabling more geographic and problem-based research orientations. The Partnership for Research and Innovation in the Mediterranean Area (<http://prima-med.org>) is a multidisciplinary R&I initiative with three thematic areas of research: water, agricultural science, and food science and technology. PRIMA aims to develop much-needed solutions for more sustainable management of water and agri-food systems. The main objective of the ten-year initiative (2018-2028), which is partly funded by EU's research and innovation programme, Horizon 2020, is to develop new R&I approaches to improve water availability and sustainable agricultural production in a region heavily distressed by climate change, urbanisation and population growth. With a total budget of around half a billion euros, PRIMA is backed by a commitment of 19 States (EUR 274 million) and, for the remaining part, by the European Union through Horizon 2020. The Partnership is characterised by a strong strategic dimension based on the principle of equal footing applied through co-decision, co-financing and co-management, and a distinctive geographical focus on the Mediterranean region.

Identifying possible synergies and complementarities among PRIMA and other R&I funding initiatives paves the way for strategic and long-term outcomes, which help to tackle the fragmented landscape of R&I initiatives. More cooperation and coordinated action between PRIMA and international and other European-led Mediterranean initiatives (e.g. EIT Food, EU-Africa High-Level Policy Dialogue, Cross-Border Cooperation within the European Neighbourhood Instrument (ENI) Mediterranean Sea Basin Programme or ENI CBC MED) and consistency with the objectives of the UfM Water Agenda and the action plan by the UfM Nexus Task force should be strengthened to avoid this fragmentation and any duplications.

The *Workshop on PRIMA Synergies with EU and International Initiatives* was organised by the General Secretariat for Research and Technology in Greece to address these complex issues. As part of the Ministry of Development and Investment, the General Secretariat for Research & Technology is the State agency responsible for the design, coordination, implementation and monitoring of the national policy for Research, Technological Development and Innovation. It supports the activities of research and business community through competitive R&I programmes and supervises research and technology institutions, which provide local communities with the skills necessary for producing knowledge and boosting innovation. GSRT actively follows EU and international developments in the field of RDI, facilitates internationalisation of the national RDI ecosystem and represents the country to the EU and International Organisations within its competence.

This report was prepared by the rapporteur based on presentations and notes provided by the speakers, as well as feedback received from attendees on the draft version of this document.

All presentations are available from the PRIMA website, [www.prima-med.org](http://www.prima-med.org) and GSRT website, [www.gsrt.gr](http://www.gsrt.gr)

## 2 Methodology

The workshop was organised by the GSRT in partnership with PRIMA. The invited EU initiatives were carefully chosen to share either a similar legal framework of implementation (art. 185/art. 187 TFEU), or a common regional area of implementation, the Mediterranean area, or common thematic areas (food, water, farming).

The workshop opened with three keynote speeches addressing various aspects of how-to better support innovation at both the policy and implementation levels, presenting examples from the field. The three sessions following the keynote speeches were organised as panel discussions. The panellists introduced their subjects with short presentations followed by a moderated discussion which encouraged audience questions and interventions to share knowledge and experience.

A rapporteur assigned for each session of the workshop took notes on the main issues debated and prepared a short report. The main points from each session were compiled into this final Workshop report of the proceedings.

### 2.1 Workshop aims and objectives

The main objective of the workshop was to gather EU and international initiatives and share best practices in the implementation of their funding programmes and in addressing global challenges. Particular attention was given to :

- The adoption of innovation in developing countries and therefore on experiences or schemes supporting the creation of frugal innovation for which “the needs and the circumstances of citizens in the developing world are put first, to develop appropriate, adaptable, affordable, and accessible services and products for emerging markets.”
- Enhancing cooperation by establishing links and mechanisms for systematic dialogue and the sharing of information and data (e.g. infrastructures, capacity building, knowledge hubs, dissemination activities, etc.)
- Enhancing cooperation and sharing of best practices towards the alignment of national regulations and funding rules

The workshop provided networking opportunities to foster dialogue and cooperation between different types of EU partnerships (P2P, PPP, EIT-KICs) and international organisations, following the new requirement of Horizon Europe for strengthening partnerships cooperation.

### 2.2 Audience and stakeholders

The Workshop brought together 70 representatives of the most relevant initiatives within the R&I ecosystem, a number of PRIMA Scientific Advisory Committee members, coordinators of select projects, as well as individual experts. Initiatives and stakeholders, as well as delegates from R&I projects attending the event are summarised in the Appendix of this report.

### 2.3 Workshop agenda

The Workshop was organised around four sessions starting in the afternoon of 21 November and continuing the following morning of 22 November. The Workshop opened with a welcome speech by the hosts, followed by introductions by the European Commission and the Chairs of PRIMA.

Three keynote speeches addressed the subject, *Thinking the future: scaling up social and frugal innovation in the Mediterranean area*. The first presentation by Peter Knorringa, Director of the Centre for Frugal Innovation in Africa, entitled “*Learning from frugal innovations in agri-food and water*”, addressed the importance of frugal innovation for sustainable development in both less developed and more developed countries.

The second keynote speaker, Ramy Bou-Jawdeh, Deputy General Manager of Berytech, presented in his speech (*Nurturing agri-food innovations: the case of Agrytech, Lebanon*) the Lebanese experience of creating

start-ups and scaling up innovations. The session concluded with a presentation by Pavel Misiga, European Commission, who introduced the approach of mission-oriented R&I support in his speech (*Mission approach: how to harness the power of innovation for societal challenges*).

The second session focused on the *Exchange of experiences and practices towards the adoption of innovation* in the format of a roundtable with short presentations by five panellists representing European initiatives and partnerships, followed by a panel discussion and audience interventions moderated by Diego Intrigliolo. The panellists were Costas N. Papanicolas from EIT Climate, Paloma Mallorquin from BBI JU, Roger Garcia from SwitchMed, and Tarek El Arabi from the EU-Africa Partnership, FNSSA.

The first day closed with concluding remarks by the PRIMA Chairs Angelo Riccaboni and Mohamed El-Shinawi and the rapporteur Nikos Maroulis.

On the second day, the third session focused on the Exchange of experiences and practices towards national programme alignment: infrastructures sharing, North and South relationships. The session started with a short presentation by panellists representing European initiatives and organisations, including Maurice Héral from JPIs Water and FACCE, Martin Heibel from ENI CBC MED, Ana Lucia Weinberg from EDCTP, Giuseppe Provenzano from UfM, Cristina Huertas from LifeWatch ERIC, and Claudia Zoani from MetroFood. The session ended with a panel discussion followed by audience questions and interventions moderated by Effie Amanatidou.

Session four focused on the *Dissemination of good practices, knowledge transfer and capacity development*. The session started with short presentations by each of the panel members: Maroun Moujabber from CIHEAM, Phoebe Koundouri from SDSN, Charles Kleinermann from ICARDA and Andy Zynga from EIT Food. The presentations were followed by panel discussions and audience interventions moderated by Samia Charfi Kaddour.

The Workshop closed by the PRIMA Chairs Angelo Riccaboni and Mohamed El-Shinawi, with the rapporteur, Nikos Maroulis, drawing conclusions from the two days' discussions and providing an outlook for the next steps.

### 3 Keynote speaker and moderator biographies

Peter Knorringa, Director, Leiden-Delft-Erasmus (LDE) Centre for Frugal Innovation in Africa, Netherlands



Peter Knorringa is a Professor of Private Sector and Development at the International Institute of Social Studies (ISS), Erasmus University Rotterdam. His main interest concerns the diverse roles and impacts of business on development. He investigates the extent to which socially responsible and environmentally sustainable forms of development are possible under capitalism. His empirical research focuses on global value chains, industrial clusters, private governance and sustainability standards, and more recently on the developmental relevance of frugal innovation. He is one of the co-founders and the present director of the Research Centre on Frugal Innovation in Africa, an initiative of Leiden University, Delft University of Technology and Erasmus

University Rotterdam.

Ramy Bou-Jawdeh, Deputy General Manager, Berytech



With some 20 years of international experience in management in different disciplines, Ramy Bou-Jawdeh has amassed diverse knowledge in the fields of change and quality management, operations, and entrepreneurship support programmes across three continents. Over the last five years, Ramy led the growth of Berytech, building impactful programmes to support the economy and various sectors, including in ICT, agri-food, circular economy, social entrepreneurship, and women-led businesses. One of which is Agrytech, Lebanon's Agri-Food Innovation Hub, focused on revitalising the sector through innovation, technology and digitisation, by accelerating start-ups, and supporting SMEs through QOOT, Lebanon's Agri-food Innovation Cluster. Ramy is an angel investor and actively advises early-stage start-ups in Lebanon. He holds a B.S. in Agriculture Engineering from the American University of Beirut, and a M.S. in Business Management and Economics.

Pavel Misiga, European Commission, Head of Unit DG Research and Innovation Healthy Planet



Pavel Misiga is a graduate of London School of Economics and Princeton University. He worked as an environmental consultant and later as a senior official at the Ministry of Environment in his home country Slovakia. He represented his country in the EU accession negotiations in the field of environment. He joined the European Commission in 2003. During the past 13 years he has led teams working on sustainable production and consumption, resource efficiency, circular economy, water and eco-innovation policies in different services of the European Commission. He is currently head of the Circular Economy and Bio-based Systems Unit in the Directorate General for Research and Innovation.

Mohamed Bouhicha, General Directorate for Scientific Research and Technological Development, Algeria



Mohammed Bouhicha is Study Director in the Algerian General Directorate for Scientific Research and Technological Development (DGRSDT), which is in charge of implementing the national policy of scientific research in Algeria. He holds a master and PhD in civil engineering from the University of Liverpool. Before joining the DGRSDT he was a full professor at the University of Algeria, and has for the past 20 years been involved in managing scientific research, both at local and national levels. Currently, he is the Algerian representative on the Board of Trustees of PRIMA.

Diego Intrigliolo, National Research Council (CSIC), Spain



Diego Intrigliolo spent his career working on applied aspects of irrigation and water in relation to woody perennial crops with the aim of improving on-farm irrigation efficiency, water-use efficiency and indeed water productivity. He is a tenured scientist at the Spanish National Research Council (CSIC). Currently, his research career is focused on identifying innovative orchard and vineyard designs to improve water-use efficiency. In more extreme and arid environments, he is also interested in how water-quality constraints (salinity) affect irrigation scheduling and how plants respond to limited water, as well as how the individual processes are integrated in

the whole plant and what the grower can do to influence such processes and improve plant productivity. Currently, he is combining his research activities with additional tasks related to benchmarking research needs in the agricultural water-management area. Diego is the Spanish national expert for the programme committee for H2020 Societal Challenge 2 and chair of the PRIMA Scientific Advisory Committee.

Effie Amanatidou, Honorary Senior Research Fellow, Manchester Institute of Innovation Research, UK



Effie Amanatidou studied maths at the Aristotle University of Thessaloniki and holds a MSc in Technical Change and Industrial Strategy, and a PhD in Foresight Evaluation from the Manchester Institute of Innovation Research (University of Manchester). Effie has over 20 years of experience in research and innovation policy analysis including, in particular, evaluation, impact assessment, foresight and social innovation policy and programmes. Effie has published several articles in academic journals, such as *Technological Forecasting and Social Change*, and *Science and Public Policy, Foresight and Futures*. Since 2015, Effie has been the lead analyst in ERA-LEARN (era-learn.eu) with regards to the monitoring and evaluation of public-public partnerships (P2P) in research and innovation. Analysing the performance of individual countries as regards to P2P participation is also another task that started in 2018 and attracts attention at the national policy level. During her involvement in ERA-LEARN, Effie has been asked on a number of occasions to advise individual P2Ps on how to develop monitoring and evaluation systems.

Samia Charfi-Kaddour, General Director of Scientific Research, Higher Education and Scientific Research Ministry, Tunis



Samia Charfi Kaddour studied mathematics and physics in Tunis and obtained *Magistère de Physique d'Orsay* in 1989, and her PhD in 1992 from Paris-Sud (XI) University. Back in Tunisia, she defended her *Habilitation Universitaire* in 2001 at the University of Tunis El Manar. Samia worked as assistant professor in the Faculty of Science in 1993, and as associate professor (2001-2006) before becoming full professor in 2006. She has 217 citations and 45 publications including one book on optics and h-index 8. In 2016, she joined the Higher Education and Scientific Research Ministry in the position of General Director of Research Valorisation and became General Director of Scientific Research in 2019. Her research interest is on high  $T_c$  superconductors and organic superconductors, strongly correlated systems, graphene

physics, phase transition and competing phases, disorder, magnetic field effect, as well as science, technology and innovation policy.

## 4 Proceedings

### 4.1 Opening addresses

The workshop started with a welcome address by the host **Athanasios Kyriazis, General Secretary of the General Secretariat for Research and Technology**, re-affirming the commitment of Greece to the Euro-Mediterranean cooperation and support to PRIMA from the onset of the negotiation process in 2014. The General Secretary emphasized that, the Euro-Mediterranean is a region of strategic significance for the European Union, not only because of its geographical proximity, but also the common challenges and geopolitical interests involved. Therefore, it is in the EU's interest to increase its political and economic commitment in addressing them, and thus contribute to the stability and prosperity of its citizens. These far-reaching, complex and interrelated cross-border issues call for strategic cooperation of sufficient scale and scope; cooperation that is based on the principles of co-ownership, mutual interest and shared benefit. PRIMA represents a comprehensive approach to incorporate R&I cooperation into a broader framework of European priorities, such as the Sustainable Development Goals, the Agenda for Migration and European climate diplomacy after the Paris Agreement for Climate Change. PRIMA is enabling the pooling of know-how and resources to develop knowledge and common, innovative solutions addressing two of the most pressing challenges of the region; the sustainable production of nutritional food, and water availability. In this context, the General Secretary welcomed the focus of one of the sessions of the Workshop on sharing experiences on capacity building and empowering citizens throughout the region, by exploring the potential of frugal innovation. Empowering young entrepreneurs and researchers would also provide a unique and constructive opportunity to shape the region's future and address youth unemployment and brain-drain. In his concluding remarks, he stressed he looks forward to tapping into the opportunities offered by the PRIMA partnership and contributing to maximising its impact.

In his opening speech, **Angelo Riccaboni, Chair of PRIMA**, referred to the important political support of Greece to PRIMA from the outset. It is among the objectives of PRIMA to build synergies with other initiatives, exchange experience and knowledge, and explore ways to work together to create a critical mass in priority areas. Due to the complexity and critical character of the challenges in the Mediterranean area, the pooling of resources and experiences are of paramount importance for tackling them, he suggested. Scientists and analysts see the Mediterranean area as one of the most vulnerable to the effects of climate change in the world. Land use and the food system are under stress, he added, so we need to work hard to prevent them from becoming blocking factors, as they have adverse effects on the environment while at the same time they are negatively affected by climate change. The agri-food system is a significant contributor to the Agenda 2030 goals and the UN Sustainable Development Goals. However, it is compromised and requires intervention to avoid collapse. PRIMA has done significant work in supporting research in this area, and it is now time to translate it into impact by focusing on concepts and tools to boost the 'circular economy' and 'resilience', and by taking advantage of the opportunities provided by digital technology. There is a clear need to be more oriented towards quality, sustainability and profitability, he added. Innovation will play a critical role to balance these three elements and contribute to the growth of the Mediterranean area.

**PRIMA co-chair Mohamed El-Shinawi** pointed out that the Mediterranean region is of critical importance as it is the crossroad of people, languages, cultures and religions. For the Mediterranean partner countries, Europe is not only the number one trade, investment and tourism partner, but also the main strategic partner for research. The pillars for successful collaborations are mutual respect, common goals and values, he stressed. The environmental and societal changes affecting water resources, sustainable agricultural practices and lifestyle behaviours, as well as the difficulties faced by small-scale farmers, all threaten the sustainable, healthy development of the region, and have a significant impact on societies. Therefore, it is our responsibility to design new policies and strategies based on new knowledge and scientific research to tackle the challenges and support sustainable development, he proposed. PRIMA is working in this direction, contributing to new practices that meet current and future needs, and developing synergies with other initiatives. The Workshop thus played an essential role in this direction, and its outcomes need to be persistently followed up, he concluded.



**Pavel Misiga, European Commission** underlined the importance of EU support for PRIMA as it embodies the values and principles on which European research and innovation policy is based on, such as sharing and supporting quality research, sharing scientific knowledge, and raising awareness. Moreover, the focus of PRIMA is set on fundamental sustainable issues and risks, to which the EU is highly politically committed, he explained. PRIMA is a crucial tool for dealing with climate change and other global changes affecting the region. PRIMA's focus on generating impacts in the region is important. However, the impact is realised when projects are successfully implemented, and the innovations coming from them are taken up by society and the market. But for that, collaboration and exploitation of synergies with other initiatives are necessary to bring innovation to the next level. The Workshop represented a positive step in that direction, he concluded, making collaboration a major part of a better future.

#### 4.2 Session 1 – Thinking the future: scaling up social and frugal innovation in the Mediterranean area

**Peter Knorringa**, Director of Centre for Frugal Innovation in Africa (CFIA), presented the topic, *Learning from frugal innovations in agri-food and water*.

Frugal innovation is often underestimated when talking about innovation policy and R&I investment because it does not come from big laboratories but rather from individuals, NGOs, small companies, and farmers. Frugal innovation 'thinking' starts from a scarcity of resources, which means innovations need to be low-cost and high-function, with a focus on being affordable to customers with lower incomes. To achieve this, it is essential to 're-think' the innovation process and reduce the temptation to over-engineer solutions, while concentrating on meeting local needs, circumstances and cultures, and offering the best value for money. Frugal innovation has a vital role to play in the current situation where climate change challenges the relevance of existing practices and knowledge, while new technologies offer opportunities but also additional risks of new dependences on technologies, suppliers, platform owners, etc.

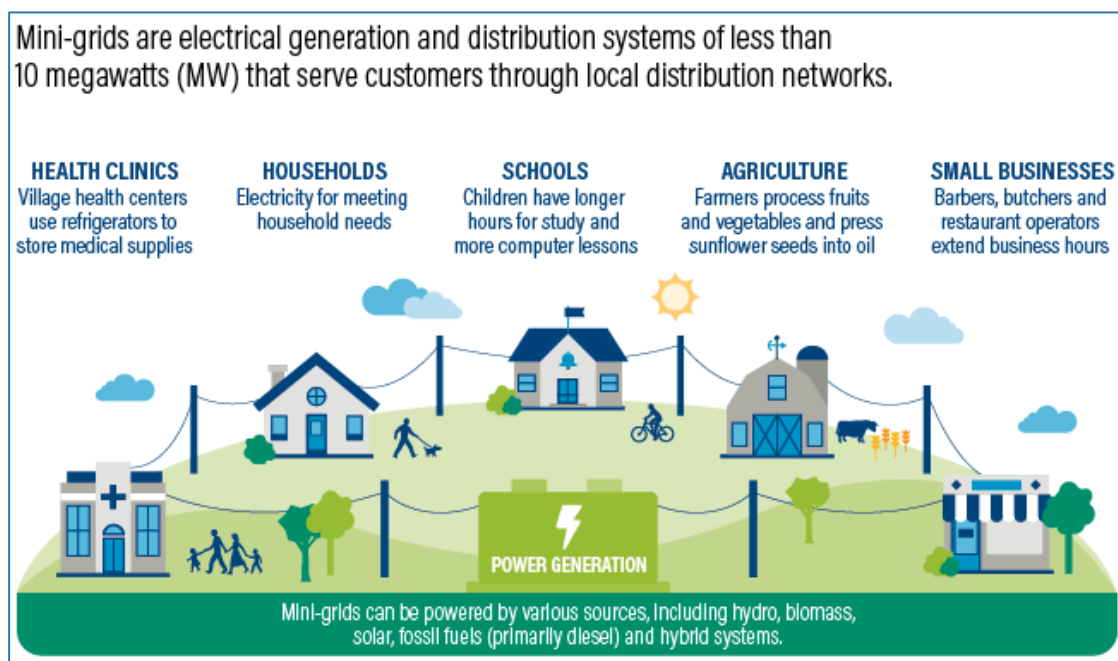


Figure 1: Delivery electricity through mini-grids (Source: CFIA)

Through examples of frugal innovations (see Figure 1), the speaker demonstrated how advanced technologies could be adapted to fit the local reality and needs, often in ways that could also be transferred and applied in more advanced techno-economic environments. In many programmes, such as PRIMA, frugal elements are already present without the actual frugal label. However, it is essential to recognise and name



them as frugal, he stressed. The overarching idea is that “frugality, next to sustainability and inclusion in Horizon Europe, can help to ensure a focus on locally-relevant innovation processes that enhance the resilience of marginalised producers and consumers.” This will help to enhance the relevance of EU innovation strategies for poorer producers and consumers.

**Ramy Bou-Jawdeh**, Deputy General Manager Berytech, gave a presentation on *Nurturing agri-food innovations* and addressed the case of Agrytech in Lebanon.

The food sector in Lebanon faces significant challenges. Some of the themes are global, such as the food security problems, while others like brain-drain, poor practices, low productivity and lack of innovation are local. To turn such challenges (Figure 2) into opportunities, the idea of creating a hub for agri-food innovation was born: the Agri-food Innovation Hub of Agrytech. The journey of Agrytech started by focusing on how to make agriculture attractive for young professionals and entrepreneurs, and how technology, engineering and innovation could turn agriculture into an opportunity for them and generate jobs for the sector. Agrytech is a successful example of a platform supporting innovation in the agri-food, water and energy sectors in the MENA region of Lebanon. Its success is based on its systemic approach bringing together the various components and actors of the ecosystem and providing support covering the whole cycle, from the formulation of ideas to prototyping and scaling up, to incubation and acceleration supported by international connections and finally funding by creating a specialised venture capital fund for agri-food innovations. Agrytech demonstrates the potential of frugal and social innovation in developing successful business ideas and addressing pressing local problems.

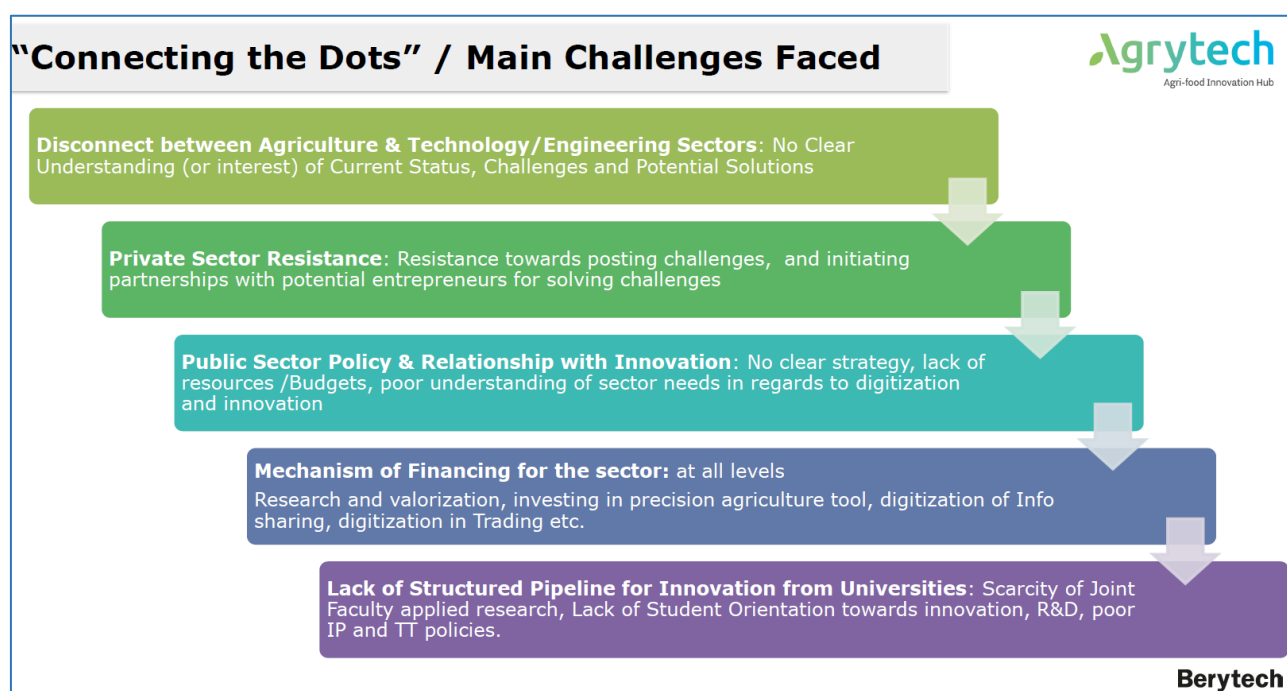


Figure 2: Main Challenges Faced (Source: Berytech)

**Pavel Misiga**, Head of Unit DG Research and Innovation, presented *Missions: directing R&I towards sustainability*.

The presentation provided a framework on how to harness the power of innovation and address societal challenges by applying a mission approach. After the 1950s, the world entered a period of ‘great acceleration’ with exponential growth in the population, investment, GDP, urbanisation and resource use, which pushed the biophysical system close to its limits in terms of increases in ozone, ocean acidification, surface

temperature, etc. Radical transformation pathways are now needed, he said, to address the scarcity of resources and the risks on natural and human systems, and to meet the Sustainable Development Goals. There is a growing sense of urgency in EU policy proposals, which is reflected in ambitious R&I programmes. Because the problem drivers are interlinked and the solutions are interconnected, a systemic approach in innovation policy is needed to address all the elements and their complexity. The ‘R&I Missions’ were thus created to organise and focus the transition in a coordinated way, in order to achieve the objectives within the planetary boundaries. The principles of the Missions are: bold, inspirational with wide societal relevance; targeted, measurable, and time-bound; ambitious but realistic research and innovation actions; cross-disciplinary, cross-sectoral, and cross-actor innovation; and multiple, bottom-up solutions (see Figure 3). The concept of frugality is compatible with this approach.

A similar ‘mission approach’ in PRIMA could help to set the objectives in terms of a ‘transition timeframe’ with defined targets that shift away from the notion of ‘singular innovation’ and more towards ‘system innovation’. PRIMA could adopt a more holistic approach by following the innovation along the lifecycle with a gradual shift from lower to higher technological readiness (TRL), and adopting a long-term investment perspective combined with cross-sectoral ‘nexus’ calls focusing on collaboration and the exploitation of synergies.

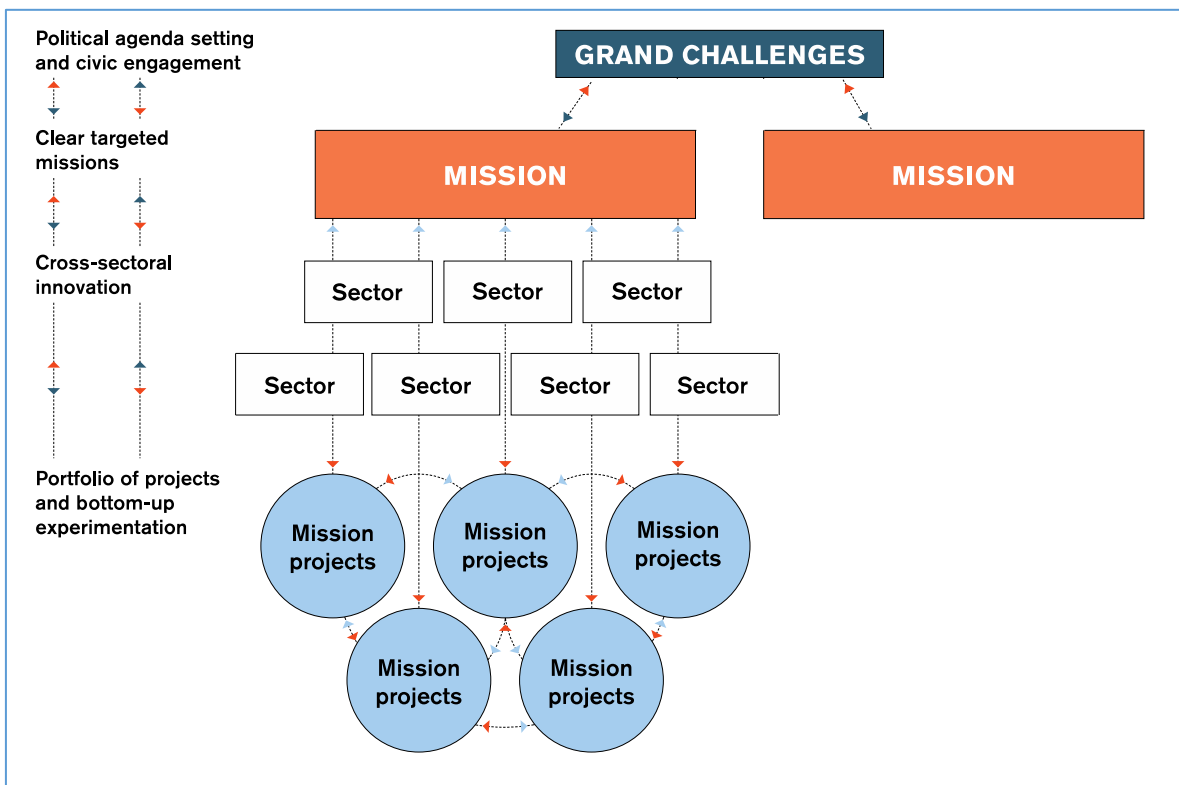


Figure 3: R&I Missions (Source: European Commission)

#### 4.3 Session 2 – Exchange of experiences and practices towards to the adoption of innovation

**Costas N. Papanicolas** from the Cyprus Institute presented on the subject, Experiences and practices towards the adoption of innovation: addressing climate change.

A multi-model, multi-scenario and multi-domain analysis of climate change projections for the Mediterranean shows strong warming in the entire Mediterranean and especially in the southern rim.

According to all climate models, the eastern Mediterranean and the Middle East region will be heavily affected by climate change with extreme weather (principally heat waves) and shortages of water and electricity. The changes will increase health-risk factors, putting agriculture and the tourism sector under strain while raising concerns over security and mass migration. Such enormous challenges require adaptation measures and mitigation of the potential impacts. To face the challenges of water and electricity shortages, renewables like the sun (solar power) and seawater (desalination) were proposed. Examples included a project run by the Cyprus Institute using coastal solar power to desalinate seawater (Figure 4).

This sort of ‘co-generation’ scheme seeks to take advantage of natural, renewable sources of thermal energy from various subsystems to produce electricity and water. Although climate change has dire regional and international implications, he stressed that disaster can be avoided through innovation and greater effort because “time is of the essence.”

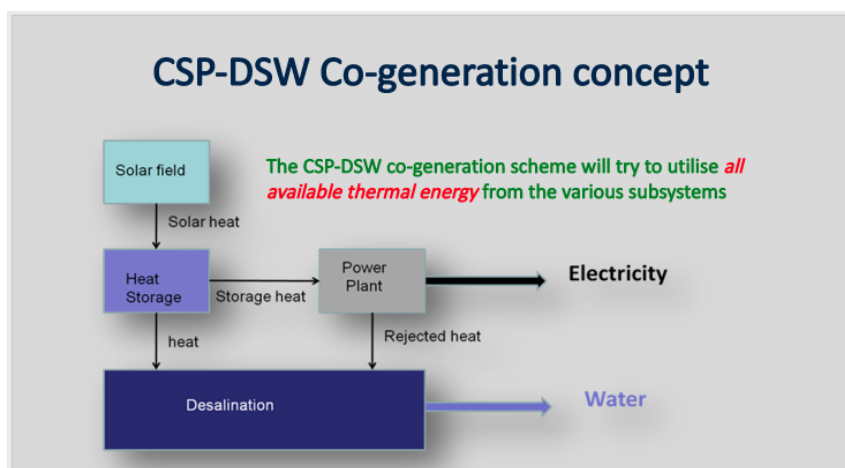


Figure 4: CSP-DSW Co-generation concept (Source: The Cyprus Institute)

**Paloma Mallorquin** presented the experience from the *Bio-Based Industries Joint Undertaking* (BBI JU).

This undertaking aims to support the development of sustainable and competitive bio-based industries in Europe using advanced biorefineries that source their biomass sustainably. In doing so, BBI supports new technologies and business models that integrate all economic actors along the value chain and sets up flagship biorefinery plants to keep investment in the EU. Currently, nine flagships are running, and the first seven of them are expected to generate more than EUR 1 billion of co-investment from industry (Figure 5).

BBI has demonstrated ‘structuring effects’ by contributing to the organisation of value chains across sectors, and by expanding them horizontally to include new processes, feedstock and actors not traditionally part of the bio-based economy. Exploring synergies with other initiatives is among the priorities of BBI. Currently, collaboration has been achieved with the SPIRE contractual public-private partnership, aiming at maximising synergies while avoiding overall duplication in terms of topic coverage and funding. At the **strategic level**, the partnership exploited existing complementarities by aligning research agendas. At the **implementation level**, it linked individual projects from separate calls. Finally, at the **communication and networking level**, it supported cooperation and networking among the BBI and SPIRE communities. BBI also introduced the **BBI Synergy Label** which provides certification of excellence for proposals that could not be financed, despite being highly rated, due to lack of budget. Supported by the certificate, the projects could seek funding from other initiatives.

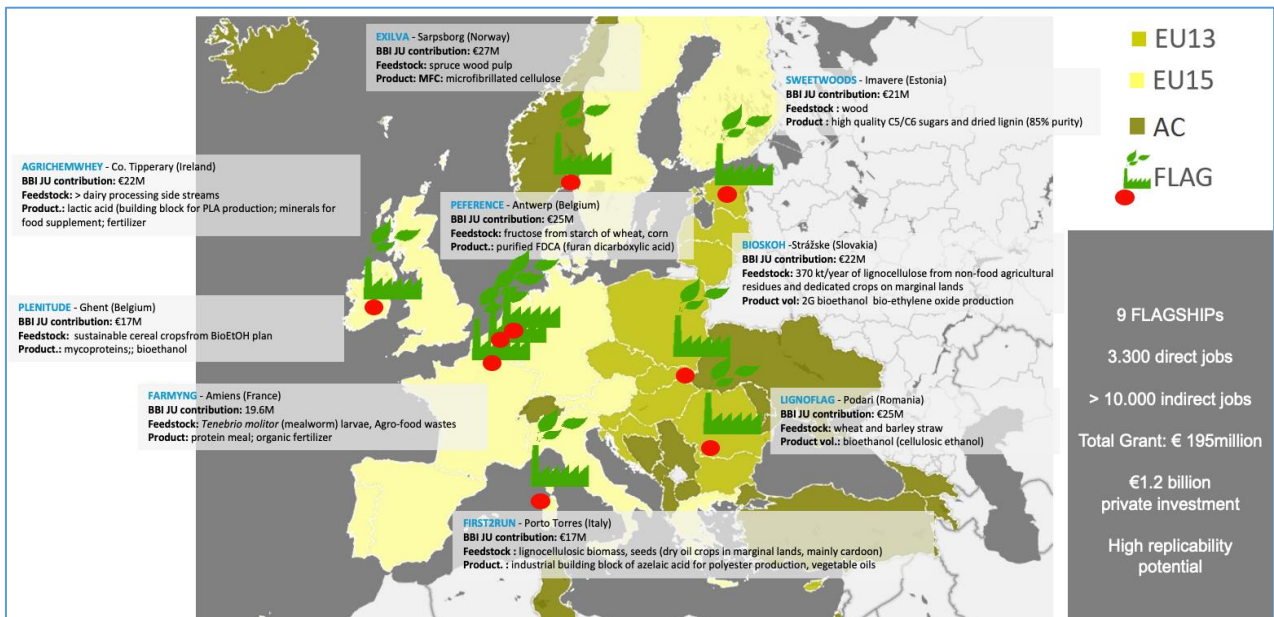


Figure 5: Delivering Innovation and Impacts: BBI JU FLAGSHIPS (Source: BBI JU)

**Roger Garcia** presented the *Switchers Support Programme*.

The Switchers Support Programme is under the European initiative SwitchMed and supports and connects stakeholders to scale up eco- and social innovations in the Mediterranean. SwitchMed is an initiative of the European Commission, DG NEAR, UNIDO, UN Environment, MAP and the Regional Activity Centre for Sustainable Consumption and Production. The main objective of the Switchers Support Programme is to build an **enabling ecosystem for green entrepreneurs**. The so-called ‘Switchers’ are people with great ideas in the areas of sustainable waste management, renewable energies and organic food and agriculture, but they lack skills or the financial resources to bring the ideas to the market. The programme provides a broad portfolio of services, from the formulation of the idea to technical assistance, development of the business model, networking, and access to market and financing (Figure 6).



Figure 6: Business Support Services to The Switchers (Source: Switchers Support Programme)

At the core of the programme is an incubation scheme supported by innovative training and mentoring. In order to overcome the significant problem of financing, the Switchers Fund has been created which initially provided grants, and is currently broadening its portfolio by including loan and equity funding. The related Business Support Services Facility has also proven successful as it has trained 1,622 green entrepreneurs and contributed to the creation of more than 150 green businesses and more than 1,000 jobs. New companies

and start-ups are the main drivers of the new and emerging business models needed for the transition towards sustainability.

**Tarek El Arabi** presented Mechanisms to Support the EU-Africa Research and Innovation Partnership on Food and Nutrition Security and Sustainable Agriculture (EU AU FNSSA R&I).

The Joint EU-African Union Strategy is set to make research and innovation a priority for addressing the challenges of food and agriculture. The collaboration led to the High-Level Policy Dialogue, established in 2010, through which the EU and the African Union designed a roadmap on food nutrition, security and sustainable agriculture (FNSSA). This roadmap has been supported by many projects funded by the EU. To support research and innovation, the Partnership has developed a Programme and Innovation Management Cycle (PIMC), and a Theory of Change and Impact Pathway (TCIP) (Figure 7). The latter explains how the inputs and resources are transformed through the various projects into outputs, results and impacts.

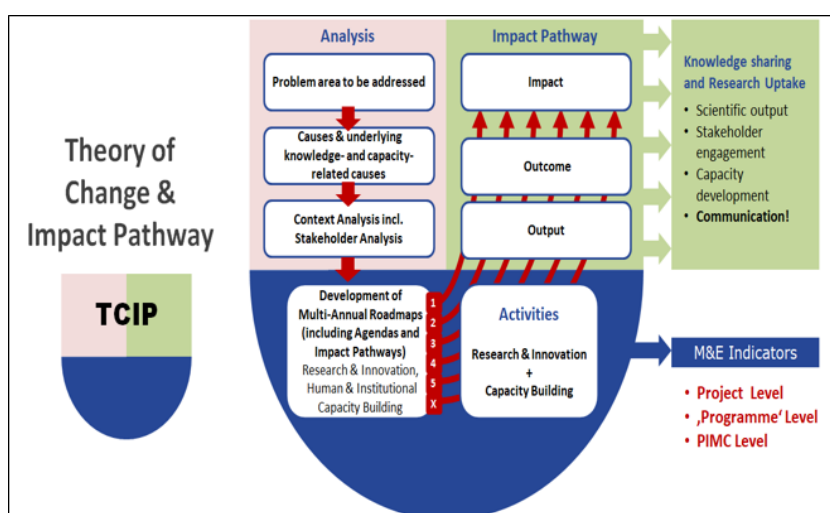


Figure 7:: Theory of Change & Impact Pathway (Source: EU AU FNSSA R&I)

Based on the results of the TCIP, the projects are clustered according to their contribution to creating networks and economies of scales in selected areas of impact. The PIMC identifies the gaps and necessary R&I investments, supports the diffusion of results and their transformation into applications. Then through assessment, the priorities for the next cycle of investments are identified. The challenge, he explained, is to bring EU and African countries together under one vision and address the same needs. In the Partnership’s funding network model, they have alliances in which they enter into dialogues with African regions.

**Questions to the panellists and audience:**

How can we promote synergy, what should we do?

How can we generate impact, how to involve industry, how the research results and the knowledge created by PRIMA can be transformed into practical solutions?

**Discussion:**

The discussion among the audience and with the panel touched on different aspects of the above questions, and several ideas were proposed.

Measuring the outcome and impact is essential. Some initiatives have come up with interesting approaches, such as the TCIP, and other initiatives could learn and benefit from that experience.

Currently, PRIMA projects with research and innovation activities include among the partners, one or more users of the results. However, this is not sufficient for the results to reach the end-users. An option is to make 'innovation pathway plans' - with a supporting budgetary and results exploitation roadmap for wider possible dissemination - a mandatory requirement. In addition, PRIMA could select the five best projects in terms of maturity and exploitability of their results and support follow-up dissemination activities.

Generation of impact could also be an area for collaboration and the exploitation of synergies among initiatives. A concrete example is the opportunities provided by the collaboration between PRIMA and the Switchers programme. PRIMA projects with results that have commercialisation potential could participate in the Switchers support programme to receive the necessary guidance and funding to transform the results into a viable business proposition that could reach the market. Another possibility could be a collaboration between PRIMA and BBI JU. Since the latter already has industry onboard as a partner, it would be easier for results produced by PRIMA to be absorbed by industry through bilateral collaboration. However, such an approach requires the launch of joint projects which, for the time being, is not feasible for BBI JU. Another aspect that needs to be further investigated is the identification of themes of common interest that could be the base for joint projects between the two Partnerships.

Within initiatives, information about projects is usually disseminated in order to allow projects to explore possibilities for collaboration. For example, organising workshops during the kick-off of projects where the participants identify synergies and set up a work plan for activities, such as joint data collection as well as joint missions, workshops and dissemination activities. This practice could be introduced in PRIMA, but also apply across initiatives. This is an area where the Commission could intervene and set up collaboration platforms across initiatives that can facilitate dialogue and collaboration systematically.

#### 4.4 Session 3 – Exchange of experiences and practices towards national programme alignment: infrastructure sharing, North and South relationships

**Maurice Héral** presented the FACCE-JPI: towards sustainable agriculture in a changing climate and the Water JPI.

The Joint Programming Initiative on Agriculture, Food Security and Climate Change is one of ten joint programmes launched since 2008 for tackling today's 'grand challenges' with a European dimension. The FACCE-JPI focuses on sustainable agriculture in a changing climate and works on issues that lie at the intersection of agriculture, food security and climate change, and therefore involve many different disciplines from natural and social sciences. It is a global partnership composed of 20 member states, three associated countries and one third-country. The Strategic Agenda of the FACCE-JPI identified five research themes: food security under climate change; sustainable intensification of agricultural production; synergies between food supply, biodiversity and ecosystem services; adaptation to climate change in the agricultural sector, and mitigation of agricultural greenhouse gas. The programme's recent joint actions, such as Community-supported agriculture (CSA) on agroecology and living labs, CSA on soil and land management, but also the FOSC ERA-NET on food systems and climate change, are areas of potential cooperation with PRIMA. FACCE-JPI's goal is to contribute to European leadership in the transformation of agricultural systems. The objective is to establish sustainable and resilient agricultural production systems that could contribute to the mitigation of greenhouse gas emissions and adapt to changing environmental conditions, while providing food and nutrition security. It demands a rethink of how we produce food, reduce waste and losses, and calls for an agroecological approach that safeguards biodiversity and ecosystems services.

The objectives of the Water JPI are to provide and steer research and innovation in the water sector, reaching effective and sustainable coordination of water R&D and innovation programmes, while harmonising national Water RDI agendas and activities in partner countries. The vision of Water JPI for 2020 is to achieve sustainable water systems for a sustainable economy in Europe and abroad. Water JPI partners currently



represent 88% of the European national public RDI investments on water. The JPI's activities include the development of a shared vision and strategic R&I agenda through: exploratory workshops; knowledge transfer and dissemination; infrastructure for data sharing; capacity building; and stakeholder involvement supported by networking workshops that engage the market and influence policymakers (Figure 8).

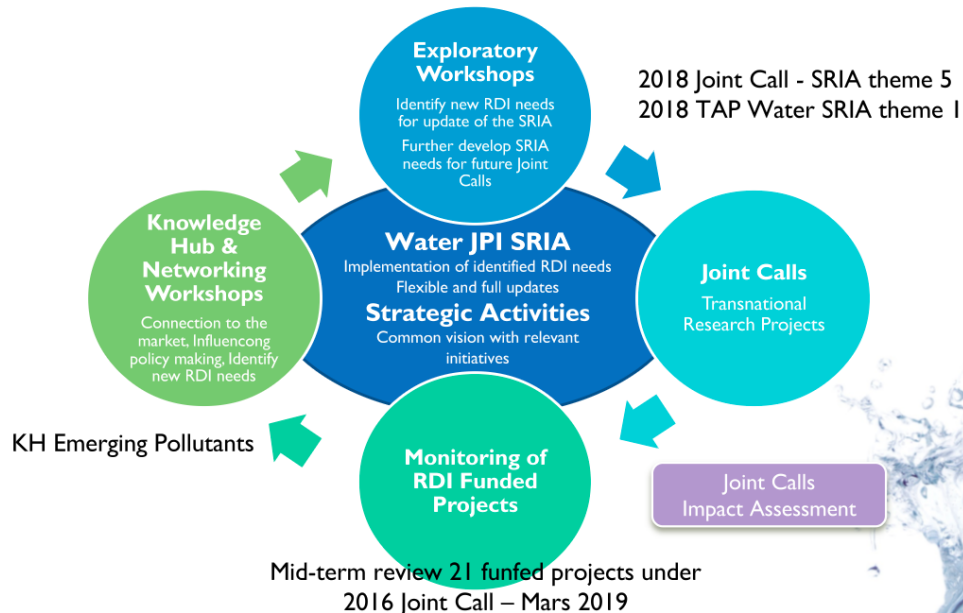


Figure 8: Thematic Activities of Water JPI (Source: Water JPI)

An example of the Water JPI's actions significantly contributing to the alignment of policies is the Knowledge Hubs for knowledge exchange, exchange of results, mutual learning, development of common practices, preparation of policy briefs, joint topic synthesis, harmonisation of protocols, etc. Currently, two Knowledge Hubs are running; contaminants of emerging concern and one related to the scarcity of the underground water; and new sources, treatment, recycling and reuse, the water-health-food-energy nexus.

Possible areas for collaboration with PRIMA include the alignment of research agendas in the field of contaminants and preparation of joint calls. Collaboration is also possible in other areas, for example, in agroecology which could be the next call in 2021. Another area is the share of good practices for selection of projects, data management and access, personal data protection.

**Question:**

What will be the advice to PRIMA on how to deal with the alignment issue? JPI Water set up an Alignment Task Force and it is also one of the three goals of FACCE.

**Answer:**

The priority is to create a Strategic Research and Innovation Agenda (SRIA), which represents different national positions on various challenges. Then at the national level, the joint agreements should be included in the background documents to be considered by national policymakers. There are countries, such as Ireland, that are building their national priorities in direct connection with the SRIA on Water.

**Martin Heibel**, presented ENI CBC MED: the programme in brief and the outcomes of standard and strategic calls for proposals.

The ENI CBC MED Programme is one of the Cross-Border Cooperation actions of the European Neighbourhood Policy. The main features of this cooperation are a balanced partnership and co-ownership where EU Member States and neighbouring countries have an equal say in the programme and project decisions and enjoy common benefits. The general objective of the Programme is to foster fair, equitable and sustainable economic, social and territorial development, which may advance cross-border integration and valorise participating countries' territories (Figure 9). Its strategy is divided into two overarching objectives: to promote economic and social development, and to address common environmental challenges. The first objective has three focal points: support business and SME development; support for education, research, technological development and innovation; and promotion of social inclusion and the fight against poverty.

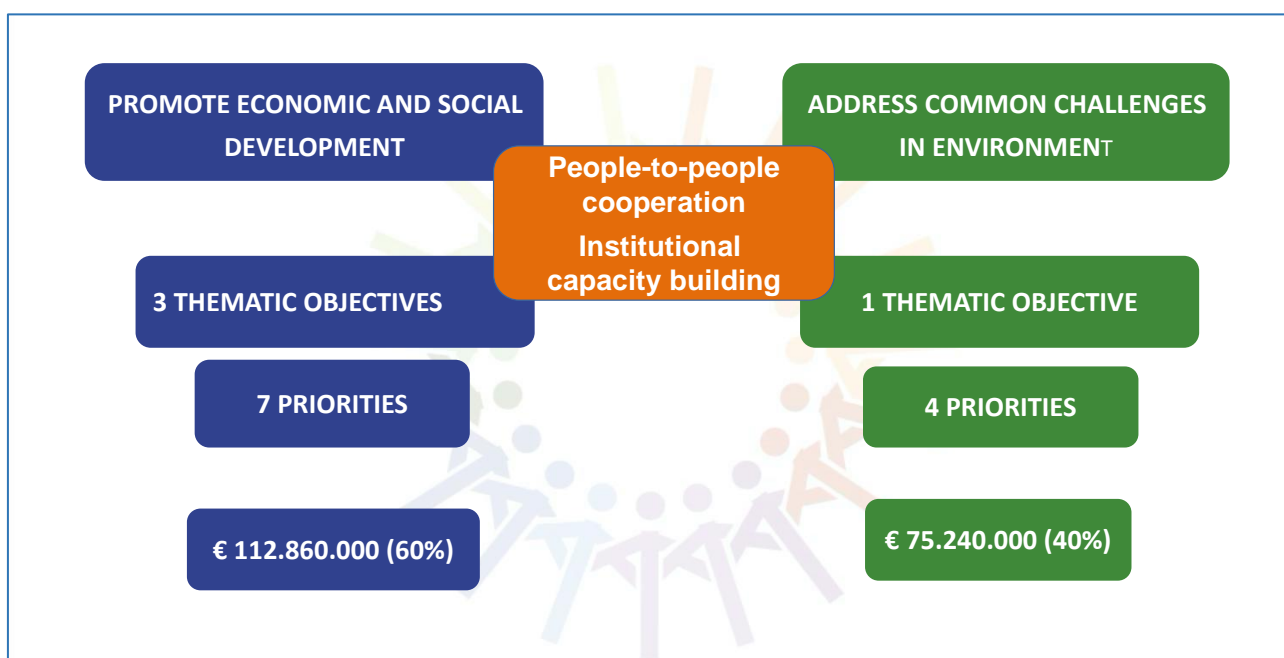


Figure 9: Overview of the ENI CBC Med Programme (Source: ENI CBC Med)

The second objective focuses on environmental protection, climate change adaptation and mitigation.

The Programme is not research-oriented, but rather focuses on the application and implementation of R&D results. Therefore, synergies with PRIMA are important since the Partnership's research results could be undertaken by the MED Programme for diffusion, exploitation of results and upscaling. Some of the ENI CBC projects are working in areas relevant to PRIMA, such as water management and agri-food, and collaboration in these could include the sharing of knowledge, good practices and capacity building.

**Question:**

If you have to give three pieces of advice to PRIMA what they would be?

**Answer:**

- Building trust at the programme and project level is very important
- Persistent capacity building is important as partner countries' experience is not always sufficient;



- Lobbying together with national policymakers in Brussels is needed as the European Commission’s hierarchy is not always aware of what the initiatives are doing

**Ana Lucia Weinberg** presented the EDCTP: European and Developing Countries Clinical Trials Partnership, a unique partnership for the coordination of national research agendas.

The partnership includes 14 European countries, two aspirant members and 16 African countries. Its vision is to reduce the social and economic burden of PRDs in sub-Saharan Africa by enhancing research capacity and accelerating the development of new or improved medical interventions against poverty-related diseases (PRD) through all phases of clinical trials. The vision, mission and the implementing approach are illustrated in Figure 10.

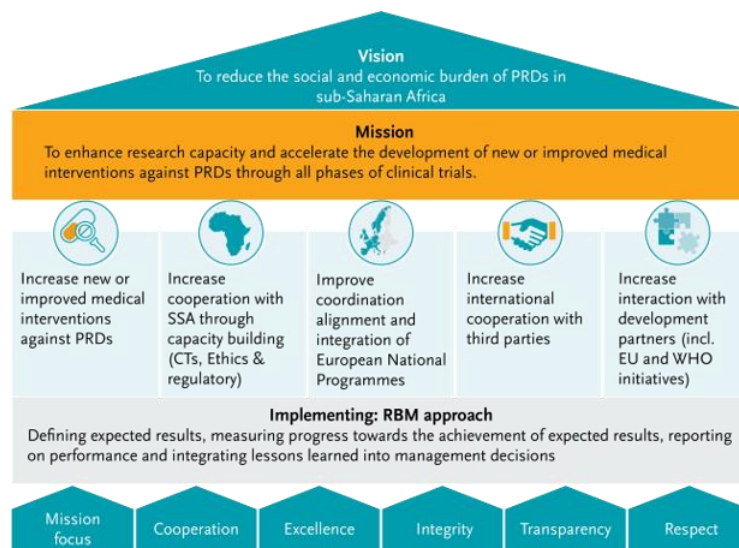


Figure 10: EDCTP Strategic Approach (Source: EDCTP)

So far, the Partnership has allocated total funding of EUR 551.66 million awarded to 247 projects. The EDCTP act as a catalyst for aligning research agendas, therefore it allows coordinated decision-making and coordination of research agendas for tackling PRDs between North-South membership. EDCTP also supports research that could not have been delivered by one single EU Member State alone. Moreover, by pooling resources EDCTP reduces fragmentation and duplication, and it increases coordination of national research programmes. EDCTP is considered a unique pooled funding mechanism for supporting clinical trials through cash contributions via calls for proposals with funding from member countries (Participating States) and through in-kind contributions via the Participating States Initiated Activities (PSIAs). The latter are activities funded and managed by single or several Association members that fall within the scope of the EDCTP programme.

Areas of possible synergies between PRIMA and EDCTP include the exchange of experience through events or coordination platforms, even staff exchanges for several weeks or months. Synergies between different initiatives should encompass political, institutional, operational, financial and legal aspects. The two programmes could share practices related to the practical implementation of article 185 requirements, such as collection and reporting of financial commitments, setting up programme priorities, and a process for awarding funds. Also, joint visibility actions could be envisaged. Another area for exchange of experience is the engagement of international partners, and private-sector partners.

**Question:**

You mention equal treatment, do you have any practical advice how to achieve this?

**Answer:**

Equal treatment is important at the level of governance/representation, at the management, and at the level of projects. Regarding governance, EDCTP changed its management structure in order for African countries to be represented more equally. On projects, researchers from North and South are working closely. Moreover, authorship is important as it gives opportunities to southern participants to be lead authors and to make African researchers more visible in the presentation of results.

**Giuseppe Provenzano**, presented the Euro-Mediterranean intergovernmental institution, the Union for the Mediterranean (UfM)

The UfM represents 43 member countries and its mission is to enhance regional cooperation and dialogue through the implementation of concrete projects and initiatives addressing human development, stability and integration in the areas of sustainable development (water, energy, transport, etc.) and human development (higher education and universities, etc.). The UfM is governed by Co-Presidency, Senior Officials’ Meeting (SOM) and Secretariat. The goal is to ensure coherence between activities as well as equal footing and representation of North and South members. The UfM Secretariat builds relationships and synergies with all the members of the Euro-Mediterranean community and other relevant stakeholders. The UfM’s three main policies include the running of Political Fora to enhance regional dialogue, running a platform for regional policy dialogue, and supporting projects with regional impact.

The UfM Political Fora aims to strengthen regional dialogue while the ministerial meetings define UFM’s work priorities through the adoption of common agendas in key strategic areas. The Political Fora give political impetus, set regional priorities and consolidate action-oriented approaches. The regional dialogue platform is open to the ministries and relevant stakeholders. Based on the orientations provided by ministerial mandates, the platforms offer the opportunity to recommend and define priorities, promote a Mediterranean agenda, exchange best practices on regional challenges, increase regulatory harmonisation, and identify concrete actions. Finally, the projects with regional impact include more than 50 regional cooperation initiatives worth more than EUR 5 billion which are illustrated in Figure 11.

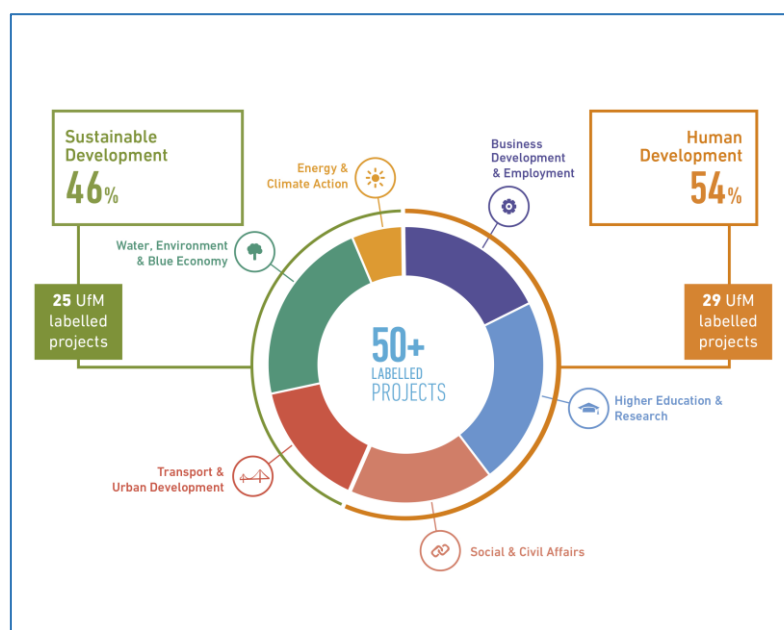


Figure 11: Regional cooperation initiatives supported by UfM (Source: The UfM)

**Question:**

To elaborate more in the areas of complementarities, we can see here potential to strengthen the voice of the regions. Are there other concrete thoughts about synergies with PRIMA?

**Answer:**

The UfM is an important partner in the region, working together with other initiatives, the OECD and financial institutions. In cases of thematic relevance, it tries to connect the important actors and create synergies. The UfM is already working with PRIMA, but this collaboration can be scaled up. There is also the possibility of taking stock of what the sectorial dialogues are achieving. For example, if there is a specific dialogue for water, the agreed priorities are endorsed in the 43 member countries. Members of PRIMA are also members of the UfM, and therefore the policy-relevant results of PRIMA can influence national policies.

**Cristina Huertas**, presented the Research Infrastructure LifeWatch ERIC (European Research Infrastructure Consortium).

LifeWatch is an ICT-based infrastructure focusing on the understanding of biodiversity and ecosystems, to address key planetary challenges. In that regard, it is mainly developing technology in virtual research environments and related e-services, particularly when big data and complex data sources need to be integrated, analysed and modelled. More specifically, LifeWatch gathers data for biodiversity and ecosystems, and it supports the aggregation, interoperability, analysis and modelling of data (Figure 12).

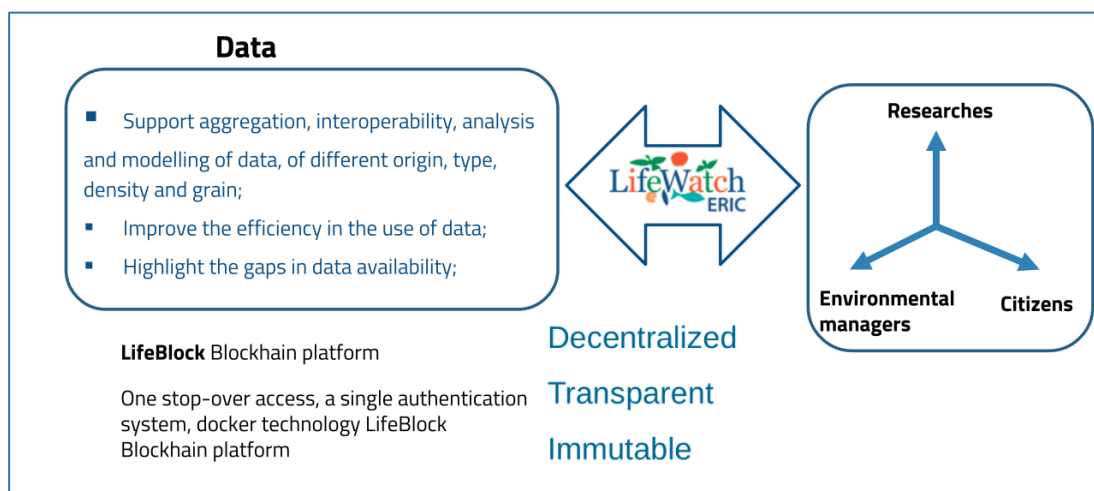


Figure 12: LifeWatch ERIC system (Source: LifeWatch ERIC)

Thus, LifeWatch improves efficiency in the use of data and highlights the gaps in data availability. It is also developing a blockchain platform called LifeBlock for one-stop (decentralised, transparent and immutable) access to research infrastructure.

LifeWatch has cooperated with PRIMA in the Andalusia region, to tackle biodiversity and ecosystem research and sustainable management in the Mediterranean area in a global climate change scenario. Further potential synergies with PRIMA include: LifeWatch ERIC could be a source for data for PRIMA projects and a place for storage and sharing of PRIMA data. Both initiatives could launch joint calls and run joint projects. Collaboration would help to increase the participation of more Mediterranean countries in LifeWatch ERIC, and especially of young researchers.

**Question:**

Is there the possibility for southern Mediterranean countries to use the services of LifeWatch ERIC?

**Answer:**

All countries eligible to participate in Horizon 2020 can join, other Mediterranean countries can also join as observers.

**Claudia Zoani**, presented Building synergies in support to the agri-food: MetroFood-RI and other integrating initiatives.

The food industry is the most important manufacturing sector in Europe, with many companies involved in the various segments of the value chain. At the same time, it is highly fragmented at both the production and research level. Moreover, there is increasing complexity in the handling of information and data, and therefore big data approaches are necessary. In addition to food integrity, including ethical aspects, sustainability and innovation are also increasingly important in the world food chain. In this context, metrology could contribute to addressing those issues. The general objective of MetroFood is to enhance scientific excellence in the field of food quality and safety by promoting metrology in food and nutrition, allowing coordination on a European level and increasingly on a global scale.

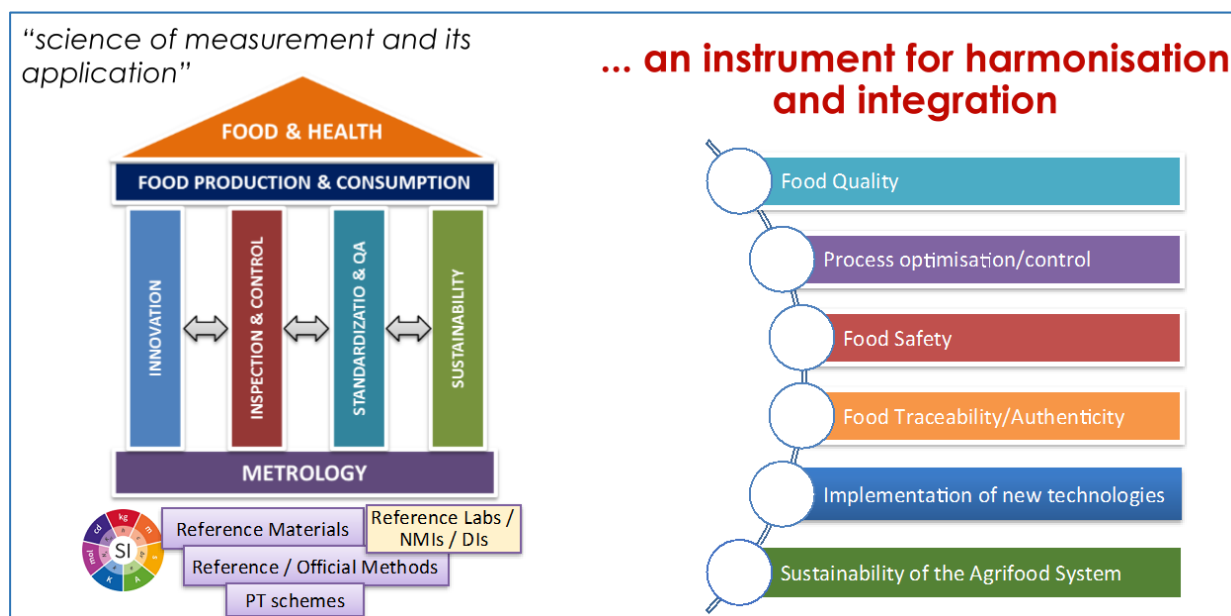


Figure 13: Metrology in support to the Agrifood sector (Source: Metro Food)

It also aims at collaborating with the European Strategy Forum on Research Infrastructure (ESFRI) for realising, connecting and integrating ecosystems of resources. MetroFood thus focuses on providing high-level metrology services in food and nutrition for enhancing food quality and safety. The current consortium of MetroFood includes 48 institutions from 18 countries. Since MetroFood’s current activities are related to improving cooperation in the Mediterranean area, it is strongly complementary to PRIMA, in terms of the topics addressed and the countries involved in the initiatives.

The infrastructure of MetroFood is composed of a physical research infrastructure (RI) and an e-research infrastructure. The physical-RI is made up of a network of plants and labs for RM development, analytical labs, experimental farms, and facilities for food processing and storage. The e-RI is a platform to integrate all the data arising from the physical infrastructure with data coming from other infrastructures dealing with food and nutrition. MetroFood is currently in a preparatory phase, working on developing synergies and complementarities between new and existing infrastructures, and other initiatives such as PRIMA, contributing to the development of a consistent European RI ecosystem.

**Question:**

The two initiatives you presented are good examples for future cooperation with PRIMA, especially the first one with the creation of the data platform. How do you think that you could collaborate together?

**Answer:**

The key is working together to create one approach. There is a big issue related to the blockchain. Everyone is talking about the blockchain approach, but there is a high risk of thousands of blockchains being developed instead of working together on one single blockchain. Also, data and data formats need to be harmonised and standardised

**Questions to the panellists from the audience:**

**To Maurice Héral:**

- *In your presentation, you mentioned the possibility of a joint call with PRIMA. There are practical difficulties due to different rules, different timing etc. I would like to know what you expect.*
- *Several projects in Water JPI, for example, are closed or about to close. Could you suggest good practices on how to measure the impact of the funded projects and assess the sustainability of the projects?*

**To Martin Heibel:**

- *In ENI CBC MED, there are participating countries, but do they contribute financially?*
- *I understood that you support capacity building. How do you avoid brain-drain so that people from the South do not stay in the North instead of returning home?*

**To Ana Lucia Weinberg:**

- *Are Participating State Initiated Activities (PSIAs) for one country, or do several countries from the North and the South need to be brought together?*

**To Cristina Huertas and Claudia Zoon:**

- *Would it be possible to add mobility activities in your projects and host in your premises researchers from all the PRIMA countries to use your infrastructure for their research?*
- *How should we proceed and provide you with the data from the PRIMA projects? Are the two platforms compatible or connected?*
- 

**Answers:**

**Maurice Héral:**

- Obviously, there is a mutual interest for Member States to avoid the overlapping of topics by different projects. Take the example of FOSC ERA-NET. The topic was proposed by FACCE and the European Commission, but one year later the participating agencies put various requests on the table. We finally managed to put all the three agencies together and co-design the content. After that, they could attract funds from their countries.
- What is important also for PRIMA is that you cannot rely only on Mediterranean countries to address some issues, as other European or third-countries (e.g. the Netherlands, US, Canada) might have the know-how to provide solutions. So even if you want to focus on the Mediterranean region, you need to have an international perspective when it comes to collaboration and finding solutions. If it is not possible, you need to have good connections or visibility.
- Following the question about the impact, there are two examples: the first is the FACCE project about modelling the impact of climate change on agriculture. Over one hundred teams were comparing the different models. After five years, the key output or deliverable was a strong recommendation to use one of the models. The impact of the project was significant, leading to an International Panel adopting the recommendation on Chemical Pollution (IPCP).

- The other example comes from Water JPI. The projects working on water contamination issues produced inconsistent results on anti-microbiotic resistance. To address the issue, we got the projects to work together. Finally, through their collaboration, they achieved a common data set and a common position paper for stakeholders and policymakers.

**Martin Heibel:**

- Regarding countries' contributions, 90% is covered by the European Union, and at present, there is no national contribution. Country financing is a complex issue. When the projects are evaluated and selected, then Member States can contribute if they want. However, it is not about money. The contribution of the Member States has more to do with coordination and shared responsibility between the many organisations involved in these projects. This is especially important when they want to maintain a competitive framework with calls for proposals which are evaluated externally.
- Regarding the capacity-building issue, our objective is to have organisations from partner countries that are able to propose and submit equally competitive proposals as European partners with more experience and capacities. Therefore, we do training and expertise-sharing, teaching people how to deliver successful proposals. We do not have the capacity to stop the brain-drain. Still, there are examples where, thanks to the support of our programme, PhD candidates were able to do their thesis in a Mediterranean country (e.g. Tunisia) instead of a European country.

**Ana Lucia Weinberg:**

- PSIA's are not required to be funded by more than one country, indeed they are usually submitted by one country. Collaborative PSIA's is an option, and we see more and more of them. However, the majority come from one country, the European Commission matches funding only for PSIA's from European countries. The commitments of European countries through the PSIA mechanism amount to EUR 935 million. However, less than 1% has been approved by the European Commission.

**Claudia Zoani:**

- All PRIMA countries can have access to our infrastructure, and yes, we can organise mobility projects or other activities.
- Regarding the integration, yes, we need to address the issue. Although we started from two different areas of ESFRI, the fields of food and environment are common to both infrastructures. Therefore, we need to work together on harmonising the approach.

**Cristina Huertas:**

- It is possible to host researchers, we have space, we have the will, and in a few weeks we will have the funding as well. Our budget is EUR 64 million, and 5% will go to international initiatives including PRIMA. Soon there will also be a possibility to organise an exchange programme together.
- Regarding the blockchain, there is an overlapping between the two infrastructures, and we need to see how we can coordinate this.

#### 4.5 Session 4 – Dissemination of good practices, knowledge transfer, capacity development

**Maroun Moujabber**, presented the Centre International de Hautes Études Agronomiques Méditerranéennes, Bari (CIHEAM).

CIHEAM is a network of five institutes with four of them located in the Mediterranean area. It was founded in 1962, and today 13 countries are members. The goal of the CIHEAM is to promote the sustainable development of agriculture and fisheries, and to improve food and nutrition security in rural and coastal areas. CIHEAM Bari is one of the institutes, and it offers post-graduate education, training, applied scientific

research and international cooperation activities. It does not cater to PhDs, but does help former students financially to continue with their PhDs (Figure 14). To date, CIHEAM has supported more than 100 students.

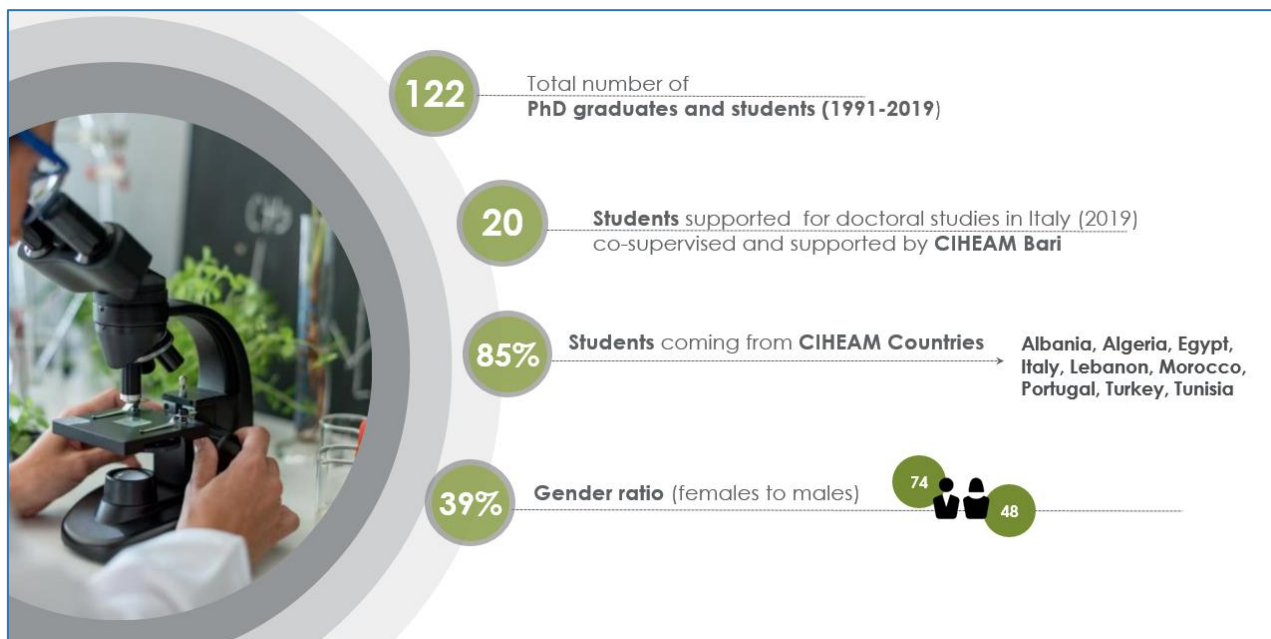


Figure 14: Support to Doctoral Studies 2019 (Source: CIHEAM)

Apart from country members, CIHEAM has participated in projects in several African countries including two ERA-NETs; one in agriculture and one geographical covering the Mediterranean area. In total, 80 projects have been funded, or close to finishing. So there is an opportunity for collaboration with PRIMA to take the most promising projects to the next level. CIHEAM is now diversifying its funding sources, for example, by engaging in a joint action between the EU and Member States on 'Climate-relevant innovation through research in agriculture' in Africa. The joint action is part of the Development of Smart Innovation through Research in Agriculture (DESIRA) initiative.

**Phoebe Koundouri**, presented The sustainability transition has started – will it happen fast enough?

The Sustainable Development Solutions Network (SDSN) promotes integrated approaches to implement the Sustainable Development Goals. The initiative has a lot of national and regional networks all around the world. It has a 'systems innovation' approach which works in the triangle of education, research and innovation, and entrepreneurship. The idea is to bring solutions that are developed within research institutions and universities to the rest of the society, to help it implement the Sustainable Development Goals. Among the relevant examples is the EIT Climate-KIC which is a European initiative working to accelerate the transition to a zero-carbon economy.

In addition to its cross-cutting activities, the SDSN Greece has a thematic focus on sustainable shipping and managing marine resources, sustainable energy and energy security, sustainable water-food-energy nexus, and sustainable tourism and biodiversity, and culture. The network has participated in several projects worldwide, among others the AWESOME project aiming at managing water, ecosystems and food across sectors and scales in the southern Mediterranean (Figure 15).



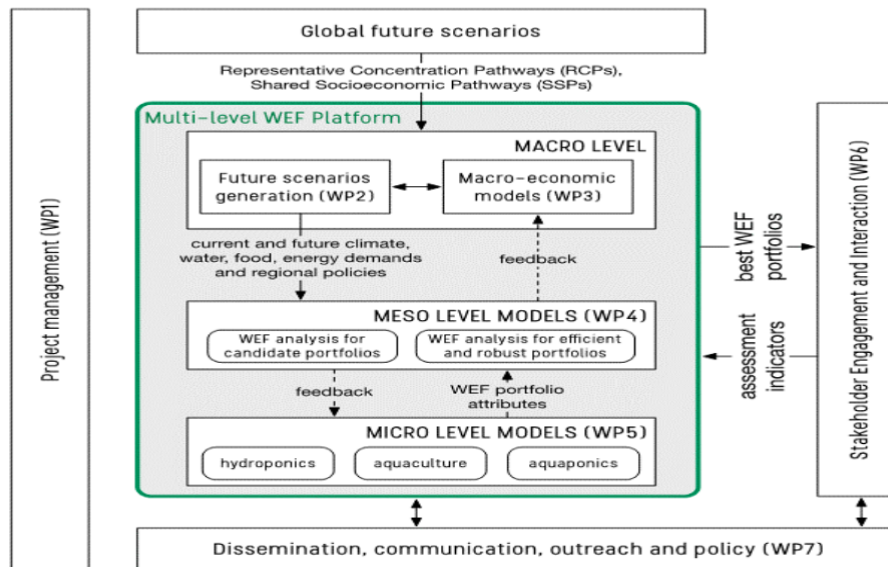


Figure 15: AWESOME Project (Source: SDSN)

Another example is the DAFNE project, a decision-analytic framework to explore the water-energy-food nexus in complex and transboundary water resource systems of fast-growing developing countries. Among the education and training activities, the ‘Pioneers into Practice’ programme supports professional mobility via placement, training on innovative methodologies developed within the Climate KIC, mentorship for improving innovative ideas and skills, and participation in solving challenges in the real environment. Another example is the Circular Learning Hub (CL-Hub) for the engagement and transition of the ecosystem towards circular thinking, designed for investors and entrepreneurs.

**Charles Kleinermann**, presented International Centre for Agricultural Research in Dry Areas (ICARDA).

ICARDA is a decentralised R&D international institute focusing on dryland agri-food systems that combine component and systems research. ICARDA works in India, Morocco, Latin America and many other countries. The main research fields include genetic resources, plant breeding, crop management, and soil and water. ICARDA was acting for the MENA region through initiatives like DryArc targeting the driest agricultural regions which are also the most vulnerable to climate variability and change. Among the activities is the DryArc Academy which focuses on reinforcing the exchange of research practices/innovations/public-private partnership in the Mediterranean region (Figure 16).

Synergies with PRIMA and other initiatives could be strengthened by linking regional research initiatives funded by PRIMA through a systems approach with CIHEAM/ARI’s/NARS in the Mediterranean region. An example is the partnering with PRIMA on the International Symposium on Farming Systems that will take place in Tunisia in 2021. Another opportunity for collaboration is in setting up a MENA DryArc Academy on Research and Innovation, institutional, as well as organisational strengthening on subjects such as leadership, entrepreneurship, innovation, monitoring and evaluation of public-private partnerships. An example is the Master’s Programme with CIHEAM Zaragoza on Water, and a Master’s on Farming Systems with CIHEAM Montpellier. In addition, synergies could be created by linking research to development through partnering with UN Agencies working within the MENA region on livelihood development through the establishment of a network and linking research results and best practices/innovations for scaling.



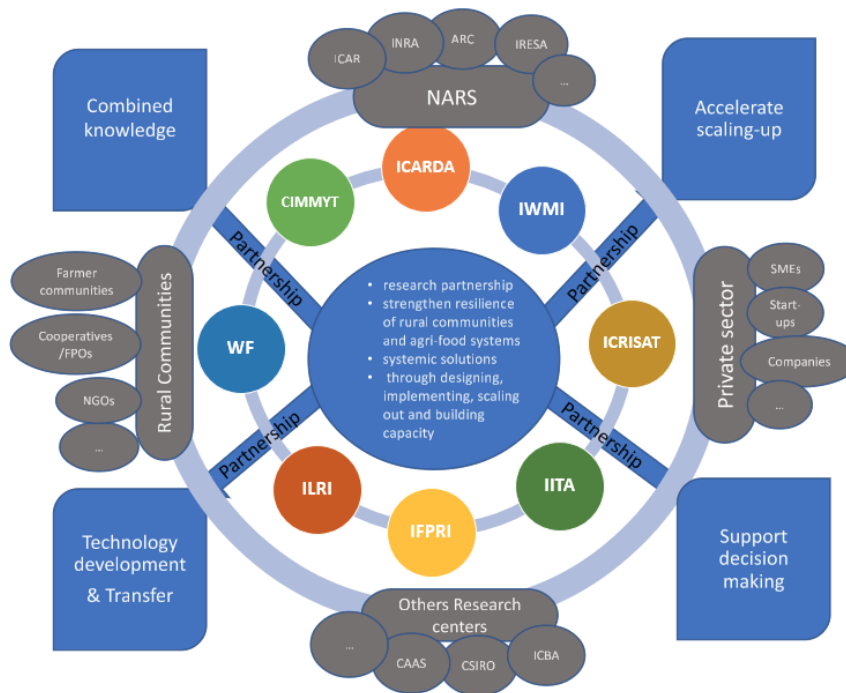


Figure 16: DryArc: a Global partnership for the Drylands (Source: ICARDA)

**Andy Zynga**, presented the EIT Food: improving food together.

EIT Food’s goal is to transform the food system by building an ecosystem of partners working together to solve complex societal challenges by deploying innovative solutions. As consumers play a crucial role in the food system, EIT Food puts the consumer at the centre of its ecosystem which works towards six strategic objectives: address low consumer trust in food; create consumer-valued food for better nutrition; increase the connectivity and transparency of the food system to provide added value for the consumer and industry at the same time; increase the sustainability of food through resource stewardship by decreasing freshwater withdrawals and greenhouse gas emissions; address the shortage of scientific, entrepreneurial and managerial skills in the food sector that are needed to solve complex multidisciplinary challenges; and make the food sector more entrepreneurial and innovative by increasing the number of successful start-ups.

The ecosystem comprises 55 core partners, including large corporations, SMEs, universities and research centres from all over Europe, and EIT Food is working towards recruiting more partners. Activities include four functional areas: innovation, business creation, education and communication. Its education programme has three pillars: the Academy, the Studio, and the Field (Figure 17). The Academy provides formal education to students and professionals offering a Master’s degree in food systems with the objective of developing new business ideas. The Studio offers summer schools and entrepreneurship courses aiming at co-creation and the generation of impact. The Field targets pupils, citizens, consumers and SMEs by seeding ideas and solving problems in the food sector. To empower talented teams to co-create and share experiences on excellent ideas, EIT Food provides the Innovators Fellowship Training.

Academy	Studio	Field
<i>Develop core competences</i>	<i>Co-creation of impact</i>	<i>Seeding ideas</i>
<ul style="list-style-type: none"> <li>• Certified pathways</li> <li>• Strategic Objectives 4, 5, 6</li> </ul>	<ul style="list-style-type: none"> <li>• Key to demonstrate KTI</li> <li>• Strategic Objectives 1-6</li> </ul>	<ul style="list-style-type: none"> <li>• Building knowledge</li> <li>• Strategic Objectives 1-4</li> </ul>
<ul style="list-style-type: none"> <li>• Students (MSc/PhD)</li> <li>• Professionals</li> </ul>	<ul style="list-style-type: none"> <li>• Students, entrepreneurs, industry, social actors</li> </ul>	<ul style="list-style-type: none"> <li>• Pupils, citizens, consumers</li> <li>• SMEs</li> </ul>
<b>Master in Food Systems</b>	<b>Inspire programmes</b>	<b>Discover</b>
	<ul style="list-style-type: none"> <li>• Summer schools</li> <li>• Intrapreneurship courses</li> </ul>	<ul style="list-style-type: none"> <li>• WeValueFood (GC S05)</li> </ul>
<b>EIT Food Fellowships</b>	<b>Food Solutions</b>	<b>Engage</b>
<ul style="list-style-type: none"> <li>• Global Food Venture (PhD)</li> <li>• Frontrunners (graduate)</li> <li>• Innovator (postdoc)</li> </ul>	<ul style="list-style-type: none"> <li>• Food solutions projects for industry</li> </ul>	<ul style="list-style-type: none"> <li>• MOOCs for a general audience (educational arm of citizen engagement)</li> </ul>
<b>Advance (prof dev't)</b>	<b>Initiate</b>	<b>Grow</b>
<ul style="list-style-type: none"> <li>• Develop/enhance core competences</li> </ul>	<ul style="list-style-type: none"> <li>• Food solutions projects for societal actors</li> </ul>	<ul style="list-style-type: none"> <li>• SME workshops</li> </ul>

Figure 17: Education programme architecture (Source: EIT Food)

**Questions:**

**To Maroun Moujabber (CIHEAM):**

In your presentation you proposed collaboration with PRIMA for further supporting projects from ERA-MED that are close to their end. Could you please be more specific on how this could work?

**Question to all:**

What in your opinion are the elements missing or areas that PRIMA could contribute to in order to push research results out of academia and into the market?

**Answers:**

**Maroun Moujabber:**

- We have 50 on-going projects in ERA-MED on water and energy. The projects could be clustered together with relevant PRIMA projects to create a critical mass that could be funded by the Commission, PRIMA or Mediterranean countries. Last year, the 50 ERA-MED project coordinators met in Aqaba to start collaborating and preparing new proposal for PRIMA and other initiatives. Our responsibility is to put them into a certain framework, and they will find a way to move forward. There are opportunities because the Mediterranean countries are willing to provide support; 40% of the ERA-MED budget comes from them. Egypt for example, contributes more than Germany in terms of funding.
- What we missed in ERA-NETs is the funding of private companies; most European and Mediterranean countries don't fund them. However, if we want to support innovation, we should be able to fund private companies, too. Also, Euro-Mediterranean countries are not ready to support interdisciplinary projects, but if we want to create something big, we need to go in that direction.

**Phoebe Koundouri:**

- I also believe that it is very important to support the private sector and especially start-ups, if we want to boost innovation. KICs can extend their area of influence and partnerships without explicitly involving governments. This is something that is definitely needed if we are going to accelerate the research results and bring them to the market. There is no other way to do it unless you invest in incubating and preparing companies for market readiness. Currently, there is very little happening in the Euro-Mediterranean area in terms of acceleration and incubation.

**Charles Kleinermann:**

- ICARDA works with the private sector, with big companies present in many countries or with local companies. A lot of our work is to adapt technologies to the local situation and to their specific needs. However, the issue of intellectual property (IP) or relying on revenues from the private sector is complicated since we have a public mandate.

#### 4.6 Conclusions - wrap-up of the workshop and outlook on the next steps

Agri-food systems and water resources in the Mediterranean basin are deeply affected by climate change, unsustainable agricultural practices, over-exploitation of natural resources and broader social changes threatening the sustainable development of the region. Regarding climate change, all climate models predict that the eastern Mediterranean and the Middle East region will be adversely affected with significant negative impacts on agriculture, water resources and local economies. The complexity and interdependency of the problems demand coordinated efforts and the pooling of resources in research and innovation.

At the policy level, a systemic approach addressing all the elements and their complexity is necessary. The concept of **R&I Missions** could provide the required coordination and focus on key transitions. The application of this approach could help PRIMA to define its objectives in terms of the envisaged transition and to adopt a systemic approach and a long-term perspective on investments, combined with cross-sectoral nexus calls focusing on collaboration and the exploitation of synergies. For the support of innovation, a holistic approach that follows the innovation along its lifecycle, shifting from lower to higher technology readiness, is necessary. At the same time, local conditions and needs should be taken into consideration. The scarcity of resources and the low incomes in southern Mediterranean societies demand the use of **frugal innovation** approaches that deliver smart and simple solutions with the functionality that is really needed to improve living conditions among local populations. Frugal innovation is essential in agri-food as the relevance of established practices and knowledge is challenged by climate change, while new technologies introduce risks and new dependences on suppliers and platform owners. However, to be successful, a change of mindset towards simplicity and functionality is necessary. A frugal approach is beneficial for advanced countries as well, and the adoption of frugal lenses in Horizon Europe calls could increase the relevance of EU innovation strategies for poorer producers and consumers.

In countries with **weak and fragmented innovation systems**, support for innovation needs to be systemic by addressing the whole innovation cycle. For new or innovative ideas to reach the market, an entire ecosystem needs to be in place, **especially for start-ups**. In the absence of essential elements or strong linkages within the start-up ecosystem, initiatives aiming to support start-ups should develop the missing elements and reinforce the linkages covering the whole cycle, from the formulation of an idea to early-stage funding to prototyping to scaling up and eventual market readiness and internationalisation.

Coordination and pooling of resources requires exploitation of synergies among PRIMA, other European initiatives addressing challenges related to water and agricultural production, and participating Member States. Despite the barriers, there are also significant opportunities for collaboration which can be seen at strategic, implementation, learning and networking levels.

The coordination and pooling of resources require the **exploitation of synergies** among PRIMA partners, other European initiatives addressing challenges related to water and agricultural production, and among participating Member States. Despite the challenges, there are also significant opportunities for collaboration which can be seen at strategic, implementation, learning and networking levels.

At the **strategic level**, the alignment of members' research agendas and priorities could eliminate the duplication of effort and promote the pooling of resources to address the same challenges from different perspectives. Furthermore, the alignment of strategies between initiatives and participating Member States needs to go beyond the creation of SRIAs. In order to achieve the alignment, Agendas should be effectively communicated to participating Member States and inform the national policymaking process.

At the **implementation and project level**, the running of joint calls or co-funding of projects is the most obvious way to collaborate. However, joint calls also pose a challenge due to the differences in participation, eligibilities and funding rules, and the misalignment of implementation and payment schedules. A more pragmatic approach is to bring together projects from different initiatives with shared interests and encourage coordination during their implementation by co-organising events and joint missions or sharing infrastructures and results. Another approach, which requires more coordination among initiatives, is the creation of a pipeline of projects where initiatives support the projects at different levels of maturity with the aim of upscaling the eventual results. In this scenario, projects from other initiatives with low-TRL results could be supported by PRIMA to reach a higher level of market readiness. Similarly, research results of high TRLs produced by PRIMA projects could be supported by different initiatives to create start-ups and commercialise their output.

Common research infrastructures such as the **LifeWatch** and **MetroFood** could be used for storing and distributing the data produced by PRIMA projects. Projects can also benefit from collaborating either remotely or on the premises of the facilities/infrastructures in areas such as metrology and standardisation, agri-ecosystem characterisation, food analysis, food packaging testing and characterisation, and for improving food production and consumption.

Collaboration in **training and capacity building** is another area of cooperation at the project level, where PRIMA projects could benefit from services provided by other initiatives. The available services are quite diverse, and therefore a clear understanding of each PRIMA project's needs is important before selecting the most appropriate services. Several capacity-building services adopt an **early engagement approach**, focusing on students, while some focus on professionals and SMEs. Others target citizens to raise awareness and encourage behavioural change. The services also vary according to the type of knowledge and capacity building they offer, including:

- Scientific knowledge and research training (PhD or postdoc)
- Professional knowledge for farmers, professionals, SMEs
- Development of specific skills and competencies (leadership, entrepreneurship)
- Coaching activities
- Raising awareness and public engagement

**Mutual learning** at the level of the initiatives is also an area for collaboration with high potential to improve cooperation and the delivery of results. Learning from the experiences of others by sharing good and bad practices could focus on a variety of issues related to the content or the management of the initiatives. An issue that was regarded as very important by the Workshop participants is how to monitor and measure the impact of an initiative, and how to communicate the impact to the funding organisations and the public.

Finally, collaboration between initiatives could increase their **communication and networking** potential and strengthen the 'voice' of the region and its lobbying capacity. Cooperation could also expand the audience of the initiatives.

In addition to the above dimensions of collaboration among initiatives, there are specific issues that are important for strengthening the cooperation between North and South either within the same initiative or across initiatives:

- Adoption of an **equal footing and equal treatment approach** at the level of the initiative and the level of the projects where partner countries and organisations participate in all decisions, such as the criteria for calls, selection of projects, decisions at the project level, implementation decisions, etc.
- Ensuring **greater visibility** of the work/results by researchers from the South, including authorship and speaking opportunities, is essential
- Pursuing **common benefits** on both sides of the Mediterranean area

## PRIMA Synergies with EU, Regional and International Organisations

Building capacity for empowering the participation from the partner countries and enabling them not only to participate successfully but also to initiate and lead projects.

## 5 Annexes

### 5.1 Annex 1: List of attendees

First Name	Surname	Organisation
Sara	Al Twassi	PRIMA IS
Effie	Amanatidou	ERA learn
Omar	Amawi	PRIMA Deputy-Director
Christos	Aspris	PRIMA BoT Representative/Cyprus
Antonella	Autino	PRIMA Project Coordinator
Mohammed	Bouhicha	PRIMA BoT Representative/Algeria
Ramy	Bou-Jawdeh	Berytech
Dimosthenis	Chachalis	Benaki Phytopathological Institute
Samia	Charfi-Kaddour	PRIMA BoT Representative/Tunisia
Anas	Chokairi	PRIMA BoT alternate/Morocco
Giovanni	Colombo	EIT FOOD
Aliénor	De Moucheron	PRIMA Administrative Assistant
Fabrice	Dentressangle	PRIMA Project Officer
Mohamed	El Shinawi	PRIMA CoChair/BoT Repr./Egypt
Tarek	Elarabi	EU AFRICA Partnership FNSSA
Stephan	Epe	PRIMA BoT alternate/Germany
Esther	Esteban	PRIMA BoT Representative/Spain
Wanda	Gaj	European Commission
Roger	Garcia	SWITCHMED
Ian	Gauci Borda	PRIMA BoT alternate/Malta
Pau	Guell	PRIMA IS
Ahmed	Hammouch	PRIMA BoT Representative/Morocco
Martin	Heibel	ENI CBC Med
Maurice	Héral	JPI Water & JPI FACCE
Cristina	Huertas	Life Watch
Diego	Intrigliolo	PRIMA Scientific Advisory Committee Chair
Konstantinos	Kasiotis	Benaki Phytopathological Institute
Charles	Kleinermann	Icarda
Peter	Knorringa	CFIA Centre for Frugal Innovation in Africa
Marios	Koniaris	General Secretariat for Research and technology
Phoebe	Koundouri	SDSN Greece

PRIMA Synergies with EU, Regional and International Organisations

<b>First Name</b>	<b>Surname</b>	<b>Organisation</b>
Vasiliki	Lagouri	National Hellenic Research Foundation
Susanne	Madders	PRIMA BoT Representative/Germany
Paloma	Mallorquin	BBI JU
Pavel	Misiga	European Commission
Maroun	Moujabber	CIHEAM
Marco	Orlando	PRIMA IS
Aristidis	Papagiannopoulos	National Hellenic Research Foundation
Christinas	Papaloukopoulou	Hellenic Agricultural Organisation "Demeter"
Costas	Papanicolas	EIT Climate
Ricardo	Pereira	PRIMA BoT alternate/Portugal
Eirini	Pittara	Hellenic Agricultural Organisation "Demeter"
Vasiliki	Pletsa	National Hellenic Research Foundation
Giuseppe	Provenzano	UfM
Octavi	Quintana	PRIMA Director of the Secretariat
Julià	Rebés	PRIMA IS
Ali	Rhouma	PRIMA IS
Angelo	Riccaboni	PRIMA Chair/BoT Repr./Italy
Hagit	Schwimmer	PRIMA BoT Representative/Israel
Giovanni	Stanghellini	Italian Secretariat of PRIMA
Guy	Vancanneyt	PRIMA BoT alternate/Spain
Mohamed	Wageih	PRIMA IS
Ana Lucia	Weinerg	EDTCP
Enrique	Yeves	FAO
Maria	Zervou	National Hellenic Research Foundation
Claudia	Zoani	MetroFood
Andy	Zynga	EIT FOOD
Nikos	Maroulis	Technopolis Group
Peter	Sampatakos	General Secretariat for Research and technology
Anastasia	Stathopoulou	General Secretariat for Research and technology
Dimitris	Iosifidis	GREENER THAN GREEN TECHNOLOGIES
Agnes	Spilioti	General Secretariat for Research and technology
Maria	Christoula	General Secretariat for Research and technology
Christos	Tsamparis	Hellenic Centre for Marine Research

PRIMA Synergies with EU, Regional and International Organisations

<b>First Name</b>	<b>Surname</b>	<b>Organisation</b>
Vaso	Karavaggelis	General Secretariat for Research and technology
Katerina	Galanou	General Secretariat for Research and technology
Maria	Samara	Diadikasia Business Consulting
Fiorela	Ropolo	University of Ferrara
Anna	Gianvincenzo	Italy Research Centre / ICRE8



## 5.2 Annex 2: Agenda



### Workshop

PRIMA Synergies with EU, Regional & International Organisations

[Divani Caravel Hotel](#), Room Vergina,

2 Vassileos Alexandrou ave., 16121 Athens,

21-22 November 2019

DAY 1 - 21 November 2019

Timing	Session	
14:00 – 14:30	Registration and welcome coffee	
14:30 – 15:00	Opening addresses	Secretary General for Research and Technology, Athanasios Kyriazis PRIMA Co-Chair & Chair EC
15:00 – 16:00	<p>SESSION 1</p> <p>Thinking the future: Scaling up social and frugal innovation in the Mediterranean Area</p> <p>Keynote Speech</p> <ul style="list-style-type: none"> <li>- ‘Learning from Frugal Innovations in Agro-Food and Water’, by <b>Peter Knorringa</b>, Director Centre for Frugal Innovation in Africa (CFIA)</li> <li>•</li> <li>- ‘Nurturing Agri-Food Innovations: The case of Agrytech – Lebanon’, by <b>Ramy Bou-Jawdeh</b>, Deputy General Manager Berytech</li> <li>•</li> <li>- ‘Mission approach - how to harness the power of innovation for societal challenges’, by <b>Pavel Misiga</b>, Head of Unit DG Research &amp; Innovation</li> </ul>	<p>Moderator</p> <p>Mohamed Bouhicha</p> <p>Rapporteur: Technopolis</p>

PRIMA Synergies with EU, Regional and International Organisations

Timing	Session	
	<p>Healthy Planet - Circular Economy &amp; Biobased Systems (RTD.C.1)</p>	
16:00 -16:30	Coffee Break	
16:30 – 18:15	<p>SESSION 2</p> <p>Exchange of experiences and practices towards to the adoption of innovation</p> <p>Roundtable (Organisation’s representative)</p> <ul style="list-style-type: none"> <li>• Giovanni Colombo, for EIT Food</li> <li>• Costas N. Papanicolas, for EIT Climate</li> <li>• Paloma Mallorquin, for BBI JU</li> <li>• Roger Garcia, for SwitchMed</li> <li>• Tarek El Arabi, for EU-Afr. Partnership FNSSA</li> </ul> <p>Audience Discussion</p>	<p>Moderator</p> <p>Diego Intrigliolo</p> <p>Rapporteur: Technopolis</p>
18:15 – 18:30	Wrap-up and closure of the 1st day	<p>PRIMA Chairs</p> <p>Rapporteur: Technopolis</p>

DAY 2 - 22 November 2019

Timing	Session	
9:00 – 09:30	Welcome Coffee	
9:30 – 11:00	<p>SESSION 3</p> <p>Exchange of experiences and practices towards the national programmes Alignment: infrastructures sharing, North and South Relationships</p> <p>Roundtable (Organisation’s representative)</p> <ul style="list-style-type: none"> <li>• Maurice Héral, for JPIs (Water &amp; FACCE)</li> <li>• Martin Heibel, for ENI CBC Med,</li> <li>• Ana Lucia Weinberg, for EDCTP</li> <li>• Giuseppe Provenzano, for UfM</li> <li>• Cristina Huertas, for LifeWatch ERIC</li> <li>• Claudia Zoani, for Metrofood</li> </ul> <p>Audience Discussion</p>	<p>Moderator</p> <p>Effie Amanatidou</p> <p>Rapporteur : Technopolis</p>
11:00 – 11:15	Coffee Break	
11:15 – 13:00	<p>SESSION 4</p> <p>Dissemination of good practices, Knowledge transfer, Capacity Development</p> <p>Roundtable (Organisation’s representative)</p> <ul style="list-style-type: none"> <li>• Maroun Moujabber, for CIHEAM</li> <li>• Phoebe Koundouri, for SDSN</li> <li>• Charles Kleinermann, for ICARDA</li> <li>• Andy Zynga, for EIT Food</li> </ul> <p>Audience Discussion</p>	<p>Moderator:</p> <p>Samia Charfi Kaddour</p> <p>Rapporteur: Technopolis</p>
13:00 – 13:30	Conclusions / Closure of the workshop and outlook to next step	Rapporteur: Technopolis

The PRIMA programme is an Art. 185 initiative supported 2020, the Framework European Union’s Programme for



and funded under Horizon Research and Innovation



### 5.3 Description of organisations

**GSRT** (General Secretariat for Research and Technology) is a modern public service assigned with the task of defining, as well as coordinating the implementation of, the national policy for Research, Technological Development and Innovation. It supports the activities of research and industry bodies through competitive research programmes highlighting economic performance and a socially fair allocation of outcomes. Furthermore, it supervises research and technology bodies, which provide local communities with the skills necessary for producing knowledge and boosting innovation. GSRT actively follows EU and international developments in the field of RDI and represents the country to the EU and International Organizations within its competence.

**PRIMA** (Partnership on Research and Innovation in the Mediterranean Area) is a long-term research and innovation initiative, jointly undertaken by 19 States and the European Commission. The Partnership is characterised by a strong strategic dimension based on the principle of equal footing applied through co-decision, co-financing and co-management, and a distinctive geographical focus on the Mediterranean region. The overall objective of the PRIMA programme is to build research and innovation capacities and to develop knowledge and innovative solutions for sustainable water management and agri-food systems.

The **Bio-Based Industries Joint Undertaking** (BBI JU) is a public-private partnership set up in 2014. Its founding members, the European Commission and the Bio-based Industries Consortium (BIC), established the BBI JU programme to support R&I for European bio-based industries. Operating under Horizon 2020, this EU body is driven by the Vision and Strategic Research and Innovation Agenda developed by industry. The programme budget is EUR 3.7 billion, with 25% coming from the EU and 75% from industry. The objectives of the BBI JU are to contribute to a more resource-efficient and sustainable low-carbon economy, and to increase economic growth and employment, in particular in rural areas, by developing sustainable and competitive bio-based industries in Europe, based on advanced biorefineries that source their biomass sustainably.

The **Regional Activity Centre for Sustainable Consumption and Production** is a centre for international cooperation on development and innovation based on the sustainable consumption and production approach (SCP). SCP is the combination of the implementation of tools and measures geared towards redesigning how goods and services are consumed and produced, to drive industrial and socio-economic development towards non-polluting, no-waste, low-carbon, resource-efficient, socially inclusive and circular economies. SCP/RAC works with different stakeholders to make the Mediterranean a leading region in which development and innovation go hand in hand with the protection of the environment and the natural resources.

**Long-Term Partnership between European Union and African Union in Research and Innovation for Food, Nutrition Security and Sustainable Agriculture** (LEAP4FNSSA) is a Coordination and Support Action (CSA) that aims at establishing a Europe-Africa International Research Consortium (IRC). The IRC will provide a tool for all European and African institutions ready to engage in a sustainable partnership platform for research and innovation on food and nutrition security as well as sustainable agriculture (FNSSA). Once established, the IRC will be instrumental to the High-Level Policy Dialogue (HLPD) on science and technology for innovation in meeting its strategic objectives. It will help to coordinate and prioritise the actions described in the FNSSA Roadmap endorsed by the HLPD. The FNSSA roadmap is a new approach towards science and technology cooperation between the African Union and European Union. LEAP4FNSSA will also support the work in African Union and European Union and the member countries in developing the science cooperation. The LEAP4FNSSA project builds on previous related EU-funded projects, such as ProIA, CAAST-Net Plus, RINEA, and links with the on-going ERA-NET Co-fund LEAP-Agri project. LEAP4FNSSA will create a platform for all supported projects under FNSSA, and will develop new ways of long-lasting cooperation.

**JPI 'Water challenges for a changing world'** deals with research and innovation in the field of water-related sciences covering a broad spectrum of water research under very different environmental and water user conditions.

**FACCE-JPI** addresses the interconnected challenges of agriculture, food security and climate change aiming to achieve sustainable growth in agricultural production, to meet increasing world food demand, and to contribute to economic growth while maintaining and restoring ecosystem services under current and future climate change conditions. The JPI aligns national programmes, develops knowledge networks and brings together project clusters. Transnational projects are also funded through calls in ERA-NETs.

**ENI CBC 'Mediterranean Sea Basin Programme'** is the largest Cross-Border Cooperation (CBC) initiative implemented by the EU under the European Neighbourhood Instrument (ENI). The Programme brings together the coastal territories of 14 countries in view of fostering fair, equitable development on both sides of the Mediterranean. Through calls for proposals, ENI CBC MED finances cooperation projects for a more competitive, innovative, inclusive and sustainable Mediterranean area. The EU contribution to the programme is EUR 209 million. The Programme is managed by the Autonomous Region of Sardinia, Italy.

**The European and Developing Countries Clinical Trials Partnership (EDCTP)** is a public-public partnership between countries in Europe and sub-Saharan Africa, and the European Union. The second EDCTP programme is implemented as part of Horizon 2020. EDCTP aims to support collaborative research that accelerates the clinical development of new or improved interventions to prevent or treat poverty-related neglected diseases in sub-Saharan Africa.

**Union for the Mediterranean (UfM)** is an intergovernmental Euro-Mediterranean organisation whose mission is to enhance regional cooperation, dialogue and the implementation of projects and initiatives with tangible impact on citizens, and with an emphasis on young people and women, in order to address the three strategic objectives of the region: stability, human development and integration. With more than 50 projects and over 300 ministerial and expert fora gathering 25,000 stakeholders since 2012, UfM activities illustrate the strong belief that regional challenges call for regional solutions and that there is no security without development. The UfM has consolidated an action-driven methodology, with a common ambition of creating effective links between the policy dimension and its operational translation into concrete projects and initiatives on the ground to address the challenges of the region and its key interrelated priorities. This methodology is composed of three components: Political Fora, Dialogue Platforms and Regional Projects – namely the 'Three Ps'.

**LifeWatch ERIC** is the European e-Science Infrastructure for biodiversity and ecosystems research. LifeWatch web services follow the lifecycle of the research process, from the conception of an idea to the interpretation of results and knowledge development. By investing in high-performance grid and big data computing systems, and in advanced modelling tools, it facilitates policymaking, implementation of management measures and aims at preserving life on Earth. LifeWatch ERIC creates and provides access to data, offers virtual research environments, connects and brings together physical observatories, research centres and scientific communities, and empowers citizens to engage with science.

**MetroFood-RI, Infrastructure for Promoting Metrology in Food and Nutrition** (ESFRI Roadmap 2018: domain Health and Food) is aimed at promoting scientific excellence in the field of food quality and safety. It provides high-quality metrology services in food and nutrition at the cross-section of highly interdisciplinary and

interconnected fields throughout the food value chain, including agri-food, sustainable development, food safety, quality, traceability and authenticity, environmental safety, and human health. The scientific offer is addressed to a broad set of users, such as researchers, food business operators/producer associations, policymakers, food inspection and control agencies, consumers, consumer associations, and citizens.

**International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM)** is an intergovernmental organisation including 13 Mediterranean countries and is headquartered in Paris. CIHEAM promotes multilateral cooperation in the Mediterranean in the fields of agriculture, food, fishery and rural territories, aiming to respond to the needs of States and of the agri-food actors. CIHEAM Bari, the Italian operating facility of CIHEAM, is a centre for post-graduate training, applied scientific research and design of *in loco* partnership actions within the framework of international research and cooperation programmes. CIHEAM Bari is involved in a number of activities that provide a platform for institutions and organisations wishing to cooperate across the Mediterranean area. Furthermore, the experience gained may often be transferred to other regions of the world. Special attention is paid to the involvement of CIHEAM Bari Alumni, especially in their countries of origin.

**UN Sustainable Development Solutions Network (SDSN)** was set up in 2012 under the auspices of the UN Secretary General and mobilises global scientific and technological expertise to promote practical solutions for sustainable development, including the implementation of the Sustainable Development Goals (SDGs) and the Paris Climate Agreement. SDSN works closely with United Nations agencies, multilateral financing institutions, the private sector, and civil society. In 2019, SDSN counted 35 National and Regional Networks across the world, 11 of which were national only, 14 regional only, and 10 were both national and regional. A MOOC course on 'Sustainable food systems: a Mediterranean perspective' is delivered by UN SDSN Mediterranean and provided by the UN SDSN SDGs Academy. UN SDSN Greece is co-hosted by the International Centre for Research on the Environment and the Economy (ICRE), and the Political Economy of Sustainable Development Lab (PESD) and, in 2019, it launched two initiatives: the Global Roundtable for Sustainable Shipping and the 4-Seas Initiative.

**International Centre for Agricultural Research in the Dry Areas (ICARDA)** is an international, autonomous non-profit research organisation supported by CGIAR, a global research partnership for a food-secure future. ICARDA's mission is to reduce poverty, enhance food, water, and nutritional security, as well as environmental health in the face of global challenges, including climate change. It does this through innovative science and strategic partnerships linking research to development and capacity development that take into account gender equality and the role of youth in transforming dry areas. ICARDA works in partnership with governments, universities, civil society, national agricultural research organisations, other CGIAR research centres, and the private sector. With its temporary headquarters in Beirut, Lebanon ICARDA operates in regional and country offices across Africa, Asia and the Middle East.

**EIT Food** is Europe's leading food innovation initiative, working to make the food system more sustainable, healthy and trusted. The initiative is made up of a consortium of key industry players, start-ups, research centres and universities from across Europe. It is one of eight Innovation Communities established by the **European Institute for Innovation & Technology (EIT)**, an independent EU body set up in 2008 to drive innovation and entrepreneurship across Europe. EIT Food aims to collaborate closely with consumers to develop new knowledge and technology-based products and services that will ultimately deliver a healthier and more sustainable lifestyle for all European citizens. EIT Food has created the RisingFoodStars Association, which serves as an umbrella for high potential agri-food start-ups and scale-ups, to support and nurture a select group of young companies. The Association is a partner of EIT Food and, as such, allows its members to participate in all EIT Food activities, thus contributing to the delivery of EIT Food's strategic objectives.

