



**Water Works 2015-2020 in Support of the Water JPI
ERA-NET Cofund Action**



**H2020-WATER-3-2015: Stepping up EU research and
innovation cooperation in the water area**

**International Cooperation – Africa & Mediterranean area
Workshop Report**

(WVP6)

July 2017

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Location: Tangier, Morocco

Available at: [Water JPI International Cooperation - Africa & Mediterranean area workshop](#)

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List of Abbreviations

ANR:	Agence Nationale de la Recherche (France)
ARC:	Agricultural Research Center (Egypt)
ARIMNet2:	ERA-NET Coordination of Agricultural Research in the Mediterranean
ASRT:	Academy of Scientific Research and Technology (Egypt)
CDTI:	Centro para el Desarrollo Tecnológico Industrial (Spain)
CIHEAM-IAMM:	Centre International de Hautes Etudes Agronomiques Méditerranéennes – Institut Agronomique Méditerranéen de Montpellier (France)
CIRAD:	Centre de coopération internationale en recherche agronomique pour le développement (France)
COST:	European Cooperation in Science and Technology
CSA:	Coordination & Support Action
DEMETER:	Hellenic Agricultural Organisation (Greece)
ERANET-MED:	Euro-Mediterranean Cooperation through ERA-NET Joint Activities and Beyond
EU:	European Union
FONRID:	Fonds National de la Recherche et de l'Innovation pour le Développement (Burkina Faso)
FP7:	Seventh Framework Programme
GDAR:	Ministry of Food, Agriculture and Livestock (Turkey)
H2020:	Horizon 2020
HCST:	Higher Council for Science & Technology (Jordan)
IAV Hassan II:	Institut agronomique et Vétérinaire Hassan II (Morocco)
INIA:	Instituto Nacional de Investigacion y Tecnologia Agraria y Alimentaria (Spain)
INRA:	Institut National de la Recherche Agronomique (France or Morocco)
IPR:	Intellectual Property Rights
IRESA:	Institution de la Recherche et de l'Enseignement Supérieur Agricoles (Tunisia)
ISRA:	Istituto Superiore per la Protezione e la Ricerca Ambientale (Italy)
JPI:	Joint Programming Initiative
LEAP-AGRI:	Long term EU-Africa research and innovation partnership on food and nutrition security and sustainable agriculture
MESR:	Ministère de l'Enseignement Supérieur et de la Recherche (Senegal)
MESRS:	Ministère de l'Enseignement Supérieur et de la Recherche Scientifique (Ivory Coast or Tunisia)
MIUR:	Ministero dell'Istruzione dell'Università e della Ricerca (Italy)
MIZS:	Ministrstvo za Izobrazevanje, Znanost in Sport (Slovenia)
MKGP:	Ministrstvo za Kmetijstvo, Gozdarstvo in Prehrano (Slovenia)
MoU:	Memorandum of Understanding
PRIMA:	Partnership for Research and Innovation in the Mediterranean Area
RDI:	Research, Development and Innovation
SEMIDE:	Système Euro-Méditerranéen d'Information sur les savoir-faire dans le Domaine de l'Eau
SFIC:	Strategic Forum for International Science and Technology Cooperation
SRIA:	Strategic Research and Innovation Agenda
S&T:	Science and Technology
STEPRI:	Science and Technology Policy Research Institute (Ghana)
SUEN:	Turkish Water Institute (Turkey)
WP:	Work Package
WRC:	Water Research Commission (South Africa)

Executive Summary

The Joint Programming Initiative “Water Challenges for a Changing World”, Water JPI (www.waterjpi.eu), was launched in 2010 and later formally approved by the European Council in December 2011. The Water JPI membership comprises a total of 20 Member countries and 4 Observer countries, which collectively represent 88% of European public Research, Development and Innovation investment in water resources. The Water JPI is dedicated to tackling the ambitious grand challenge of achieving sustainable water systems for a sustainable economy in Europe and abroad.

Since the creation of the Water JPI, alliances have been sought with RDI programmes of countries outside Europe, in close coordination with the Strategic Forum for International Science and Technology Cooperation, in particular for:

- Fostering integration into – or alignment with – the European Research Area, including through their possible association to the Water JPI activities;
- Jointly tackling global challenges through common innovative solutions;
- Developing enabling technologies by accessing new sources of knowledge;
- Developing knowledge-transfer platforms; and
- Promoting products / methodologies / protocols developed by European Research programmes.

This report contains the proceedings of the Africa & Mediterranean area workshop on “RDI International Cooperation development for tackling global water challenges” that took place in Tangier (Morocco) on the 31st of March 2017. The event gathered 37 participants, representatives of research funding agencies from Sub-Saharan countries, Mediterranean European countries and South and East Mediterranean countries, representatives of International initiatives in the water sector, as well as Water JPI Governing Board members and Water JPI partners.

The main objectives were to identify the challenges and opportunities for international cooperation, focusing on: (i) challenges for multilateral cooperation and (ii) solutions for better cooperation for jointly tackling global challenges through common innovative solutions and new sources of knowledge.

Attendees exchanged on main challenges for collaborating with Europe; and the JPIs in particular; the interaction between the Water JPI and the Partnership for Research and Innovation in the Mediterranean Area (PRIMA); the identification of common priorities; aligning national programmes; joining forces on structural challenges; and tools for multilateral cooperation.

It was stressed that the Water JPI should remain open and flexible in the establishment of its priorities to allow the involvement of international partners. Activities of common interest were proposed, with particular interest in the Knowledge Hub and joining the Water JPI as observer. To become the “privileged and attractive partner for global cooperation” in Water challenges RDI, the Water JPI will have to prepare communication materials and improve its visibility. Moreover, proactive discussions should be launched with PRIMA to identify areas of collaboration.



1. Introduction

1.1. Water Joint Programming Initiative

The Joint Programming Initiative¹ (JPI) on “Water Challenges for a Changing World”, Water JPI², was launched in 2010 and later formally approved by the European Council in December 2011. The Water JPI membership comprises a total of 20 Member countries and 4 Observer countries, which collectively represent 88% of European public Research, Development and Innovation (RDI) investment in water resources. The Water JPI is dedicated to tackling the ambitious grand challenge of achieving sustainable water systems for a sustainable economy in Europe and abroad.

The European water sector has a wide diversity of stakeholders and is highly fragmented; water resources, water supply and wastewater being often locally managed. The Water JPI provides an opportunity for broader cross-border cooperation, greater collaboration and a more unified focus on water RDI across Europe.

Among the RDI benefits of the Water JPI, five have a clear European dimension:

- ✓ Aligning the national RDI agendas, optimising their scope and the resulting funding efficiency; effectively covering the wide variety of European water environments.
- ✓ Increasing cooperation among European professionals.
- ✓ Designing, building and sharing large research and development facilities (e.g. experimental treatment plants).
- ✓ Creating, maintaining and co-operatively exploiting networks of open-field experiments and scientific observatory systems (e.g. experimental watersheds).
- ✓ Multiplying the scientific impact of European research, increasing its relevance and scientific leadership.

The Water JPI aims to produce science-based knowledge leading to the support of European policies; comprising the identification of problems, their quantification, and the development of feasible technical and managerial solutions. It will coordinate water RDI in the participating countries and provide a powerful tool for international cooperation in the water area.

For more information, please refer to the Water JPI Key Achievements 2011-2016 document³.

1.2. International Cooperation within the Water JPI and WaterWorks2015

Actions on International Cooperation have been covered under the Water JPI Coordinating and Support Action (CSA) [WatEUr](#) (2011-2016) and the ERA-NET Cofund [WaterWorks2015](#) (2015-2020), and are now the core of the CSA [IC4WATER](#) launched in January 2017 dedicated to the development of international cooperation in the water area.

Two geographical workshops to develop “RDI International Cooperation for tackling global water challenges” were organised as part of the activities to be conducted within the Work Package (WP) 6 of the ERA-NET Cofund WaterWorks2015, and the related Task 6.2 on International Cooperation (see Table 1).

¹ http://www.waterjpi.eu/images/documents/2016/JPIs_brochure.pdf

² Water Joint Programming Initiative website available at www.waterjpi.eu

³ http://www.waterjpi.eu/images/welcome/WATER_JPI_Key_Achievements%202011-2016.pdf

Table 1 – Description of work in the CSA WatEUR and ERA-NET Cofund WaterWorks2015 proposals

Description of Work	
WatEUR - FP7 CSA	<p>Task 5.1. Mapping water RDI initiatives run by JPI partners outside Europe.</p> <p>European countries and the European Commission have a longstanding tradition in water RDI cooperation with countries outside Europe. In a first step, WP5 will identify the most relevant Water JPI players outside Europe, gathering information about their RDI programmes, agendas, activities, instruments, investments, target countries and the impact of such activities. In a second step, relevant RDI programmes of selected non-European countries will be mapped following the same criteria. This mapping exercise will use a similar framework as the mapping produced in WP2, although its intensity will be lower. Analysis of the gathered information will permit determination of gaps and overlaps highlighting missed opportunities. Analysis will also lead to the identification of a list of potential countries for interaction with the Water JPI.</p> <p>For more information, see the Mapping⁴ of water RDI activities run by partners outside Europe done on seven targeted countries and published in 2014.</p>
WatEUR - FP7 CSA	<p>Task 5.2. Develop and sustain strategic alliances outside Europe</p> <p>Alliances will be sought with RDI programmes of countries outside Europe, in close coordination with the Strategic Forum for International Science and Technology Cooperation (SFIC).</p> <p>Alliances will progress towards the signature of specific Memoranda of Understanding (MoU) oriented towards the participation of third Countries in specific Water JPI activities. Therefore, the process of Joint Programming will be expanded to selected countries and for specific activities.</p> <p>Target countries for the Task 5.2 will be selected following a number of criteria, based on mutual interest and mutual benefit:</p> <ul style="list-style-type: none"> • Synergies in the production of scientific and technological breakthroughs; • Information exchanges on specific research and development needs; • Technology adaptation to local conditions; • Pilot testing European technology; and • Internationalization of policy developments in water management. <p>Following these criteria, target countries may include developed countries (e.g. USA and Japan), emerging countries (such as the BRIC countries), neighbourhood countries or developing countries. The international dimension of the Water JPI started with SFIC in India. The Europe-India link is expected to lead developments in this WP. In addition to India, three additional target countries will be explored, based on the mapping performed in the Task 5.1. The Water JPI Governing Board will decide the final list of countries. At least one country outside Europe will take part in the Joint Activities under the Task 4.4. In order to facilitate fruitful development of RDI cooperation, specific framework conditions will also have to be addressed in this WP. In particular, funding arrangements and Intellectual Property Rights (IPR) agreements will be adapted to satisfy both European and non-European partners.</p>

⁴ <http://www.waterjpi.eu/images/documents/2016/WVP%205%20Final%20Report%20-%2030-04-2014%20without%20SWOT.pdf>

Description of Work

WaterWorks2015 - H2020 ERA-NET Cofund

Task 6.2. Developing the International cooperation on Water challenges beyond Europe (EU)

Task start date: M1 (January 2016); **Task End date:** M24 (December 2017)

Since the launch of WatEur, alliances have been sought with RDI programmes of countries outside Europe, in close coordination with the Strategic Forum for International Science and Technology Cooperation (SFIC), in particular for:

- Fostering integration into – or alignment with – the European Research Area, including through their possible association;
- Jointly tackling global challenges through common innovative solutions;
- Developing enabling technologies by accessing new sources of knowledge;
- Developing Knowledge-transfer platforms; and
- Promoting products / methodologies / protocols developed by European Research programmes.

At this stage, the target countries include developed countries (the USA and Canada), emerging countries (such as the BRIC countries), neighbouring or third developing countries (Vietnam). The Water JPI has launched a special Task Force in March 2015 for identifying priorities and models of cooperation with the different classes of third countries (Industrialised countries, emerging economies and developing countries). The Task 6.2 will build on the results of the Task Force discussions, with the objectives of:

- Continuing the discussions with the countries already contacted under WatEur in order to developing long term partnerships
- Developing cooperation with existing international initiatives (e.g. geographical ERA-NETs);
- Identifying possible cooperation models with funding agencies / programme owners.

This task will focus its activities on the so called “geographical ERA-NETs”, such as:

- Around the Mediterranean Sea, the ERA-NET Med, ARIMNET and the newly approved Article 185 PRIMA (Partnership for Research and Innovation in the Mediterranean Area);
- In the High Level Policy Dialogue EU-Africa, water scarcity and quality, food security and agriculture are named as specific challenges; and
- In Asia, the FP7 EU-India ERA-NET (Inno Indigo) which has launched a call on water-related research, or the ERA-NET with South-East Asia, SEA-EU NET which has identified water research as a priority.

An assessment of the above-mentioned initiatives will be used for considering taking up new prospective international partners in the Water JPI. Workshops with the geographical groups will be organised for developing discussions (1 per area, two areas foreseen – Mediterranean sea & America). The alliances built through these different contacts will progress towards the signature of specific MoU oriented towards the participation of third countries in specific JPI activities. A report will present the status of the discussion with the different countries and of the MoUs (signed/under progress). For these purposes, the following criteria, based on mutual interest and mutual benefit, will be used: Synergies in the production of scientific and technological breakthroughs; Information exchanges on specific research and development needs; Technology adaptation to local conditions; Pilot testing European and other technologies; and Internationalisation of policy developments in water management.

In addition to the mapping, an Introduction to Water JPI International Cooperation⁵ was produced for launching contacts with international partners.

1. 3. Aims of this Report

This document contains the Proceedings of the International Cooperation – Africa & Mediterranean Workshop, which took place in Tangier (Morocco) on the 31st of March 2017. All presentations, as well as the workshop documentation, are available from the Water JPI [website](#).

⁵ http://www.waterjpi.eu/index.php?option=com_content&view=article&id=468&Itemid=1001

This report is organised as follows:

- **Section 2** provides the workshop methodology;
- **Section 3** provides the proceedings of the workshop;
- **Section 4** provides the key conclusions arising from the workshop and key lessons learnt.

This report was prepared based on the presentations of all speakers and notes provided by the round table Chairs and Rapporteurs, as well as the feedback received from the attendees on the draft version of the document.

2. Methodology

Since the creation of the Water JPI, alliances have been sought with RDI programmes of countries outside Europe, in close coordination with the Strategic Forum for International Science and Technology Cooperation (SFIC), in particular for:

- Fostering integration into – or alignment with – the European Research Area, including through their possible association to the Water JPI activities;
- Jointly tackling global challenges through common innovative solutions;
- Developing enabling technologies by accessing new sources of knowledge;
- Developing Knowledge-transfer platforms⁶; and
- Promoting Products / Methodologies / protocols developed by European Research programmes.

Following the mapping in seven targeted countries and initial contacts, and before the launch of the CSA dedicated to International Cooperation, it was proposed to:

- ⇒ Continue contacts with agencies engaged in a great variety of multi- and bilateral cooperation across the EU and beyond European countries;
- ⇒ Have a regional approach to benefit from existing regional cooperation; and
- ⇒ Engage discussions with international or regional RDI organisations (such as the current ERA-NETs ongoing in the region) to define priorities and implementation actions (joint or complementary).

2.1. Workshop Aims

The workshops on “RDI International Cooperation development for tackling global water challenges” organised in the framework of the Task 6.2 of WaterWorks2015 provided the occasion for participants to:

- Continue the discussions with the countries already contacted under previous activities since the Water JPI was established in order to develop long term partnerships;
- Develop cooperation with existing international initiatives (e.g. geographical ERA-NETs);
- Identify possible cooperation models with funding agencies / programme owners.

The main objectives of the Mediterranean area & Africa workshop were to identify the challenges and opportunities for international cooperation, focusing on:

- ✓ Challenges for multilateral cooperation, and
- ✓ Solutions for better cooperation for jointly tackling global challenges through common innovative solutions and new sources of knowledge.

⁶ A Knowledge Hub is a network consisting of selected research groups within a defined area of research. The added value of the Water JPI Knowledge Hub instrument include establishing a critical mass of research and technological excellence, integration and sharing of knowledge, infrastructures, data and modelling tools, training and capacity building, in addition to improved communication and networking with stakeholders and the scientific community.

2.2. Workshop Attendees

This Africa & Mediterranean Workshop was open to all Water JPI members, as well to the WaterWorks2015 partners. The **Annex 1** provides the list of all attendees and their affiliations.

The America workshop gathered five types of attendees from fifteen countries:

- Water JPI members: the Water JPI Coordination team from France, and Water JPI Governing Board members from Italy, Spain and Turkey, who are all partners of the ERA-NET Cofund WaterWorks2015;
- International partners already associated to Water JPI activities: Egypt – ASRT (involved in WaterWorks2015), Tunisia – IRESA (involved in WaterWorks2015), South Africa – WRC (involved in WaterWorks2014 and WaterWorks2015)
- Other Mediterranean and African institutions: Burkina Faso – FONRID, Egypt – ARC, Ghana – STEPRI, Ivory Coast – MESRS, Jordan – HCST, Morocco – INRA & IAV Hassan II, Senegal – MESR, Tunisia – MESRS, Turkey – GDAR,
- Other European institutions: France – CIRAD & INRA, Greece – DEMETER, Slovenia – MKGP & MIZS, Spain – INIA,
- International initiatives with possible synergic activities on water challenges: ARIMNet2, CIHEAM-IAMM, ERANETMED, Leap-AGRI, PRIMA, SEMIDE

2.3. Workshop Programme

The programme of the workshop is presented in Annex 2. During the morning plenary session, the different funding agencies gave a brief presentation on the RDI landscape in their country and interests in multi-lateral cooperation, focusing on their water research priorities / challenges in their RDI programme.

Representatives of international initiatives (ARIMNet2, ERANETMED, LEAP-Agri and PRIMA) presented their actions in the water domain and giving an overview of the existing RDI cooperation agreements.

Two breakout sessions were then organised for discussing (i) interactions between regional activities and Water JPI research themes and (ii) solutions for better cooperation for jointly tackling global challenges through common innovative solutions and new sources of knowledge.

2.4. Workshop Materials

The 2016 Introduction to the Water JPI SRIA 2.0 and the Key Achievements were circulated to all attendees at the beginning of the workshop. Moreover, specific information were sent to the countries involved in PRIMA initiative to nurture the discussions on the synergies between the Water JPI and PRIMA. All attendees received the list of questions to be explored during the breakout sessions.

The [master presentation](#) of the Africa & Mediterranean workshop is made available on the Water JPI website via a dedicated webpage.

3. Workshop Proceedings

3.1. Plenary Session

Sanaa Zebakh (IAV Hassan II) welcomed the participants in Tangier.

Maurice Héral welcomed the participants on behalf of the Water JPI, presented the objectives of the meeting and the agenda.

The Water RDI landscape in Morocco

Sliman El-Hani from the National Institute for Agricultural Research delivered an introductory speech on the RDI landscape in the field of water in Morocco. He described the state of water resources in the country. He presented the main institutions working on water research as well as the research funding instruments (national calls, involvement in ERA-NETs). He then briefly described the INRA and especially the research programme on water 2017-2020.

Short introductions from other African & Mediterranean countries

Each national programme owner, international initiative or research institution was asked to develop their main water research priorities / challenges in their RDI programme. These slides are available in the master presentation.

Table 2 – Compilation of Water challenges – Research needs as expressed by agencies not involved in Water JPI activities (National programmes)

	Burkina Faso FONRID	Ghana STEPRI	Greece DEMETER	Ivory Coast MESRS	Jordan HCST	Morocco INRA	Senegal MESR	Slovenia MKGP	Tunisia MESRS	Turkey GDAR
Wastewater treatment - reuse	X		X			X			X	X
Water resource management / governance	X		X	X	X	X		X	X	X
Irrigation water management	X	X	X		X	X		X		X
Pollutants in water	X	X		X	X	X	X		X	
Climate change & water resources	X					X			X	
Water safety and public health	X			X	X					
Salinity risks						X	X			X
Early warning & monitoring systems						X	X			X

	Burkina Faso	Ghana	Greece	Ivory Coast	Jordan	Morocco	Senegal	Slovenia	Tunisia	Turkey
	FONRID	STEPRI	DEMETER	MESRS	HCST	INRA	MESR	MKGP	MESRS	GDAR
Droughts and water shortages						X			X	X
Information systems			X		X			X	X	
Water supply desalination & groundwater recharge	X	X	X	X	X		X		X	
Natural hazards: Floods							X		X	

Presentation of ARIMNet2

Florence Jacquet (INRA, France), ARIMNet2 coordinator, presented the objectives of ARIMNet2 (2014-2017): “strengthening cooperation in Agricultural Research among Mediterranean countries through sharing priorities to enable them to respond more efficiently to the global challenges their agricultures are facing: sustainable development, natural resources management and food security, under the constraint of climate change.”

This ERA-NET gathers 25 partners from 15 countries (both EU, South and East of the Mediterranean). She then presented highlighted the main achievements for the period 2014-2017:

- Defining priorities & a common agenda → Integrated Strategic Research Agenda (ISRA)
- Joint calls for Research Proposals to support more research projects addressing Mediterranean agriculture challenges →
 - 2015 joint call: Sustainable agriculture and Food systems (Production Systems, Food Chains, Land and Natural Resources Management) - 10 funded projects
 - 2016 joint call : Enhancing Mediterranean agricultural and food Value Chains - 11 funded projects
- Actions to boost R&I and Networking in the Med Area → Young Researchers Seminar (29 May-4 June 2016, Montpellier)
- A reflexion on how to improve the links between Research & Innovation → AKIS Conference (12-13 October 2016, Antalya)

The perspectives for ARIMNet2 were presented, with in particular the development of the Partnership for Research and Innovation in the Mediterranean Area (PRIMA), starting in 2018 and that will benefit from ARIMNet2 experience.

ERANETMED presentation

Maroun El Moujabber (CIHEAM), ERANETMED project manager, presented the partnership of ERANETMED (2013- 2017): 23 partners from 16 countries (European Union, South and East of the Mediterranean).

ERANETMED has launched a first joint call on the themes Renewable energy and energy efficiency; Water resources management; Water-Energy Nexus. Twenty-one projects (76 beneficiaries in 14 countries) were selected for funding with a total funding of 11 million euros.

A second ERANETMED call was launched on the themes “Land & Water/Food” and Environment; Energy and Environment; “Climate/demographic change” and Environment; “Societies/Ecosystems” and Environment. Seventeen projects (70 beneficiaries in 14 countries) were selected for funding with a total funding of 10 million euros.

A third call on the sustainable management of resources for the economic growth of the Mediterranean region was launched on 15 May 2017.

PRIMA presentation

Giuseppina Monacelli (ISPRA), PRIMA representative, presented the article 185 PRIMA. It gathers 16 participating countries. The participant states have already committed to provide 210 million euros in cash for this initiative. The EU financial contribution will not exceed 200 million euros.

The initiative will be implemented with seven annual work plans (2018-2024). It will operate on the basis of a strategic research and innovation agenda.

The eight objectives of PRIMA are divided in three pillars:

- Pillar 1: Sustainable management of water for arid and semi-arid Med areas
 - Objective 2 - To test and stimulate adoption of context-tailored water-saving solutions, in particular in agriculture
 - Objective 7 - to improve land and water sustainability in arid and semi-arid watersheds
 - Objective 8 - to elaborate and stimulate adoption of new policies and protocols for the governance of water management systems
- Pillar 2: Sustainable farming systems under Med environmental constraints
 - Objective 1 - To develop smart and sustainable farming systems to maintain natural resources and to increase production efficiency
 - Objective 5 - To design and promote the adoption of novel approaches to reduce the impacts of pests and pathogens in farming
- Pillar 3 : Mediterranean food value chain for regional and local development
 - Objective 3 - to innovate in the Mediterranean food products based on Mediterranean diet heritage and to enhance the links between nutrition and health
 - Objective 4 - to find context-adapted solutions to increase food and water chain efficiency, and reduce losses and wastes
 - Objective 6 - to conceive and implement innovative, quality oriented models in agro business as potential sources of new jobs and economic growth.

The actions developed by the initiative will be: (i) Research and innovation action, (ii) Innovation action, (iii) Coordination and support action, (iv) Training and mobility actions, and (v) SME instrument.

LEAP-Agri presentation

Bernard Mallet (ANR), LEAP-Agri deputy coordinator, presented the partnership of LEAP-Agri (2016-2021): 30 partners from 18 countries (both European and African).

A joint call has been launched on 15 March 2017 with a total budget of 27.6 million euros. The call themes are (i) sustainable agriculture and aquaculture, (ii) food, nutrition and health and (iii) access to food and trade.

The additional activities will be dedicated to feeding the EU-Africa long-term partnership in R&I on food and nutrition security and sustainable agriculture. In particular, it is planned to strengthen the cooperation with the JPIs, and especially the Water JPI.

AfriAlliance presentation

Mamohloding Tlhagale (WRC), AfriAlliance representative, presented the objectives of AfriAlliance (2016-2021): “for African and European stakeholders to work together in the areas of water and climate innovation, research, policy and capacity development in order to enhance the preparedness of Africa for climate change challenges”. The project gathers 16 partners.

The AfriAlliance aims at building an 'alliance of networks' by connecting existing African and European networks, and

- Demand-driven Action Groups – bottom-up solutions
- Create shared, demand-driven short term innovation opportunities and long-term research agendas
- Coordinate and connect (local) demand and supply through knowledge sharing and technology transfer
- Improve African "data capacity"
- Connect with international audience

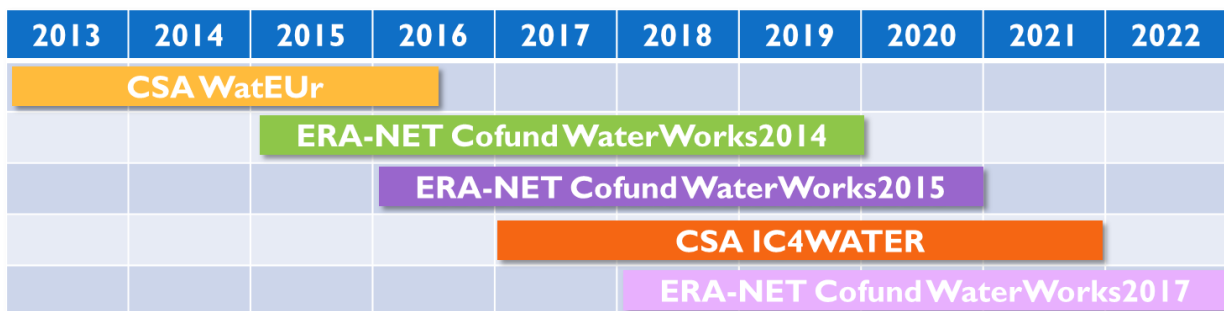
Water JPI presentation

Maurice Héral, Water JPI Chair, presented the historical background of the Water JPI. Launched officially in 2013, the Water JPI gathers currently 20 partners as well as 4 observers.

He then presented the Water JPI Strategic Research and Innovation Agenda, which lays out five main research, development and innovation needs in Europe in the field of water:

- Theme 1 – Improving ecosystem sustainability and well-being
- Theme 2 – developing safe water systems for citizens
- Theme 3 – promoting competitiveness in the water industry
- Theme 4 – implementing a water-wise bio-based economy
- Theme 5 – closing the water cycle gap

Four supporting projects have been launched since 2013:



Under these supporting projects, three joint calls have been launched:

- CSA WatEUr – 2013 Pilot Call – Emerging Contaminants
 - 7 funded projects – 9 million euros
- WaterWorks2014 – 2015 Joint Call – Waste Water Treatment and Water Reuse
 - 16 funded projects – 14 million euros

- WaterWorks2015 – 2016 Joint Call (in cooperation with FACCE-JPI) – Sustainable Management of Water Resources in Agriculture, Forestry and Freshwater Aquaculture Sectors
 - 21 funded projects – 18 million euros

In the coming years, the Water JPI will launch two transnational Joint Calls:

- August 2017 : call dedicated to the Sustainable Development Goals, with the multiple risks approach (under the CSA IC4Water)
- February 2018: call dedicated to Closing the Water Cycle Gap: improving sustainable water resources management (under the ERA-NET Cofund WaterWorks2017)

A Water JPI Knowledge Hub will also be launched on the topic of emerging contaminants. It will gather targeted researchers and targeted stakeholders.

On the matter of international cooperation, since its launch, third countries have joined the Water JPI activities such as Canada, Egypt, South Africa, Taiwan and Tunisia. The CSA IC4WATER, launched in January 2017, is dedicated to the international cooperation.

3.2. Breakout Sessions

Based on preliminary exchanges between the Water JPI coordination and some international partners, in particular those involved in WaterWorks2015, two breakout sessions were proposed for discussing interactively the following questions:

Interactive Session 1 – interactions between regional activities and research themes of the Water JPI

- Regional challenges: how to find synergies with the numerous existing initiatives? In particular, how to build the interactions between the Water JPI and PRIMA?
- How to define common water priorities between Mediterranean & African countries and EU?
- Specific issues for the region: data collection/validation and harmonisation, Open data, etc.

Interactive Session 2 – How to cooperate together?

- Which activities are of common interest? (e.g. shared RDI agenda, mapping, joint calls, knowledge hubs, mobility, alignment of national programmes...)
- Which tools for this cooperation?
 - Is the ERA-NET Cofund a good model for African & Mediterranean countries?
- How to simplify the current complexity? (e.g. different funding models, evaluation criteria, funding rate and S&T competencies)

The attendees group was divided into four sub-groups each with the same questions to discuss, giving each participant an occasion to present his/her views and exchange.

Table 4- Breakout Sessions (Rapporteur in bold)

Name	Surname	Institution	Round table
Adel	ABOUL NAGA	Agricultural Research Center (ARC), Egypt	1
Sahin	ANIL	Ministry of Food, Agriculture and Livestock (GDAR), Turkey	1
Aldo	COVELLO	Water JPI partner / MIUR, Italy	1
Anabel	DE LA PEÑA	Instituto Nacional de Investigacion y Tecnologia Agraria y Alimentaria (INIA), Spain	1
Mabrouk	HELALI	Water JPI partner / IRESA, Tunisia	1
Florence	JACQUET	ARIMNet2 coordinator	1
Burcu	YAZICI	Water JPI partner / SUEN, Turkey	1
Inoussa	ZONGO	Fonds National de la Recherche et de l'Innovation pour le Développement (FONRID)	1
Fabrice	DENTRESSANGLE	Agence Nationale de la Recherche (ANR), France	2
Maroun	EL MOUJABBER	ERANETMED project manager	2
Solène	GASNIER	Water JPI secretariat / ANR, France	2
Séraphin	KATI-COULIBALY	Ministère de l'Enseignement Supérieur et de la Recherche Scientifique (MESRS), Ivory Coast	2
Giuseppina	MONACELLI	PRIMA representative	2
Tafsir Babacar	NDOYE	Ministère de l'Enseignement Supérieur et de la Recherche (MESR), Senegal	2
Sanaa	ZEBAKH	Institut Agronomique et Vétérinaire Hassan II (IAV Hassan II)	2
Fatima	EL HADDAD-GAUTHIER	Centre International de Hautes Etudes Agronomiques Méditerranéennes – Institut Agronomique Méditerranéen de Montpellier (CIHEAM-IAMM)	3
Jana	ERJAVEC	Ministrstvo za Kmetijstvo, Gozdarstvo in Prehrano (MKGP)	3
Salma	ESSAWI	Water JPI partner / ASRT, Egypt	3
Masahudu	FUSEINI	Science and Technology Policy Research Institute (STEPRI), Ghana	3
Maurice	HERAL	Water JPI chair	3
Aristotelis	PAPADOPOULOS	Hellenic Agricultural Organisation – DEMETER (HAO-DEMETER), Greece	3
Awatef	SOLTANE	Ministry of Higher Education and Scientific Research (MESRS), Tunisia	3
Feria	TASCI	Ministry of Food, Agriculture and Livestock (GDAR), Turkey	3
Ali	RHOUMA	Water JPI partner / IRESA, Tunisia	4
Mamohloding	TLHAGALE	Water Research Commission (WRC)	4
Omar	AMAWI	Higher Council for Science & Technology (HCST), Jordan	4
Bernard	MALLET	LEAP-Agri deputy coordinator	4
Evaggelia	VAVOULIDOU-THEODOROU	Hellenic Agricultural Organisation – DEMETER (HAO-DEMETER), Greece	4
Maroua	OUESLATI	Système Euro-Méditerranéen d'Information sur les savoir-faire dans le Domaine de l'Eau (SEMIDE)	4
Fabrice	GOURIVEAU	Institut National de la Recherche Agronomique (INRA), France	4
Evran	DOGAN	Ministry of Food, Agriculture and Livestock (GDAR), Turkey	4

3.3. Feedback from all sessions

Following the presentation from each sub-group, the discussion points were made on challenges for collaborating with EU and JPis; research gaps and prioritisation of the research needs; challenges for aligning national programmes; engaging with the research communities; joining forces on structural challenges; and on existing cooperation models.

i. Main challenges for collaborating with Europe and the JPis in particular

Several challenges have been identified:

- Language barrier between French and English-speaking countries which prevents the transnational collaboration;
- Lack of visibility of the different initiatives: it is difficult to have access to synthetic and clear information about the different initiatives and therefore to identify the possibilities of cooperation. The Water JPI should facilitate discussions with other water networks to discuss the possibility of establishing a central point/platform where all network information can be accessed. It was proposed that the Water JPI could have links to all the other relevant networks since it is the main platform ;
- Lack of knowledge of what is a JPI, in particular in African countries, and the activities implemented;
- Limited participation of private entities in R&D calls: their participation is encouraged but at the same time it is difficult especially for countries that don't have private sector as part of the normal R&D funding applicants;
- Inability of programme owners/funding institutions to spend all their committed budget for ERANETs due to low success rates. A training programme could be useful to equip the participants with skills to read (what kind of information to look for) and write proposal in response to the ERANET calls.
- Need for harmonisation of data collection methodologies to ensure that the data is acceptable and can be comparable in all participating countries.
- Multiple agencies involved in the topic within one country, which incur conflicts between the national agencies involved.
- The willingness and the effective mobilization of governments to participate in international activities is also a critical issue despite the added value in terms of quality of research.

ii. Interaction between the Water JPI and PRIMA

Discussions within the breakout sessions allow to identify important points for the collaboration within the Water JPI and PRIMA:

- Need to launch discussions regarding the implementation of both the Water JPI and PRIMA with the objective to draft a shared implementation plan. This document will allow the implementation of joint activities such as joint calls. *Nota bene*: Maurice Héral has been mandated by the Water JPI Governing Board to establish the connection between the Water JPI and PRIMA.
- It is important to keep in mind the schedules/calendars of both initiatives: the topics for Water JPI calls are defined well in advance and therefore discussions for possible cooperation should be done beforehand.
- The difficulty to find topics interesting for paneuropean partners of the Water JPI and PRIMA was highlighted. One topic of interest for both initiatives was the anti-microbial resistance which could be the topic of a joint call between PRIMA and the Water JPI.

iii. Identification of common priorities

- The identification of common priorities is a critical issue for launching cooperation. However, it will be difficult to identify common priorities with European, African and Mediterranean countries.
- Therefore, common priorities could be established at different levels (for example regional for the Mediterranean areas or regions of Africa with common water priorities).
- When establishing common priorities, it is important to ensure that these priorities are also of relevance at the country level. If they are not, the countries will not encourage the implementation of those activities. This is a difficult exercise because the priorities and needs vary significantly between the countries.
- To identify the common priorities, the following criteria could be used: severity of water challenges, water scarcity (droughts), climate change impact on water resources, water resources management, water resources quality (chemical and biological contaminants), time needed to provide access to water to the people in need and to ensure the maintenance of infrastructure.
- A group of researchers from different countries could be established to work on modelling (hydraulic, hydromorphic and socio-economic), defining mid and long-term prospective regarding water resources, which could be a tool to define common priorities, comparison and selection of common robust tools which can be generalized and used in the different regions.

iv. Aligning national programmes

Several issues were raised regarding the alignment of national programmes

- The countries drafting a national programme should refer to the programmes elaborating by the different countries and to the Strategic Research Agenda of the JPIs. It requires a sharing of these documents between countries, the JPIs could then serve as an interface for this objective.
- A booklet of EU RDI priorities in the field of water could be built to help the countries aligning their national programmes

v. Joining forces on structural challenges

- Data collection
 - The sharing of data at regional and international level (between EU and Africa) is a critical issue for both African and Mediterranean regions.
 - Harmonisation of data collection methodologies should be implemented to have comparable data. The Water JPI will inform the participants about its database under construction.
- Mobility
 - Mobility between African/Mediterranean and European research teams should be encouraged inside the projects.
- Infrastructure
 - Opportunities for African and Mediterranean researchers to have access to infrastructure in African, Mediterranean and European countries. A mapping of the existing infrastructure and conditions of access is under preparation by the Water JPI.
- Capacity building of researchers
 - Difficulties for research teams to draft high quality proposals and to build relevant Consortia. Therefore, some countries face low success rates in joint transnational calls.
 - This capacity building can be provided by H2020 National Contact Points.

- A platform gathering data on funded projects in the water domain could be of particular relevance (theme, research teams involved). This platform will help the researchers from Africa and Mediterranean to identify relevant partners both from their region and from Europe in order to build research consortia. Moreover, it will give them an exhaustive idea of the projects currently implemented.
- Training
 - A mapping of training opportunities could be beneficial for African & Mediterranean research funding agencies.
- Networking
 - Networking activities should be implemented between researchers and stakeholders, which will allow the sharing of good practices. These activities have already been taken on board in PRIMA.

vi. Tools for multilateral cooperation

- Strengths and weaknesses of the ERA-NET Cofund tool:
 - The tool is complex one, with a high administrative and financial burden for the coordinators (in particular regarding the reporting obligations) and for the non-EU countries (obligation to comply with common evaluation panel, common evaluation criteria and to select the projects by following the ranking list).
 - At the same time, it allows greater commitments of the countries (commitments under the ERA-NET Cofund vs commitments under no-cofunded joint calls) and the funding of more projects (the EC money can serve for avoiding blocking the ranking list).
 - The ERA-NET Cofund tool lacks visibility in particular in African countries. Bringing more countries on board will help increasing its visibility in these countries.
 - An evaluation of the ERA-NET Cofund tool should be done to identify the shortfalls and potential areas of improvement. *Nota bene*: a first evaluation of the ERA-NET Cofund has been conducted in 2016. The expert group report has been published in preparation for the Joint Programming Annual conference (22-23 November 2016, Brussels)⁷.
 - The EC is currently preparing a new version of the ERA-NET Cofund which should be implemented in the following years.
- Explore partnerships with non-state actors such as the International Water Association (IWA) or regional organisations (Organisation pour la Mise en Valeur du fleuve Gambie / OMVG or Organisation pour la Mise en Valeur du fleuve Sénégal/OMVS or the International Network of Basin Organizations / INBO) to implement common activities⁸.
- Expand the Water JPI network by also including countries in the regions not currently included in the Water JPI activities.

⁷ The ERA-NET Cofund evaluation is mentioned in the page 25 of the Conference proceedings available [here](#). The full expert group report can be downloaded [here](#).

⁸ *Nota bene*: the European Water Association (part of IWA) as well as INBO are members of the Water JPI Stakeholder Advisory Group (full composition of the group available [here](#)).

4. Conclusions

Activities of common interest

- All proposed activities are of interest: aligning, networking, clustering, foresight, capacity building
- Particular interest in the Knowledge Hub:
 - Issue of the topic: to involve African & Mediterranean countries, the topic should be enlarged to water contaminants instead of emerging contaminants (which is not a critical issue for African & Mediterranean countries).
- Interest by some countries in joining the Water JPI as observers

Role for the Water JPI

- Disseminate the relevant information to interested partners, regarding in particular the Knowledge Hub and the procedure to become observer of the Water JPI.
- Improve the visibility of the Water JPI through a better indexation in Google and the dissemination on Water JPI activities outside Europe.
- Request the different participating organisations not involved in the Water JPI activities to communicate a contact point in their organisation. These contact points should be people who are able to make decisions, committing their organisation.
- Disseminate a short note on the Water JPI (objectives, key achievements, opportunities for cooperation) to the identified contact points
- Launch proactive discussions with PRIMA to identify areas of collaboration. Maurice Héral, Water JPI contact point for PRIMA, should implement this activity.
- To allow the involvement of international partners, the Water JPI should remain open and flexible in the establishment of the priorities.

Annex 1: List of Attendees

Name	Surname	Institution
Adel	ABOUL NAGA	Agricultural Research Center (ARC), Egypt
Omar	AMAWI	Higher Council for Science & Technology (HCST), Jordan
Sahin	ANIL	Ministry of Food, Agriculture and Livestock (GDAR), Turkey
Didier	BAZILE	Centre de coopération internationale en recherche agronomique pour le développement (CIRAD), France
Aldo	COVELLO	Water JPI partner / Ministero dell'Istruzione dell'Università e della Ricerca (MIUR), Italy
Anabel	DE LA PEÑA	Instituto Nacional de Investigacion y Tecnologia Agraria y Alimentaria (INIA), Spain
Evran	DOGAN	Ministry of Food, Agriculture and Livestock (GDAR), Turkey
Jose Manuel	DURAN	Water JPI partner / Centro para el Desarrollo Tecnológico Industrial (CDTI), Spain
Fatima	EL HADDAD-GAUTHIER	Centre International de Hautes Etudes Agronomiques Méditerranéennes – Institut Agronomique Méditerranéen de Montpellier (CIHEAM-IAMM)
Sliman	EL HANI	Institut National de la Recherche Agronomique (INRA), Morocco
Maroun	EL MOUJABBER	ERANETMED project manager
Jana	ERJAVEC	Ministrstvo za Kmetijstvo, Gozdarstvo in Prehrano (MKGP), Slovenia
Salma	ESSAWI	Water JPI partner / Academy of Scientific Research and Technology (ASRT), Egypt
Masahudu	FUSEINI	Science and Technology Policy Research Institute (STEPRI), Ghana
Solène	GASNIER	Water JPI secretariat / Agence Nationale de la Recherche(ANR), France
Fabrice	GOURIVEAU	Institut National de la Recherche Agronomique (INRA), France
Mabrouk	HELALI	Water JPI partner / Institution de la Recherche et de l'Enseignement Supérieur Agricoles (IRESA), Tunisia
Maurice	HERAL	Water JPI chair / Agence Nationale de la Recherche (ANR), France
Florence	JACQUET	ARIMNet2 coordinator
Mariam	KANOUTE	Agence Nationale de la Recherche (ANR), France
Séraphin	KATI-COULIBALY	Ministère de l'Enseignement Supérieur et de la Recherche Scientifique (MESRS), Ivory Coast

Aslihan	KERÇ	Water JPI partner / Turkish Water Institute (SUEN), Turkey
Bernard	MALLET	LEAP-Agri deputy coordinator
Giuseppina	MONACELLI	PRIMA representative
Tafsir Babacar	NDOYE	Ministère de l'Enseignement Supérieur et de la Recherche (MESR), Senegal
Maroua	OUESLATI	Système Euro-Méditerranéen d'Information sur les savoir-faire dans le Domaine de l'Eau (SEMIDE)
Aristotelis	PAPADOPOULOS	Hellenic Agricultural Organisation – DEMETER (HAO-DEMETER), Greece
Ali	RHOUMA	Water JPI partner / Institution de la Recherche et de l'Enseignement Supérieur Agricoles (IRESA), Tunisia
Awatef	SOLTANE	Ministry of Higher Education and Scientific Research (MESRS), Tunisia
Feria	TASCI	Ministry of Food, Agriculture and Livestock (GDAR), Turkey
Mamohloding	TLHAGALE	Water JPI and AfriAlliance partner / Water Research Commission (WRC), South Africa
Kim	TURK	Ministrstvo za Izobrazevanje, Znanost in Sport (MIZS), Slovenia
Evaggelia	VAVOULIDOU-THEODOROU	Hellenic Agricultural Organisation – DEMETER (HAO-DEMETER), Greece
Burcu	YAZICI	Water JPI partner / Turkish Water Institute (SUEN), Turkey
Sanaa	ZEBAKH	Institut Agronomique et Vétérinaire Hassan II (IAV Hassan II), Morocco
Inoussa	ZONGO	Fonds National de la Recherche et de l'Innovation pour le Développement (FONRID), Burkina Faso

Annex 2: Workshop Programme

Programme

Friday 31st of March 2017

9:00-9:15	Participant Registration and Welcome coffee	
9:15-9:30	<p>Welcome address Welcome address & aims of the workshop</p>	<p>Sanaa Zebakh – Institut Agronomique et Vétérinaire Hassan II Maurice Héral – Water JPI Chair</p>
9:30-9:45	The Water related RDI landscape in Morocco	El Hani Sliman, INRA
9:45-10:45	Short introductions from other African & Mediterranean countries: main research and innovation priorities for water domain	Chaired by Solène Gasnier
10:45-11:15	Coffee break	
11:15-12:15	<p>Existing cooperation / links to Water JPI Activities</p> <ul style="list-style-type: none"> • ARIMNet2 - Florence Jacquet (ARIMNet2coordinator) • ERANETMED – Maroun El Moujabber (ERANETMED project manager) • PRIMA – Giuseppina Monacelli (PRIMA representative) • LEAP-Agri – Bernard Mallet (LEAP AGRI deputy coordinator) • AfriAlliance – Mamohloding Tlhagale (South African representative) 	Chaired by Maurice Héral
12:15-12:45	Water JPI activities and modalities of cooperation	Maurice Héral – Water JPI Chair
12:45 -13:45	Lunch	
13:45-14:00	Presentation of the interactive sessions	Maurice Héral – Water JPI Chair
14:00-15:00	<p>Interactive Session I – Interactions between regional activities and research themes of the Water JPI</p> <ul style="list-style-type: none"> • Regional challenges: how to find synergies with the numerous existing initiatives? In particular, how to build the interactions between the Water JPI and PRIMA? • How to define common water priorities between Mediterranean & African countries and EU? 	All participants

	<ul style="list-style-type: none"> • Specific issues for the region: data collection / validation and harmonization, Open data, any other suggestions 	
15:00-15:30	Coffee Break	
15:30-16:45	<p>Interactive Session 2 – How to cooperate together?</p> <ul style="list-style-type: none"> • Which activities of common interest (shared RDI agenda, mapping, joint calls, knowledge hubs, mobility, alignment of national programme)? • Which tools for this cooperation? Is the ERA-NET Cofund a good model for African & Mediterranean countries? • How to simplify the current complexity (different funding models, evaluation criteria, rate and S&T competencies) and avoid duplication? 	All participants
16:45-17:00	Wrap-up of the 2 interactive sessions	Table chairs
17:00-17:10	Closure of the workshop and outlook to next Water JPI activities	Sanaa Zebakh – Institut Agronomique et Vétérinaire Hassan II Maurice Héral – Water JPI Chair