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SUWANU

- Sustainable Water treatment and nutrient reuse options -

Funding scheme: Coordination and support action

Deliverable 1.4: Analysis of links to other EU initiatives

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| Dissemination Level | | |
| PU | Public | |
| PP | Restricted to other programme participants (including the Commission Services) | |
| RE | Restricted to a group specified by the consortium (including the Commission Services) | X |
| CO | Confidential, only for members of the consortium (including the Commission Services) | |

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1. INTRODUCTION

This deliverable is oriented to set up a harmonized list of related European Initiatives in order to secure the best possible connection not only with national but also with other EU initiatives and to help to acquire and develop international visibility. The key functions of the task 1.4 “Analysis of links to other EU initiatives” may be listed as follows:

- A general list of links to existing European Technology Platforms that provides related data
- A general list of Joint Technology Initiatives
- List of other related European Initiatives
- List of other related European Projects and
- Webpage linking all the EU Initiatives

This deliverable is framed, only to a small extent, in the work done in task 1.2 “Identification of relevant RTD activities and related policy issues in member regions” within WP1 “Regional cluster analyses”. In task 1.2, project regional authorities and RTD partners, with the support of SMEs and associations, have performed a detailed analysis in a national level. In task 1.4 “Analysis of links to other EU initiatives” RTD partners have widened the analysis not only to national but also to other EU initiatives. The aim of this task is the identification of related European initiatives in order to exclude duplication in research efforts and gain synergy effects. The information included in this report has been compiled by using the partners own databases and by accomplishing further focused research (articles, studies, reports), a detailed search via Internet and by having interviews with local experts.

2. LINKS TO EXISTING EUROPEAN TECHNOLOGY PLATFORMS

In March 2003, the European Commission has supported the development of European Technology Platforms (ETPs) and has carried out a facilitation role. ETPs are industry-led stakeholder fora that develop short to long-term research and innovation agendas and roadmaps for action at EU and national level to be supported by both private and public funding. Their main aim of the ETPs is to contribute to increasing synergies between different research actors, ultimately enhancing European competitiveness. All ETPs have brought together stakeholders, reached consensus on a common vision and established (and in some cases already revised) a strategic research and innovation agenda. Table 1 presents the 38 individual ETPs which are committed to developing, updating and implementing their long-term Strategic Research Agendas in six key industrial areas: bio-based economy, energy, environment, ICT, production-processes and transport.

| Bio-based economy | Energy | Environment | ICT | Production and processes | Transport |
|--------------------|------------|--------------|-----------|--------------------------|------------|
| EATIP | Biofuels | WssTP | ARTEMIS | ECTP | ACARE |
| ETPGAH | EU PV TP | | EUROP | ESTEP | ERRAC |
| Food for Life | TPWind | | ETP4HPC | EuMaT | ERTRAC |
| Forest-based | RHC | | ENIAC | FTC | Logistics |
| Plants | SmartGrids | | EPoSS | SusChem | Waterborne |
| FABRE TP | SNETP | | ISI | Nanomedicine | |
| TP Organics | ZEP | | Net!Works | ETP-SMR | |
| | | | NEM | Manufature | |
| | | NESSI | | | |
| | | Photonics 21 | | | |

Table 1. Individual ETPs & key industrial areas

However, only three of the above mentioned ETPs related to SuWaNu: a) WssTP (Water Supply and Sanitation Technology Platform), b) Plants (Plants for the Future) and c) TP Organics (Organic Food and Farming Research).

WssTP is the ETP for water which is the basis of life. Advanced water supply and sanitation services and integrated water resources management are extremely important both for economic development and for safeguarding health and survival. Today, utilities and private companies in the EU provide largely adequate water and sanitation services to people, industry, agriculture and nature. Initiated by the European Commission in 2004, WssTP strives to promote coordination and collaboration of Research and Innovation in the European water sector, improving same time its competitiveness.

Under WssTP platform nine projects or initiatives have been implemented or expected to be implemented in the coming years:

1. **AquaFit4Use** is a large-scale project within the 7th Framework Programme of the European Commission which aims at making industries more independent of the supply of fresh drinking water for their production processes. Secondly, an important step forward is being taken within the project in obtaining water qualities that are tailored to suit product and process demands and quality standards (<http://www.aquafit4use.eu>).

- January 2008 to May 2012.

- Coordinator: TNO

- Participants: Alpro, Atmsa, Aquatest, Basf, CEIT, DHI, ENEA, Envirochemie, Eucetsa, GVTarra, Hamburger Rieger, Holmen, inoTEX, Irsipin, Logisticon, MostforWater, Nestle Water Management and Technology, OBEM, PCCell, Perstorp, PTS, Sappi, Svilanit, Tekstina, UCM, Unilever, University of Maribor, Uniresearch, Veolia VERI, Vermicon, Vito, Wedeco.

- Budget: €14,470,000 (EU contribution: €9,650,000)

2. **ChemWater** is a project that addresses a key pan-European concern: the efficient management of water in process industry. ChemWater intends to coordinate European strategies on sustainable materials, processes and emerging technologies development (<http://chemwater.eu/>).

- May 2011 to October 2013.

- Coordinator: Dechema

- Participants: TNO, Cefic, Suez Environment, EMH, Vito, UCM, Cranfield University, ERIC, ENMIX, Veolia

- Budget: €1,269,718 (EU contribution: €949,296)

3. **DEMEAU** is three-year demonstration project on promising technologies that tackle emerging pollutants in water and waste water. DEMEAU promotes the uptake of prototypes and practices from previous EU research projects, including promoting initiatives in the water sector that deal with emerging pollutants. This will further secure water and waste water services and public health (<http://demeau-fp7.eu/>).

- September 2012 to August 2015.

- Coordinator: KWM

- Participants: Amphos 21, Aquatune, BioDetection Systems, CETaqua, Corduan, eawag, Ecologic Institute, FHNW, Hydor Consultant, IWW, KWB, Quantis, RWB, Sigrist, Van Remmen UV Techniek, Veolia VERI

- Budget: €4,618,591 (EU contribution: €2,998,281)

4. The strategic objective of the **NetSoc** project is to define the requirements for future networks that can seamlessly support the Networked Society of 2020. This will be achieved by enabling an informed dialogue and policy debate between the terrestrial, satellite and content delivery communities and the industrial and social application sectors. NetSoc project will create new and

lasting relationships between the players in the various sectors and the ICT community which will enable a new set of rich cross sector collaborations (<http://netsoc.future-internet.eu/>).

- May 2011 to October 2013.

- Coordinator: EURESCOM

- Participants: University Of Surrey, Alma Mater Studiorum-Universita Di Bologna, Astrium Sas, Interinnov, Technicolor R&D France Snc, Thales Alenia Space , Ericsson Ab, Alcatel, Nokia Siemens Networks Management International

- Budget: €1,311,001 (EU contribution: €999,000)

5. The **PREPARED** project originated from the WSSTP thematic working group Sustainable Water Management in Urban areas. The PREPARED project will confirm and demonstrate the technological preparedness of water supply and sanitation systems of ten cities in Europe to adapt to the expected impacts of climate change. PREPARED will show that the water supply and sanitation systems of cities and their catchments can adapt and be resilient to the challenges of climate change; and that the technological, managerial and policy adaptation of these PREPARED cities can be cost effective, carbon efficient and exportable to other urban areas within Europe and the rest of the world (<http://www.prepared-fp7.eu/>).

- February 2010 to January 2014.

- Coordinator: KWB

- Participants: Laboratorio nacional de Engenharia Civi, Aquateam , Sintef, Universitaet Innsbruck, Krueger , IWW, Przedsiębiorstwo wodociagow i kanalizacji, Oslo commune, Crimean scientific and research centre of institute of hydraulic engineering and land reclamation of the national academy of agricultural, Iren Acqua Gas, University of Exeter, Berliner Wasserbetriebe, Mediterranea delle Acque , Gemeente , DWR, NIVUS, Arhus Kommune, Clavegueram, Epal, Scan Messtechnik, Turkiye bilimsel ve teknolojik arastirma kurumu, Cetaqua, University of Bradford, Istanbul su ve kanalizasyon idaresi, City of Seattle, Instytut Ekologii Terenow Uprzemyslowionych, IWA, Communaute urbaine de lyon. Monash University, Crimean republican enterprise, DHI, Institut National des sciences Appliquees de Lyon, Melbourne Water Corporation

- Budget: €10,658,571 (EU contribution: €6,993,815)

6. The **P-REX** project builds on the outputs of previous European research projects and will perform the first holistic full-scale evaluation of technical phosphorus recovery techniques using municipal sludge or ashes in comparison with phosphorus recycling by land application of sewage sludge. The technical, operational and economic data as well as a comprehensive ecotoxicological and plant-availability assessments will provide the basis of comprehensive life cycle and life cost assessments of phosphorus recovery processes. Complementing a market analysis, a guidance document for policy makers and end users will show the best phosphorus recovery options depending on regional conditions and illustrated by selected case studies (<http://www.p-rex.eu/>).

- September 2010 to August 2015.

- Coordinator: KWB

- Participants: Agroplus, Asio Group, BAM, BSH Umweltservice, FHNW, IASP, Ingitec, LimCo, Outotec, PCC, PFI, Proman, Solintel, Veolia Eau

- Budget: €4,359,683 (EU contribution: €2,888,560)

7. **SaphPani** addresses the improvement of natural water treatment systems such as river bank filtration, managed aquifer recharge and wetlands in India building on a combination of local and international expertise. The project aims at enhancing water resources and water supply particularly in water stressed urban and peri-urban areas in different parts of the sub-continent. The objective is to strengthen the scientific understanding of the performance-determining processes occurring in the root, soil and aquifer zones of the relevant processes considering the removal and fate of important water quality parameters such as pathogenic microorganisms and respective indicators, organic substances and metals. Moreover the hydrologic characteristics (infiltration and storage capacity) and the eco-system function will be investigated along with the

integral importance in the local or regional water resources management concept (<http://www.saphpani.eu/>).

- October 2011 to September 2015.

- Coordinator: FHNW

- Participants: Freie Universitaet Berlin, Bureau De Recherches Geologiques Et Minières, Indian Institute Of Technology Roorkee, Arun Gulati, KWB, Zentrum Fur Umweltmanagement Und Entscheidungstheorie, SPT Consultancy Services Partnership, Veolia Water, Hochschule Fuer Technik Und Wirtschaft Dresden, Council Of Scientific And Industrial Research, Uttarakhand Jal Sansthan, UNESCO, DHI, IWMI, Municipal Corporation Of Raipur, Indian Institute Of Technology Bombay Anna University Chennai, Commonwealth Scientific And Industrial Research Organisation, National Institute Of Hydrology in India

- Budget: €4,781,225 (EU contribution: €3,499,620)

8. **TECHNEAU** will develop and demonstrate adaptive supply system options and new and improved supply and monitoring technologies and management practices. Treatment strategies will be based on robust multi-barrier schemes and control methodologies, providing safety against a broad spectrum of chemical and microbiological contaminants and avoiding organoleptic problems at the tap. Monitoring technologies will provide on-line and at the site information on water quality including parameters that relate to malicious contamination. Practices for risk assessment/risk management, operation and maintenance, and models for consumer acceptance will constitute the framework for these technologies (<http://www.techneau.org/>).

- January 2006 to December 2010.

- Coordinator: KWR

- Participants: DVGW, KIWA Nv, Forschungsverbund Berlin E.V., Water Research Commission (South Africa), WRC Plc, Laboratorio Nacional De Engenharia Civil, KWB, Statni Zdravotni Ustav, Rigas Tehniska Universitate, UNESCO-IHE, Indian Institute Of Technology – Delhi, Freie Universitaet Berlin, Norges Teknisk – Naturvitenskapelige Universitet, Chalmers Tekniska Hogskola Ab, Rheinisch-Westfaelische Technische Hochschule Aachen, Vermicon Aktiengesellschaft, Mekorot Water Company Israel, Bbe Moldaenke, Opalium, Biodetection Systems, Scan Messtechnik, Aqualyng, Alpha Mos., Chris Swartz Water Utilization Engineers, The European Committee Of Environmental Technology Suppliers Associations, SINTEF, Veolia Environnement, EAWAG, University Of Surrey, Technische Universiteit Delft

- Budget: €19,100,119 (EU contribution: €13,183,992)

9. The European project initiative **TRUST** will produce knowledge and guidance to support transitions to urban water services of tomorrow, enabling communities to achieve sustainable, low-carbon water futures without compromising service quality. An extended understanding of the performance of contemporary urban water services will allow detailed exploration of transition pathways. Urban water cycle analysis will include use of an innovative systems metabolism model, derivation of key performance indicators, risk assessment, as well as broad stakeholder involvement and an analysis of public perceptions and governance modes. A number of emerging technologies in water supply, waste and storm water treatment and disposal, in water demand management and in the exploitation of alternative water sources will be analysed in terms of their cost-effectiveness, performance, safety and sustainability. Cross-cutting issues include innovations in urban asset management and water-energy nexus strengthening. The most promising interventions will be demonstrated and legitimised in the urban water systems of the ten participating pilot city regions (<http://www.trust-i.net/>).

- May 2011 to April 2015.

- Coordinator: IWW

- Participants: Laboratorio Nacional De Engenharia Civil, SINTEF, Alma Mater Studiorum-Universita Di Bologna, FHNW, NTUA, Instituto Superior Tecnico De Portugal, Iren Acqua Gas, HR Wallingford Ltd, APA NOVA BUCURESTI, ADP Aguas De Portugal, University Of Exeter, Schiphol, The University Of Birmingham, Waternet, Norges Teknisk-Naturvitenskapelige Universitet Ntnu, Breivoll Inspection Technologies As, Veolia, Oslo Kommune, KWR, Cranfield

University, Addition Projectos E Servicios De Informatica , Ingenieurgesellschaft Prof. Dr. Sieker , IWA, Scottish Water, Hamburger Wasserwerke, Universitat Politecnica De Valencia, 3 C Membrane Ag, S.T.E.P. Rautenbach Yuce Gebel Consulting ,YDREAMS ,Canal De Isabel II

- Budget: €9,293,582 (EU contribution: €6,982,781)

In the following figure 1 one can distinguish the existing related to SuWaNu platforms and projects originated from the WssTP in order to address synergies, to facilitate the collaboration and interaction of the results, to define research challenges and to optimise dissemination to national and European funding organisations and ministries.

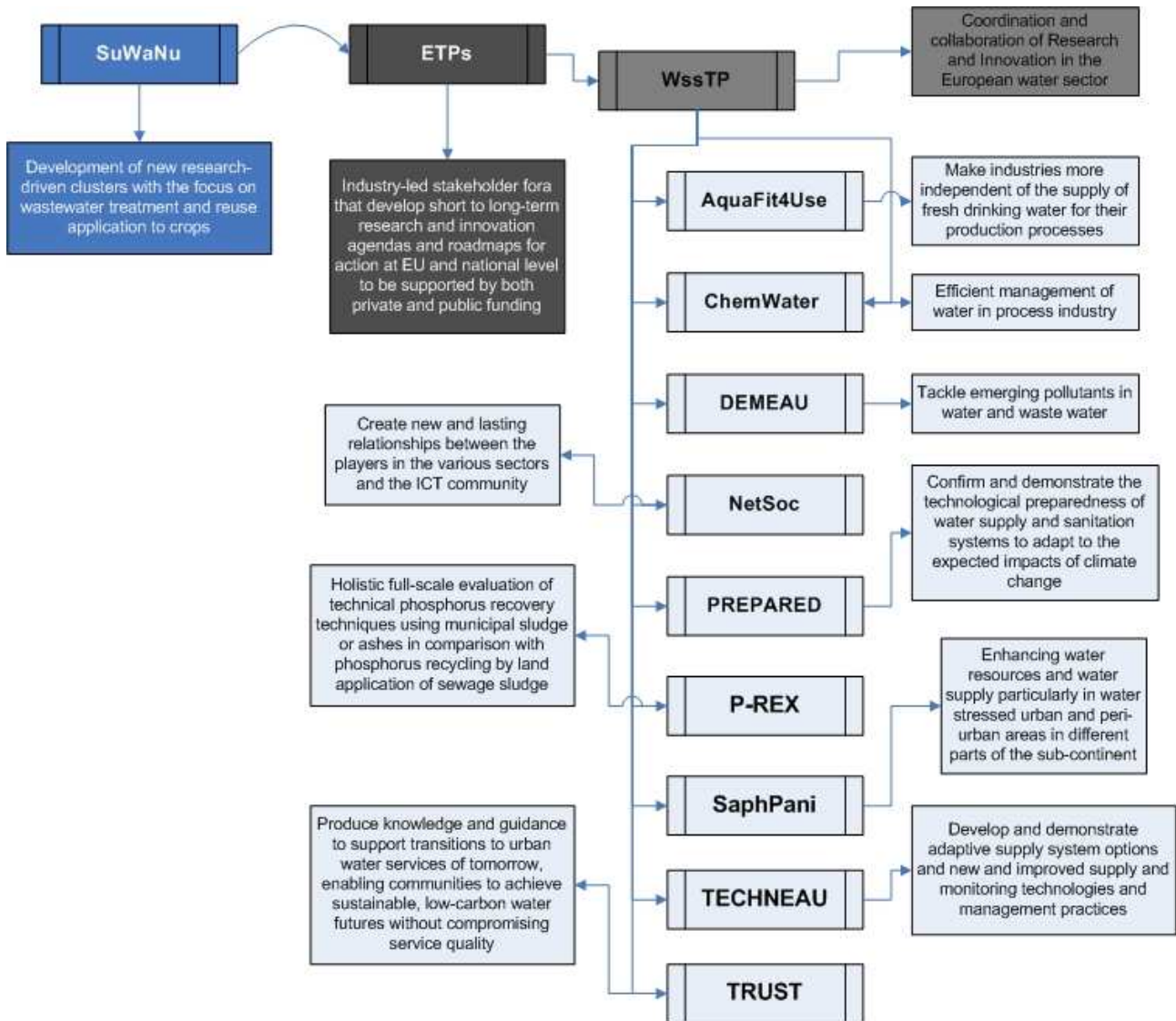


Figure 1. Related to SuWaNu platforms and projects originated from the WssTP

ETP **Plants** (<http://www.plantetp.org>) is a stakeholder forum for the plant sector with members from industry, academia and the farming community. It serves as a platform for all stakeholders concerned with plants to provide their views and represent their interests in an open discussion process. It provides a 20-year vision and a short-, medium- and long-term Strategic Research Agenda for Europe's plant sector setting out a consensus on the research needed to fulfil the vision. In addition, the platform brings key issues to the attention of European bodies such as the European Commission and the European Parliament. These issues include the growing importance of plants and plant sciences to tackle the future challenges for our societies and the crucial support for efforts to give plants an adequate standing and importance in the public view and the political perception. This future role of plants is best expressed in the vision of

a Knowledge-Based Bio-Economy (KBBE), in which Plants are a main pillar. The Plant ETP then initiated consultations in 19 European countries, with the mirror group at the European Parliament, with members of the European Commission and via an online invitation for comments. Based on the numerous inputs of the consultation, the Plant ETP produced a final Strategic Research Agenda (SRA), launched at the European Parliament in June 2007. This is yet another milestone on the road to putting plant sciences back on the agenda in Europe and its Member States. The SRA identifies five challenges for Europe's society and economy to which the plant sector can contribute:

- Healthy, safe and sufficient food and feed
- Plant-based products – chemical and bioenergy
- Sustainable agriculture, forestry and landscape
- Vibrant and competitive basic research
- Consumer choice and governance

TP Organics (<http://www.tporganics.eu>) is the ETP for organic food and farming research. It integrates views of the organic sector and civil society to represent a broad perspective on research and development priorities that can leverage organic food and farming's potential to address contemporary challenges. As other European Technology Platforms, TP Organics plays a key role in highlighting where the focus of research and development funding should be placed. TP Organics started in 2007, as a business initiative, with the aim to identify the research & innovation priorities of the organic sector, as research & innovation is a fundamental factor to find solutions to societal challenges, and enhance the development of the sector and its market. It is the first and only Technology Platform that deals in particular with the organic and low-input food and farming sector. One of the cornerstones of TP Organics is to engage stakeholders along the whole food supply chain, including consumers, in determining the research needs of the organic sector. From the very beginning TP Organics has been fully opened to a wide range of stakeholders, especially to civil society, farmers, and with particular attention to SMEs (or SME associations) which are often neglected by other ETPs and in research in general. Currently, 28 umbrella organizations/networks in the field of sustainable agriculture, research, environment and consumer protection are member of TP Organics. Also SMEs and 4 national technology platforms for organic research (Hungary, Italy, Czech Republic and Spain) hold TP Organics membership. Finally, TP Organics collaborates with 20 research institutes of research networks, who also support the platform financially.

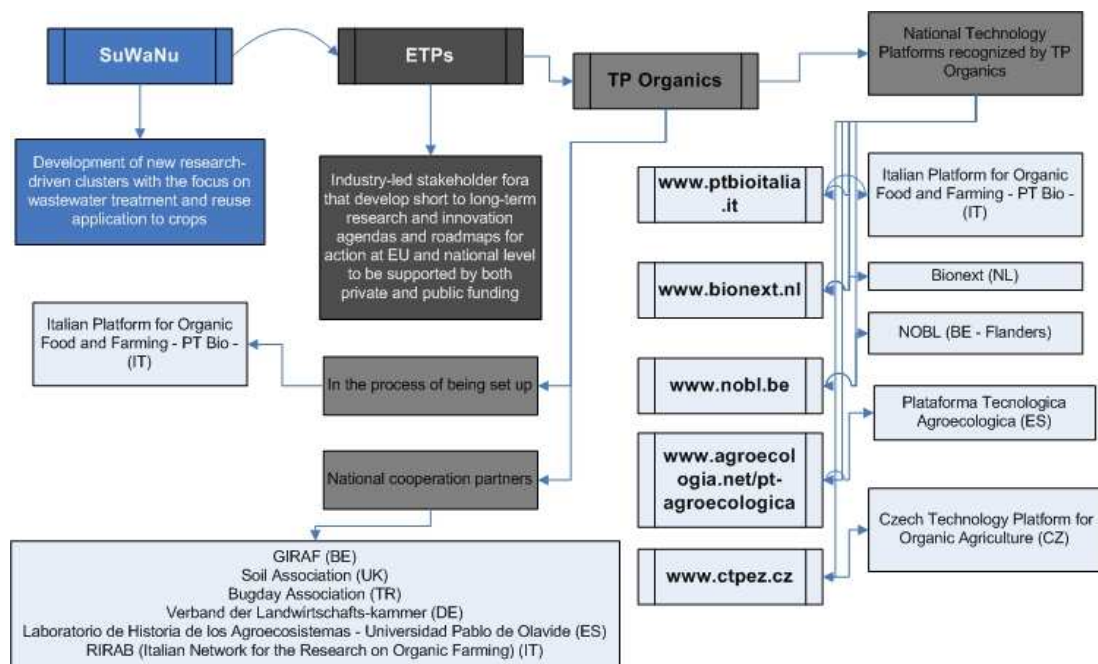


Figure 2. Related to SuWaNu national platforms and projects originated from the TP Organics

The European Commission is committed to its structured dialogue on research policy and priorities with European Technology Platforms. The European Technology Platforms which correspond to the interest base of the Knowledge-Based sector, includes several tool which address: existing and applied methods of wastewater treatment for reuse in agriculture in each of the regions and generally in the whole EU, including existing technologies for irrigation connected with wastewater treatment system.

Besides these implemented projects, originated from the **WssTP**, **Plants** or **TP Organics** there are still some other European initiatives (figure 3) whose relationship with the SuWaNu project will consider and present in the following sections.

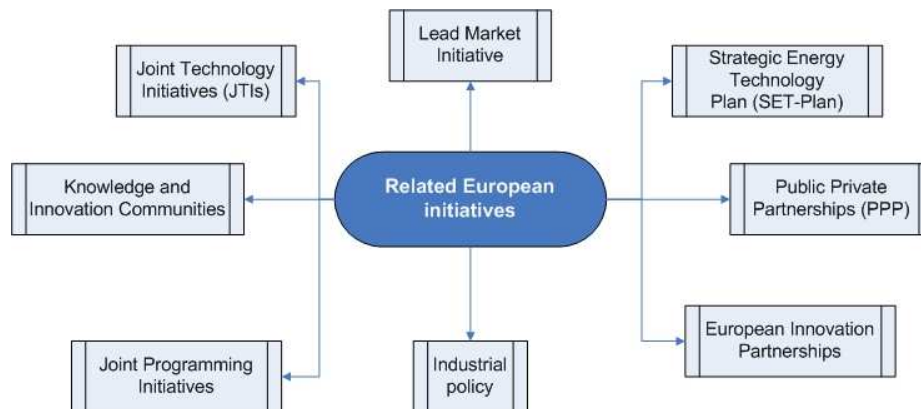


Figure 3. Other related European Initiatives

3. LIST OF JOINT TECHNOLOGY INITIATIVES

Joint Technology Initiatives (JTI) is a mechanism for performing and funding research at EU level. They are long-term Public-Private Partnerships or large-scale multinational research activities in areas of major interest to European industrial competitiveness. Moreover, they are implemented through dedicated structures – the so-called "Joint Undertakings" - that are independent legal entities with integrated management of the respective research projects. This means that these Joint Undertakings have a dedicated budget and dedicated staff and provide a framework for the public and private players to work and take decisions together.

The Seventh Framework Programme identifies JTIs as a means to support trans-national cooperation in industrial research. JTIs arise primarily from the work of ETPs. In a small number of cases, ETPs have achieved such an ambitious scale and scope that they will require the mobilisation of high public and private investments as well as substantial research resources to implement important elements of their Strategic Research Agendas. JTIs are proposed as an effective means of meeting the needs of this small number of ETPs. JTIs are critical to making a step change in promoting industry-driven research and development in Europe and to establish European leadership in future strategic technologies.

Figure 4 presents the six initiatives which were identified in the "Cooperation" Specific Programme. However, the only one related to SuWAaNu project is the "COPERNICUS", previous known as Global Monitoring for Environment and Security (GMES). GMES is being implemented not as JTIs but through an agreement with European Space Agency and research grants, on the basis of a decision taken after the launch of the FP.

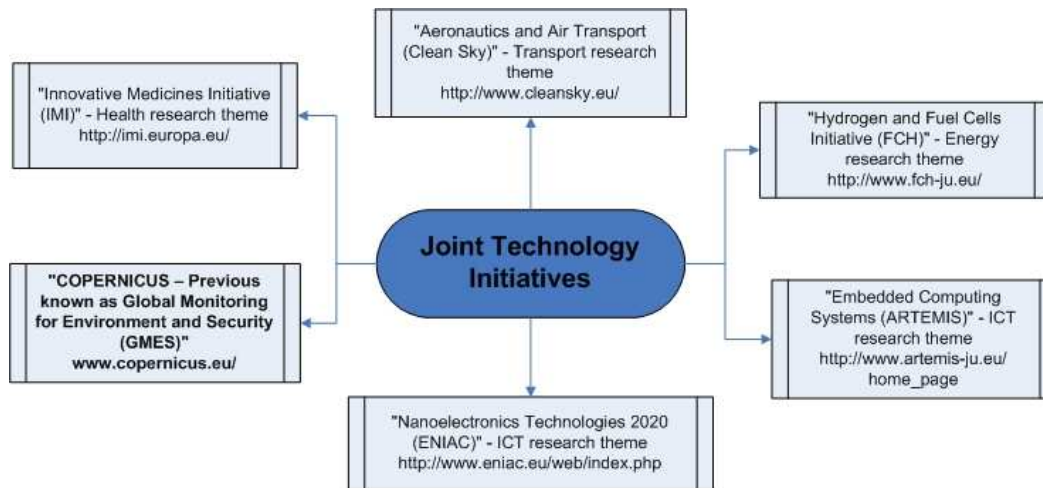


Figure 4. Joint Technology Initiatives

Several Copernicus related to SuWAaNu projects are currently funded under the 6th and 7th Framework Programme and over the last decade, numerous R&D projects funded either by the European Commission through its successive Framework Programmes or by the European Space Agency through its "GMES Services Element" (GSE) programme have contributed to the implementation of Copernicus.

1. **SIRIUS** (Sustainable Irrigation water management and River-basin governance: Implementing User-driven Services).

Aim: Develop efficient water resource management services in support of food production in water-scarce environments.

Funding body: DG ENTERPRISE, FP7, EC

Website: <http://www.sirius-gmes.es/>

From October 2010 to September 2013

Participants: Universidad Politécnica de Valencia (Spain), Diputación de Alicante (Spain), Integrated Resources Management (IRM) Company Limited (Malta), Infoterra Limited (United Kingdom), Istituto Nazionale di Economia Agraria (Italy) and more Partners.

Budget: €2,935,000

2. **WADE** (Floodwater Recharge of Alluvial Aquifers in Dryland Environments).

Aim: Develop and apply an innovative method of investigating the occurrence of floodwater resources, in time and space, to quantify the sustainable water yield of selected ephemeral streams and to formulate integrated water management strategies for their use.

Funding body: FP6, EC

Website: <http://www.wade.es>

From July 2004 to June 2008

Participants: Consejo Superior de Investigaciones Científicas (Spain), Institut National de la Recherche Scientifique (Canada), Hebrew University of Jerusalem (Israel) and more Partners.

Budget: €2,605,000

3. **AquaMar** (Marine Water Quality Information Services).

Aim: Striving for better water quality assessment

Funding body: DG ENTERPRISE, FP7, EC

Website: <http://www.aquamar-fp7.eu/index.php>

From April 2010 to March 2013

Participants: Thales Alenia Space France (France), Starlab Barcelona SL (Spain), Brockmann Carsten Wessel (Germany), Planetek Italia SRL (Italy), DHI (Denmark), Royal Belgian Institute for Natural Sciences (Belgium) and more Partners.

Budget: €4,875,000

4. **AWARE** (A tool for monitoring and forecasting Available WAter REsource in mountain environment).

Aim: Provide innovative tools for monitoring and predicting of water availability and distribution in those drainage basins where snowmelt is a major component of the annual water balance.

Funding body: FP6, EC

Website: <http://www.aware-eu.info>

From July 2005 to July 2008

Budget: €1,705,000

Participants: Consiglio Nazionale delle Ricerche Istituto per il Rilevamento Elettromagnetico dell'Ambiente (IREA CNR), POLITECNICO DI MILANO (POLIMI), Swiss Federal Institute for Snow and Avalanche Research Davos (SLF/WSL), Technische Universität Wien, Institute for Hydraulics, Hydrology and Water Resources Management (TUW), University of Ljubljana (ULFGG), Institut Cartogràfic de Catalunya (ICC), Remote Sensing Data Engineering (RSDE), University Jaume I (UJI)

5. **GENESIS** (Groundwater and Dependent Ecosystems: New Scientific and Technological Basis for Assessing Climate Change and Land-use Impacts on Groundwater).

Aim: Integrate pre-existing and new scientific knowledge into new methods, concepts and tools for the revision of the Ground Water Directive and better management of groundwater resources.

Funding body: FP7, EC

Website: http://www.bioforsk.no/ikbViewer/page/prosjekt/forside?p_dimension_id=16858&p_menu_id=16904&p_sub_id=16859&p_dim2=16859

From April 2009 to March 2014

Participants: Norwegian Institute for Agricultural and Environmental Research (Norway), Universidad Politecnica de Valencia (Spain), München Gesundheit Umwelt (Germany), University of Kent (United Kingdom) and more Partners.

6. **BRAHMATWINN** (Twinning European and South Asian River basins to enhance capacity and implement adaptive integrated water resources management approaches).

Aim: Integrated Water Resources Management (IWRM), Integrated Water Resources Management (GCC), Mitigation and adaptation scenarios.

Funding body: FP6, EC

Website: <http://www.brahmatwinn.uni-jena.de>

From June 2006 to December 2009

Participants: Friedrich-Schiller University, Jena, DE, The Royal University of Bhutan, (Bhutan) BT, Ludwig-Maximilian University, Munich, DE, Institute for Tibetan Plateau Research, (China) CN, ETH Zürich, (Switzerland) CH, Center for Agricultural Resource Research, (China) CN, University of Salzburg, AT, H.G. Geodata Solutions GmbH (SME), DE, University of Vienna, AT, Vodni Zdroje (SME), (Croatia) HR, University of Southampton, GB, Johann-Wolfgang Goethe University Frankfurt, DE, University of Dundee, GB, Indian Institute of Technology

Roorkee, (India) IN, University of Oslo, (Norway) NO, Codematix GmbH, DE, International Centre for Integrated Mountain Development, (Nepal) NP.

7. **WISER** (Water bodies in Europe: Integrative Systems to assess Ecological status and Recovery).

Aim: Develop tools for integrated status assessment with a focus on lakes, coastal and transitional waters and will evaluate recovery processes for rivers, lakes, coastal and transitional waters

Funding body: FP7, EC

Website: <http://www.wiser.eu>

From March 2009 to February 2012

Participants: University of Duisburg-Essen (UDE), DE, ALTERRA Green World Research, (ALTERRA), NL, Norwegian Institute for Water Research (NIVA), (Norway) NO, Universität für Bodenkultur Wien (BOKU), AT, Natural Environment Research Council–Centre for Ecology and Hydrology (NERC), GB, Estonian University of Life Sciences (EMU), EE, AZTI-Tecnalia Foundation (TECNALIA-AZTI), ES, University College London (UCL), UK, University of Hull (UHULL), UK, Institute for Ecosystem Studies (CNR-ISE), IT, Aarhus University (AU), DK, Stichting Deltares (DELFT), NL, French Research Institute for Agricultural and Environmental Engineering (CEMAGREF), FR, Institute of Marine Research–University of Coimbra (IMAR), PT, Swedish University of Agricultural Sciences (SLU), SE, Institute of Oceanology Bulgarian Academy of Sciences (IO-BAS) BG, European Commission Joint Research Centre (EC-JRC) Trinity College Dublin (TCD), IE, Institute of Environmental Protection (IEP), PL, University of Salento (USALENTO), IT, Forschungsverbund Berlin e.V. (FVB), DE, University of Bournemouth (BourneU), UK, Finnish Environment Institute (SYKE), FI, La Sapienza University of Rome (UNIROMA1), IT, Consejo Superior de Investigaciones Científicas (CSIC), ES.

8. **WISE** (Water Information System for Europe).

Aim: WISE is characterised by the following aspects: it is a formal compliance reporting tool for EU water legislation, it enables to share water-related information at European level, it is a platform for cooperation between EU Member States, EU bodies and stakeholders, it is the water-related component of the INSPIRE directive

Website: <http://www.water.europa.eu>

From November 1999

Participants: DG Environment is leading the policy and strategic part of WISE and interfaces with the Member States, mainly when it comes to definition of official reporting needs in the context of EU water legislation. European Environment Agency is the water data centre and host the public WISE web page which has as a central feature the section on "themes and data". Joint Research Centre (Institute for Environment and Sustainability) is responsible for the data synchronisation and has developed a number of useful tools, including the CCM2 database. Eurostat is collecting water statistics and provides significant input in the development of the GIS part of WISE and in particular ensuring the link to INSPIRE.

9. **WatPLAN** (Spatial earth observation monitoring for planning and water allocation in the international Incomati Basin).

Aim: The project focuses on water resources allocation, the identification of current water use, and high resolution monitoring of several water resource indicators on a weekly basis.

Funding body: FP7, EC

Website: <http://www.watplan.eu/>

From February 2011 to July 2013

Budget: €576,000

Participants: Basfood B.V., the Netherlands, Prezent Internet B.V., the Netherlands, Hidrosoph Lda., Portugal, WE Consult Lda., Mozambique, University of KwaZulu-Natal, South Africa, GeoTerralmage (Pty) Ltd, South Africa

In the following figure 5 one can distinguish the existing related to SuWaNu projects originated from the Copernicus in order to address synergies, to facilitate the collaboration and interaction of the results, to define research challenges and to optimise dissemination to national and European funding organisations and ministries.

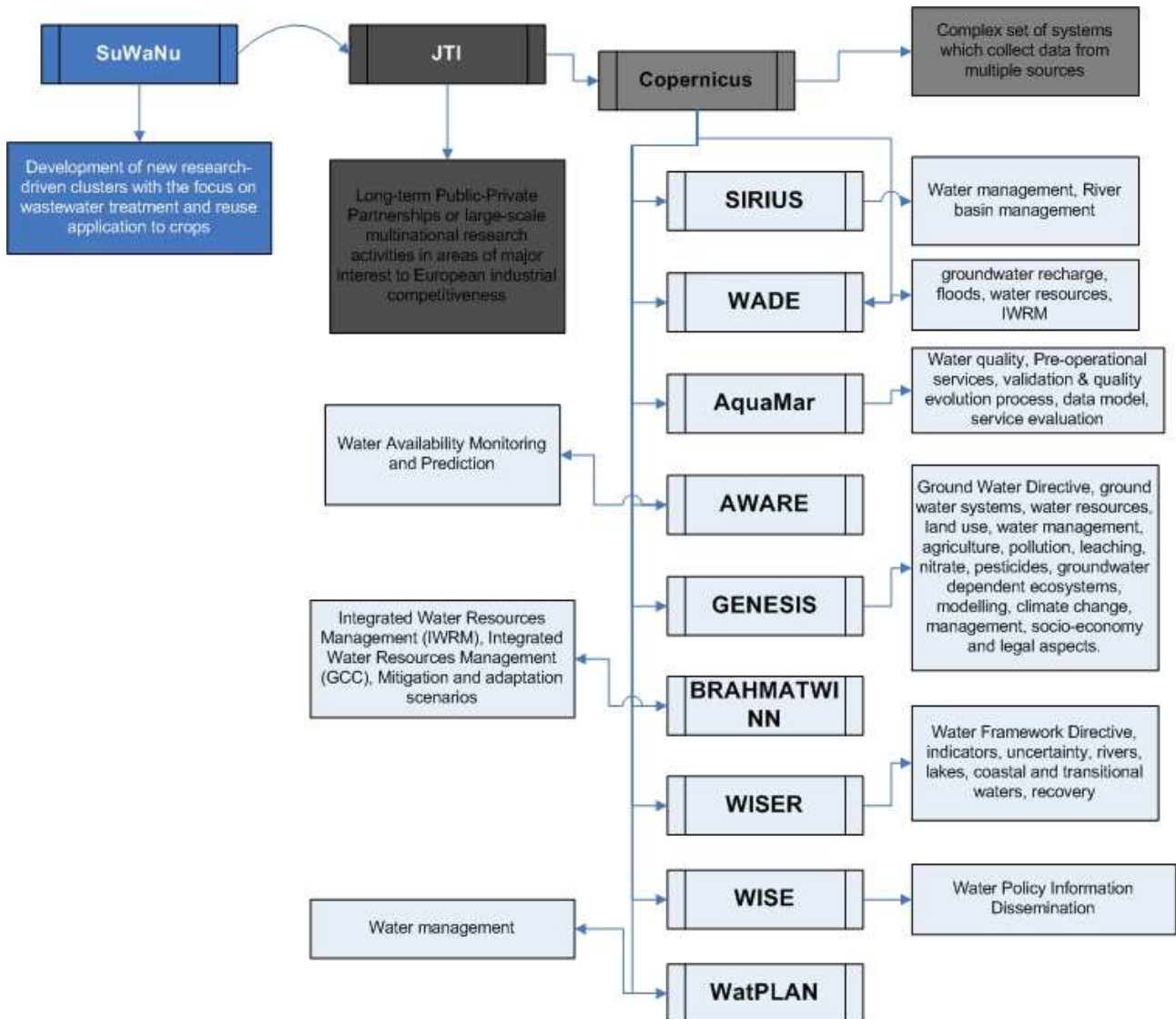


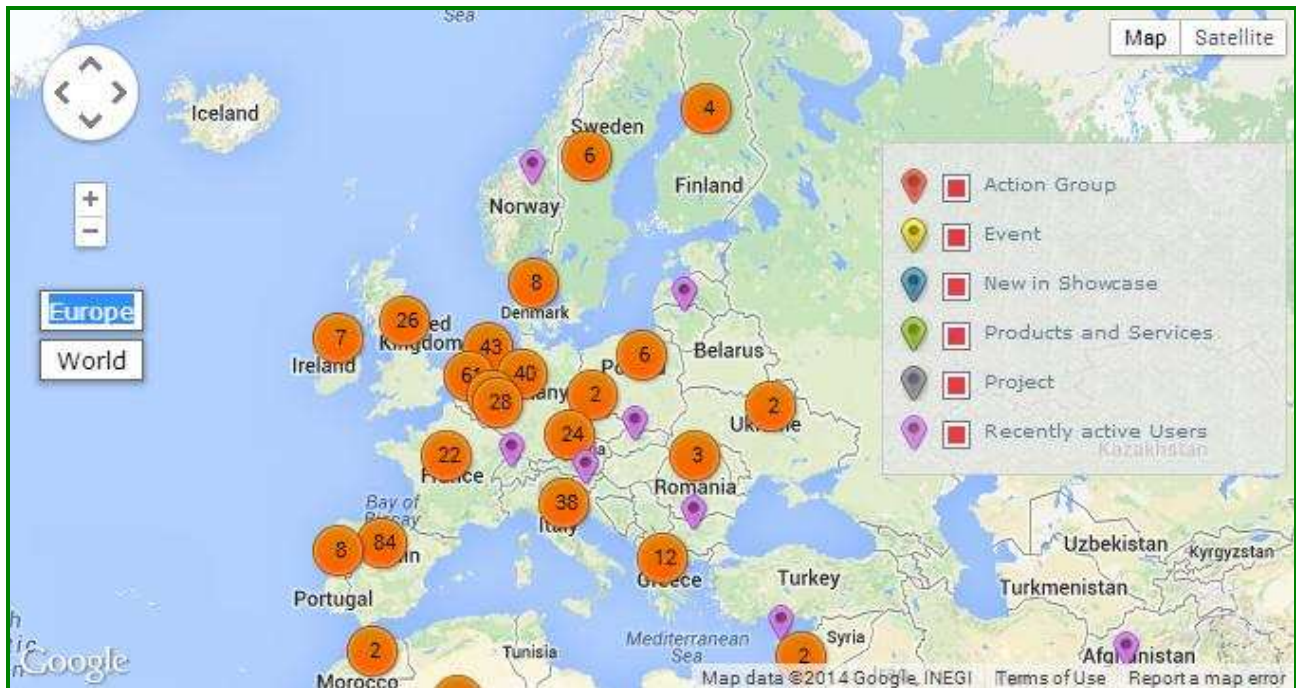
Figure 5. Related to SuWaNu projects originated from the Copernicus

4. LIST OF OTHER RELATED EUROPEAN INITIATIVES

Besides the above mentioned initiatives (ETPs and JTIs) there are still few additional related to SuWaNu project. Among these the most important are the European Innovation Partnerships (EIPs) and the Joint Programming Initiatives (JPIs).

EIPs aim to speed up innovations that contribute to solving societal challenges, enhance Europe's competitiveness and contribute to job creation and economic growth. EIPs help to pool expertise and resources by bringing together public and private actors at EU, national and

regional level, combining supply- and demand-side measures. More specifically, the EIP on Water is an initiative within the EU 2020 Innovation Union (http://ec.europa.eu/research/innovation-union/index_en.cfm?pg=why). The EIP Water facilitates the development of innovative solutions to address major European and global water challenges. At the same time, the EIP Water supports the creation of market opportunities for these innovations, both inside and outside of Europe. The EIP Water aims to remove barriers by advancing and leveraging existing solutions. Its implementation has started in May 2013 with the main objective to initiate and promote collaborative processes for change and innovation in the water sector across the public and private sector, non-governmental organisations and the general public. This is mainly done via the establishment of Action and other Working Groups (<http://www.eip-water.eu/working-groups/action-groups>).



Map 1. EIP Water European links/contacts

Regarding the EIP Water we can mention more than 425 European links/contacts (action groups, events, new in showcase, products and services, projects and recently active users). The strong majority of them (more than 65%) are recently active users (scientists, academics or professionals). In particular, 84 national contacts exist in Spain, 40 national contacts exist in Germany, 12 national contacts exist in Greece while only one user exists in Bulgaria and no one in Malta. More than 40% of them exist in the countries Benelux & Germany while also 20% exist in Spain and 9% in Italy. Globally, we can also mention around 60 non-European links/contacts (Map 2). It is very important to identify these links/contacts in order to open channels for SuWaNu dissemination.



Map 2. EIP Water World links/contacts

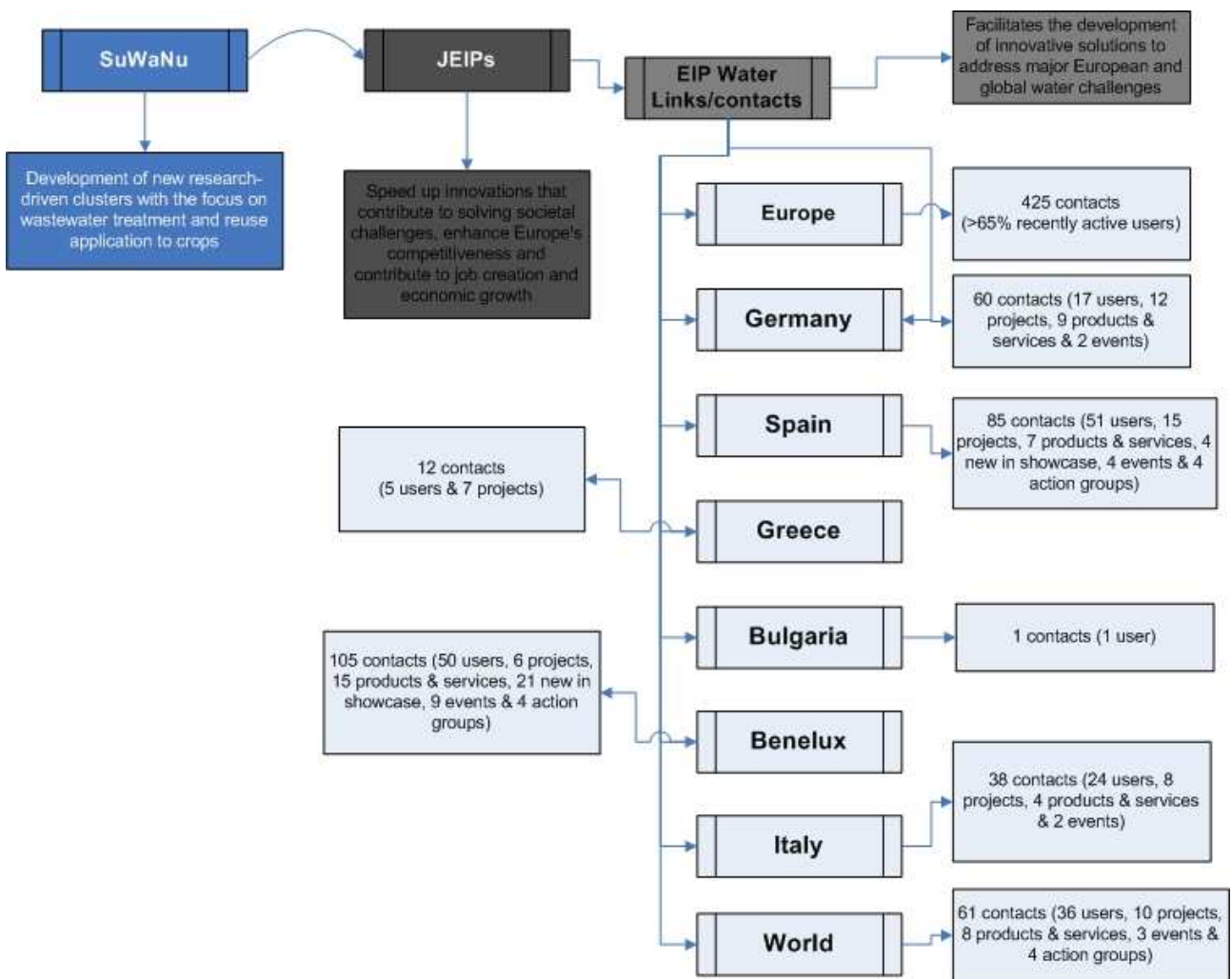


Figure 6. EIP Water links/contacts (per country)

Additionally, there are also two related to SuWaNu Joint Programming Initiatives (JPIs): the “Water challenges for a changing world (<http://www.waterjpi.eu>)” and the “Agriculture, Food Security and Climate Change (<http://www.facejpi.com>)”.

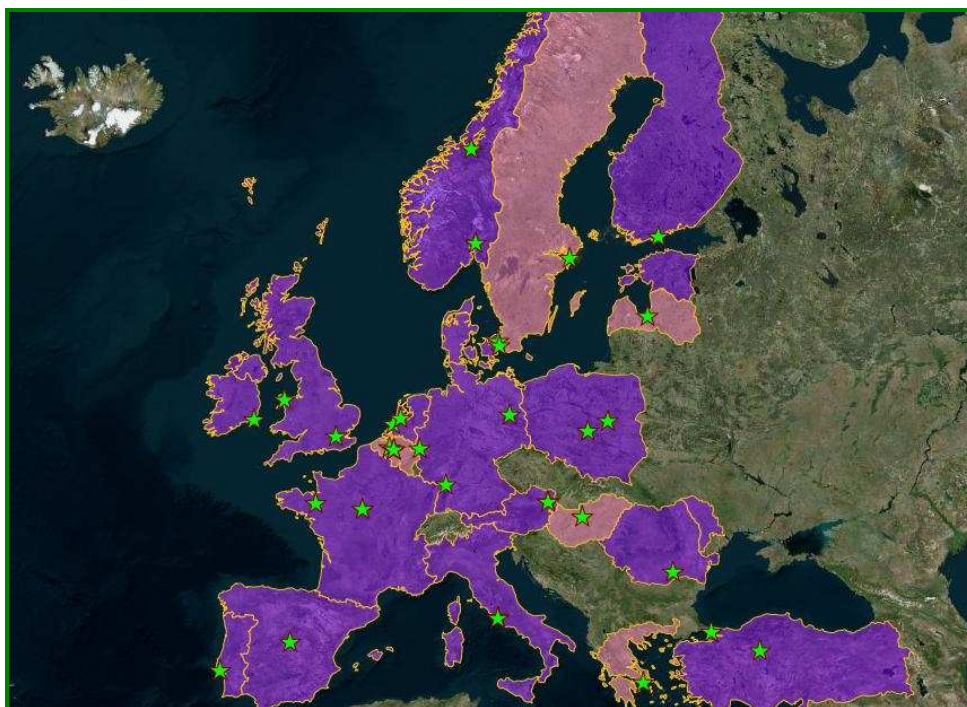
JPI is a concept introduced by the European Commission in July 2008 and is one of five initiatives aimed at implementing the European Research Area (ERA). The objective of JPI is to “increase the value of relevant national and EU R&D funding by concerted and joint planning, implementation and evaluation of national research programmes”. In JPI, Member States are expected to coordinate national research activities, group resources, benefit from complementarities and develop common research agendas, in order to face grand societal challenges. JPI intends to tackle the challenges that cannot be solved solely on the national level and allows Member States to participate in those joint initiatives where it seems useful for them. Further information is available on the site of the European Commission.

The first related to SuWaNu JPI (Water JPI) aiming to tackle the ambitious challenge of “Achieving Sustainable Water Systems for a Sustainable Economy in Europe and Abroad”. Specific challenges have been identified in the economic, ecological, societal and technological domains. Objectives address the need for increased coordination in European research, development and innovation (RDI), and address issues such as user participation, attaining targets in the coordinated use of funds and progress in the integration of RDI agendas and activities.

The research questions are cast in five axes:

- maintaining ecosystem sustainability;
- developing safe water systems for the citizens;
- promoting competitiveness in the water industry;
- implementing a water-wise bio-based economy;
- closing the water cycle gap.

The WATER JPI currently counts on 19 partner countries: Austria, Cyprus, Denmark, Estonia, Finland, France, Germany, Ireland, Israel, Italy, The Netherlands, Norway, Poland, Portugal, Romania, Spain, Turkey, United Kingdom, Moldavia. And 5 observer countries: Belgium, Greece, Hungary, Sweden, Latvia.



Map 3. WATER JPI partners (magenta) and observers (pink)

The second related to SuWaNu JPI (FACCE-JPI) brings together 21 countries who are committed to building an integrated European Research Area addressing the interconnected challenges of sustainable agriculture, food security and impacts of climate change. FACCE-JPI provides and steers research to support sustainable agricultural production and economic growth, to contribute to a European bio-based economy, while maintaining and restoring ecosystem services under current and future climate change.

It aims to do so with a strong transdisciplinary research base, encompassing economic and social aspects in addition to scientific ones, and with a creative approach towards the alignment of national programmes and the input of multiple actors and stakeholders.

- The integrated FACCE-JPI strategic research agenda defines 5 core research themes: Sustainable food security under climate change, based on an integrated food systems perspective: modeling, benchmarking and policy research perspective
- Environmentally sustainable growth and intensification of agricultural systems under current and future climate and resource availability
- Assessing and reducing trade-offs between food production, biodiversity and ecosystem services
- Adaptation to climate change throughout the whole food chain, including market repercussions
- Greenhouse gas mitigation: nitrous oxide and methane mitigation in the agriculture and forestry sector, carbon sequestration, fossil fuel substitution and mitigating GHG emissions induced by indirect land use change

These core research themes are gradually taken into account by national research agendas in view of aligning national programmes where much research is already undertaken, and inspire pilot joint actions on topics where research is lacking. In the following figure 7 one can see the administrative and organisational framework of FACCE-JP.

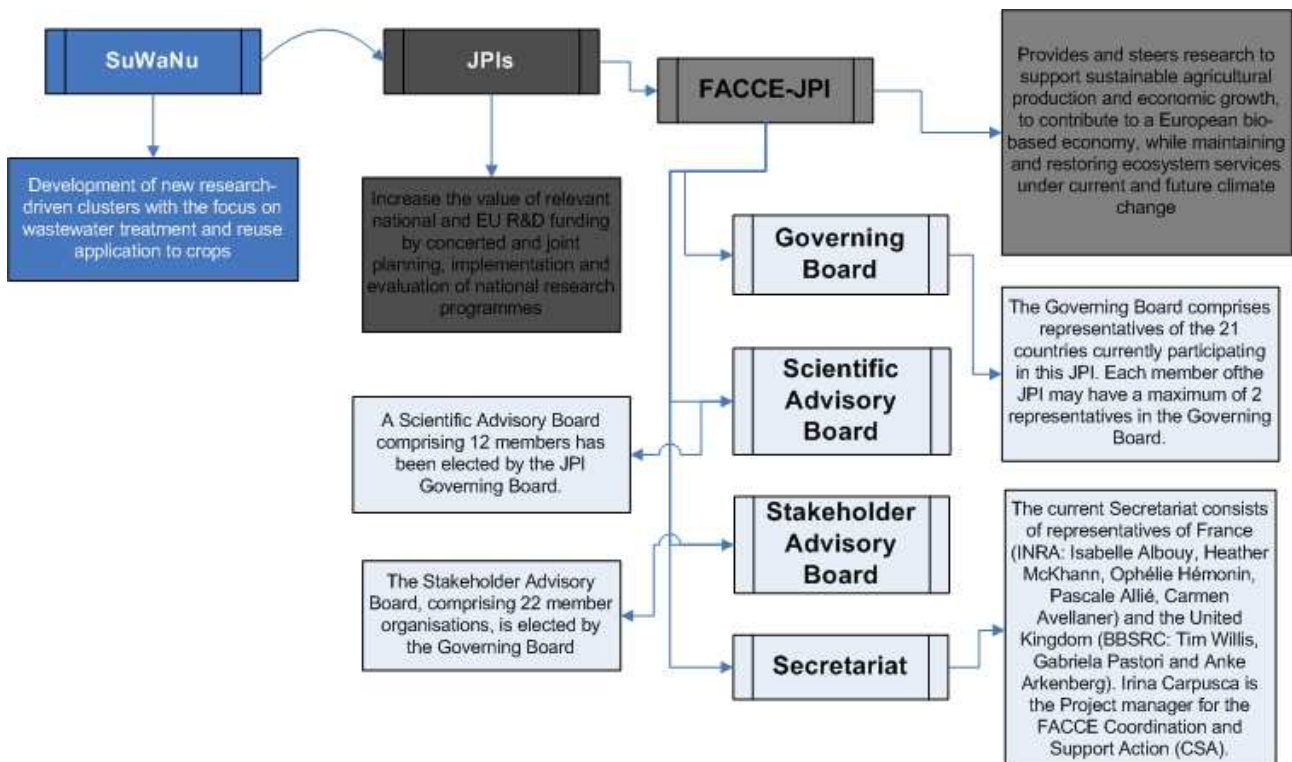


Figure 7. Administrational and organisational framework of FACCE-JP

5. LIST OF OTHER RELATED EUROPEAN PROJECTS

Other National Technology Platforms (Spanish):

1. **PTEA** (Plataforma Tecnológica Española del Agua).

Aim: Public-private network for the promotion of R+D+i between national scientific and technological agents led by industry and the rest of the water sector cooperation business

Website: <http://www.plataformaagua.org/>

From 2011

Governmental partners: Ministerio de Ciencia e Innovación, Gobierno de Aragón, Gobierno de Navarra

Non governmental partners: ABENGOA WATER (www.abengoa.com), ACCIONA AGUA (www.accion-a-agua.es), Sadyt (www.sacyr.com)

Comments: Develop technologies and solutions that ensure the sustainable management of water resources

2. **PLANETA** (Plataforma Tecnológica Española de Tecnologías Ambientales).

Aim: aims to become the reference for the promotion and dissemination of environmental technologies in Spain.

Website: www.pt-planeta.es

From 2008

Governmental partners: Ministerio de Economía y Competitividad

Non governmental partners: -

3. **CETAQUA**

Aim: Private non-profit foundation that integrates, manages and executes research projects with the aim of proposing innovative solutions to companies, governments and society in the area of the integral water cycle

Website: <http://www.cetaqua.com/>

From 2007

Governmental partners: (CSIC) Consejo Superior de Investigaciones Científicas

Non governmental partners: (AGBAR) Aguas de Barcelona, (UPC) Universidad Politécnica de Cataluña

4. **PTER** (Plataforma Tecnológica Española del Riego)

Aim: A network of national scientific-technological agents for the promotion of research, development and innovation of technologies for the sustainable management of water resources

Website: www.plataformariego.org

Governmental partners: Consejería de Educación y Ciencia Junta de Castilla La Mancha

Non governmental partners: -

Other National Technology Platforms (Maltese):**5. NEPTUME** (No-discharge Energy Efficient Prototype for the Treatment of Urban Municipal Effluent)

Aim: To study the treatment of municipal sewage using a compact ceramic membrane system followed by a phytoremediation process.

Funding body: MCST R&I funds

Website: <http://www.mcst.gov.mt/national-funding/ri-programme/funded-ri-projects/ri-2010-038-no-discharge-energy-efficient-prototype>

Possible contacts at national level: Architecture Project (AP) Ltd + Water Services Corporation + Department of Biology at University of Malta

Budget: €185,143

6. MORISO (Monitoring of groundwater resources and measures to control marine intrusion and to reduce pollution from agricultural activities)

Aim: To monitor coastal aquifers, aimed at controlling marine intrusion and reduction of pollution caused by agricultural activities. Produced a water treatment portable unit involving UF and low pressure RO.

Funding body: Operational Programme Italy-Malta 2007-2013

Year: 2011

Website: <http://www.moriso.it/>

Possible contacts at national level: Architecture Project (AP) Ltd + Water Services Corporation + Department of Biology at University of Malta

Budget: €185,143

7. E²STORMED (Improvement of Energy Efficiency in the Water Cycle by the use of Innovative Storm Water Management in Smart Mediterranean Cities)

Aim: To improve energy efficiency in the urban water cycle and in buildings by promoting the use of innovative storm water solutions such as Sustainable Drainage Systems (SuDS) in Mediterranean cities.

Funding body: MED Programme

Year: January 2013 (30 months)

Website: <http://www.e2stormed.eu/>

Possible contacts at national level: Local Councils' Association (+others from other countries)

8. MARSOL (Demonstrating Managed Aquifer Recharge as a Solution to Water Scarcity and Drought)

Aim: To demonstrate that Managed Aquifer Recharge (MAR) is a sound, safe and sustainable strategy that can be applied with great confidence and therefore offering a key approach for tackling water scarcity in Southern Europe

Funding body: FP7-ENVIRONMENT

Year: December 2013 (36 months)

Website: http://www.tu-darmstadt.de/vorbeischauen/aktuell/news_details_87808.en.jsp

Possible contacts at national level: Malta Resource Authority + Water Services Corporation + Paragon Ltd

Partners: INSTITUTE OF COMMUNICATION AND COMPUTER SYSTEMS–HELLAS, LABORATORIO NACIONAL DE ENGENHARIA CIVIL – PORTUGAL, UNIVERSITAT

POLITECNICA DE CATALUNYA – ESPAÑA, SCUOLA SUPERIORE DI STUDI UNIVERSITARI E DI PERFEZIONAMENTO SANT'ANNA – ITALIA, EMPRESA DE TRANSFORMACION AGRARIA SA – ESPAÑA, IWW RHEINISCH WESTFALISCHES INSTITUT FÜR WASSERFORSCHUNG GEMEINNUTZIGE GMBH – DEUTSCHLAND, MALTA RESOURCES AUTHORITY – MALTA, ENVIRONMENTAL PLANNING ENGINEERINGMANAGEMENT AE – HELLAS, SGI STUDIO GALLI INGEGNERIA SPA – ITALIA, THE AGRICULTURAL RESEARCH ORGANISATION OF ISRAEL - THE VOLCANI CENTRE – ISRAEL, ETAIREIA YDREYSEOS KAI APOCHETEFSEOS PROTEYOYSIS ANONIMI ETAIREIA – HELLAS, HELMHOLTZ-ZENTRUM FÜR UMWELTFORSCHUNG GMBH – UFZ – DEUTSCHLAND, AUTORITA DI BACINO DEI FIUMI ISONZO TAGLIAMENTO LIVENZA PIAVE BRENTA BACCHIGLIONE – ITALIA, PARAGON LIMITED – MALTA, TARH-TERRA AMBIENTE E RECURSOS HIDRICOS LDA – PORTUGAL, PROVINCIA DI LUCCA – ITALIA, MEKOROT WATER COMPANY ISRAEL – ISRAEL, TEA SISTEMI SPA – ITALIA, UNIVERSIDADE DO ALGARVE – PORTUGAL, WATER SERVICES CORPORATION – WSC - MALTA

Budget: €8,039,898

9. Desalination of Sea/Brackish Water by Decentralized Solar energy Units

Aim: To design and develop desalination units which are thermodynamically efficient, economically competitive and which could be easily manufactured in Malta

Funding body: MCST R&I funds

Website: <http://www.mcst.gov.mt/national-funding/ri-programme/funded-ri-projects/ri-2006-027-desalination-seabrackish-water>

Possible contacts at national level: Faculty of Engineering at University of Malta + Water Services Corporation + Solar Desalination Technik

Budget: €210,669

10. Development of an Innovative Wastewater Recycling Process for Hotels / Large Commercial Buildings / Isolated Communities for Environmental Protection and Cost Recovery

Aim: To develop an innovative water recycling process to maximize reuse of water and minimise discharge. By using a Membrane BioReactor wastewater treatment process in combination with a low-pressure, low-energy RO.

Funding body: MCST R&I funds

Website: <http://www.mcst.gov.mt/national-funding/ri-programme/funded-ri-projects/ri-2006-009-development-innovative-wastewater>

Possible contacts at national level: Sustech Consulting + Department of Public Health + Island Hotels Group

Budget: €112,887

Other National Technology Platforms (German):

11. ELaN (Entwicklung eines integrierten Landmanagements durch nachhaltige Wasser- und Stoffnutzung in Nordostdeutschland)

Aim: To connect technological innovations in water and nutrient management with organizational innovations for sustainable land management

Year: 2011 (4 years)

Funding body: Bundesministerium für Bildung und Forschung (BMBF)

Website: <http://www.elan-bb.de/>

Partners: TU Berlin, IRS Leipzig, Berliner Wasserbetriebe, HU Berlin, HNE Eberswalde, BIOPOS, ATB Leibnitz, bfg, IGB Leibnitz, ECT GmbH, FU Berlin

12. **AVBS** (Braunschweiger Modell)

Aim: A CO₂-neutral biogas production and reuse of treated WW

Funding body: Stadt Braunschweig

Website: <http://www.abwasserverband-bs.de/de/was-wir-machen/braunschweiger-modell/>

Partners: Abwasserverband Braunschweig, Association of Gifhorn

13. **RePro** (Ressourcen vom Land - Planer zur regionalen Ressourcennutzung)

Aim: Develop supply chains that utilize the material and energy resources of the region in an intelligent and sustainable way

Year: 2010 (3 years)

Funding body: Bundesministerium für Bildung und Forschung (BMBF)

Website: <http://www.reproketten.de/>

Partners: Klimaschutzregion Elbe-Elster, Bioenergieregion Wittenberg, inter 3 Institut für Ressourcenmanagement, BTU Cottbus, Hochschule Anhalt, TU Berlin

14. **Null Abwasser für die Höfe** (Within the framework of the collaborative “Null-Emissions-Gemeinden” research project, the Areal GmbH has developed a concept to proceed wastewater treatment in situ and to avoid the discharge into the recipient)

Aim: Reorganize and systematically innovate the management of material and energy systems of region municipality with the objective to generate a regional additional value by saving resources and avoid as much emission as possible

Year: 2008

Funding body: Bundesministerium für Bildung und Forschung (BMBF)

Website: http://www.null-emissions-gemeinden.de/fileadmin/null-emissions-gemeinden/dokumente/2013-04-09_NEG_Poster_AREAL_Final.pdf

Partners: Areal GmbH

Other European Technology Platforms:

15. **SANITAS**

Aim: Meet the deficiencies in human resources in European Urban Water System (UWS) management, the need for applications of technology and for sustainability through development of an integrated technology, knowledge and action base

Website: <http://www.sanitas-itn.eu/>

Year: 2011

Governmental partners: Universitat de Girona, Exeter University, Catalan Institute for Water Research, Ghent University, Lund University, Technical University of Denmark, Yarqon River Authority, Wageningen University, Pompeu Fabra University

Non governmental partners: ACCIONA Agua, AQUAFIN, Waterways, Aktins, Witteveen+Bos Consulting Engineers

Main results: Advanced training and dialogue

16. **MBR-Network**

Aim: Promoting the development of the MBR technology while funding four projects entirely dedicated to research, development, capacity building and technological transfer in regards to this promising wastewater treatment process.

Website: <http://www.mbr-network.eu/>

Year: 2005

Governmental partners: Around 50 European and international companies and institutions were actively involved in these four projects

Non governmental partners: Around 50 European and international companies and institutions were actively involved in these four projects

Main results: Important technological breakthroughs, process improvement, knowledge and capacity transfer and building

17. **Neptune**

Aim: focus on technology solutions allowing to meet present and future standards via upgrading of existing municipal infrastructure (new control strategies with online sensors; effluent upgrading with oxidation, activated carbon or wetland treatment; safe sludge processing and reuse) as well as via new techniques (fuel cell applications; new oxidation processes; production of polymer and phosphate from sludge).

Website: <http://www.eu-neptune.org/>

Year: 2006

Governmental partners: Federal Institute of Hydrology (D), Laboratory of Microbial Ecology and Technology (BE), Istituto di Ricerca Sulle Acque del Consiglio Nazionale delle Ricerche (IT), Johann Wolfgang Goethe University Frankfurt am Main (D), Technical University of Denmark, National Institute of Research and Development for Isotopic and Molecular Technologies, Cluj-Napoc (DK), modelEAU, Université Laval (CA), AWMC, The University of Queensland (AUS)

Non governmental partners: Eawag (CH), Aquafin NV (BE), Deutsche Projekt Union Ltd. (D), Institute for Product Development (DK), Siluet B (BG), Pyromex PLC (UK), Gebrüder Hunziker AG (CH), s::can Messtechnik GmbH (AT), CAMBI AS (NO), AnoxKaldnes, AB (SE).

Main results: Covering knowledge gaps of new solutions and evidencing pros and cons of technologic alternatives through direct comparison.

Related national platforms: Innowatech, ERAPHARM, Poseidon, Amedeus, Repharmawater, Euombra, P-Three, Susan, Reclaim Water, Removals, WSSTP, COST 636, SCORE-PP.

18. **ERAWATCH** (European Commission's information platform on European, national and regional research and innovation systems and policies)

Aim: Support policy-making in the research and innovation field in Europe and to contribute to the realisation of the European Research Area (ERA).

Website: <http://erawatch.jrc.ec.europa.eu/>

Partners: Currently covers 61 countries: the 28 Member States of the European Union, 13 countries associated with the European Community's Research Framework Programme and 20 third countries.

19. **EMWIS** (Euro-Mediterranean Information System on know-how in the Water sector)

Aim: EMWIS is an initiative of the Euro-Mediterranean Partnership. It provides a strategic tool for exchanging information and knowledge in the water sector between and within the Euro Mediterranean partnership countries.

Website: <http://www.emwis.org/>

Partners: The 27 EU member states of the EU, The 16 Mediterranean Partner Countries (Albania, Algeria, Bosnia and Herzegovina, Croatia, Egypt, Jordan, Israel, Lebanon, Mauritania, Monaco, Montenegro, Morocco, Palestinian Authority, Syria, Tunisia, Turkey)

20. **LAGOON-MEMB** (Construction, Start-up and 16-months Performance Check of a Demonstration Plant for the Cost-Efficient Treatment of Municipal Wastewater in Rural Districts up to Service Water Quality)

Aim: The demonstration of the reliability and economic efficiency of the LAGOON-MEMB process concept for the treatment of municipal sewage in rural areas (500 to 2500 PE) to produce service water

Website: <http://www.lagoon-memb.com/html/home.html>

Year: 2003 (3 years)

Partners: Association of Waste Disposal Companies of Saarland – Wastewater management, Institute for Environmentally Compatible Process Technology (upt), BAMAG GmbH & Co. KG, Ministry for the Environment (MfU) of Saarland

21. **Life+ WW-SIP**

Aim: From Urban Wastewater Treatment Plant to Self Sustainable Integrated Platform for Wastewater Refinement

Website: <http://www.lifewwsip.it/home>

Year: 2012 (4 years)

Partners: Portuguese National Laboratory of Energy and Geology (LNEG), Portugal Cyclus RD Ltd., Spain Umbra Acque S.p.A., Italy Águas da Figueira, S.A., Portugal

Budget: €3,800,000

22. **Water4crops**

Aim: Developing innovative bio-technological wastewater treatments for enhancing wastewater agricultural reuse

Website: <http://www.water4crops.org/>

Year: 2012 (4 years)

Funding body: Department of Biotechnology (India) AND EU (7th FWD)

Possible contacts: International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) AND Istituto di Ricerca Sulle Acque - Consiglio Nazionale delle Ricerche (IRSA-CNR), Dept. of Bari, Italy

Partners: 22 partners from Europe AND 13 from India

23. **Treat&Use**

Aim: Provide a safe, technological solution for reusing wastewater in agricultural production

Website: <http://www.treatanduse.eu/>

Year: 2012 (4 years)

Funding body: EU (7th FWD)

Possible contacts: TTZ

Partners: BIOAZUL (ES), Isitec (D), Soil Moisture Sense (GB), ttz (D), HydroAir (D), Pessl Instruments (AT)

24. **Demeau**

Aim: promotes the uptake of prototypes and practices from previous EU research projects, including promoting initiatives in the water sector that deal with emerging pollutants. This will further secure water and waste water services and public health.

Year: 2011 (3 years)

Funding body: European Commission, Directorate-General Research & Innovation (DG Research & Innovation)

Possible contacts: Ecologic Institute, Germany

Partners: 17 members from five different EU countries, and it includes members from universities, research institutions, innovative SME's, water utilities and policymakers.

25. **MED EUWI**

Aim: Strategic partnership among stakeholders (national, regional and international) in the Mediterranean region. It seeks to make significant progress in poverty eradication and health and the enhancement of sustainable livelihoods and socio-economic development in the developing countries of the Mediterranean and South-Eastern Europe

Year: 2003

Funding body: EUWI

Website: <http://www.euwi.net/>

Possible contacts: Global Water Partnership – Mediterranean (GWP-Med)

Partners: national governments, donors, the water industry, NGOs and other stakeholders

26. **SWIM**

Aim: Support institutional strengthening by ensuring that national water strategies and plans properly address issues of sustainable water resources management based on internationally accepted principles of IWRM

Year: 2010 (4 years)

Funding body: EU

Website: <http://www.swim-sm.eu/>

Possible contacts: Union for the Mediterranean

Partners: LDK Consultants Engineers & Planners SA, Arab Countries Water Utilities Association (ACWUA), Arab Network for Environment and Development (RAED), DHV B.V., Global Water Partnership - Mediterranean (GWP-Med), Greek Ministry of Environment, Energy & Climate Change, Department of International Relations & EU Affairs, Lebanese Ministry of Energy and Water, General Directorate of Hydraulic and Electrical Resources, Tunisian Ministry of Agriculture and Environment, Umweltbundesamt GmbH - Environment Agency, Austria.

Budget: €6,700,000

27. **Development of vegetation media made from renewable raw materials for reclamation of eroded mediterranean areas in combination with reuse of treated waste water**

Aim: The objective of the project is to develop media for simultaneous prevention of erosion and the enhancement of a vegetation cover. A specified irrigation system using treated wastewater

Year: 2010 (4 years)

Funding body: FP5-LIFE QUALITY

Website: http://cordis.europa.eu/projects/rcn/61466_en.html

Budget: €30,000 (EU contribution: €22,500)

28. **SOWAEUMED** (Network in solid waste and water treatment between Europe and Mediterranean countries)

Aim: The project foresees the synergic work of participants of various scientific profiles by improvement of scientific relationships, exchange of know-how and experience between the participating centers, including training in MS of Ph.D. students and/or post-doctoral researchers, to upgrade S&T research capacities of centers in MED countries dealing with waste treatment technologies both conventional, advanced and nanoscience based.

Year: December 2009 (3 years)

Funding body: Research Potential (REGPOT-2009-2)

Website: http://cordis.europa.eu/projects/rcn/94376_en.html & <http://www.emwis.org/initiatives/fo1060732/network-solid-waste-and-water-treatment-between-europe-and-mediterranean>

Budget: €988,998 (EU contribution: €881,856)

29. **Project Preparation for “Waste Water Treatment Plants – Pazardjik, Blagoevgrad, Razlog”**

Funding body: EU – PHARE

Website: <http://www.eptisasee.com/bulgaria-project-preparation-for-waste-water-treatment-plants-pazardjik-blagoevgrad-razlog/>

Partners: EPTISA Regional Office for South East Europe

Budget: €500,000

30. **EU-Balkanvegetables** (Balkan Vegetable Research Centre for Transfer of European Knowledge, Research and Practice)

Aim: Central to the project was the transfer of recent achievements in European science and know-how to Maritsa VCRI.

Funding body: FP7 Research Potential programme

Website: <http://www.balkanvegetables.eu/en>

Budget: €1,100,000

Partners: Maritsa Vegetable Crops Research Institute (BG)

31. **COPELFLOW** (Coprecipitation and electroflotation for the treatment of waste waters contaminated by colloid particles and heavy metal ions)

Aim: Central to the project was the transfer of recent achievements in European science and know-how to Maritsa VCRI.

Funding body: FP4-INCO

Year: 1998 (54 months)

Website: http://cordis.europa.eu/projects/rcn/46361_en.html

Partners: UNIVERSITÉ DE FRANCHE-COMTÉ INSTITUTE OF CATALYSIS AND SURFACE CHEMISTRY - POLISH ACADEMY OF SCIENCES University of Sofia Kliment Ohridski KATHOLIEKE UNIVERSITEIT LEUVEN "Coroza Engineering" Sofia METALOGIC N.V. A.I. TECHNOLOGIES & ENGINEERING

32. **PHOTONANOTECH** (Photozyme Nanoparticle applications for water purification, textile finishing, photodynamic biomineralization and biomaterial coating)

Aim: to develop new classical type photozymes and to investigate their long-term innovation potential as photocatalysts in solar wastewater detoxification and disinfection, as a new

approach to control the biomineralisation process and as new biomedical coatings and materials with suppressed inflammatory response.

Funding body: FP6-NMP

Year: 2007

Website: <http://cordis.europa.eu/projects/33168>

Partners: SOFIA UNIVERSITY ST. KLIMENT OHRIDSKI, UNIVERSIDADE DO MINHO, TECNOLOGIE BIOMEDICHE SRL, INOTEX SPOL. S R.O., PERCA LTD., COLOR-CENTER, S.A., TINFER, S.L., SPECIALNI POLIMERI LTD. (SPECIAL POLYMERS LTD), INSTITUT FUR VERBUNDWERKSTOFFE GMBH, CENTRO DE INVESTIGACIONES ENERGETICAS, MEDIOAMBIENTALES Y TECNOLOGICAS, POLITECNICO DI TORINO, UNIVERSITAT POLITECNICA DE CATALUNYA (TECHNICAL UNIVERSITY OF CATALONIA)

Budget: €2,250,000 (EU contribution: €1,550,000)

33. WATER REUSE (Sustainable waste water recycling technologies for irrigated land in nis and southern European states)

Aim: This project aims to (a) reduce irrigation water losses by developing, evaluating and promoting techniques that improve the wetting properties of soils, and (b) investigate the use of organic-rich waste water as a non-conventional water resource in irrigation and, in addition, as a tool in improving soil physical properties and soil nutrient and organic matter content.

Funding body: FP6-INCO

Year: 2005

Website: http://cordis.europa.eu/projects/rcn/75838_en.html

Partners: STICHTING DIENST LANDBOUWKUNDIG ONDERZOEK - NEDERLAND, NATIONAL SCIENTIFIC CENTRE "INSTITUTE FOR SOIL SCIENCE AND AGROCHEMISTRY RESEARCH" - UKRAINE, SARATOV STATE AGRARIAN UNIVERSITY-Russian Federation, UNIVERSIDAD MIGUEL HERNANDEZ-ESPAÑA, DEMOCRITUS UNIVERSITY OF THRACE-HELLAS, UNIVERSITY OF WALES-UNITED KINGDOM, MOSCOW STATE UNIVERSITY OF ENVIRONMENTAL ENGINEERING-Russian Federation.

Budget: €1,450,000 (EU contribution: €1,180,000)

34. CB-WR-MED (Capacity Building for Direct Water Reuse in the Mediterranean Area)

Aim: The objective of this project is to reinforce the R&D capacities of CERTE and its regional and international impact with the ultimate goal that R&D activities lead to a fruitful cooperation with the UE for sustainable water management in accordance with the national and European strategies. The project proposes to use the frame of FP7 programme (ERA-WIDE) for the reinforcement of cooperation capacities of Tunisian research centre Centre of Water Researches and Technologies, CERTE in specific items which CERTE has already an expertise to build on competency and capacity.

Funding body: FP6-INCO

Year: November 2010 (30 months)

Website: http://www.cbwrmed-project.eu/CBWRMEDt-stream_AkrouT.pdf

Partners: Politecnico di Torino, Dipartimento di Scienza dei Materiali ed Ingegneria Chimica-Dipartimento di Elettronica (POLITO), Italy, Centre of Water Research and Technologies, CERTE, Tunisia, Centre National de Recherches Scientifiques (CNRS-LRGP), France, Centre Tecnològic (CTM), Spain, Europe For Business Ltd. (EFB), United Kingdom.

Budget: €490,665

35. AQUATEC (Innovative and sustainable technologies for facing water emergency in Southern Italy)

Aim: Technological solutions to be implemented in Southern Italy in water management, groundwater restoration and wastewater reuse.

Funding body: European Community (50%) and the Italian Government

Year: 2002 (4 years)

Contact partners: Italian Water Research Institute (IRSA) of the National Research Council (CNR).

Budget: €19,000,000

36. **ALL-GAS**

Aim: Wastewater and sunlight to produce algae-based biofuel in Chiclana de la Frontera, Cádiz

Funding body: European Community (50%) and the Italian Government

Year: 2012 (5 years)

Website: <http://www.aqualia.es>

Contact Partner: Aqualia

Budget: €12,000,000

37. **HIGHWET** (Performance and validation of HIGH-rate constructed WETlands)

Funding body: European Community

Year: 2013

Website: <http://www.aimen.es>

Contact Partner: Asoc. Investigación Metalúrgica del Noroeste

Budget: €1,217,000

38. **aWARE** (LIFE + aWARE)

Funding body: European Community

Year: 201 (3 years)

Website: <http://www.life-aware.eu/>

Contact Partner: CETaqua WATER TECHNOLOGY CENTER

39. **UFTEC** (LIFE + UFTEC)

Funding body: European Community

Year: 2010 (3 years)

Website: <http://www.life-uftec.eu/>

Contact Partner: CETaqua WATER TECHNOLOGY CENTER

40. **BIOCELL** (LIFE + BIOCELL)

Funding body: European Community

Year: 2009 (3 years)

Website: <http://www.life-biocell.eu/>

Contact Partner: CETaqua WATER TECHNOLOGY CENTER

Budget: €2,400,000

41. **AQUATIK** (LIFE + AQUATIK)

Funding body: European Community

Year: 2011 (4 years)

Website: <http://www.life-aquatik.eu/>

Contact Partner: CETaqua WATER TECHNOLOGY CENTER

Budget: €1,564,000

42. **GREENLYSIS** (LIFE + GREENLYSIS)

Funding body: European Community

Year: 2010 (3 years)

Website: <http://www.life-greenlysis.eu/>

Contact Partner: CETaqua WATER TECHNOLOGY CENTER

Budget: €1,300,000

43. **OPTIFERT** (Development of an automatic irrigation and fertilization system)

Funding body: FP7 - European Community

Year: December 2011 (2 years)

Website: <http://www.optifert.eu/>

44. **NIREAS** (NIREAS - E-learning for wastewater treatment)

Funding body: Lifelong Learning (Leonardo da Vinci - Transfer of Innovation)

Year: 2011 (2 years)

Website: <http://www.nireas.eu/>

Contact Partner: Action Synergy S.A

45. **END-O-Sludg** (Wastewater transformed for good)

Funding body: FP7 - EC

Year: 2011 (3 years)

Website: <http://www.end-o-sludg.eu/>

Contact Partner: MBE

46. **AQUACELL** (The enhanced treatment of industrial wastewaters achieving cost reductions, electricity generation and enabling water reuse for non-potable applications)

Funding body: FP7 - EC

Website: <http://www.fp7-aquacell.eu/project>

47. **Water4Crops** (Integrating Bio-treated Wastewater Reuse with Enhanced Water Use Efficiency to Support the Green Economy in EU and India)

Funding body: EC-Department of Biotechnology, Government of India

Website: <http://www.water4crops.org/>

Contact Partner: EU IRSA CNR

48. **CB-WR-MED** (Capacity Building for Direct Water Reuse in the Mediterranean Area)

Funding body: 7PM-EC and European Tunisian Cooperation (ECT)

Website: <http://www.cbwrmed-project.eu/>

Contact Partner: Centre de Recherches et Technologies de Eaux (CERTE)

49. **MEDA-Water** (Development of tools and guidelines for the promotion of the sustainable urban wastewater treatment and reuse in the agricultural production in the Mediterranean countries)

Funding body: Euro-Mediterranean Programme for Local Water Management EC

Website: <http://www.uest.gr/medaware/>

Contact Partner: National Technical University of Athens (NTUA)

50. **BioNexGen**

Funding body: 7PM-EC

Website: <http://www.bionexgen.eu>

Year: September 2010 (42 months)

51. **Campus Eagua** (Campus Transfronterizo para la Gestión Sostenible de los Recursos Hídricos)

Funding body: Programa Cooperación Transfronteriza, FEDER

Website: <http://campuseagua.com>

Contact partner: CENTA

Other Global Technology Platforms:

52. **AQUASTAT**

Aim: FAO's global information system on water and agriculture. It collects, analyses and disseminates data and information by country and by region. Its aim is to provide users interested information related to water resources and agricultural water management.

Website: <http://www.fao.org/nr/water/aquastat/main/index.stm>

53. **IWA** (The International Water Association)

Aim: Facilitate change by connecting people, pioneering science, innovating technology and leading practice.

Website: <http://www.iwahq.org/1nb/home.html>

Comments: It is directed to implementation of the commitments taken in the negotiation process in the sector and achievement of compliance with EU requirements in the field of environment.

54. **IWA-WaterWiki**

Aim: The IWA WaterWiki aims to provide a platform for the global water community to interact and share knowledge online. The site will be a reference for all areas of water, wastewater and environmental science and management. This is the place for water professionals worldwide to interact, share knowledge and increase understanding.

Website: <http://www.iwawaterwiki.org/xwiki/bin/view/Main/WebHome>

Comments: It is directed to implementation of the commitments taken in the negotiation process in the sector and achievement of compliance with EU requirements in the field of environment.

55. **WBCSD Water** (Global Water Tool - GWT)

Aim: WBCSD member companies, aspire to achieve responsible water management throughout their value chains and operate in an environment where all people and businesses have access to safe and reliable water supply and adequate sanitation.

Website: <http://www.wbcds.org/about/organization.aspx>

6. WEBPAGE LINKING ALL THE EU INITIATIVES

In the following web link <http://rural-lab.agro.auth.gr/suwanu.html> has been created a webpage linking online all the above mentioned projects and initiatives related to SuWaNu project. This link is part of the official website of the Laboratory of Agricultural Extension and Rural Sociology (Rural-Lab) of the Department of Agricultural Economics of the Aristotle University of Thessaloniki, Greece. It goes without saying that this link is an integral part of the deliverable 1.4 including not only general information of the projects/initiatives but also contact details and results. It is foreseen that the web-based EU Initiatives Review will be used by other researches interested in the related topics, but also other stakeholders, including the EU Commission officials. This link will remain active for a minimum of five years starting from the delivery date of the deliverable 1.4 (February 2014).

7. CONCUSSIONS

Concluding, the main aim of this deliverable is the identification of related European initiatives and projects in order to exclude duplication in research efforts and gain synergy effects. Moreover, this deliverable is aimed to set up a harmonized list of related European Initiatives and projects in order to secure the best possible connection not only with national but also with other EU initiatives and to help to acquire and develop international visibility. In this deliverable, project regional authorities and RTD partners, with the support of SMEs and associations; have performed a detailed analysis in a national, European and global level. The information included in this report has been compiled by using the partners own databases and by accomplishing further focused research (articles, studies, reports), a detailed search via Internet and by having interviews with local experts.

On the other hand, all these initiatives and projects have been described analytically including also some national links/contacts in order to open channels for SuWaNu dissemination. This will also help other coming activities with regards to cluster enrichment/internationalisation, etc. Besides, the integral web-link of this deliverable provides an integrated support to the subsequent dissemination activities as it offers online link with all relevant projects and initiatives including also contact details.

Thus, using and analysing the information included in this deliverable we can identify relevant actions, stakeholders and experts excluding duplication in research efforts and gaining some synergy effects.