



Climate action, environment, resource efficiency and raw materials

Horizon 2020

The EU Framework Programme for Research and Innovation

CATALOGUE OF R&I PROJECTS - 2014

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Directorate-General for Research and Innovation
Directorate I — Climate action and resource efficiency
Unit I.1 — Strategy

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Catalogue of R&I projects

CALLS 2014

**Climate action, environment, resource efficiency
and raw materials**

HORIZON 2020

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Topic: BG-15-2014 **Type of Action** CSA **Duration (months):** 60
Title: Connecting Science with Society

Project total costs 2,174,503.75 € **Project EU contribution:** 2,174,503 €

Abstract:

The rapid changes occurring in the Polar Regions are significantly influencing global climate with consequences for global society. European polar research has contributed critical knowledge to identifying the processes behind these rapid changes but, in contrast to lower latitudes, datasets from the Polar Regions are still insufficient to fully understand and more effectively predict the effects of change on our climate and society. This situation can only be improved by a more holistic integrated scientific approach, a higher degree of coordination of polar research and closer cooperation with all relevant actors on an international level as requested in the Horizon 2020 work programme. The objectives of EU-PolarNet are to establish an ongoing dialogue between policymakers, business and industry leaders, local communities and scientists to increase mutual understanding and identify new ways of working that will deliver economic and societal benefits. The results of this dialogue will be brought together in a plan for an Integrated European Research Programme that will be co-designed with all relevant stakeholders and coordinated with the activities of many other polar research nations beyond Europe, including Canada and the United States, with which consortium partners already have productive links. This consortium brings together well-established, world-class, multi-disciplinary research institutions whose science programmes are internationally recognised for excellence. Alongside these scientific capabilities, the national programmes represented in this proposal possess a unique array of infrastructure and operational expertise to support science in both Polar Regions. The consortium is uniquely well positioned to significantly enhance Europe's capabilities to undertake state of the art science and cost-efficiently operate infrastructure in the hostile polar environments.

Partners:

Nr	Participant	Country
1	ALFRED-WEGENER-INSTITUT HELMHOLTZ- ZENTRUM FUER POLAR- UND MEERESFORSCHUNG	DE
2	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	FR
3	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
4	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
5	POLARFORSKNINGSSEKRETARIETET	SE
6	INSTITUT POLAIRE FRANCAIS PAUL EMILE VICTOR	FR
7	Instituto de Geografia e Ordenamento do Territorio da Universidade de Lisboa	PT
8	RIJKSUNIVERSITEIT GRONINGEN	NL
9	NORGES FORSKNINGSRAD	NO
10	MINISTERIO DE ECONOMIA Y COMPETITIVIDAD	ES
11	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
12	UNIVERSITAET WIEN	AT
13	BULGARSKI ANTARTICHESKI INSTITUT ASSOCIATION	BG
14	Geological Survey of Denmark and Greenland	DK
15	VRIJE UNIVERSITEIT BRUSSEL	BE
16	OULUN YLIOPISTO	FI
17	INSTITUT ROYAL DES SCIENCES NATURELLES DE BELGIQUE	BE
18	Instytut Geofizyki Polskiej Akademii Nauk	PL
19	TALLINNA TEHNIKAULIKOOL	EE
20	Arctic Monitoring and Assessment Programme Secretariat	NO
21	WOC - WORLD OCEAN LIMITED	UK
22	GRONLANDS NATURINSTITUT	GL

Topic: DRS-09-2014 **Type of Action** CSA **Duration (months):** 60
Title: PLATform for Climate Adaptation and Risk reDuction

Project total costs 2,999,871.00 € **Project EU contribution:** 2,999,871 €

Abstract:

Significant challenges exist towards strengthening the Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR) communities for coherent, mutually reinforcing and pragmatic planning and action. PLACARD seeks to support the coordination of these two communities. PLACARD will tackle current challenges by 1) providing a common 'space' where CCA and DRR communities can come together, share experiences and create opportunities for collaboration; 2) facilitating communication and knowledge exchange between both communities; and 3) supporting the coordination and coherence of CCA and DRR research, policy and practice. PLACARD's approach to achieving these goals is to establish a strong and operational network of networks by connecting to existing networks and boundary organisations, to foster dialogue among stakeholders (e.g. researchers, research funders, policymakers, practitioners) engaged in CCA and DRR at the international, European, national and sub-national scales. This overarching network will enable these communities to share knowledge, to discuss challenges and to jointly co-produce options to bridge the gaps they experience. It will support the development and implementation of a research and innovation agenda to make better use of research funding, as well as to develop guidelines to strengthen relevant institutions in their efforts to mainstream CCA and DRR. PLACARD will evolve iteratively, learning from the different processes and experiences with the stakeholders, and being flexible and responsive to changing needs. PLACARD will be supported by an online platform that builds upon and links existing CCA and DRR platforms to streamline the dissemination and communication of CCA and DRR activities. PLACARD Consortium is built around the leadership of a number of key European institutions experienced in CCA and DRR policy and practice, and UN organizations leading and engaged in post-2015 agendas.

Partners:

Nr	Participant	Country
1	FUNDACAO DA FACULDADE DE CIENCIAS DA UNIVERSIDADE DE LISBOA	PT
2	STIFTELSEN THE STOCKHOLM ENVIRONMENT INSTITUTE	SE
3	HELMHOLTZ-ZENTRUM FUER UMWELTFORSCHUNG GMBH - UFZ	DE
4	CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI SCARL	IT
5	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD	UK
6	UMWELTBUNDESAMT GMBH	AT
7	UNITED NATIONS INTERNATIONAL STRATEGY FOR DISASTER REDUCTION	CH
8	UNITED NATIONS ENVIRONMENT PROGRAMME	KE
9	STICHTING INTERNATIONAL RED CROSS RED CRESCENT CENTRE ON CLIMATE CHANGE AND DISAS	NL
10	STICHTING DIENST LANDBOUWKUNDIG ONDERZOEK	NL

Topic: DRS-09-2014 **Type of Action** RIA **Duration (months):** 42
Title: Climate Resilient Cities and Infrastructures

Project total costs 7,466,007.00 € **Project EU contribution:** 7,466,007 €

Abstract:

With most of its population and capital goods concentrated in urban areas, cities are key to the European economy. One of the major challenges cities face are more frequent extreme weather events due to climate change. The current diversity of approaches and methods available for cities developing an adaptation strategy limits the comparability between cities of vulnerabilities, adaptation options, infrastructures, etc., and, as a result, the resilience capability. The lack of standardized information to prioritize and select appropriate adaptation options restricts the exchange of experiences between cities. The objective of RESIN is to provide standardised methodologies for vulnerability assessments, performance evaluations of adaptation measures, and for decision support tools supporting the development of robust adaptation strategies tailored to the city. To this end, RESIN aims to create a common unifying framework that allows comparing strategies, results and identification of best practices by:

- Creating an urban typology that characterises European cities based on different socio-economic and biophysical variables
- Delivering standardised methods for assessing climate change impacts, vulnerabilities, and risks; providing an inventory of adaptation measures and developing standardised methods to assess the performance of such adaptation measures
- Collaborating closely with 4 'case cities' for practical applicability and reproducibility, and with European Standardisation organisations to ensure a systematic (standardised) implementation
- Integrating findings in a coherent framework for the decision making process, with associated methods, tools and datasets

The consortium consists of 17 partners from 8 different European countries, experienced in urban resilience and climate change, and combining theory (knowledge institutes/universities) with practice (cities, consultancies, network organisation, standardisation institute).

Partners:

Nr	Participant	Country
1	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK - TNO	NL
2	FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V	DE
3	FUNDACION TECNALIA RESEARCH & INNOVATION	ES
4	ICLEI EUROPEAN SECRETARIAT GMBH (ICLEI EUROPASEKRETARIAT GMBH)*	DE
5	EIVP	FR
6	ITTI SP ZOO	PL
7	STICHTING NEDERLANDS NORMALISATIE - INSTITUUT	NL
8	ARCADIS NEDERLAND BV	NL
9	BC3 BASQUE CENTRE FOR CLIMATE CHANGE - KLIMA ALDAKETA IKERGA	ES
10	HLAVNE MESTO SLOVENSKEJ REPUBLIKY BRATISLAVA	SK
11	THE UNIVERSITY OF MANCHESTER	UK
12	UNIVERZITA KOMENSKÉHO V BRATISLAVE	SK
13	AYUNTAMIENTO DE BILBAO	ES
14	OLDHAM METROPOLITAN BOROUGH COUNCIL	UK
15	SIEMENS AKTIENGESELLSCHAFT OESTERREICH	AT
16	SIEMENS AKTIENGESELLSCHAFT	DE
17	UNIRESEARCH BV	NL

Topic: DRS-09-2014 **Type of Action** RIA **Duration (months):** 36
Title: A panEuropean framework for strengthening Critical Infrastructure resilience to climate change

Project total costs 7,283,526.00 € **Project EU contribution:** 7,283,526 €

Abstract:

It is presently acknowledged and scientifically proven that climate related hazards have the potential to substantially affect the lifespan and effectiveness or even destroy of European Critical Infrastructures (CI), particularly the energy, transportation sectors, buildings, marine and water management infrastructure with devastating impacts in EU appraising the social and economic losses. The main strategic objective of EU-CIRCLE is to move towards infrastructure network(s) that is resilient to today's natural hazards and prepared for the future changing climate. Furthermore, modern infrastructures are inherently interconnected and interdependent systems ; thus extreme events are liable to lead to 'cascade failures'. EU-CIRCLE's scope is to derive an innovative framework for supporting the interconnected European Infrastructure's resilience to climate pressures, supported by an end-to-end modelling environment where new analyses can be added anywhere along the analysis workflow and multiple scientific disciplines can work together to understand interdependencies, validate results, and present findings in a unified manner providing an efficient "Best of Breeds" solution of integrating into a holistic resilience model existing modelling tools and data in a standardised fashion. It, will be open & accessible to all interested parties in the infrastructure resilience business and having a confirmed interest in creating customized and innovative solutions. It will be complemented with a webbased portal. The design principles, offering transparency and greater flexibility, will allow potential users to introduce fully tailored solutions and infrastructure data, by defining and implementing customised impact assessment models, and use climate / weather data on demand.

Partners:

Nr	Participant	Country
1	NATIONAL CENTER FOR SCIENTIFIC RESEARCH "DEMOKRITOS"	EL
2	FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V	DE
3	METEOROLOGISK INSTITUTT	NO
4	THE UNIVERSITY OF EXETER	UK
5	AKADEMIA MORSKA W GDYNI	PL
6	ARTELIA EAU ET ENVIRONNEMENT SAS	FR
7	SATWAYS - PROIONTA KAI YPIRESIES TILEMATIKIS DIKTYAKON KAI TILEPIKINONIAKON EFARMOGON	EL
8	ENTENTE POUR LA FORÊT MÉDITERRANÉENNE	FR
9	D'APPOLONIA SPA	IT
10	DRZAVNI HIDROMETEOROLOSKI ZAVOD	HR
11	XUVASI LTD	UK
12	MRK Management Consultants GmbH	DE
13	AS CYPRUS COLLEGE LIMITED	CY
14	CENTER FOR SECURITY STUDIES	EL
15	THE UNIVERSITY OF SALFORD	UK
16	Državna uprava za zaštitu i spasavanje	HR
17	ADITESS ADVANCED INTEGRATED TECHNOLOGY SOLUTIONS & SERVICES LTD	CY
18	Torbay Council	UK
19	MINISTRY OF NATIONAL DEFENCE, GREECE	EL
20	Veleučilište Velika Gorica	HR
21	PATUAKHALI SCIENCE AND TECHNOLOGY UNIVERSITY	BD

Topic: SC5-01-2014	Type of Action RIA	Duration (months):	48
Title: PProcess-based climate sIMulation: AdVances in high resolution modelling and European climate Risk Assessment			
Project total costs	14,967,970.00 €	Project EU contribution:	14,967,970 €

Abstract:

The goal of PRIMAVERA is to deliver novel, advanced and well-evaluated high-resolution global climate models (GCMs), capable of simulating and predicting regional climate with unprecedented fidelity, out to 2050. This capability will deliver innovative climate science and a new generation of advanced Earth System Models. Sector-specific end-users in policy and business will be identified and engaged individually, with iterative feedback, to ensure that new climate information is tailored, actionable and strengthening societal risk management decisions. These goals will be achieved through the development of coupled GCMs from seven groups across Europe, with sufficient resolution to reproduce realistic weather and climate features (~25km mesh size), in addition to enhanced process parameterisation. Thorough assessment will use innovative process-based metrics and the latest observational and reanalysis datasets. Targeted experimental design will reduce inter-model spread and produce robust projections, forming the European contribution to the CMIP6 High-Resolution Model Intercomparison Project, led by PRIMAVERA. It is the first time that high-resolution coupled GCMs will be used under a single experimental protocol. Coordination, and the underlying process-understanding, will significantly increase the robustness of our findings. Our new capabilities will be used to improve understanding of the drivers of variability and change in European climate, including extremes, since such regional changes continue to be characterised by high uncertainty. We will also explore the frontiers of climate modelling and of high performance computing to produce simulations with a reduced reliance on physical parameterisations. These will explicitly resolve key processes such as ocean eddies, and will include new stochastic parameterisations to represent sub-grid scale processes. These “frontiers” simulations will further our understanding of the robustness of climate projections.

Partners:

Nr	Participant	Country
1	MET OFFICE	UK
2	THE UNIVERSITY OF READING	UK
3	KONINKLIJK NEDERLANDS METEOROLOGISCH INSTITUUT-KNMI	NL
4	SVERIGES METEOROLOGISKA OCH HYDROLOGISKA INSTITUT	SE
5	CENTRE EUROPEEN DE RECHERCHE ET DE FORMATION AVANCEE EN CALCUL SCIENTIFIQUE	FR
6	MAX PLANCK GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V.	DE
7	UNIVERSITE CATHOLIQUE DE LOUVAIN	BE
8	FUNDACIO INSTITUT CATALA DE CIENCIES DEL CLIMA	ES
9	CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI SCARL	IT
10	ALFRED-WEGENER-INSTITUT HELMHOLTZ- ZENTRUM FUER POLAR- UND MEERESFORSCHUNG	DE
11	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD	UK
12	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
13	EUROPEAN CENTRE FOR MEDIUM-RANGE WEATHER FORECASTS	UK
14	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
15	UNIVERSITY OF LEEDS	UK
16	STOCKHOLMS UNIVERSITET	SE
17	SCIENCE AND TECHNOLOGY FACILITIES COUNCIL	UK
18	PREDICTIA INTELLIGENT DATA SOLUTIONS SL	ES
19	DEUTSCHES KLIMARECHENZENTRUM GMBH	DE

Topic: SC5-01-2014 **Type of Action** RIA **Duration (months):** 60
Title: Coordinated Research in Earth Systems and Climate: Experiments, kNowledge, Dissemination and Outreach

Project total costs 15,003,512.00 € **Project EU contribution:** 14,338,877 €

Abstract:

CRESCENDO brings together seven Earth System Modelling (ESM) groups with three Integrated Assessment Modelling teams, as well as experts in ESM evaluation, ESM projection and feedback analysis, climate impacts and science communication to address the following goals; (i) improve the process-realism and simulation-quality of European ESMs in order to increase the reliability of future Earth system projections; (ii) develop and apply a community ESM evaluation tool allowing routine ESM performance benchmarking, process-based ESM evaluation and the analysis of Earth system projections. The resulting tool will be installed and made openly-available on the Earth System Grid Federation (ESGF); (iii) further develop the discipline of emergent constraints in order to better constrain the representation of key biogeochemical and aerosol feedbacks in ESMs and thereby reduce overall uncertainty in Earth system projections; (iv) quantify the effective radiative forcing of key biogeochemical and aerosol feedbacks in ESM projections; (v) contribute to the development of a new set of combined socio-economic and climate emission scenarios that more explicitly link future socio-economic development pathways with global radiative forcing; (vi) apply the project ESMs to these new scenario data to generate an ensemble of Earth system projections for the coming century and, in combination with the underlying socio-economic scenarios, use these projections to assess joint risks and co-benefits related to climate change, climate impacts, adaptation and mitigation; (vii) ensure data produced by CRESCENDO is available to the international community through timely archival on the ESGF and work closely with climate impact assessment and regional downscaling teams to ensure maximum uptake and use of these data in such complementary areas of science; (viii) actively disseminate knowledge generated in CRESCENDO to fellow scientists, policymakers and the general public.

Partners:

Nr	Participant	Country
1	UNIVERSITY OF LEEDS	UK
2	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	FR
3	MAX PLANCK GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V.	DE
4	CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI SCARL	IT
5	MET OFFICE	UK
6	THE UNIVERSITY OF EXETER	UK
7	DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV	DE
8	KONINKLIJK NEDERLANDS METEOROLOGISCH INSTITUUT-KNMI	NL
9	METEOROLOGISK INSTITUTT	NO
10	SVERIGES METEOROLOGISKA OCH HYDROLOGISKA INSTITUT	SE
11	THE UNIVERSITY OF READING	UK
12	AGENZIA NAZIONALE PER LE NUOVE TECNOLOGIE, L'ENERGIA E LO SVILUPPO ECONOMICO SOSTE	IT
13	METEO-FRANCE	FR
14	UNIVERSITY OF EAST ANGLIA	UK
15	UNIVERSITAET HAMBURG	DE
16	EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZURICH	CH
17	UNIVERSITETET I BERGEN	NO
18	MINISTERIE VAN INFRASTRUCTUUR EN MILIEU	NL
19	LUNDS UNIVERSITET	SE
20	POTSDAM INSTITUT FUER KLIMAFOLGENFORSCHUNG	DE
21	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
22	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
23	INTERNATIONALES INSTITUT FUER ANGEWANDTE SYSTEMANALYSE	AT
24	ILMATIETEEN LAITOS	FI

Topic: SC5-03a-2014 **Type of Action** RIA **Duration (months):** 36
Title: Transitions pathways and risk analysis for climate change mitigation and adaption strategies

Project total costs 7,974,243.00 € **Project EU contribution:** 7,454,018 €

Abstract:

Both the models concerning the future climate evolution and its impacts, as well as the models assessing the costs and benefits associated with different mitigation pathways face a high degree of uncertainty. There is an urgent need to not only understand the costs and risks associated with climate change but also the risks, uncertainties and co-effects related to different mitigation pathways as well as public acceptance (or lack thereof) of low-carbon (technology) options. The main aims and objectives of TRANSrisk therefore are to create a novel assessment framework for analysing costs and benefits of transition pathways, that will integrate well-established approaches to modelling the costs of resilient, low-carbon pathways with a wider interdisciplinary approach including risk assessments. In addition TRANSrisk aims to design a decision support tool that should help policy makers to better understand uncertainties and risks and enable them to include risk assessments into more robust policy design.

Partners:

Nr	Participant	Country
1	UNIVERSITY OF SUSSEX	UK
2	BC3 BASQUE CENTRE FOR CLIMATE CHANGE - KLIMA ALDAKETA IKERGA	ES
3	CAMBRIDGE ECONOMETRICS LIMITED	UK
4	STICHTING ENERGIEONDERZOEK CENTRUM NEDERLAND	NL
5	FUNDACJA NAUKOWA INSTYTUT BADAN STRUKTURALNYCH	PL
6	ETH Zurich	CH
7	STICHTING JOINT IMPLEMENTATION NETWORK	NL
8	STIFTELSEN THE STOCKHOLM ENVIRONMENT INSTITUTE	SE
9	UNIVERSITAET GRAZ	AT
10	UNIVERSITY OF PIRAEUS RESEARCH CENTER	EL
11	NATIONAL TECHNICAL UNIVERSITY OF ATHENS - NTUA	EL
12	CLAPESUC	CL

Topic: SC5-03b-2014 **Type of Action** RIA **Duration (months):** 36
Title: Green growth and win-win strategies for sustainable climate action

Project total costs 3,925,015.00 € **Project EU contribution:** 3,624,765 €

Abstract:

The GREEN-WIN project will develop a major international transdisciplinary research collaboration to apply a solution-oriented approach targeted at increasing the understanding of links between climate action and sustainability and overcoming implementation barriers through win-win strategies. The project will critically assess where and under which conditions win-win and in particular green growth strategies work in practice and where fundamental trade-offs must be faced. We thereby focus on four critical barriers that have been identified by practitioners and policy makers. First, we develop transformative narratives highlighting opportunities in climate and sustainability action in order to contribute to overcoming cognitive barriers and empowering people. Second, we examine climate and sustainability finance policies and governance arrangements in order to contribute to overcoming financial barriers to mitigation and adaptation. Third, we substantiate the economics of green growth in order to contribute to overcoming economic and collective action barriers to de-carbonisation. Towards this end we introduce major innovations into the GEM-E3 computable general equilibrium model required to discover green growth strategies. These include developing a network-based model of technological diffusion, and introducing financial market constraints and adaptive expectations of agents. Fourth, we contribute to overcoming economic and institutional barriers through identifying win-win strategies, sustainable business models and enabling environments in three action fields of coastal zone flood risk management, urban transformations and energy poverty eradication and resilience. We embed all these activities within a sustained international dialogue involving stakeholders from policy, research, civil society and the private sector, and an open knowledge management and capacity building strategy to promote knowledge transfer and learning beyond the project lifespan.

Partners:

Nr	Participant	Country
1	GCF - GLOBAL CLIMATE FORUM EV	DE
2	UNIVERSITAT AUTONOMA DE BARCELONA	ES
3	E3-Modelling.PC	EL
4	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD	UK
5	ECOLE D'ECONOMIE DE PARIS	FR
6	UNIVERSITY COLLEGE LONDON	UK
7	Ground Up Association	CH
8	STICHTING DELTARES	NL
9	INSTITUTE FOR ADVANCED SUSTAINABILITY STUDIES EV	DE
10	Global Green Growth Institute	UK
11	JAGER JILL	AT
12	UNIVERSITA CA' FOSCARI VENEZIA	IT
13	BOGAZICI UNIVERSITESI	TR
14	Center for Remote Sensing and Ocean Sciences, Udayana University	ID
15	UNIVERSITY OF CAPE TOWN	ZA
16	2° INVESTING INITIATIVE (2°II)	FR

Topic: SC5-03b-2014 **Type of Action** RIA **Duration (months):** 48
Title: Linking Climate and Development Policies - Leveraging International Networks and Knowledge Sharing

Project total costs 5,212,963.00 € **Project EU contribution:** 5,037,963 €

Abstract:

An important question for policy makers, in the G20 and beyond, is how to bring climate action into the broader sustainable development agenda. Objectives like energy poverty eradication, increased well-being and welfare, air quality improvement, energy security enhancement, and food and water availability will continue to remain important over the next several decades. There have been relatively few scientific analyses, however, that have explored the complex interplay between climate action and development while simultaneously taking both global and national perspectives. The CD-LINKS project will change this, filling this critical knowledge gap and providing much-needed information for designing complementary climate-development policies. CD-LINKS has four overarching goals: (i) to gain an improved understanding of the linkages between climate change policies (mitigation/adaptation) and multiple sustainable development objectives, (ii) to broaden the evidence base in the area of policy effectiveness by exploring past and current policy experiences, (iii) to develop the next generation of globally consistent, national low-carbon development pathways, and (iv) to establish a research network and capacity building platform in order to leverage knowledge-exchange among institutions from Europe and other key players within the G20. Through six highly integrated work packages – from empirical research to model and scenario development – CD-LINKS will advance the state-of-the-art of climate-development policy analysis and modelling in a number of areas. The project aims to have a pronounced impact on the policy dialogue, both nationally and internationally: an important outcome of the project will be a list of country-specific policy recommendations for effectively managing the long-term transformation process. These recommendations will point out opportunities for policy synergies and at the same time respect political and institutional barriers to implementation.

Partners:

Nr	Participant	Country
1	INTERNATIONALES INSTITUT FUER ANGEWANDTE SYSTEMANALYSE	AT
2	POTSDAM INSTITUT FUER KLIMAFOLGENFORSCHUNG	DE
3	CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI SCARL	IT
4	MINISTERIE VAN INFRASTRUCTUUR EN MILIEU	NL
5	INSTITUTE OF COMMUNICATION AND COMPUTER SYSTEMS	EL
6	WAGENINGEN UNIVERSITY	NL
7	UNIVERSITY OF EAST ANGLIA	UK
8	FONDATION INSTITUT DE RECHERCHE POUR LE DEVELOPPEMENT DURABLE ET LES RELATIONS INT	FR
9	FUNDACAO COORDENACAO DE PROJETOS PESQUISAS E ESTUDOS TECNOLOGICOS COPPETEC	BR
10	NATIONAL DEVELOPMENT AND REFORM COMMISSION ENERGY RESEARCH INSTITUTE	CN
11	TSINGHUA UNIVERSITY	CN
12	INDIAN INSTITUTE OF MANAGEMENT	IN
13	THE ENERGY AND RESOURCES INSTITUTE	IN
14	FEDERAL STATE AUTONOMOUS EDUCATIONAL INSTITUTION FOR HIGHER PROFESSIONAL EDUCATI	RU
15	NATIONAL INSTITUTE FOR ENVIRONMENTAL STUDIES INCORPORATED ADMINISTRATIVE AGENCY	JP
16	RESEARCH INSTITUTE OF INNOVATIVE TECHNOLOGY FOR THE EARTH	JP

Topic: SC5-05a-2014 **Type of Action** CSA **Duration (months):** 42
Title: Coordination and Assessment of Research and Innovation in Support of Climate Mitigation Actions

Project total costs 2,066,653.75 € **Project EU contribution:** 2,064,404 €

Abstract:

The CARISMA project has two overall objectives. First, through effective stakeholder consultation and communication leading to improved coordination and assessment of climate change mitigation options, it aims to benefit research and innovation efficiency as well as international cooperation on research and innovation and technology transfer. Second, it seeks to assess policy and governance questions that shape the prospects of climate change mitigation options, and discuss the results with representatives from the CARISMA target audiences to incorporate what can be learned for the benefit of climate change mitigation. The experienced, interdisciplinary and diverse CARISMA consortium has an extensive track record of collaborating in Framework Programme projects. It combines capacity for technological, environmental, economic and social assessment with deep expertise across a range of climate change mitigation options, encompassing mature and emerging technologies as well as practices and governance, which are increasingly identified as important areas to achieve deep greenhouse gas emission reductions. Communication with, and support to, the CARISMA target audiences are an integral part of the project. In all inventory and assessment activities envisaged in the project, interaction with stakeholders is a key part. To facilitate coordination and avoid overlap, these activities are overseen by a dedicated work package. The target audiences include national and local policymakers, innovation and strategy managers in business and industry, research funding organisations and the research community. The CARISMA project will result in online platform services, face-to-face interactions, policy briefs and publications and increased capacity in the EU, Accession Countries and beyond, to address the climate change challenge and move towards a green, innovative and thriving global economy.

Partners:

Nr	Participant	Country
1	STICHTING KATHOLIEKE UNIVERSITEIT	NL
2	UNIVERSITY OF PIRAEUS RESEARCH CENTER	EL
3	STICHTING JOINT IMPLEMENTATION NETWORK	NL
4	CDC CLIMAT	FR
5	UNIVERSITAET GRAZ	AT
6	STIFTELSEN THE STOCKHOLM ENVIRONMENT INSTITUTE	SE
7	ZENTRUM FUER EUROPÄISCHE WIRTSCHAFTSFORSCHUNG GmbH	DE
8	CENTRE FOR EUROPEAN POLICY STUDIES	BE
9	ENVIROS S.R.O.	CZ
10	DANMARKS TEKNISKE UNIVERSITET	DK

Topic: SC5-06-2014	Type of Action RIA	Duration (months):	48
Title: Linking biodiversity, ecosystem functions and services in the Great Serengeti-Mara Ecosystem (GSME) - drivers of change, causalities and sustainable management strategies			
Project total costs	9,891,770.00 €	Project EU contribution:	9,891,770 €

Abstract:

The direct dependence of humans on ecosystem services is by far strongest in developing regions where poverty restricts access to resources. This dependency also makes people in developing countries more sensitive to climate change than their developed counterparts. Increasing human populations deteriorates natural habitat, biodiversity and ecosystems services which spiral into poverty and low human welfare. This calls for innovative solutions that encompass the entire socio-ecological-economic system, as recognized on a global scale in the Millennium Ecosystem Assessment. However, innovative and practical solutions require downscaling to regional levels for identifying concrete sets of drivers of change. For Africa specifically, the interplay of human population growth, land use change, climate change and human well-being is a major challenge. This project focuses on the Serengeti-Maasai Mara Ecosystem and associated agricultural areas, a region in East Africa that encompasses parts of Kenya and Tanzania. The ecosystem is world-famous for key aspects of its biodiversity, such as the migration of 1.3 million wildebeest. This 'flagship ecosystem' role will enhance the international interest in the project. In this project, internationally leading researchers from Norway, the Netherlands, Scotland, Denmark and Germany are teaming up with strong local partners in Tanzania and Kenya. The research will be organised in seven interlinked work packages: 1) assemble and integrate the so far separate Kenyan and Tanzanian relevant data on the region; 2) quantify the connections between human population growth, land use change, climate change and biodiversity change; 3) test how biodiversity change leads to changes in key ecosystem services; 4) quantify the dependence of human livelihoods on these ecosystem services. We will implement innovative ways for communication and dissemination of the results of 'continuous engagement' by local stakeholders.

Partners:

Nr	Participant	Country
1	NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU	NO
2	RIJKSUNIVERSITEIT GRONINGEN	NL
3	KOBENHAVNS UNIVERSITET	DK
4	TANZANIA WILDLIFE RESEARCH INSTITUTE	TZ
5	The University of Dodoma	TZ
6	UNIVERSITAET HOHENHEIM	DE
7	STIFTELSEN NORSK INSTITUTT FOR NATURFORSKNING NINA	NO
8	International Livestock Research Institute	KE
9	UNIVERSITY OF DAR ES SALAAM	TZ
10	Sokoine University of Agriculture	TZ
11	DRSRS	KE
12	UNIVERSITY OF GLASGOW	UK
13	Kenya Wildlife Service	KE

Topic: SC5-06-2014	Type of Action RIA	Duration (months):	42
Title: Knowledge, Assessment, and Management for AQUatic Biodiversity and Ecosystem Services aCROSS EU policies (AQUACROSS)			
Project total costs	6,913,117.00 €	Project EU contribution:	6,343,614 €

Abstract:

AQUACROSS aims to support EU efforts to enhance the resilience and stop the loss of biodiversity of aquatic ecosystems as well as to ensure the ongoing and future provision of aquatic ecosystem services. It focuses on advancing the knowledge base and application of the ecosystem-based management concept for aquatic ecosystems by developing cost effective measures and integrated management practices. AQUACROSS considers the EU policy framework (i.e. goals, concepts, time frames) for aquatic ecosystems and builds on knowledge stemming from different sources (i.e. WISE, BISE, Member State reporting, modelling) to develop innovative management tools, concepts, and business models (i.e. indicators, maps, ecosystem assessments, participatory approaches, mechanisms for promoting the delivery of ecosystem services) for aquatic ecosystems at various scales. It thereby provides an unprecedented effort to unify policy concepts, knowledge, and management concepts of freshwater, coastal, and marine ecosystems to support the cost-effective achievement of the targets set out by the EU 2020 Biodiversity Strategy.

Partners:

Nr	Participant	Country
1	ECOLOGIC INSTITUT gemeinnützige GmbH	DE
2	FORSCHUNGSVERBUND BERLIN E.V.	DE
3	UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION -UNESCO	FR
4	STICHTING DIENST LANDBOUWKUNDIG ONDERZOEK	NL
5	FUNDACION IMDEA AGUA	ES
6	UNIVERSITAET FUER BODENKULTUR WIEN	AT
7	UNIVERSIDADE DE AVEIRO	PT
8	ACTEON SARL	FR
9	THE UNIVERSITY OF LIVERPOOL	UK
10	INSTITUT ROYAL DES SCIENCES NATURELLES DE BELGIQUE	BE
11	UNIVERSITY COLLEGE CORK, NATIONAL UNIVERSITY OF IRELAND, CORK	IE
12	STOCKHOLMS UNIVERSITET	SE
13	INSTITUTUL NATIONAL DE CERCETARE-DEZVOLTARE DELTA DUNARII	RO
14	EIDGENOESSISCHE ANSTALT FUER WASSERVERSORGUNG ABWASSERREINIGUNG UND GEWAESS	CH
15	UICN, BUREAU DE REPRESENTATION AUPRES DE L'UNION EUROPEENNE AISBL	BE
16	BC3 BASQUE CENTRE FOR CLIMATE CHANGE - KLIMA ALDAKETA IKERGA	ES

Topic: SC5-08-2014	Type of Action CSA	Duration (months):	20
Title: BROWNFIELD Decontamination In Southern Europe. Preparing PCP to R+D for efficient, cost effective and innovative solutions for brownfields decontamination			
Project total costs	1,310,755.00 €	Project EU contribution:	1,310,755 €

Abstract:

Public procurement represents +/-19% of the EU's GDP. Historically a small and slower uptake of innovations has been witnessed along with the fragmentation of publ demand.. PE represents a fundamental driver of innovation and competitiveness. Urban regeneration conducted by Bilbao confirms that the development of mixed formulas publ-priv for projects of mutual interest entails higher quality, effectiveness+efficiency in the management of publ services. Innovation procurement of products and services can (i) be used to deliver societal objectives requiring new solutions not available on the market or too expensive (ii) solve problems related the commercialization of innovative solution (iii) improve quality+efficiency of publ services with better value 4 \$. It is clearly set by the BRODISE project. Objectives: Mobilize publ+priv purchasers+cities networks of cities in SD, , to understand in-depth the technology state of the art and the innovation gap to be addressed by significant R&D, Structure+design a pcp initiative, leveraging the complementarity of the partners for bringing together the demand so create a critical mass for acquire cost-effective solutions, whilst creating new jobs and opportunities for business growth in Europe, specially SMEs. The driver is essentially economic. A complex challenge-based approach has been assumed by the consortium to: Confirm and describe a real technological demanding problem that impact negatively on the PE and on quality of life for all; Avoid the hyper-fragmentation of PP, pre-determine the condition for the development of new EU standard; Predetermine a competitive market, also enabling and preparing the participation of new players, Enable knowledge sharing. At the end the procurers will be able to lunch PCP and an earlier reality check of industry R&D Undertake efficient solutions for brownfields SD through PCP are: Decontaminate the entire brownfield, coordinate resources, use the most advanced innovative decont techniques.

Partners:

Nr	Participant	Country
1	AYUNTAMIENTO DE BILBAO	ES
2	MORAGUES AND SCADE ABOGADOS SA	ES
3	BEDIN SARA	IT
4	ASSOCIACAO PARQUE DE CIENCIA E TECNOLOGIA DE ALMADA/SETUBAL-MADAN PARQUE	PT
5	MUNICIPIO DO SEIXAL	PT
6	ENTE PER LA ZONA INDUSTRIALE DI TRIESTE	IT
7	CONSORZIO PER L AREA DI RICERCA SCI ENTIFICA E TECNOLOGICA DI TRIESTE CONSORZIO AREA	IT
8	BAIA DO TEJO, SA	PT
9	BC3 BASQUE CENTRE FOR CLIMATE CHANGE - KLIMA ALDAKETA IKERGA	ES
10	FUNDACION TECNALIA RESEARCH & INNOVATION	ES
11	CITTALIA-CENTRO EUROPEO DI STUDI ERICERCHE PER I COMUNI E LE CITTA-FONDAZIONE DI RICER	IT

Topic: SC5-09-2014 **Type of Action** ERA-NET-Cofund **Duration (months):** 60
Title: Consolidating the European Research Area on biodiversity and ecosystem services

Project total costs 38,003,677.00 € **Project EU contribution:** 11,999,981 €

Abstract:

The loss of biodiversity and degradation of ecosystems jeopardize the sustainable provision of ecosystem services and are major scientific and societal challenges. Addressing this challenge and providing scientific support to stakeholders and policy makers requires a coherent interdisciplinary research framework, with coordinated strategies and programmes at the national, regional and international levels, which are the relevant scales for many biodiversity issues. By networking 32 funding agencies from 18 countries, BiodivERsA3 aims to strengthen the ERA on biodiversity. Building on the previous experiences of the projects BiodivERsA1&2 and NetBiome, BiodivERsA3 will promote and support coordinated pan-European research on biodiversity and ecosystem services. It will strengthen research and research programmes coordination with the ultimate aim to provide policy makers and other stakeholders with adequate knowledge, tools and practical solutions to address biodiversity and ecosystem degradation. The objectives are to: - Enhance the capacity of the network to coordinate research programmes on biodiversity and ecosystem services more completely in Europe (including overseas territories) and to increase the international dimension of BiodivERsA activities- Develop a strategic, multi-annual vision of the network's priorities, based on ambitious mapping and foresight activities developed in collaboration with key initiatives in the field- Design and implement a co-funded call and other joint calls to better integrate research on biodiversity and ecosystem services across Europe- Develop a range of other joint activities, in particular alignment of national research programmes for biodiversity and ecosystem services, and activities for promoting mobility and equal opportunities for researchers and reinforcing data sharing- Promote effective science-policy and science-society (including science-business) dialogue during the whole research process

Partners:

Nr	Participant	Country
1	FONDATION FRANCAISE POUR LA RECHERCHE SUR LA BIODIVERSITE	FR
2	FONDS ZUR FÖRDERUNG DER WISSENSCHAFTLICHEN FORSCHUNG	AT
3	SERVICE PUBLIC FEDERAL DE PROGRAMMATION POLITIQUE SCIENTIFIQUE	BE
4	FONDS VOOR WETENSCHAPPELIJK ONDERZOEK-VLAANDEREN	BE
5	NATIONAL SCIENCE FUND	BG
6	SIHTASUTUS EESTI TEADUSAGENTUUR	EE
7	AGENCE NATIONALE DE LA RECHERCHE	FR
8	MINISTERE DE L'ECOLOGIE, DU DEVELOPPEMENT DURABLE ET DE L'ENERGIE	FR
9	AGENCE DE DEVELOPPEMENT ECONOMIQUE DE LA NOUVELLE CALEDONIE ASSOCIATION	FR
10	GUADELOUPE REGION	FR
11	REGION GUYANE	FR
12	REGION REUNION	FR
13	DEUTSCHE FORSCHUNGSGEMEINSCHAFT	DE
14	DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV	DE
15	VIDEKFEJLESZTESI MINISZTERIUM	HU
16	Lietuvos mokslo taryba	LT
17	NEDERLANDSE ORGANISATIE VOOR WETENSCHAPPELIJK ONDERZOEK	NL
18	NORGES FORSKNINGSRAD	NO
19	NARODOWE CENTRUM NAUKI	PL
20	FUNDACAO PARA A CIENCIA E A TECNOLOGIA	PT
21	FUNDO REGIONAL PARA A CIENCIA	PT
22	Unitatea Executiva pentru Finantarea Invatamantului Superior, a Cercetarii, Dezvoltarii si Inovarii	RO
23	MINISTERIO DE ECONOMIA Y COMPETITIVIDAD	ES
24	GOBIERNO DE CANARIAS	ES
25	FORSKNINGSRÅDET FÖR MILJÖ, ARELLA NÄRINGAR OCH SAMHÄLLSBYGGANDE	SE
26	NATURVARDsverket	SE
27	SCHWEIZERISCHER NATIONALFONDS ZUR FÖRDERUNG DER WISSENSCHAFTLICHEN FORSCHUNG	CH
28	MINISTRY OF FOOD AGRICULTURE AND LIVESTOCK	TR
29	THE SECRETARY OF STATE FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS	UK
30	JNCC SUPPORT CO LBG	UK
31	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK

The information presented in this document is partly provisional and subject to potential modifications.

Topic: SC5-10a-2014 **Type of Action** CSA **Duration (months):** 42

Title: Enhancing ecoSysteM sERvices mApping for poLicy and Decision mAKing

Project total costs 3,133,306.00 € **Project EU contribution:** 3,002,166 €

Abstract:

Mapping and assessment of ecosystems and their services (ES) are core to the EU Biodiversity (BD) Strategy. They are essential if we are to make informed decisions. Action 5 sets the requirement for an EU-wide knowledge base designed to be: a primary data source for developing Europe's green infrastructure; resource to identify areas for ecosystem restoration; and, a baseline against which the goal of 'no net loss of BD and ES' can be evaluated. In response to these requirements, ESMEALDA aims to deliver a flexible methodology to provide the building blocks for pan-European and regional assessments. The work will ensure the timely delivery to EU member states in relation to Action 5 of the BD Strategy, supporting the needs of assessments in relation to the requirements for planning, agriculture, climate, water and nature policy. This methodology will build on existing ES projects and databases (e.g. MAES, OpenNESS, OPERAs, national studies), the Millennium Assessment (MA) and TEEB. ESMEALDA will identify relevant stakeholders and take stock of their requirements at EU, national and regional levels. The objective of ESMEALDA is to share experience through an active process of dialogue and knowledge co-creation that will enable participants to achieve the Action 5 aims. The mapping approach proposed will integrate biophysical, social and economic assessment techniques. Flexibility will be achieved by the creation of a tiered methodology that will encompass both simple (Tier 1) and more complex (Tier 3) approaches. The work will exploit expert- and land cover-based methods, existing ES indicator data and more complex ES models. As a result the outcomes will be applicable in different contexts. The strength of the ESMEALDA consortium lies in its ability to make solutions for mapping and assessment problems available to stakeholders from the start of the project, because our expertise allows us to build on existing research projects and data sharing systems.

Partners:

Nr	Participant	Country
1	CHRISTIAN-ALBRECHTS-UNIVERSITAET ZU KIEL	DE
2	SUOMEN YMPARISTOKESKUS	FI
3	UNIVERSIDAD AUTONOMA DE MADRID	ES
4	THE UNIVERSITY OF NOTTINGHAM	UK
5	UNIVERSITA DEGLI STUDI DI TRENTO	IT
6	Pensoft Publishers Ltd	BG
7	STICHTING VU-VUMC	NL
8	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.	BE
9	NATIONAL INSTITUTE OF GEOPHYSICS GEODESY AND GEOGRAPHY - BULGARIAN ACADEMY OF SCI	BG
10	CENTRUM VYZKUMU GLOBALNI ZMENY AV CR VVI	CZ
11	STICHTING VOOR DUURZAME ONTWIKKELING	NL
12	EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH	CH
13	BALTIJAS VIDES FORUMS	LV
14	REGIONAL ENVIRONMENTAL CENTER FOR CENTRAL AND EASTERN EUROPE -REC	HU
15	MAGYAR TUDOMANYOS AKADEMIA OKOLOGIAI KUTATOKOZPONT	HU
16	INSTITUTO SUPERIOR TECNICO	PT
17	UNIVERSITATEA DIN BUCURESTI	RO
18	WCMC LBG	UK
19	PARIS-LODRON-UNIVERSITAT SALZBURG	AT
20	UNIWERSYTET IM. ADAMA MICKIEWICZA W POZNANIU	PL
21	INSTITUT NATIONAL DE RECHERCHE EN SCIENCES ET TECHNOLOGIES POUR L'ENVIRONNEMENT ET FR	FR
22	MALTA COLLEGE OF ARTS SCIENCE AND TECHNOLOGY	MT
23	KOBENHAVNS UNIVERSITET	DK
24	NATURVARDSVERKET	SE
25	JRC -JOINT RESEARCH CENTRE- EUROPEAN COMMISSION	BE

Topic: SC5-10b-2014 **Type of Action** CSA **Duration (months):** 36
Title: INtegrated Spatial PlannIng, land use and soil management Research ActTION

Project total costs 2,812,585.50 € **Project EU contribution:** 2,598,761 €

Abstract:

The aim of INSPIRATION is to adopt a funder and end-user demand-driven approach to establish and promote the adoption of the knowledge creation, transfer and implementation agenda for land use, land-use changes and soil management in the light of current and future societal challenges. Main objectives are: • Formulate, consult on and revise an end-user oriented strategic research agenda (SRA), • Scope out models of implementing the SRA, • Prepare a network of public and private funding institutions willing to commonly fund the execution of the SRA. INSPIRATION's mission is to improve the supply and effectiveness of science/knowledge take-up by those who really need it. The proposed methodology is based on a multi-stakeholder, multi-national and interdisciplinary approach that covers the variety of stakeholders (public bodies, business, science, citizens and society) and the variety of relevant. The vehicle to engage with all relevant stakeholders across the Member States is a National Focal Point (NFP) in 16 countries. The NFP's will organize workshops with national stakeholders of funders, end users and researchers across the various soil and land management disciplines. The results will be taken up, structured along four integrative themes and merging into thematic knowledge needs to satisfy the as yet unmet societal challenges and to ensure that knowledge contributes primarily to enable meeting these challenges. Based on these results a cross country and cross discipline dialogue will subsequently be organized among the relevant user communities, funding bodies and scientific communities in Europe in order to reach a trans-national, prioritized SRA as well as a model for execution of this SRA. Thus to achieve an SRA of which national funders believe that for any Euro they spend, they will get a multitude of Euro's worth of knowledge in return. Knowledge welcomed to face their national, societal challenges.

Partners:

Nr	Participant	Country
1	UMWELTBUNDESAMT	DE
2	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
3	INSTYTUT EKOLOGII TERENOW UPRZEMYSLOWIONYCH	PL
4	Institute of Geonics of the AS CR, v.v.i.	CZ
5	UNIVERSIDADE DO ALGARVE	PT
6	OPENBARE VLAAMSE AFVALSTOFFENMAATSCHAPPIJ	BE
7	SITI - ISTITUTO SUPERIORE SUI SISTEMI TERRITORIALI PER L'INNOVAZIONE	IT
8	URBANISTICNI INSTITUT REPUBLIKE SLOVENIJE	SI
9	EIDGENOESSISCHE FORSCHUNGSANSTALT WSL	CH
10	DR. FERBER, UWE UND GRAUMANN, DOREEN PROJEKTGRUPPE STADT + ENTWICKLUNG	DE
11	THE UNIVERSITY OF NOTTINGHAM	UK
12	FUNDACION TECNALIA RESEARCH & INNOVATION	ES
13	HELMHOLTZ-ZENTRUM FUER UMWELTFORSCHUNG GMBH - UFZ	DE
14	STICHTING DELTARES	NL
15	EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH	CH
16	SLOVENSKA TECHNICKA UNIVERZITA V BRATISLAVE	SK
17	DIU DRESDEN INTERNATIONAL UNIVERSITY GMBH	DE
18	UNIVERSITAET FUER BODENKULTUR WIEN	AT
19	INSTITUTUL NATIONAL DE CERCETARE-DEZVOLTARE PENTRU PEDOLOGIE, AGROCHIMIE SI PROTEC RO	
20	MINISTERIE VAN INFRASTRUCTUUR EN MILIEU	NL
21	SUOMEN YMPARISTOKESKUS	FI

Topic: SC5-11a-2014	Type of Action RIA	Duration (months):	48
Title: Real-time optimization of extraction and the logistic process in highly complex geological and selective mining settings			
Project total costs	6,566,702.50 €	Project EU contribution:	5,629,200 €

Abstract:

The overall aim of Real-Time-Mining is to develop a real-time framework to decrease environmental impact and increase resource efficiency in the European raw material extraction industry. The key concept of the proposed research promotes the change in paradigm from discontinuous intermittent process monitoring to a continuous process and quality management system in highly selective mining operations. Real-Time Mining will develop a real-time process-feedback control loop linking online data acquired during extraction at the mining face rapidly with an sequentially up-datable resource model associated with real-time optimization of long-term planning, short-term sequencing and production control decisions. The project will include research and demonstration activities integrating automated sensor based material characterization, online machine performance measurements, underground navigation and positioning, underground mining system simulation and optimization of planning decisions, state-of-the art updating techniques for resource/reserve models. The impact of the project is expected on the environment through a reduction in CO₂-emissions, increased energy efficiency and production of zero waste by maximizing process efficiency and resource utilization. Currently economically marginal deposits or difficult to access deposits will be become industrial viable. This will result in a sustainable increase in the competitiveness of the European raw material extraction through a reduced dependency on raw materials from non-EU sources.

Partners:

Nr	Participant	Country
1	TECHNISCHE UNIVERSITEIT DELFT	NL
2	RHEINISCH-WESTFAELISCHE TECHNISCHE HOCHSCHULE AACHEN	DE
3	IMPERIAL COLLEGE OF SCIENCE, TECHNOLOGY AND MEDICINE	UK
4	ASSOCIACAO DO INSTITUTO SUPERIOR TECNICO PARA A INVESTIGACAO E DESENVOLVIMENTO	PT
5	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK - TNO	NL
6	GEOVARIANCES SA	FR
7	DASSAULT SYSTEMES GEOVIA LTD	UK
8	LSA-LASER ANALYTICAL SYSTEMS & AUTOMATION GMBH	DE
9	XGRAPHIC INGENIEURGESELLSCHAFT MBH	DE
10	SONICSAMPDRILL BV	NL
11	TECHNISCHE UNIVERSITAET BERGAKADEMIE FREIBERG	DE
12	SPECTRAL INDUSTRIES BV	NL
13	IBEWA INGENIEURPARTNERSCHAFT FUR BERGBAU WASSER UND DEPONIETECHNIK WILSNACK & P	DE

Topic: SC5-11a-2014 **Type of Action** RIA **Duration (months):** 36
Title: New Mining Concept for Extracting Metals from Deep Ore Deposits using Biotechnology

Project total costs 8,564,961.75 € **Project EU contribution:** 8,564,962 €

Abstract:

BioMOre describes a "New Mining Concept for Extracting Metals from Deep Ore Deposits using Biotechnology". The concept is to use hydrofracturing for stimulation and bioleaching for winning of ores. The final process will consist of a so-called doublet, which is two deviated and parallel wells. In order to avoid high costs for drilling from the surface, the BioMOre approach is divided into two phases. Phase 1 will be research on the intended bioleaching process whereas phase 2 will aim at a pilot installation to demonstrate the applicability of the process in large scale including hydrofracturing and access of the deposit from surface. The first phase should cover the intended work of the current BioMOre approach without drilling from surface. The BioMOre project aims at extracting metals from deep mineralized zones in Europe (Poland-Germany, Kupferschiefer deposit as a test case) by coupling solution mining and bioleaching. Selected sustainability indicators based on regulatory requirements of the European Commission will be applied for feasibility considerations. The main objective of the BioMOre first phase is to design and build an underground test facility for testing the concept of combined hydro-fracturing and bioleaching. The test facility will comprise a 100 m² ore block, where boreholes will be drilled horizontally using standard equipment. All necessary equipment for testing different parameters of the intended bioleaching process will be established underground. The intention is to test the bioleaching process in high detail in an in-situ environment at the same time avoiding time consuming and risky permission procedures. On the other hand, the application for the permission of underground test operation must contain detailed information about monitoring of tests and all material controls. No harmful substances will remain in the mine after the tests are completed. Further to that, predictive numerical modelling of a pilot installation should be done.

Partners:

Nr	Participant	Country
1	KGHM POLSKA MIEDZ SA	PL
2	Mineral Industry Research Organisation	UK
3	AKADEMIA GORNICZO-HUTNICZA IM. STANISLAWA STASZICA W KRAKOWIE	PL
4	BANGOR UNIVERSITY	UK
5	BUNDESANSTALT FUER GEOWISSENSCHAFTEN UND ROHSTOFFE	DE
6	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
7	COBRE LAS CRUCES SA	ES
8	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	FR
9	DMT GmbH & CO. KG	DE
10	G.E.O.S.INGENIEURGESELLSCHAFT MBH	DE
11	GEOLOGIAN TUTKIMUSKESKUS	FI
12	HATCH ASSOCIATES LIMITED	UK
13	HELMHOLTZ-ZENTRUM DRESDEN-ROSSENDORF EV	DE
14	INSTYTUT METALI NIEZELAZNYCH	PL
15	KEMAKTA KONSULT AB	SE
16	KGHM CUPRUM SP ZOO CENTRUM BADAWCZO-ROZWOJOWE	PL
17	KGHM KUPFER AG	DE
18	MINTEK	ZA
19	TECHNISCHE UNIVERSITAET BERGAKADEMIE FREIBERG	DE
20	TTY-SAATIO	FI
21	UMWELT- UND INGENIEURTECHNIK GMBH DRESDEN	DE
22	TEKNOLOGIAN TUTKIMUSKESKUS VTT	FI

Topic: SC5-11a-2014 **Type of Action** RIA **Duration (months):** 42
Title: ¡Viable and Alternative Mine Operating System!

Project total costs 9,200,000.00 € **Project EU contribution:** 9,200,000 €

Abstract:

Estimates indicate that the value of unexploited European mineral resources at a depth of 500-1,000 metres is ca €100 billion, however, a number of physical, economic, social, environmental and human constraints have as yet limited their exploitation. ¡VAMOS! will provide a new Safe, Clean and Low Visibility Mining Technique and will prove its Economic Viability for extracting currently unreachable mineral deposits, thus encouraging investment and helping to put the EU back on a level playing field in terms of access to strategically important minerals. Deriving from successful deep-sea mining techniques, the ¡VAMOS! mining solution aspires to lead to: Re-opening abandoned mines; Extensions of opencut mines which are limited by stripping ratio, hydrological or geotechnical problems; and opening of new mines in the EU. ¡VAMOS! will design and manufacture innovative automated excavation equipment and environmental impact monitoring tools that will be used to perform field tests in four mine sites across Europe with a range of rock hardness and pit morphology. VAMOS will: 1. Develop a prototype underwater, remotely controlled, mining machine with associated launch and recovery equipment 2. Enhance currently available underwater sensing, spatial awareness, navigational and positioning technology 3. Provide an integrated solution for efficient Real-time Monitoring of Environmental Impact 4. Conduct field trials with the prototype equipment in abandoned and inactive mine sites with a range of rock types and at a range of submerged depths 5. Evaluate the productivity and cost of operation to enable mine-ability and economic reassessment of the EU's mineral resources. 6. Maximize impact and enable the Market Up-Take of the proposed solutions by defining and overcoming the practicalities of the concept, proving the operational feasibility and the economic viability. 7. Contribute to the social acceptance of the new extraction technique via public demonstrations in EU regions.

Partners:

Nr	Participant	Country
1	BMT GROUP LIMITED	UK
2	SOIL MACHINE DYNAMICS LIMITED	UK
3	DAMEN DREDGING EQUIPMENT BV	NL
4	INESC PORTO - INSTITUTO DE ENGENHARIA DE SISTEMAS E COMPUTADORES DO PORTO	PT
5	FUGRO EMU LIMITED	UK
6	Zentrum fuer Telematik e.V.	DE
7	MONTANUNIVERSITAET LEOBEN	AT
8	MINERALIA-MINAS, GEOTECNIA E CONSTRUÇOES LDA	PT
9	MARINE MINERALS LIMITED	UK
10	EMPRESA DE DESENVOLVIMENTO MINEIRO	PT
11	SANDVIK MINING AND CONSTRUCTION GMBH	AT
12	GEOLOSKI ZAVOD SLOVENIJE	SI
13	LA PALMA RESEARCH CENTRE FOR FUTURE STUDIES SL	ES
14	FEDERATION EUROPEENNE DES GEOLOGUES	FR
15	TRELLEBORG EDE B.V.	NL
16	FEDERALNI ZAVOD ZA GEOLOGIJU SARAJEVO	BA
17	FONDACIJA ZA OBNOVU I RAZVOJ REGIJE VARES	BA

Topic: SC5-11b-2014 **Type of Action** RIA **Duration (months):** 48
Title: Flexible and Mobile Economic Processing Technologies

Project total costs 7,466,072.50 € **Project EU contribution:** 7,458,064 €

Abstract:

FAME aims to increase the competitiveness of the mining of European mineral resources and to stimulate more private engagement and investment and thus business development with the potential to maintain and create high quality jobs within the EU28. The focus and a principal aim is to enhance mineral processing and mining skills within Europe. A medium to long term aim is to reduce the reliance of European Industry and consumers on raw materials that currently have to be imported from outside EU28. FAME will contribute to the more efficient exploitation of European domestic mineral resources including previously undeveloped resources that have the potential to contribute to the securing of raw material supply by optimising the extraction and processing of ores that include raw materials critical to the economic development of the EU ("critical raw materials", CRM) and which occur in widespread deposits across the EU. This project specifically addresses primary ore deposits with skarn, pegmatite and greisen ores as they offer the most promising potential for this purpose. This proposal will consider the flexibility (and to an extent the mobility) of the processing concept, in particular, by ensuring the modularity of individual project components. FAME will consider flexible and modular processing technology demonstrated in relevant operational environments (industrially relevant environments in the case of key enabling technologies (TRL). TRL6 is envisaged feasible for processing of pegmatites, whereas TRL5 is considered more realistic for other types of ore body. The consortium has 16 partners from 7 European countries and includes industry, academia and governmental institutions. The consortium has a strong industrial background and involves strategically important reference deposits operated or/and accessible to the project partners and, additionally, associated partners within the EU28 nations and Greenland.

Partners:

Nr	Participant	Country
1	WARDELL ARMSTRONG LLP	UK
2	GEOKOMPETENZZENTRUM FREIBERG EV	DE
3	G.E.O.S.INGENIEURGESELLSCHAFT MBH	DE
4	NICKELHUTTE AUE GMBH	DE
5	EUROCOLT RESOURCES	PT
6	GEOMET SRO	CZ
7	Keliber Oy	FI
8	GBM MINERALS ENGINEERING CONSULTANTS LIMITED	UK
9	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
10	GEOLOGIAN TUTKIMUSKESKUS	FI
11	Laboratorio Nacional de Energia e Geologia I.P.	PT
12	THE UNIVERSITY OF EXETER	UK
13	NATURAL HISTORY MUSEUM	UK
14	UNIVERSITE DE LORRAINE	FR
15	UNIVERSIDADE DO PORTO	PT
16	LULEA TEKNISKA UNIVERSITET	SE

Topic: SC5-11b-2014	Type of Action RIA	Duration (months):	36
Title: Increasing yield on Tungsten and Tantalum ore production by means of advanced and flexible control on crushing, milling and separation process			
Project total costs	5,084,468.75 €	Project EU contribution:	5,084,469 €

Abstract:

Modern economy is highly dependent on specific raw materials, and it is envisaged that this dependency will increase in the near future. Most of them are scarce in EU and of poor purity, being mixed within complex and low grade aggregates which need to be processed by means of a separation process consuming high quantities of energy and water, and even in some cases this makes its exploitation unfeasible due to production costs. Being EU dependent on some of these materials, as identified by EIP initiative, our society is demanding more efficient extracting processes to contribute to major European independency on these Critical Raw Materials. Tungsten and Tantalum ores are two recognized CRMs: In a market currently dominated by China and Russia production (among others), in Europe Tungsten (limited) production is mostly concentrate into UK, Spain and Portugal . On the other side, Tantalum is a key element on electronics with clear EU external production dependency, as it is naturally really scarce in Europe (only 1% of world production is concentrated in EU). Knowing this situation, OptimOre Project proposes the research and development of modelling and control technologies, using advanced sensing and advanced industrial control by means of artificial intelligence techniques, for the more efficient and flexible Tantalum and Tungsten ores processing from crushing to separation process, with the participation of relevant international players in the mining field on research (Chalmers University- Dr. Magnus Evertsson, Exeter University with Dr. Richard Pascoe, Freiburg University with Dr. Holberg Lieberwirth, among others). The project proposes a 3 years collaboration among 8 partners of 4 different countries.

Partners:

Nr	Participant	Country
1	UNIVERSITAT POLITECNICA DE CATALUNYA	ES
2	CHALMERS TEKNISKA HOEGSKOLA AB	SE
3	THE UNIVERSITY OF EXETER	UK
4	UNIVERSIDAD DE OVIEDO	ES
5	TECHNISCHE UNIVERSITAET BERGAKADEMIE FREIBERG	DE
6	INTERKONSULT LTD	UK
7	EDMA INNOVA SL	ES
8	HELMHOLTZ-ZENTRUM DRESDEN-ROSSENDORF EV	DE

Topic: SC5-12a-2014 **Type of Action** RIA **Duration (months):** 36
Title: Towards Indium free TCOs

Project total costs 6,197,149.50 € **Project EU contribution:** 4,999,433 €

Abstract:

The goal of INREP is to develop and deploy valid and robust alternatives to indium (In) based transparent conductive electrode materials as electrodes. In-based materials, mainly ITO, are technologically entrenched in the commercial manufacture of components like LEDs (both organic and inorganic), solar cells, touchscreens, so replacing them with In-free transparent conducting oxides (TCOs) will require holistic approach. The INREP philosophy is to meet this challenge by addressing the whole value chain via an application focused research programme aiming at developing tailor made solutions for each targeted application. This programme will produce a complete evaluation of the relevant properties of the proposed TCOs, including the impact of deposition technique, and by doing so, devise optimum processes for their application in selected, high value application areas. The selected application areas are organic and inorganic light emitting diodes (LEDs), solar cells and touchscreens. The physical properties of interest are the transparency, electrical conductivity, work function, texture, and chemical and thermal stability. To reach its overall goal, INREP brings together industrial and academic experts in TCOs, the technology and processes for their deposition and their applications in a concerted research programme that will result in the creation of TCOs and deposition technologies with the optimum opto-electrical properties suitable for the economic and safe manufacture of the specified photonic or opto-electronic components. The approach will include life cycle assessments of the environmental impact of the developed TCO materials and of their formation technologies over the entire period from application in manufacturing, through component operation into waste management.

Partners:

Nr	Participant	Country
1	UNIVERSITY OF BATH	UK
2	CSEM CENTRE SUISSE D'ELECTRONIQUE ET DE MICROTECHNIQUE SA - RECHERCHE ET DEVELOPP	CH
3	TECHNISCHE UNIVERSITEIT EINDHOVEN	NL
4	Meyer Burger Research AG	CH
5	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK - TNO	NL
6	SMIT OVENS BV	NL
7	PLESSEY SEMICONDUCTORS LIMITED	UK
8	INTERUNIVERSITAIR MICRO-ELECTRONICACENTRUM IMEC VZW	BE
9	POLITECHNIKA LODZKA	PL
10	PLASMA QUEST LIMITED	UK
11	QUAD INDUSTRIES NV	BE
12	SLOVENSKA TECHNICKA UNIVERZITA V BRATISLAVE	SK
13	L - UP SAS	FR

Topic: SC5-12a-2014 **Type of Action** RIA **Duration (months):** 38
Title: Indium-Free Transparent Conductive Oxides for Glass and Plastic Substrates

Project total costs 4,003,243.06 € **Project EU contribution:** 4,003,243 €

Abstract:

INFINITY will develop an inorganic alternative to a scarce and high cost material, indium tin oxide (ITO), currently used as a Transparent Conductive Coating (TCC) for display electrodes on glass and plastic substrates. The novel conductive materials to be developed in this project will be based on low cost sol-gel chemistry using more widely available metallic elements and will leverage recent advances in nanostructured coatings. Novel printing procedures will also be developed to enable direct writing of multi and patterned nano-layers, removing the waste associated with etch patterning.

Partners:

Nr	Participant	Country
1	TWI LIMITED	UK
2	L'UREDERRA, FUNDACION PARA EL DESARROLLO TECNOLOGICO Y SOCIAL	ES
3	LEIBNIZ-INSTITUT FUER NEUE MATERIALIEN GEMEINNUETZIGE GMBH	DE
4	UNIVERSITY OF HULL	UK
5	I.G. CATALYSTS LTD	UK
6	TECNOLOGIA NAVARRA DE NANOPRODUCTOS SL	ES
7	BELECTRIC OPV GMBH	DE

Topic: SC5-13a-2014 **Type of Action** CSA **Duration (months):** 36
Title: Developing a concept for a European minerals deposit framework

Project total costs 2,092,687.50 € **Project EU contribution:** 2,092,688 €

Abstract:

The exploitation of minerals in Europe is an indispensable activity to ensure that the present and future needs of the European society can be met. This means that sufficient access is required to explore and exploit minerals. At the same time the mineral needs of our society must be met without compromising the ability of future generations to meet their own needs. Accordingly exploitable mineral deposits (known deposits, abandoned mines and historical mining sites) need to be assessed against other land uses, taking into account criteria such as habitats, other environmental concerns, priorities for settlements, etc. Access to mineral deposits, on the other hand, also meets public interests such as raw materials security (compared with many international access options). The deliberation between these diverse land uses requires adequate consideration of the exclusiveness, reversibility, and consequences on the surrounding. The overall objective of MINATURA 2020 is to develop a concept and methodology (i.e. a harmonised European regulatory/guidance/policy framework) for the definition and subsequent protection of "mineral deposits of public importance" in order to ensure their "best use" in the future. Providing a policy planning framework that comprises the "sustainability principle" for mining is the key driving force behind MINATURA.

Partners:

Nr	Participant	Country
1	GUENTER TIESS	AT
2	PAN EUROPEAN RESERVES AND RESOURCES REPORTING COMMITTEE	BE
3	INDUSTRIAL MINERALS ASSOCIATION EUROPE	BE
4	FEDERATION EUROPEENNE DES GEOLOGUES	FR
5	JU ZAVOD ZA GEOLOSKA ISTRAZIVANJA	ME
6	MINISTARSTVO GOSPODARSTVA HERCEGBOSANSKE ZUPANIJE	BA
7	POLSKA ACADEMIA NAUK INSTYTUT GOSPODARKI SUROWCAMI MINERALNYMI I ENERGIA	PL
8	UNIVERSITY COLLEGE LONDON	UK
9	LA PALMA RESEARCH CENTRE FOR FUTURE STUDIES SL	ES
10	UNIVERSITY COLLEGE CORK, NATIONAL UNIVERSITY OF IRELAND, CORK	IE
11	STICHTING DIENST LANDBOUWKUNDIG ONDERZOEK	NL
12	ZAVOD ISKRIVA, ISKRISCE ZA RAZVOJ LOKALNIH POTENCIALOV	SI
13	MAGYAR FOLDTANI ES GEOFIZIKAI INTEZET	HU
14	UNIVERSITATEA DIN BUCURESTI	RO
15	GEOLOSKI ZAVOD SLOVENIJE	SI
16	FUNDACAO DA FACULDADE DE CIENCIAS DA UNIVERSIDADE DE LISBOA	PT
17	ZAVOD ZA PROSTORNO UREDENJE KOPRIVNICKO-KRIZEVACKE ZUPANIJE	HR
18	STATNY GEOLOGICKY USTAV DIONYZA STURA	SK
19	LULEA TEKNISKA UNIVERSITET	SE
20	DRUSTVO TEHNICNIH VODIJ - POVRINSKO ODKOPAVANJE	SI
21	INSTITUTUL GEOLOGIC AL ROMANIEI	RO
22	UNIVERSITY OF BELGRADE - FACULTY OF MINING AND GEOLOGY	RS
23	MINERAL AND RESOURCE PLANNING ASSOCIATES LTD	UK

Topic: SC5-13b-2014 **Type of Action** CSA **Duration (months):** 36
Title: International cooperation on Raw materials

Project total costs 2,111,375.00 € **Project EU contribution:** 2,111,200 €

Abstract:

INTRAW will map and develop new cooperation opportunities related to raw materials in Australia, Canada, Japan, South Africa and the United States, addressing: • Research and innovation; • Raw materials policies and strategies; • Joint educational and skills programmes; • Licensing and permitting procedures; • Data reporting systems; • Exploration, extraction, processing and recycling practices; • Management and substitution of Critical Raw Materials. The outcome of the mapping and knowledge transfer activities will be used as a baseline to set and launch the European Union's International Observatory for Raw Materials as a definitive raw materials intelligence infrastructure, operating internationally. The Observatory will be a permanent body that will remain operational after the project completion, with a clear strategy and management approach, aiming for the establishment and maintenance of strong long-term relationships with the world's key players in raw materials technology and scientific developments. The Observatory will not only continuously monitor cooperation possibilities but will also actively promote these via the establishment of dedicated bilateral and multilateral funding schemes and incentives for raw materials cooperation between the EU and technologically advanced countries outside the EU.

Partners:

Nr	Participant	Country
1	FEDERATION EUROPEENNE DES GEOLOGUES	FR
2	COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH	ZA
3	THE UNIVERSITY OF EXETER	UK
4	FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V	DE
5	FUNDACAO PARA A CIENCIA E A TECNOLOGIA	PT
6	ASSOCIACAO PORTUGUESA DOS INDUSTRIAIS DE MARMORES E RAMOS AFINS	PT
7	AUSTRALIAN ACADEMY OF TECHNOLOGICAL SCIENCES AND ENGINEERING LIMITED	AU
8	GEOLOSKI ZAVOD SLOVENIJE	SI
9	LA PALMA RESEARCH CENTRE FOR FUTURE STUDIES SL	ES
10	MISKOLCI EGYETEM	HU
11	PAN EUROPEAN RESERVES AND RESOURCES REPORTING COMMITTEE	BE
12	GUENTER TIESS	AT
13	RECIFEMETAL-RECICLAGEM DE FERROS E METAIS SA	PT
14	RESOURCES COMPUTING INTERNATIONAL LTD	UK
15	AMERICAN GEOLOGICAL INSTITUTE	US

Topic: SC5-14-2014 **Type of Action** CSA **Duration (months):** 48
Title: European Global Transition Network on Eco-Innovation, Green Economy and Sustainable Development

Project total costs 2,994,178.75 € **Project EU contribution:** 2,994,179 €

Abstract:

In the last two decades the world has experienced several crises. In light of these trends and to more effectively move towards sustainable development, several organisations and international actors have developed the concept of green economy as action-oriented approaches. Priority interventions are aimed at triggering technology adoption, and stimulate behavioural change. In fact, eco-innovation can be considered an enabler for a green economy to the same extent that the green economy can be understood as an enabler of sustainable development. Green.eu is designed to address these challenges, ranging the conceptualization of eco-innovation and the green economy, to the harmonization of the approaches needed to coherently assess performance, identify gaps (successes and failures) for the effective adoption of technologies that can create win-win results. In particular, the project is designed so as to improve (1) harmonization of definitions, (2) collection of relevant information on the performance of past and current efforts, and (3) coordination among stakeholders. Green.eu sees the main challenges in an improved understanding (and scientific assessment) of the concepts of green economy and eco-innovation, on the adaptation of policy agendas, the documentation of best practices and guidelines for knowledge transfer and transferability. The inter- and transdisciplinary green.eu network (including knowledge brokers, programme owners and global industry networks) is research based and aims to accelerate the transition towards a green economy significantly, with a European focus on co-development of knowledge. It aims to exploit win-win-opportunities and to improve the take up of R&D results. It includes the following work packages: Networking and co-ordination; Harmonization of concepts of green economy and eco-innovation; Eco-innovation policy agendas; Best practices, knowledge transfer, transferability; Integration and operationalization of lessons learned.

Partners:

Nr	Participant	Country
1	ZENTRUM FUER EUROPÄISCHE WIRTSCHAFTSFORSCHUNG GmbH	DE
2	UNIVERSITA DEGLI STUDI DI FERRARA	IT
3	FUNDACION TECNALIA RESEARCH & INNOVATION	ES
4	UNIVERSITEIT MAASTRICHT	NL
5	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK - TNO	NL
6	KNOWLEDGE SRL	IT
7	KING'S COLLEGE LONDON	UK
8	SP SVERIGES TEKNISKA FORSKNINGSPINSTITUT AB	SE
9	Greenovate! Europe	BE
10	ICLEI EUROPEAN SECRETARIAT GMBH (ICLEI EUROPASEKRETARIAT GMBH)*	DE
11	STELLENBOSCH UNIVERSITY	ZA
12	UNIVERSITY COLLEGE LONDON	UK

Topic: SC5-20-2014 **Type of Action** SME-2 **Duration (months):** 22
Title: WINdow based on THERmally modified wood with high performance WAX coating

Project total costs 1,850,115.00 € **Project EU contribution:** 1,295,080 €

Abstract:

M SORA and SILVAPRODUKT, two Slovenian SMEs dedicated to wood products and wood preservation present WINTHERWAX, a passive window made out of Norway spruce (*Picea alba*). It's thermally treated wood is processed through the unique SILVAPRO_ patented process, and coated with an innovative preservative wax. The result is a wooden passive window cost-effective (the window will be sold at a price of 369€, beating the competitors), highly durable (class 1, more than 25 years fully exposed in the environment), that provides an excellent thermal insulation being highly energy efficient (Thermal transmittance = 0,09 (W/m²K)). It is eco-friendly (its innovative coating, which is a unique biocide-free wax that reduces cracking which is the main cause for wood decay), and with a high aesthetic value (the translucent wax allows this product to preserve the natural look of the wood, in contrast to current oils and varnishes). The aim is to capture 4,1% of the wooden passive window market share from the EU.

Partners:

Nr	Participant	Country
1	M SORA, trgovina in proizvodnja, d.d.	SI
2	Silvaprojekt podjetje za proizvodnjo in prodajo sredstev za zascito materialov	SI

Topic: SC5-20-2014 **Type of Action** SME-2 **Duration (months):** 24
Title: Cost competitive eco-friendly and acoustic wooden doors for indoor applications

Project total costs	1,881,187.00 €	Project EU contribution:	1,316,830 €
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Abstract:

Windows and doors are key components to ensure the noise insulation of a room. Some sectors, looks for noise reduction solutions in indoor doors, in order to ensure the comfort. That is the case of (a) Medical applications: 35dBA of S.R.I. would cover most of customer and regulatory demands; (b) Hotel door applications (customers demands 34dBA); Dwelling entrances (customers demand over 35-38dB). We are going to define the exploitation strategies to ensure a 5% market share of the European doors market for dwelling building, education and sanitation centres by year 5, with a total cumulated turnover of € 23.8 million. To meet this goal we will launch a product that ensures 37 dBA for doors, with a maximum thickness of 45 mm and maximum weight of 70kg.. Current prototypes of our technology reach even 42 dBA of SRI. Our wood door is fire resistance at EI30 (meaning the door can keep its integrity at least 30 minutes in case of fire) with a maximum door thickness of 45 mm and a maximum weight of 70 kg. Besides, and looking for complying with national eco-bales, our doors are based on eco-friendly materials: (a) wood wool instead of rock wool, (b) 100% recycled acoustic underlay manufactured from a combination of cork granules and rubber crumb or by a wood fibre and cork material instead of promasound and (c) recycled plastic/wood composite (instead of plastic/wood composite). This will give us access to a new market niche: the green building sector. To be unique in the market, our door must ensure a cost under 650 €, therefore we will establish a LEAN manufacturing strategy that will allow for a 15% cost reduction with respect to the SILENTWOOD proposed solution (actual prices is around 800 to 900 € per door). □

Partners:

Nr	Participant	Country
1	PADO Elementebau Holz und Kunststoff GmbH	DE
2	MELU, mizarstvo, d.o.o.	SI
3	Lualdi SpA	IT

Topic: SC5-20-2014 **Type of Action** SME-2 **Duration (months):** 22
Title: A demonstration plant of enhanced biogas production with Add-On technology

Project total costs	2,021,077.50 €	Project EU contribution:	1,414,754 €
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Abstract:

The overall goal of the business innovation project is to commercialise Ductor's proprietary nitrogen-control technology that has the potential to revolutionise the economics of biogas production. Our technology, based on cumulative R&D investment of over 4 m€, is capable to remove over 60% of nitrogen from several organic waste materials. This enables broader utilisation of high-nitrogen organic waste such as chicken manure in biogas production, which allows millions of tons of unexploited organic waste in Europe to be processed cleanly, economically and efficiently. Via Ductor's technology, biogas producers can, for example, increasingly replace maize silage with chicken manure as biogas feedstock. With this approach alone, the European biogas producers could achieve a combined +1 b€ improvement in their profitability while also cutting CO2 emissions by 1.5 million tons and releasing 811,000 hectares of field for socially and environmentally more sustainable use such as food production. During the project, we will scale up our current pilot equipment to industrial scale together with our partner, a European biogas producer. We will also confirm the expected benefits of our technology in industrial environment and optimise the technology for a broad range of feedstocks to cater all customer needs. The project will enable fast commercialisation of our product within the first targeted customer group: the existing small and mid-sized biogas plants in Germany, the largest biogas market in the world. Within this segment, our primary targets are appr. 2,000 biogas plants that currently utilise maize silage in biogas production. Confirming our value proposition in this customer group enables us to develop our technology to meet the requirements of larger biogas plants as well. The targeted final outcome of the project is to build a comprehensive product portfolio for both existing biogas plants and new biogas plant projects in all size categories globally.

Partners:

Nr	Participant	Country
1	DUCTOR OY	FI

Topic: SC5-20-2014 **Type of Action** SME-2 **Duration (months):** 24
Title: Innovative solutions to scale-up urban green surfaces across Europe

Project total costs 1,057,472.50 € **Project EU contribution:** 733,231 €

Abstract:

The ambition of this programme is to enable the widespread adoption of ground-breaking solutions to bring back nature in cities. Natural Grass offers disruptive solutions for urban greening:1. AirFibr, the sports field application for football and rugby pitches, golf courses and horse-riding grounds2. CityNest, the green building solution for green walls and green buildings3. GreenMove, the future of urban infrastructure : green parking slots, green tramway track beds, green highway sound wallsThis programme aims at removing an important lock for Natural Grass: the mastery of its production process in order to overcome the following limitations:- Flexibility: It only works with a very precise set of components - Control: Designed to produce the AirFibr substrate, the current line does not allow to vary the cork/sand/fibres ratio over all the range necessary to produce the substrate for CityNest and GreenMove, hence the substrate has to be manually enriched in cork- Reproducibility: a minor change in the process parameters or in the components characteristics can cause the process to failTo achieve these ambitious objectives, we propose an innovation programme structured in three steps:I. A study of the current process to formalize and generalize Natural Grass technical know-howII. The development of a set of innovative tools necessary for multiple substrate fabrication testsIII. The completion of the final objectives: the development of a fully functional prototype line and of a wider range of appropriate substrate constituents.

Partners:

Nr	Participant	Country
1	NATURAL GRASS SAS	FR

Topic: WASTE-1-2014 **Type of Action** IA **Duration (months):** 42
Title: A new circular economy concept: from textile waste towards chemical and textile industries feedstock

Project total costs 11,438,608.00 € **Project EU contribution:** 9,059,878 €

Abstract:

The RESYNTEX project aims at designing, developing and demonstrating new high environmental impact industrial symbiosis between the unwearable blends and pure components of textile waste and the chemical and textile industries. The project comprises:- a strategic design of the whole value chain from textile waste collection, until the new marketable feedstock for chemical & textile industrie, by which the symbiosis opportunities are evaluated (by public authorities and the private sector) in terms of their social, technical, economic, environmental and legislative aspects- the improvement of collection approaches particularly for non-wearable textiles for recycling by changing citizen's behaviour and creation of tools for higher social involvement and recycling promotion. This will ensure a greater accessibility to textile waste as resource and increase the textile waste rates destined for recycling. With 50% collection rate all over Europe would be a significant improvement in order to provide large quantities of feedstock- a data aggregation system that will be developed and implemented in order to ensure waste traceability and also provide relevant data for economic and environmental assessment;- the development of new business models adapted for different synergies identified and for new markets. In addition, environmental LCA and LCC for different scenarios and identification of the most promising routes and synergies will support this objective- automation of the macro separation and sorting for pure or blended textiles, in order to enhance productivity and competitiveness of the whole recycling process- a new demonstration process based on a synergistic chemical and biotechnological cascading separation/transformation approach of textile basic components (proteins, cellulose, polyamide and polyester) from textile blends as basic feedstock materials for chemical & textile industries. Liquid and solid waste treatment and valorisation will close the loop

Partners:

Nr	Participant	Country
1	SOEX Textil-Vermarktungsgesellschaft m.b.H.	DE
2	IOS, INSTITUT ZA OKOLJEVARSTVO IN SENZORJE, DOO	SI
3	ARKEMA FRANCE SA	FR
4	UNIVERZA V MARIBORU	SI
5	UNIVERSITAET FUER BODENKULTUR WIEN	AT
6	Conseil Européen de l'Industrie Chimique	BE
7	TEKSTILNA INDUSTRIJA AJDOVSCINA DD	SI
8	Dettin S.p.A.	IT
9	Quantis Sàrl	CH
10	NATIONAL TECHNICAL UNIVERSITY OF ATHENS - NTUA	EL
11	VALAGRO CARBONE RENOUVELABLE POITOU-CHARENTES	FR
12	VALAGRO RECHERCHE	FR
13	ECOETHANOL Poitou-Charentes	FR
14	INTERUNIVERSITAIR MICRO-ELECTRONICA CENTRUM VZW	BE
15	FEYECON DEVELOPMENT & IMPLEMENTATION BV	NL
16	CHIMAR HELLAS AE	EL
17	THE MANCHESTER METROPOLITAN UNIVERSITY	UK
18	ABOUTGOODS Company	FR
19	Sustainability Consult Sprl	BE
20	BIOCHEMTEX SPA	IT
21	Prospex Institute vzw	BE
22	EUROPEAN APPAREL AND TEXTILE CONFEDERATION	BE

Topic: WASTE-1-2014	Type of Action IA	Duration (months):	36
Title: Implementation of a Circular economy Based on Recycled, reused and recovered Indium, Silicon and Silver materials for photovoltaic and other applications			
Project total costs	9,281,684.00 €	Project EU contribution:	7,844,566 €

Abstract:

The main vision of CABRISS project is to develop a circular economy mainly for the photovoltaic, but also for electronic and glass industry. It will consist in the implementation of: (i) recycling technologies to recover In, Ag and Si for the sustainable PV technology and other applications; (ii) a solar cell processing roadmap, which will use Si waste for the high throughput, cost-effective manufacturing of hybrid Si based solar cells and will demonstrate the possibility for the re-usability and recyclability at the end of life of key PV materials. The developed Si solar cells will have the specificity to have a low environmental impact by the implementation of low carbon footprint technologies and as a consequence, the technology will present a low energy payback (about 1 year). The originality of the project relates to the cross-sectorial approach associating together different sectors like the Powder Metallurgy (fabrication of Si powder based low cost substrate), the PV industry (innovative PV Cells) and the industry of recycling (hydrometallurgy and pyrometallurgy) with a common aim : make use of recycled waste materials (Si, In and Ag). CABRISS focuses mainly on a photovoltaic production value chain, thus demonstrating the cross-sectorial industrial symbiosis with closed-loop processes.

Partners:

Nr	Participant	Country
1	COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	FR
2	STIFTELSEN SINTEF	NO
3	INTERUNIVERSITAIR MICRO-ELECTRONICA CENTRUM VZW	BE
4	Loser Chemie GmbH	DE
5	Ferroatlantica I+D	ES
6	Baltic Solar Solutions	LT
7	PYROGENESIS SA	EL
8	RHP-TECHNOLOGY GMBH & CO KG	AT
9	ReSiTec AS	NO
10	TECHNISCHE UNIVERSITAET WIEN	AT
11	SUNPLUGGED - SOLARE ENERGIESYSTEME GMBH	AT
12	FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V	DE
13	PROJEKTKOMPETENZ.EU - GESELLSCHAFT FUR PROJEKTENTWICKLUNG UND -MANAGEMENT MBH	AT
14	PV CYCLE France SAS	FR
15	Inkron Oy	FI
16	ECM Greentech, Francewafer	FR

Topic: WASTE-1-2014 **Type of Action** IA **Duration (months):** 42
Title: Turning waste from steel industry into a valuable low cost feedstock for energy intensive industry

Project total costs 9,751,956.00 € **Project EU contribution:** 8,092,712 €

Abstract:

The RESLAG project proposal is aligned with the challenges outlined in the call WASTE-1-2014: Moving towards a circular economy through industrial symbiosis. In 2010, the European steel industry generated, as waste, about 21.8 Mt of steel slag. The 76 % of the slag was recycled in applications such as aggregates for construction or road materials, but these sectors were unable to absorb the total amount of produced slag. The remaining 24 % was landfilled (2.9 Mt) or self-stored (2.3 Mt). The landfilled slag represents a severe environmental problem. The main aim of RESLAG is to prove that there are industrial sectors able to make an effective use of the 2.9 Mt/y of landfilled slag, if properly supported by the right technologies. In making this proof, the RESLAG project will also prove that there are other very important environmental benefits coming from an "active" use of the slag in industrial processes, as CO₂ saving (up to 970 kt/y from CSP applications, at least 71 kg/ton of produced steel from heat recovery applications), and elimination of negative impacts associated with mining (from the recovery of valuable metals and from the production of ceramic materials). To achieve this ambitious goal four large-scale demonstrations to recycle steel slag are considered: Extraction of non-ferrous high added metals; TES for heat recovery applications; TES to increase dispatchability of the CSP plant electricity; Production of innovative refractory ceramic compounds. Overall, the RESLAG project aims at an innovative organizational steel by-products management model able to reach high levels of resource and energy efficiency, which considers a cascade of upgrading processes and a life cycle perspective. All these demonstrations will be lead by the industries involved in the RESLAG consortium. The RESLAG project is supported by the main organizations representing energy-intensive industries, CSP sector, energy platforms, governments, etc.

Partners:

Nr	Participant	Country
1	CENTRO DE INVESTIGACION COOPERATIVA DE ENERGÍAS ALTERNATIVAS FUNDACION	ES
2	ArcelorMittal Sestao, S.L.U.	ES
3	DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV	DE
4	CASA MARISTAS AZTERLAN	ES
5	PAUL SCHERRER INSTITUT	CH
6	IMPERIAL COLLEGE OF SCIENCE, TECHNOLOGY AND MEDICINE	UK
7	FRIEDRICH-ALEXANDER-UNIVERSITÄT ERLANGEN NURNBERG	DE
8	COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	FR
9	HLG MANAGEMENT-OPTIMUM CEMENT	FR
10	AGENZIA NAZIONALE PER LE NUOVE TECNOLOGIE, L'ENERGIA E LO SVILUPPO ECONOMICO SOSTE	IT
11	TEKNOLOGIAN TUTKIMUSKESKUS VTT	FI
12	Tapojärvi Oy	FI
13	ALSTOM POWER SYSTEMS SA	FR
14	FRAUNHOFER-GESELLSCHAFT ZUR FÖRDERUNG DER ANGEWANDTEN FORSCHUNG E.V	DE
15	Life Cycle Engineering Srl	IT
16	MOROCCAN AGENCY FOR SOLAR ENERGY SA	MA
17	ZABALA INNOVATION CONSULTING, S.A.	ES
18	Improequipe Ingeniería S.L.	ES

Topic: WASTE-1-2014 **Type of Action** IA **Duration (months):** 54

Title: FOSTERING INDUSTRIAL SYMBIOSIS FOR A SUSTAINABLE RESOURCE INTENSIVE INDUSTRY ACROSS THE EXTENDED CONSTRUCTION VALUE CHANGE

Project total costs 11,397,303.00 € **Project EU contribution:** 9,108,595 €

Abstract:

The overall objective of FISSAC project is to develop and demonstrate a new paradigm built on an innovative industrial symbiosis model towards a zero waste approach in the resource intensive industries of the construction value chain, tackling harmonized technological and non technological requirements, leading to material closed-loop processes and moving to a circular economy. A methodology and a software platform will be developed in order to implement the innovative industrial symbiosis model in a feasible scenario of industrial symbiosis synergies between industries (steel, aluminium, natural stone, chemical and demolition and construction sectors) and stakeholders in the extended construction value chain. It will guide how to overcome technical barriers and non technical barriers, as well as standardisation concerns to implement and replicate industrial symbiosis in a local/regional dimension. The ambition of the model will be to be replicated in other regions and other value chains symbiosis scenarios. The model will be applied based on the three sustainability pillars. FISSAC will demonstrate the applicability of the model as well as the effectiveness of the innovative processes, services and products at different levels: - Manufacturing processes: with demonstration of closed loop recycling processes to transform waste into valuable secondary raw materials, and manufacturing processes of the novel products at industrial scale - Product validation: with demonstration of the eco-design of eco-innovative construction products (new Eco-Cement and Green Concrete, innovative ceramic tiles and Rubber Wood Plastic Composites) in pre-industrial processes under a life cycle approach, and demonstration at real scale in different case studies of the application and the technical performance of the products - FISSAC model, with the demonstration of the software platform and replicability assessment of the model through living lab concept

Partners:

Nr	Participant	Country
1	ACCIONA INFRAESTRUCTURAS S.A.	ES
2	ASSOCIATION DES CITES ET DES REGIONS POUR LE RECYCLAGE ET LA GESTION DURABLE DES RE	BE
3	ASOCIACION ESPAÑOLA DE NORMALIZACION Y CERTIFICACION	ES
4	ASOCIACION DE INVESTIGACION DE LAS INDUSTRIAS DE LA CONSTRUCCION	ES
5	AKG Gazbeton isletmeleri San. ve Tic. A.S.	TR
6	Befesa Salzchalacke	DE
7	British Glass Manufacturers Confederation	UK
8	CBI Betonginstitutet AB	SE
9	CENTRO SVILUPPO MATERIALI SPA	IT
10	D'APPOLONIA SPA	IT
11	EKO DENGCE CEVRESEL EKONOMIK SOSYAL ARASTIRMA DANISMANLIK MUHENDISLIK PROJE INSAAT TR	
12	FUNDACION AGUSTIN DE BETANCOURT	ES
13	FENIX TNT SRO	CZ
14	FERALPI SIDERURGICA S.p.A.	IT
15	GEONARDO ENVIRONMENTAL TECHNOLOGIES LTD	HU
16	GLASS TECHNOLOGY SERVICES LIMITED	UK
17	INGENIEURBUERO TRINIUS GMBH	DE
18	KanEnergi Sweden AB	SE
19	KERABEN GRUPO SA	ES
20	Openbare Vlaamse Afvalstoffenmaatschappij (OVAM)	BE
21	RINA SERVICES SPA	IT
22	SP SVERIGES TEKNISKA FORSKNINGINSTITUT AB	SE
23	Símbiosy simbiosi industrial, s.l.	ES
24	Turkish Cement Manufacturers' Association	TR
25	FUNDACION TECNALIA RESEARCH & INNOVATION	ES
26	VANNPLASTIC LTD	UK

Topic: WASTE-1-2014	Type of Action IA	Duration (months):	48
Title: Buildings as Material Banks: Integrating Materials Passports with Reversible Building Design to Optimise Circular Industrial Value Chains			
Project total costs	9,950,390.00 €	Project EU contribution:	8,858,766 €

Abstract:

The aims of BAMB (Buildings as Material Banks) are the prevention of construction and demolition waste, the reduction of virgin resource consumption and the development towards a circular economy through industrial symbiosis, addressing the challenges mentioned in the Work Programme on Climate action, environment, resource efficiency and raw materials. The focus of the project is on building construction and process industries (from architects to raw material suppliers). The BAMB-project implements the principles of the waste hierarchy: the prevention of waste, its reuse and recycling. Key is to improve the value of materials used in buildings for recovery. This is achieved by developing and integrating two complementary value adding frameworks, (1) materials passports and (2) reversible building design. These frameworks will be able to change conventional (cradle-to-grave) building design, so that buildings can be transformed to new functions (extending their life span) or disassembled to building components or material feedstock that can be upcycled in new constructions (using materials passports). This way, continuous loops of materials are created while large amounts of waste will be prevented. Activities from research to market introduction are planned. Fundamental knowledge gaps should be bridged in order to introduce both frameworks on the market. Advanced ICT tools and management models will enable market uptake and the organization of circular value chains in building and process industries. New business models for (circular) value chains will be developed and tested on selected materials. The inclusion of strategic partners along the value chains in an industrial board will maximize market replicability potential, while several (mostly privately funded) building pilots will demonstrate the potential of the new techniques. Awareness will be raised to facilitate the transition towards circularity by policy reform and changing consumer behavior.

Partners:

Nr	Participant	Country
1	IBGE-BIM	BE
2	EPEA Nederland B.V.	NL
3	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.	BE
4	BUILDING RESEARCH ESTABLISHMENT LTD	UK
5	STICHTING HOGESCHOOL ZUYD	NL
6	IBM NEDERLAND BV	NL
7	VRIJE UNIVERSITEIT BRUSSEL	BE
8	Ronneby kommun	SE
9	SundaHus i Linköping AB (publ)	SE
10	TECHNISCHE UNIVERSITAET MUENCHEN	DE
11	UNIVERSITEIT TWENTE	NL
12	UNIVERSIDADE DO MINHO	PT
13	Sarajevo Green Design Foundation	BA
14	Drees & Sommer Advanced Building Technologies GmbH	DE
15	BAM Construct UK Limited	UK
16	AURUBIS BULGARIA AD	BG

Topic: WASTE-3-2014	Type of Action RIA	Duration (months):	48
Title: Integrated solutions for pre-processing electronic equipment, closing the loop of post-consumer high-grade plastics, and advanced recovery of critical raw materials antimony and graphite			
Project total costs	5,919,277.50 €	Project EU contribution:	5,890,660 €

Abstract:

The CloseWEEE project integrates three interlinked research and innovation areas for an improved, resource-efficient recycling of polymer materials and critical raw materials from electrical and electronics equipment (EEE): (1) Efficient and effective disassembly of EEE is key for high quality material fractions, separation of materials but also for reuse of components and parts. An information system for dismantlers will be developed, accessing webbased dismantling instructions, to ease the dismantling process, reduce destruction of reusable parts and components and to allow for a deeper dismantling level for better economics of the Recycling process. (2) Developing resource-efficient and innovative solutions for closing the loop of post-consumer high-grade plastics from WEEE, for new EEE through advanced recovery of valuable plastic streams which do not have a recycling system yet, and subsequent replacement of halogenated flame retardants by halogen-free flame retardants in new EEE. (3) Improved recycling of Lithium-ion batteries through increasing the recovery rates of cobalt and researching a recovery technology for the critical raw material graphite from those batteries. These technology innovations in the various stages of the EEE recycling value chain are complemented by research on reusing the recovered polymer fractions in new EEE, defining product design measures in favour of an optimised recycling eco-system, embedding related product design criteria in EU policy measures and global green procurement activities. These activities will support effectively the objectives of the European Innovation Partnership on Raw Materials.

Partners:

Nr	Participant	Country
1	FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V	DE
2	VERTECH GROUP SARL	FR
3	COOLREC BV	NL
4	FUNDACION GAIKER	ES
5	ARGUS ADDITIVE PLASTICS GMBH	DE
6	TP Vision Belgium NV	BE
7	FUNDACION TECNALIA RESEARCH & INNOVATION	ES
8	EXERGY LTD	UK
9	IFIXIT GMBH	DE
10	ACCUREC-RECYCLING GMBH	DE
11	DIE WIENER VOLKSHOCHSCHULEN GMBH	AT
12	SITRAPLAS GMBH	DE

Topic: WASTE-3-2014	Type of Action RIA	Duration (months):	48
Title: Holistic Innovative Solutions for an Efficient Recycling and Recovery of Valuable Raw Materials from Complex Construction and Demolition Waste			
Project total costs	7,665,262.59 €	Project EU contribution:	7,511,870 €

Abstract:

EU28 currently generates 461 million tons per year of ever more complex construction and demolition waste (C&DW) with average recycling rates of around 46%. There is still a significant loss of potential valuable minerals, metals and organic materials all over Europe. The main goal of HISER project is to develop and demonstrate novel cost-effective technological and non-technological holistic solutions for a higher recovery of raw materials from ever more complex C&DW, by considering circular economy approaches throughout the building value chain (from the End-of-Life Buildings to new Buildings). The following solutions are proposed:- Harmonized procedures complemented with an intelligent tool and a supply chain tracking system, for highly-efficient sorting at source in demolition and refurbishment works.- Advanced sorting and recycling technologies for the production and automated quality assessment of high-purity raw materials from complex C&DW.- Development of optimized building products (low embodied energy cements, green concretes, bricks, plasterboards and gypsum plasters, extruded composites) through the partial replacement of virgin raw materials by higher amounts of secondary high-purity raw materials recovered from complex C&DW. These solutions will be demonstrated in demolition projects and 5 case studies across Europe. Moreover, the economic and environmental impact of the HISER solutions will be quantified, from a life cycle perspective (LCA/LCC), and policy and standards recommendations encouraging the implementation of the best solutions will be drafted. HISER will contribute to higher levels of recovered materials from C&DW from 212 Mt in 2014, to 359 Mt in 2020 and 491 Mt by ca. 2030, on the basis of the increase in the recovery of aggregates, from 40% (169 Mt) to more than 80% (394 t) and wood, from 31% (2.4 Mt) to 55% (5 Mt). Similarly, unlocking valuable raw materials currently not exploited is foreseen, namely some metals and emerging flows.

Partners:

Nr	Participant	Country
1	FUNDACION TECNALIA RESEARCH & INNOVATION	ES
2	ACCIONA INFRAESTRUCTURAS S.A.	ES
3	Groupe Archimen	FR
4	ASM CENTRUM BADAN I ANALIZ RYNKU SP. Z O O	PL
5	Conenor Oy	FI
6	D'APPOLONIA SPA	IT
7	DUMOULIN BRICKS	BE
8	Inashco R&D B.V	NL
9	KNAUF GMBH	DE
10	KS LAATUENERGIA OY	FI
11	LAFARGE CENTRE DE RECHERCHE SAS	FR
12	MEBIN BV	NL
13	RINA SERVICES SPA	IT
14	RTT SYSTEMTECHNIK GMBH	DE
15	STRUKTON CIVIEL BV	NL
16	TIIHONEN ISMO OLAVI	FI
17	CONFEDERATION NATIONALE DE LA CONSTRUCTION ASBL	BE
18	SOCIEDAD PUBLICA GESTION AMBIENTAL IHOBE S.A.	ES
19	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
20	UNIVERSITEIT LEIDEN	NL
21	FUNDACION GAIKER	ES
22	TECHNISCHE UNIVERSITEIT DELFT	NL
23	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.	BE
24	TEKNOLOGIAN TUTKIMUSKESKUS VTT	FI
25	SELFRAG AG	CH

Topic: WASTE-4a-2014 **Type of Action** CSA **Duration (months):** 30
Title: NEW_InnoNet: The Near-zero European Waste Innovation Network

Project total costs 1,493,211.25 € **Project EU contribution:** 1,493,211 €

Abstract:

Europe generates around 3 billion tonnes of waste yearly, which is expected to grow further. Despite the introduction of innovative waste and recycling technologies, market uptake varies drastically amongst the 27 Member States. New-InnoNet is the new stakeholder platform initiative by 12 European consortium members active as entrepreneurs, researchers and policy makers. These recognise that in order to reach a European near zero waste economy, all value chain stakeholders must cooperate, exchange generated knowledge, insights and hands-on experience and enforce changes to the value chain structure together. Previous initiatives were unable to achieve actual, large scale results towards a sustainable growth of the European economy. The reason is that they either focussed on a specific waste area or they lacked the involvement of the competent industries. This project includes various waste value chains which enable exchange of information and technology transfer from one chain to another. In addition, the consortium's network includes over 2000 relevant industrial stakeholders and several already expressed their interest in this new stakeholder platform, its goals and actions. During the project, key stakeholders will be mobilised to participate in the platform and road mapping workshops, as only an active involvement of industrial organisations will lead to the desired changes in the structure of the value chain. The many letters of support show the consortium's strength in mobilising stakeholders. NEW_InnoNet's main objective is to mobilise stakeholders towards building a circular economy by developing and reinforcing solid foundations for building the European Near-Zero Waste Platform through: 1. Set-up and maintain near zero waste stakeholder platform 2. Analyse selected waste streams and develop innovation roadmaps per waste stream 3. Develop an integrated near zero waste strategic research and innovation agenda 4. Stakeholder mobilisation and interaction

Partners:

Nr	Participant	Country
1	PNO CONSULTANTS BV	NL
2	VAN GANSEWINKEL GROEP BV	NL
3	FUNDACION TECNALIA RESEARCH & INNOVATION	ES
4	TEKNOLOGIAN TUTKIMUSKESKUS VTT	FI
5	STIFTELSEN SINTEF	NO
6	IVL SVENSKA MILJÖINSTITUTET AB	SE
7	INSTYTUT EKOLOGII TERENOW UPRZEMYSLOWION YCH	PL
8	ARN HOLDING BV	NL
9	ASSOCIATION EUROPEENNE DES RECYCLEURS DE PLASTIQUES	BE
10	EUROPEAN PLASTICS CONVERTERS	BE
11	SOCIEDAD PUBLICA GESTION AMBIENTAL IHOBE S.A.	ES
12	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.	BE

Topic: WASTE-4b-2014 **Type of Action** CSA **Duration (months):** 24

Title: EWIT: Developing an e-waste implementation toolkit to support the recycling and the secondary raw material recovery strategies in metropolitan areas in Africa

Project total costs 1,641,750.00 € **Project EU contribution:** 1,641,750 €

Abstract:

Urbanization is on the rise in Africa and this trend is expected to continue in the future. The fast growing use of technology is creating a rising e-waste stream, for which there is limited recycling capacity. Waste management infrastructures and public awareness of the health issues is largely non-existent. Basic environmental precautions are almost absent and health and safety regulations are loosely enforced. Improvements are therefore urgently needed to combat related health issues, alleviate poverty and develop the local recycling sector. EWIT project's aim is to address these challenges, assisting African municipalities in the implementation of effective e-waste management systems for their communities. The project will develop a comprehensive mapping of the baseline data of African metropolitan areas related to e-waste management, analyzing the most relevant experiences, processes and legal tools available. It will then deliver a dynamic and easy to use information and service portal to offer guidance and practical support for the design and development of e-waste collection and recycling systems. EWIT will generate the expected impacts through 5 coordinated work packages. The working model is based on two different set of workshops, one led by "Cities" and the other by "Experts". Tools, implementation models, policies and procedures will feed a dedicated information and service platform called "E-waste implementation toolkit". This dynamic and easy to use internet portal will be a strategic source of knowledge for decision makers at industry and local government level. Dissemination will play a key role to assure that the project's deliverables are well understood and ready to be applied. EWIT will define the conditions and actions necessary to implement effective waste recycling systems in metropolitan areas, increasing recycling opportunities for entrepreneurs, generating new jobs and improving environment and health protection of local communities.

Partners:

Nr	Participant	Country
1	CONSORZIO REMEDIA	IT
2	KISII COUNTY	KE
3	PIKITUP JOHANNESBURG (PROPRIETARY) LIMITED	ZA
4	CHOMA MUNICIPAL COUNCIL	ZM
5	STAD ANTWERPEN	BE
6	COMUNE DI FIRENZE	IT
7	SERVICO INTERMUNICIPALIZADO DE GESTAO DE RESIDUOS DO GRANDE PORTO	PT
8	DISTRICT AUTONOME D'ABIDJAN	CI
9	INTERNATIONAL SOLID WASTE ASSOCIATION	AT
10	SELLGELLE INTERNATIONAL CONSULTANCY COMPANY LIMITED	KE
11	INTERNATIONAL CENTRE FOR RESEARCH IN SUSTAINABLE DEVELOPMENT ent(ICRSD)	KE
12	EIEE GesmbH	AT
13	OSTERREICHISCHE GESELLSCHAFT FUER SYSTEM- UND AUTOMATISIERUNGSTECHNIK	AT
14	MINTEK	ZA
15	E-WASTE ASSOCIATION OF SOUTH AFRICA	ZA
16	ANCITEL ENERGIA E AMBIENTE SPA	IT
17	WORLDLOOP VZW	BE
18	QUADRIFOGLIO SERVIZI AMBIENTALI AREA FIORENTINA SPA	IT
19	KISII UNIVERSITY	KE
20	TECHNISCHE UNIVERSITAET WIEN	AT
21	UNIVERSITAET FUER BODENKULTUR WIEN	AT
22	COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH	ZA
23	UNIVERSITE D'ABOBO-ADJAME	CI
24	UNIVERSITY OF LEEDS	UK

Topic: WASTE-4c-2014 **Type of Action** CSA **Duration (months):** 36
Title: Prospecting Secondary raw materials in the Urban mine and Mining waste

Project total costs 3,704,327.57 € **Project EU contribution:** 3,051,578 €

Abstract:

The ProSUM project will establish a European network of expertise on secondary sources of critical raw materials (CRMs), vital to today's high-tech society. ProSUM directly supports the European Innovation Partnership (EIP) on Raw Materials and its Strategic Implementation Plan calling for the creation of a European raw materials knowledge base. Data on primary and secondary raw materials are available in Europe, but scattered amongst a variety of institutions including government agencies, universities, NGOs and industry. By establishing a EU Information Network (EUIIN), the project will coordinate efforts to collect secondary CRM data and collate maps of stocks and flows for materials and products of the "urban mine". The scope is the particularly relevant sources for secondary CRMs: Electrical and electronic equipment, vehicles, batteries and mining tailings. The project will construct a comprehensive inventory identifying, quantifying and mapping CRM stocks and flows at national and regional levels across Europe. Via a user-friendly, open-access Urban Mine Knowledge Data Platform (EU-UMKDP), it will communicate the results online and combine them with primary raw materials data from the on-going Minerals4EU project. To maintain and expand the EU-UMKDP in the future, it will provide update protocols, standards and recommendations for additional statistics and improved reporting on CRM's in waste flows required. ProSUM – "prosum" is Latin for "I am useful" – provides a factual basis for policy makers to design appropriate legislation, academia to define research priorities and to identify innovation opportunities in recovering CRMs for the recycling industry. The EUIIN enables interdisciplinary collaboration, improves dissemination of knowledge and supports policy dialogues. A consortium of 17 partners, representing research institutes, geological surveys and industry, with excellence in all above domains will deliver this ambitious project.

Partners:

Nr	Participant	Country
1	WASTE OF ELECTRICAL AND ELECTRONICAL EQUIPMENT FORUM AISBL	BE
2	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
3	C-TECH INNOVATION LIMITED	UK
4	CENTRAAL BUREAU VOOR DE STATISTIEK	NL
5	CESKA GEOLOGICKA SLUZBA	CZ
6	CHALMERS TEKNISKA HOEGSKOLA AB	SE
7	EuroGeoSurveys - EGS	BE
8	EIDGENOESSISCHE MATERIALPRUEFUNGS- UND FORSCHUNGSANSTALT	CH
9	EUROPEAN COMPLIANCE ORGANIZATIONS FOR BATTERIES	BE
10	GEOLOSKI ZAVOD SLOVENIJE	SI
11	Geological Survey of Denmark and Greenland	DK
12	RECHARGE	BE
13	SVERIGES GEOLOGISKA UNDERSOKNING	SE
14	TECHNISCHE UNIVERSITEIT DELFT	NL
15	TECHNISCHE UNIVERSITAET BERLIN	DE
16	UNITED NATIONS UNIVERSITY	JP
17	THE WASTE AND RESOURCES ACTION PROGRAMME LBG	UK

Topic: WASTE-5-2014 **Type of Action** CSA **Duration (months):** 30
Title: Promotion of Public Procurement of Innovation for Resource Efficiency and Waste Treatment

Project total costs 1,003,687.50 € **Project EU contribution:** 998,813 €

Abstract:

PPI4Waste is based on an integrated approach which will permit to define needs, targets, improvement of functional performances, and monitor the complete cycle of preparation activities for PPI process to be implemented in the waste sector, while making know-how on procedures for innovation procurement widely available through the establishment of buyer's group, making state-of-the-art solutions accessible to other procurers, capacity building and assessment of feasibility plan of uptaking PPI in the waste sector. This 30-month project, whose workplan has a concise structure that supports the workflow to achieve its main aim: The overall objective of the project is to achieve resource efficiency, sustainable waste management and sustainable consumption throughout Europe by increasing the use of innovative public procurement through coordinated a structured and coordination action of networking, capacity building, and dissemination. The cornerstone of the project is how to boost resource efficiency through PPI, on the basis of the waste hierarchy and the establishment of the buyer's group of public procurers in the first phase of the project will permit to achieve all objectives towards the reinforcement of early deployment of eco-innovative solutions for resource efficiency and waste management through joint or coordinated PPI processes.

Partners:

Nr	Participant	Country
1	INSTITUTO ANDALUZ DE TECNOLOGIA.	ES
2	ICLEI EUROPEAN SECRETARIAT GMBH (ICLEI EUROPASEKRETARIAT GMBH)*	DE
3	ZAGREBACKI HOLDING DOO	HR
4	UNIVERSIDAD DE ZARAGOZA	ES
5	ASSOCIATION DES CITES ET DES REGIONS POUR LE RECYCLAGE ET LA GESTION DURABLE DES RE	BE
6	MANCOMUNIDAD DEL SUR	ES
7	SP SVERIGES TEKNISKA FORSKNINGSIINSTITUT AB	SE
8	MINISTERIE VAN INFRASTRUCTUUR EN MILIEU	NL

Topic: WATER-1a-2014 **Type of Action** IA **Duration (months):** 36

Title: Market uptake of an innovative irrigation Solution based on LOW WATER-ENergy consumption

Project total costs 4,873,799.00 € **Project EU contribution:** 3,996,465 €

Abstract:

The world of irrigation requires innovative solutions, less water and energy dependant. UPM developed in 2013 solutions for large power photovoltaic (PV) pumping systems at TRL5 that was successfully tested in a real Irrigators Community (IC) of Alto Vinalopó (Spain). The results showed great technical reliability (solving the problem of the variability of solar energy), matching the IC irrigation needs just with the solar electricity (thanks to sun-tracking systems) and reducing dramatically the cost of energy (60% regarding the conventional grid consumption). In parallel, ELAIA has integrated systems with, in one hand, automatisms and ICT solutions that reduce the water consumption (30%) detecting in real-time the actual needs of the specific crop in a certain moment, and in the other hand, low pressure systems that reduce the energy needs. This project proposes activities to integrate both developments at a TRL9 for the first application and market replication of a new green product at TRL9 consisting of PV pumping systems for productive agriculture irrigation consuming zero conventional electricity and 30% less water. Main objectives: 1 To show the technical and economical viability of efficient and intermittency-free large scale PV pumping systems for irrigation allowing 100% renewable energy consumption 2 To reduce the water consumption, using Automatisms and ICT and Precision Agriculture-based solutions 3 Market uptake and market replication of a new green product for irrigation at TRL9 consuming 100% renewable electricity and 30% less water. The expected impact is, first, the market penetration of this innovative solution through five real scale first market systems (in Spain, Italy, Portugal and Morocco) and other technical, economical and dissemination actions for the market uptake. And second, the generation of a real market of 6GW of large-scale systems meaning a real business of 9000M€. MASLOWATEN is the initiative of an AG of EIP Water (PVAIZEC).

Partners:

Nr	Participant	Country
1	UNIVERSIDAD POLITECNICA DE MADRID	ES
2	CAPRARI SPA	IT
3	OMRON Europe B.V.	NL
4	RKD Irrigación, S.L.	ES
5	Komet Austria GmbH	AT
6	DOMUS INGENIERIA ENERGETICA, SL	ES
7	SISTEMES ELECTRÒNICS PROGRÉS, S.A.	ES
8	UNIVERSIDADE DE EVORA	PT
9	UNIVERSITA DEGLI STUDI DI SASSARI	IT
10	AIMCRA	ES
11	Elaia 2, Investimentos S.A.	PT
12	EUROMEDITERRANEAN IRRIGATORS COMMUNITY	ES
13	Martifer Solar S.A.	PT

Topic: WATER-1a-2014 **Type of Action** IA **Duration (months):** 36
Title: Full scale demonstration of energy positive sewage treatment plant concepts towards market penetration

Project total costs 5,142,766.00 € **Project EU contribution:** 3,997,126 €

Abstract:

The municipal wastewater in Europe contains a potential chemical energy of 87,500 GWh per year in its organic fraction, which is equivalent to the output of 12 large power stations. Due to the currently applied technologies and related energy loss at each process step, wastewater treatment in Europe today consumes instead the equivalent of more than 2 power stations. Many operators are thus targeting incremental energy efficiency towards energy neutrality, but recent studies have shown that with novel process schemes using existing technologies, sewage treatment plants could actually become a new source of renewable energy, without compromising the treatment performance. The project POWERSTEP aims at demonstrating such innovative concepts in first full scale references for each essential process step in order to design energy positive wastewater treatment plants with currently available technologies. The following processes will be demonstrated in 6 full-scale case studies located in 4 European countries: enhanced carbon extraction (pre-filtration), innovative nitrogen removal processes (advanced control, main-stream deammonification, duckweed reactor), power-to-gas (biogas upgrade) with smart grid approach, heat-to-power concepts (thermoelectric recovery in CHP unit, steam rankine cycle, heat storage concepts), and innovative process water treatment (nitrification, membrane ammonia stripping). These individual technology assessments will merge into integrative activities such as treatment scheme modelling and design, global energy and heat management, carbon footprinting, integrated design options, as well as extensive dissemination activities. POWERSTEP will demonstrate the novel concepts and design treatment schemes of wastewater treatment plants that will be net energy producers, paving the way towards large implementation of such approaches and quick market penetration and supporting the business plans of participating technology providers.

Partners:

Nr	Participant	Country
1	KWB Kompetenzzentrum Wasser Berlin gemeinnützige GmbH	DE
2	TECHNISCHE UNIVERSITÄT WIEN	AT
3	EIDGENÖSSISCHE ANSTALT FÜR WASSERVERSORGUNG ABWASSERREINIGUNG UND GEWÄSSER	CH
4	FRAUNHOFER-GESELLSCHAFT ZUR FÖRDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	DE
5	Hydrotech Veolia Water Solutions & Technologies AB	SE
6	AnoxKaldnes AB	SE
7	Neas Energy A/S	DK
8	BIOFOS	DK
9	Berliner Wasserbetriebe	DE
10	UMWELTBUNDESAMT	DE
11	Electrochaea.dk ApS	DK
12	Aquaplantsolutions GmbH	DE
13	Sustec Consulting & Contracting bv	NL
14	Atemis GmbH Ingenieurbüro für Abwassertechnik Energiemanagement und innovative Systementwicklung	DE
15	ARCTIK SPRL	BE

Topic: WATER-1a-2014 **Type of Action** IA **Duration (months):** 36
Title: Low carbon footprint and eco-innovative UV water disinfection

Project total costs 4,494,958.00 € **Project EU contribution:** 3,949,371 €

Abstract:

The central objective for Eco-UV is the demonstration and characterisation of an innovative UV lamp and driving electronics technology for chemical-free water treatment and disinfection. The newly implemented technology is a ground-breaking innovation providing up to four times increased lifetime with greatly increased efficiency, the energy consumption reduced by 80%. Thus, this technology provides a lower carbon footprint, much improved energy use and hence greatly reduced lifetime costs. Additionally, the innovative technology will be introduced with a mercury-free configuration, removing the need to handle with this hazardous substance in manufacture and disposal, hence providing a sustainable and eco-innovative technology. The project will prove the lamp technology by demonstration in real applications with full characterisation in terms of long-term stability, ageing effects and dose-response-relationship. Furthermore, the UV lamps are integrated in reactors and the performance of the whole UV system is evaluated at a test centre for drinking water. A new testing protocol for different end-users applications will furthermore be derived, which will be the basis for a future standardised validation of industrial UV applications. The technology will be installed at three demonstration sites for an extended running period. At each, the treatment performance of the UV systems will be evaluated according to the inactivation of micro organisms and the reduction of application specific chemicals, e. g. antibiotics and pesticides. A full Life Cycle evaluation of cost and environmental benefits will be disseminated via EU ETV forums to ensure active uptake of the technology offering by comparing it to traditional UV technology in terms of energy, infrastructure and lifetime costs. The proposed UV technology is addressing the thematic priority areas as outlined in the EIP on Water, especially water reuse, water treatment, water governance and the water-energy nexus.

Partners:

Nr	Participant	Country
1	Hanovia Ltd	UK
2	Karlsruher Institut fuer Technologie	DE
3	DVGW DEUTSCHER VEREIN DES GAS- UND WASSERFACHES - TECHNISCH-WISSENSCHAFTLICHER	DE
4	IVL SVENSKA MILJOEINSTITUTET AB	SE

Topic: WATER-1a-2014	Type of Action IA	Duration (months):	36
Title: Colloidal Iron Oxide Nanoparticles for the REclamation of Toxic Metal Contaminated GROUNDwater Aquifers, Drinking Water Wells, and River Bank Filtrations			
Project total costs	2,904,750.00 €	Project EU contribution:	2,748,750 €

Abstract:

The main objective of the presented innovation action is the first application and near-market replication of a novel water nanogeotechnology for the immobilization of toxic metals in groundwater aquifers, drinking water wells, and river bank filtration sites. The basic concept of our technology is the creation of an adsorptive in situ barrier for the immobilization of toxic metal contaminations. This barrier is made of iron oxide nanoparticles, which are injected into sediments as colloidal suspension, forming stable deposits there. Over the last 6 years, we have developed a novel technology for the injection of iron oxide nanoparticles (NPs) into groundwater contaminant plumes. The feasibility of this approach has been successfully tested in lab experiments and a scientific field application. Specifically, our approach addresses arsenic, barium, cadmium, chromium, copper, lead, mercury, and zinc, all of which are known major groundwater contaminants. Now, we want to bring this novel, green and near-market water eco-innovation into the European markets, and beyond. The very core of this effort is the performance of two industrial-scale applications of our technology at two different types of contaminated sites. This first application of our technological approach under field conditions is the major objective of REGROUND. By developing our technology into a market-ready application, REGROUND will globally transform the efforts to mitigate the risks posed by toxic metal contaminations to humans and ecosystems. The REGROUND technology, due to its low costs and wide applicability, will be made highly available. The near-market replication of our technology and subsequent commercialization efforts are an integral part of REGROUND. This will enable immobilization of toxic metal contaminations at sites which were left untreated so far due to technical or economic reasons.

Partners:

Nr	Participant	Country
1	UNIVERSITAET DUISBURG-ESSEN	DE
2	POLITECNICO DI TORINO	IT
3	KATHOLIEKE UNIVERSITEIT LEUVEN	BE
4	FRIEDRICH-SCHILLER-UNIVERSITAT JENA	DE
5	FUNDACION TECNALIA RESEARCH & INNOVATION	ES
6	Geoplano	PT
7	ACONDICIONAMIENTO TARRASENSE ASSOCIACION	ES
8	KNOWLEDGE INNOVATION MARKET S.L.	ES

Topic: WATER-1a-2014 **Type of Action** IA **Duration (months):** 36
Title: Cost Effective Neural Technique for Alleviation of Urban Flood Risk

Project total costs 3,532,122.00 € **Project EU contribution:** 2,548,397 €

Abstract:

The project will develop a radically new market ready approach to RTC of sewer networks with the aim of reducing local flood risk in urban areas. Existing RTC pilot projects (e.g. Vienna, Dresden, Aarhus) are characterised by complex sensor networks, linked to centralised control systems governed by calibrated hydrodynamic modelling tools and fed by radar rainfall technology. Such systems are expensive and complex to install and operate, requiring a high investment in new infrastructure, communication equipment and control systems. In contrast, this proposal will develop a novel low cost de-centralised, autonomous RTC system. It will be installed, tested and demonstrated in a number of pilot study catchments. This RTC system will utilise data driven distributed intelligence combined with local, low cost monitoring systems installed at key points within existing sewer infrastructure. The system will utilise mechanically simple, robust devices to control flow in order to reduce flood risk at vulnerable sites. This system will be informed and governed directly by sensors distributed within the local network, without the need for an expensive hydrodynamic model or real time rainfall measurements. This system will deliver many of the benefits of RTC systems, whilst avoiding the high costs and complex nature of extensive sensor networks, centralised control systems, communications systems and infrastructure modifications. It is anticipated that such a system will be of significant benefit to operators of small to medium sized sewer networks.

Partners:

Nr	Participant	Country
1	THE UNIVERSITY OF SHEFFIELD	UK
2	Environmental Monitoring Solutions Ltd.	UK
3	VEOLIA ENVIRONNEMENT RECHERCHE ET INNOVATION SNC	FR
4	UNIVERSIDADE DE COIMBRA	PT
5	AC, Águas de Coimbra, E.M.	PT
6	EIDGENÖSSISCHE ANSTALT FUER WASSERVERSORGUNG ABWASSERREINIGUNG UND GEWAESS	CH
7	Steinhardt Wassertechnik	DE

Topic: WATER-1a-2014	Type of Action IA	Duration (months):	36
Title: ECO-FRIENDLY CERAMIC MEMBRANE BIOREACTOR (MBR) BASED ON RECYCLED AGRICULTURAL AND INDUSTRIAL WASTES FOR WASTE WATER REUSE			
Project total costs	2,344,381.00 €	Project EU contribution:	1,909,292 €

Abstract:

The main objectives of the REMEB project are the implementation and validation of a low-cost ceramic membrane bioreactor (MBR) in a Waste Water Treatment Plant (WWTP), the study of the impact and replication of the technology for the reuse of the water in regions with water scarcity and the industrial sector, and finally, the definition of a proper business plan to start the commercialization of the technology, once the project will be finished. The low cost recycled ceramic membranes of the project are based on residues obtained in agricultural and industrial processes (sub-products), such as olive oil solid wastes, marble working wastes and chamotte from fired scrap, in addition to the typical raw materials used in the ceramic tile industry. The project aims to achieve several specific objectives: valorization of wastes from different agricultural or industrial processes, manufacturing of an innovative product using recycled materials, validation of a new MBR with a lower initial and running costs by using low cost ceramic membranes and comparison between REMEB MBR and the MBR in operation in the WWTP selected for the validation. Replication of both, manufacturing and validation tasks, is assured by repeating the processes in the facilities of some participants. Manufacturing membrane replicability will be performed in Turkey and Italy. The replication study of the MBR implementation in the urban and industrial wastewater sector will be performed in Colombia and nearby countries, Cyprus and nearby countries and Europe. Furthermore, evaluation of the environmental impact of product and process will be carried out by the method of LCA. Finally, a marketing and dissemination plan of the technology will be done by the entire consortium. It is expected that this technology would be implemented massively, principally due to the low cost of REMEB MBR (3.5 times lower than a MBR of organic membranes and 2.5 times lower than a ceramic MBR).

Partners:

Nr	Participant	Country
1	SOCIEDAD DE FOMENTO AGRÍCOLA CASTELLONENSE, S.A.	ES
2	ATLANTIS SYMVOULEYTIKI KYPROU LTD	CY
3	UNIVERSITAT JAUME I DE CASTELLON	ES
4	Seramik Arastirma Merkezi A.S.	TR
5	INVESTIGACIÓN Y PROYECTOS MEDIO AMBIENTE S.L.	ES
6	Biowater Technology AS	NO
7	Cámara Oficial de Comercio, Industria y Navegacion de Castellón	ES
8	UNIVERSIDAD ANTONIO NARIÑO - UAN	CO
9	Entidad Regional de Saneamiento y Depuración de aguas residuales de la Región de Murcia (ESAMUR)	ES
10	CONSORZIO UNIVERSITARIO PER LA GESTIONE DEL CENTRO DI RICERCA E SPERIMENTAZIONE PER IT	
11	IMECA Process	FR

Topic: WATER-1a-2014	Type of Action IA	Duration (months):	36
Title: iMETland: A new generation of Microbial Electrochemical Wetland for effective decentralized wastewater treatment			
Project total costs	3,536,623.00 €	Project EU contribution:	2,925,000 €

Abstract:

iMETland project aims to construct and validate a full-scale application of a eco-friendly device to treat urban wastewater from small communities at zero-energy operation cost. Our concept comes from the integration of Microbial Electrochemical Technologies (MET) with the biofilters used in constructed wetlands. iMETland outperforms classical biofilters from constructed wetlands by using electroactive bacteria in combination with a innovative electroconductive material to achieve depuration rates that are 10-fold higher than classical techniques. On top of that, the low biomass yield generated under electrogenic conditions avoids any bed colmatation. Wastewater will be also converted into pathogen-free water suitable for irrigation by using an electro-oxidative methodology. Furthermore, the unique conversion of sewage treatment into electric current by electricity-producing bacteria makes such a process an internal reporter of the biological depuration process. So thus, it can be used as output signal to control the process and can easily inform the operator through ICT tools, converting the depuration in an interactive process between device and a smart-phone in end-user's hands. iMETland try to fill the gap that was sharply identified by the programme topic: WATER-1-2014/2015: Bridging the gap: from innovative water solutions to market replication. Our solution has already passed both research and pilot scale and is ready to try a full-scale demonstration to accelerate the market uptake. The multidisciplinary nature of iMETland makes it to fit well with the "water and wastewater treatment" priority of the EIP-water. Moreover, the coordinator of iMETland consortium is also the Technical Manager of a recent ACTION GROUP at EIP-WATER called "MEET-ME4WATER, Meeting Microbial Electrochemistry for Water". This AG focuses on overcoming the barriers to scaling up and demonstrate microbial electrochemical technologies (METs) and bring them faster to the market.

Partners:

Nr	Participant	Country
1	FUNDACION IMDEA AGUA	ES
2	AQUA-CONSULT INGENIEROS, S.L.	ES
3	FUNDACION CENTRO DE LAS NUEVAS TECNOLOGIAS DEL AGUA	ES
4	ASTON UNIVERSITY	UK
5	KILIAN WATER APS	DK
6	PricewaterhouseCoopers Asesores de Negocios S.L.	ES
7	INSTITUTO DE INVESTIGACIONES EN CIENCIA Y TECNOLOGIA DE MATERIALES	AR
8	MINERVA CONSULTING & COMMUNICATION	BE
9	INSTITUTO MEXICANO DE TECNOLOGIA DEL AGUA	MX
10	AARHUS UNIVERSITET	DK
11	PIROECO BIOENERGY, S.L.	ES

Topic: WATER-1a-2014 **Type of Action** IA **Duration (months):** 36

Title: bringing coastal SUBsurface water SOLutions to the market

Project total costs 4,107,167.00 € **Project EU contribution:** 3,697,780 €

Abstract:

Coastal areas are the most productive and economically dominant regions of the world. The high water demand in these regions, however, puts tremendous pressure on their freshwater resources and ecosystems. This leads to problems like seasonal water shortage, saltwater intrusion, and disappearance of wetlands. Building on national, regional and European research and innovation programs, in the past five years, a set of innovative, practical concepts have been developed for protection, enlargement and utilization of freshwater resources in coastal areas. These subsurface water solutions (SWS) combine innovations in water well design and configuration, allowing for advanced groundwater management, and maximum control over freshwater resources. SWS have been successfully piloted by public-private partnerships. These full-scale pilots have demonstrated SWS capacity to support sustainable freshwater supply in coastal areas, energy reduction, food production, and financial savings. SUBSOL targets a market breakthrough of SWS as robust answers to freshwater resources challenges in coastal areas, by demonstration, market replication, standardization and commercialisation. The route to market includes business cases, market scans and capacity building in selected regions in Europe (Mediterranean, Northwestern Europe) and worldwide (USA, Brazil, China, Vietnam). SUBSOL will share experiences and outcomes with stakeholder groups through an online platform, that will be linked to existing networks, including EIP on Water. The SUBSOL consortium combines knowledge providers, technology SMEs, consultants, and end-users from across Europe. Our ambition is to introduce a new way of thinking in terms of water resources management, promoting the sustainable development of coastal areas worldwide. This will stimulate economic growth and will create market opportunities and jobs for the European industry and SMEs.

Partners:

Nr	Participant	Country
1	KWR WATER B.V.	NL
2	ADELPHI RESEARCH GGMBH	DE
3	AlphaFilm & Communication	DK
4	ARCADIS NEDERLAND BV	NL
5	B-E de Lier BV	NL
6	BUNDESANSTALT FUER GEOWISSENSCHAFTEN UND ROHSTOFFE	DE
7	Blue Control A/S	DK
8	TEKNOLOGIRADET-THE DANISH BOARD OF TECHNOLOGY	DK
9	ETAIRIA GEOGEOLOGIKON-GEOFYSIKON EREVNON KL. DIMITRIADIS KAI SIA EE	EL
10	Geological Survey of Denmark and Greenland	DK
11	Greener than Green Technologies S.A.	EL
12	NATIONAL TECHNICAL UNIVERSITY OF ATHENS - NTUA	EL
13	Orbicon A/S	DK
14	GIOUMPITEK MELETI SCHEDIASMOS YLOPOIISI KAI POLISI ERGON PLIROFORIKIS ETAIREIA PERIORI	EL
15	Vitens N.V.	NL

Topic: WATER-1a-2014 **Type of Action** IA **Duration (months):** 30
Title: Managing crOp water Saving with Enterprise Services

Project total costs 4,283,200.00 € **Project EU contribution:** 3,768,013 €

Abstract:

The main objective of MOSES is to put in place and demonstrate at the real scale of application an information platform devoted to water procurement and management agencies (e.g. reclamation consortia, irrigation districts, etc.) to facilitate planning of irrigation water resources, with the aim of: • saving water; • improving services to farmers; • reducing monetary and energy costs. To achieve these goals, the MOSES project combines in an innovative and integrated platform a wide range of data and technological resources: EO data, probabilistic seasonal forecasting and numerical weather prediction, crop water requirement and irrigation modelling and online GIS Decision Support System. Spatial scales of services range from river basin to sub-district; users access the system depending on their expertise and needs. Main system components are: 1. early-season irrigated crop mapping 2. seasonal weather forecasting and downscaling 3. in-season monitoring of evapotranspiration and water availability 4. seasonal and medium/short term irrigation forecasting. Four Demonstration Areas will be set up in Italy, Spain, Romania and Morocco, plus an Indian organization acting as observer. Different water procurement and distribution scenarios will be considered, collecting data and user needs, interfacing with existing local services and contributing to service definition. Demonstrative and training sessions are foreseen for service exploitation in the Demonstration Areas. The proposed system is targeting EIP on Water "thematic priorities" related to increasing agriculture water use efficiency, water resource monitoring and flood and drought risk management; it will be compliant to INSPIRE. This SME-led project addresses the irrigated agriculture users an integrated and innovative water management solution.

Partners:

Nr	Participant	Country
1	Esri Italia SpA	IT
2	AGENZIA REGIONALE PREVENZIONE E AMBIENTE DELL'EMILIA-ROMAGNA	IT
3	AGENCIA ESTATAL DE METEOROLOGIA	ES
4	INSTITUTUL NATIONAL DE HIDROLOGIE SI GOSPODARIRE A APELOR	RO
5	ADMINISTRATIA NATIONALA DE METEOROLOGIE R.A.	RO
6	ALMA MATER STUDIORUM-UNIVERSITA DI BOLOGNA	IT
7	ASOCIACION FERAGUA DE COMUNIDADES DE REGANTES DE ANDALUCIA	ES
8	Serco Belgium	BE
9	Consorzio di Bonifica della Romagna	IT
10	TECHNISCHE UNIVERSITEIT DELFT	NL
11	UNIVERSIDAD DE CASTILLA - LA MANCHA	ES
12	UNIVERSITE CHOUAIB DOUKKALI	MA
13	Agromet S.R.L.	IT
14	Consorzio di bonifica di secondo grado per il Canale emiliano romagnolo	IT
15	ALIARA AGRÍCOLA S.L.	ES
16	Aryavarta Space Organization	IN

Topic: WATER-1a-2014	Type of Action IA	Duration (months):	36
Title: Integrated and portable image cytometer for rapid response to Legionella and Escherichia coli in industrial and environmental waters			
Project total costs	2,368,299.00 €	Project EU contribution:	1,896,625 €

Abstract:

The proposed project will deploy for the first time a new imaging cytometer platform capable of detecting minute quantity of micro-organisms in industrial and environmental waters. The platform is based on the integration of proprietary technologies available to the consortium partners: an automatic water concentration cartridge combined with a microfluidic cell will provide an adequate sample to a newly designed fluorescence image cytometer whose readings will be recorded and processed using a proper software interface. It will be validated for quantifying Legionella and Escherichia coli (E. coli) population within 120 minutes from obtaining the sample, overcoming in this way the main disadvantage of traditional methods used in laboratories, i.e. long time-to results which can currently last up to 12 days in the case of Legionella and 1 day for E. coli. The targeted detection limit will be 10-100 cells/L and 5-20 cells/100 mL for Legionella and E.coli, respectively. Also, the new imaging cytometer will have a portable form, a size similar to a smart-phone, which will increase its versatility and widen the possibilities of onsite applications. The relevance of the project is clear when one thinks about the high risk of legionellosis in some specific industrial environments, such as cooling waters, evaporative condensers and air conditioning systems and the fact that E. coli is one of the faecal pollution index commonly analyzed for monitoring the presence of waterborne pathogens and hence the quality of bathing waters. From a market perspective, more than 7 million of Legionella analyses are performed annually in Europe while E. coli level is included in all bathing water regulations in different EU countries. CYTO-WATER clearly falls into HORIZON 2020 topic WATER-1-2014/2015: Bridging the gap: from innovative water solutions to market replication and addresses Water Framework Directive (2000/60/EC) and in the Bathing Water Directive (2006/7/EC).

Partners:

Nr	Participant	Country
1	LABAQUA SA	ES
2	MEM-TEQ VENTURES LIMITED	UK
3	MICROTEC GESELLSCHAFT FUR MIKROTECHNOLOGIE MBH	DE
4	BERTIN TECHNOLOGIES SAS	FR
5	CETAQUA, CENTRO TECNOLÓGICO DEL AGUA, FUNDACIÓN PRIVADA	ES
6	FUNDACIO INSTITUT DE CIENCIES FOTONIQUES	ES

Topic: WATER-1a-2014 **Type of Action** IA **Duration (months):** 35
Title: ECOLORO: Reuse of Waste Water from the Textile Industry

Project total costs 4,896,826.00 € **Project EU contribution:** 3,749,027 €

Abstract:

Constant extraction of increasingly scarce fresh water puts a vital demand on increasing water-use efficiency in all sectors. The ECWRTI project will demonstrate the EColoRO concept on full industrial scale in two locations in the European textile industry. The EColoRO concept uses electro-coagulation (EC) combined with flotation to remove pollutants, colorants and chemicals from waste water very effectively. This unique feature enables using ultrafiltration and reverse osmosis membrane processes downstream in an optimized way. The key advantages are: - Total reuse of waste-water in textile industry reducing fresh-water intake by at least 75% - Low-cost and economically highly attractive - Very flexible, containerized and modular, easy scalable, low footprint, suitable for retro-fit, brownfield or greenfield application- Low energy use, no use of chemicals or flocculants, producing concentrated waste streams with very high re-use potential- Enabler for optimizing use of water, allowing for advanced energy and resource efficiency in the textile manufacturing processes EC and the EColoRO concept are currently proven at TRL 6. The ECWRTI project will run for 35 months and will deliver technological proof at TRL 8, ready for commercial uptake. It will further deliver the materials, analysis and tools needed for rapid commercial roll-out. The consortium consists of a focused and well-balanced team. The project is SME driven with EColoRO as coordinator and 7 partners from 4 EU member states with key know-how on waste water purification (VITO, EColoRO, Inge), textile technology and production (Inotex, UteXbel), electro-coagulation and engineering (Morselt), process technology, open innovation and project support (ISPT) and EU wide market access in the textile sector (Euratex). An advisory board with stakeholders from textile, process industry and waste water sectors will provide guidance, critical feedback and dissemination support.

Partners:

Nr	Participant	Country
1	Ecoloro B.V.	NL
2	STICHTING PUBLIC PRIVATE PARTNERSHIP INSTITUTE FOR SUSTAINABLE PROCESSTECHNOLOGY	NL
3	UTEXBEL	BE
4	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.	BE
5	INOTEX SPOL SRO	CZ
6	inge GmbH	DE
7	Morselt Borne BV	NL
8	EUROPEAN APPAREL AND TEXTILE CONFEDERATION	BE

Topic: WATER-2a-2014 **Type of Action** RIA **Duration (months):** 48
Title: Bringing INnovation to onGOing water management – A better future under climate change

Project total costs 7,822,425.00 € **Project EU contribution:** 7,822,425 €

Abstract:

The water sector needs improved climate prediction and downscaling based on consistent grounds (IPCC 5th Assessment Report, 2013). There is also a need for near future weather scenarios and anticipation of their impacts in the water cycle together with risk management strategies. BINGO will provide demand-driven solutions for a number of specific climate-related challenges in particular for highly vulnerable water resources of strategic importance. Water managers and other stakeholders will then be provided with information on specific climate scenarios at the space/time resolution fitting their needs, enabling them to act at various geographical levels (local, regional and European). BINGO aims at reducing the uncertainty of climate predictions and developing response strategies to help society manage that uncertainty. An innovative approach consists of enrolling end-users from the start, identifying specific vulnerabilities, needs and concerns about future climate. BINGO is built around 7 research sites in Northern and Southern Europe, covering a representative range of climatic conditions as well as combinations of water systems and water pressures. They illustrate a variety of water cycles at local/regional scales in Europe over various timescales, as well as common problems, including floods and droughts; water quality pressured by CSO, agriculture and competing demands for water (urban/tourism; agriculture/food security; hydropower). To guarantee sound management strategies for future weather challenges, BINGO will develop and validate all solutions built by strong dynamic interaction of researchers with end-users and decision makers throughout the project. By creating such knowledge alliances, water managers and other stakeholders can share awareness of climate challenges, thus increasing the possibilities of collaboration in order to manage and better cope with future climate challenges.

Partners:

Nr	Participant	Country
1	LABORATORIO NACIONAL DE ENGENHARIA CIVIL	PT
2	KWR WATER B.V.	NL
3	IWW RHEINISCH WESTFALISCHES INSTITUT FÜR WASSERFORSCHUNG GEMEINNUTZIGE GMBH	DE
4	AQUALOGY AQUA AMBIENTE SERVICIOS INTEGRALES SA	ES
5	NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU	NO
6	INTERWIES EDUARD	DE
7	FREIE UNIVERSITÄT BERLIN	DE
8	SOCIEDADE PORTUGUESA DE INOVACAO - CONSULTADORIA EMPRESARIAL E FOMENTO DA INOVAC	PT
9	THE CYPRUS INSTITUTE LIMITED	CY
10	I.A.CO Environmental and Water Consultants Ltd	CY
11	EPAL-EMPRESA PORTUGUESA DAS ÁGUAS LIVRES, SA	PT
12	Comunidade Intermunicipal de Lizíria do Tejo	PT
13	Direção Geral de Agricultura e Desenvolvimento Rural	PT
14	Area Metropolitana de Barcelona	ES
15	Ajuntament de Badalona	ES
16	Aigües de Barcelona, Empresa Metropolitana Gest. Cicle Integral Aigua, S.A	ES
17	Vitens N.V.	NL
18	Provincie Gelderland	NL
19	Bergen kommune, Byrådsavdeling for byutvikling, klima og miljø	NO
20	Wupperverband Körperschaft des öffentlichen Rechts	DE

Topic: WATER-2a-2014 **Type of Action** RIA **Duration (months):** 48
Title: IMproving PRedictions and management of hydrological EXtremes

Project total costs 7,996,850.00 € **Project EU contribution:** 7,996,850 €

Abstract:

IMproving PRedictions and management of hydrological EXtremes For a better anticipation on future high impact hydrological extremes disrupting safety of citizens, agricultural production, transportation, energy production and urban water supply, and overall economic productivity, prediction and foresighting capabilities and their intake in these strategic sectors need to be improved. IMPREX will improve forecast skill of meteorological and hydrological extremes in Europe and their impacts, by applying dynamic model ensembles, process studies, new data assimilation techniques and high resolution modeling. Novel climate change impact assessment concepts will focus at increasing the realism of relevant events by specific high resolution regional downscaling, explore compounding trans-sectoral and trans-regional risks, and design new risk management paradigms. These developments are demonstrated in impact surveys for strategic economic sectors in a set of case studies in which local stakeholders, public organizations and SMEs are involved. A pan-European assessment of risk management and adaptation strategies is applied, minimizing risk transfer from one sector or region to another. As a key outreach product, a periodic hydrological risk outlook for Europe is produced, incorporating the dynamic evolution of hydro-climatic and socio-economic processes. The project outreach maximizes the legacy impact of the surveys, aimed at European public stakeholder and business networks, including user-friendly assessment summaries, and training material. The project responds to the call by targeting the quality of short-to-medium hydro-meteorological predictions, enhancing the reliability of future climate projections, apply this information to strategic sectoral and pan-European surveys at different scales, and evaluate and adapt current risk management strategies. With its integrative approach, IMPREX will link current management decisions and actions with an emergent future.

Partners:

Nr	Participant	Country
1	KONINKLIJK NEDERLANDS METEOROLOGISCH INSTITUUT-KNMI	NL
2	EUROPEAN CENTRE FOR MEDIUM-RANGE WEATHER FORECASTS	UK
3	SVERIGES METEOROLOGISKA OCH HYDROLOGISKA INSTITUT	SE
4	INSTITUT NATIONAL DE RECHERCHE EN SCIENCES ET TECHNOLOGIES POUR L'ENVIRONNEMENT ET FR	
5	POTSDAM INSTITUT FUER KLIMAFOLGENFORSCHUNG	DE
6	ARCTIK SPRL	BE
7	FUNDACIO INSTITUT CATALA DE CIENCIES DEL CLIMA	ES
8	MET OFFICE	UK
9	TECHNICAL UNIVERSITY OF CRETE	EL
10	THE UNIVERSITY OF READING	UK
11	HELMHOLTZ-ZENTRUM GEESTHACHT ZENTRUM FUR MATERIAL- UND KUSTENFORSCHUNG GMBH	DE
12	STICHTING DELTARES	NL
13	STICHTING VU-VUMC	NL
14	ADELPHI RESEARCH GGMBH	DE
15	HKV LIJN IN WATER BV	NL
16	FutureWater	ES
17	CETAQUA, CENTRO TECNOLOGICO DEL AGUA, FUNDACIÓN PRIVADA	ES
18	UNIVERSITAT POLITECNICA DE VALENCIA	ES
19	POLITECNICO DI MILANO	IT
20	Centro Internazionale in Monitoraggio Ambientale - Fondazione CIMA	IT
21	Helmholtz-Zentrum Potsdam Deutsches GeoForschungsZentrum	DE
22	Bundesanstalt fuer Gewaesserkunde	DE
23	Stichting Water Footprint Network	NL

Topic: WATER-3-2014 **Type of Action** ERA-NET-Cofund **Duration (months):** 60
Title: Water Works 2014-2019 in Support of the Water JPI

Project total costs 18,667,631.00 € **Project EU contribution:** 6,160,307 €

Abstract:

Water is a critical resource for the European society. Beside its main life function, freshwater also provides many other functions essential to our economy. Water challenges cannot be successfully tackled through the isolated effort of individual national research and innovation programmes. This ERA-NET cofund proposal is submitted in the name of the Joint Programming Initiative "Water Challenges for a Changing World", and aims at contributing to tackle European water challenges through the development of transnational and trans-disciplinary research and innovation actions. WaterWorks2014 addresses the specific challenge of integrating the efforts and Strategic Agendas of many European Water Research and Innovation funding organizations. This ERA-NET cofund will implement a Call for proposals on "research and innovation developing technological solutions and services to support the implementation of EU water policy, in particular for water distribution and measurement, waste water treatment and reuse, desalination, floods and droughts etc." This Call for proposals will be funded by 18 organizations from 16 countries, and will have a total budget of 15.2 million Euro. This total budget includes a cofund from the European Commission amounting to 5.0 million Euro. WaterWorks2014 will also perform additional activities contributing to Water JPI Strategy and Implementation. Activities contributing to strategy include the development of new versions of the Water JPI Strategic Agenda and the Implementation Plan. Activities contributing to implementation include sharing good practices on Water research and innovation funding and management, exploratory workshops, alignment of on-going projects and the monitoring and final evaluation of Calls without cofunding. WaterWorks2014 will benefit researchers, policy-makers, water authorities, utility operators, industry, farmers, and citizens by developing new solutions to water challenges.

Partners:

Nr	Participant	Country
1	MINISTERIO DE ECONOMIA Y COMPETITIVIDAD	ES
2	FUNDACAO PARA A CIENCIA E A TECNOLOGIA	PT
3	RESEARCH PROMOTION FOUNDATION	CY
4	Istituto Superiore per la Protezione e la Ricerca Ambientale	IT
5	ENVIRONMENTAL PROTECTION AGENCY OF IRELAND	IE
6	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
7	FORSKNINGSRÅDET FÖR MILJÖ, AREELLA NÄRINGAR OCH SAMHÄLLSBYGGANDE	SE
8	MINISTERIE VAN INFRASTRUCTUUR EN MILIEU	NL
9	NORGES FORSKNINGSRAD	NO
10	INNOVATIONSFONDEN	DK
11	KESKKONNAMINISTERIUM	EE
12	SIHTASUTUS EESTI TEADUSAGENTUUR	EE
13	CENTRO PARA EL DESARROLLO TECNOLÓGICO INDUSTRIAL.	ES
14	FONDS NATIONAL DE LA RECHERCHE SCIENTIFIQUE	BE
15	Ministry of Energy and Water Resources	IL
16	Unitatea Executiva pentru Finantarea Invatamantului Superior, a Cercetarii, Dezvoltarii si Inovarii	RO
17	MINISTERO DELL'ISTRUZIONE, DELL'UNIVERSITA' E DELLA RICERCA	IT
18	WATER RESEARCH COMMISSION	ZA
19	CENTRUL PROIECTE INTERNATIONALE	MD
20	SUOMEN AKATEMIA	FI
21	TURKIYE SU ENSTITUSU	TR
22	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
23	AGENZIA NAZIONALE PER LE NUOVE TECNOLOGIE, L'ENERGIA E LO SVILUPPO ECONOMICO SOSTE	IT

Topic: WATER-4a-2014	Type of Action CSA	Duration (months):	24
Title: Applying European market leadership to river basin networks and spreading of innovation on water ICT models, tools and data			
Project total costs	914,991.04 €	Project EU contribution:	914,991 €

Abstract:

WaterInnEU's primary vision is to create a marketplace to enhance the exploitation of EU funded ICT models, tools, protocols and policy briefs related to water and to establish suitable conditions for new market opportunities based on these offerings. WaterInnEU will build upon existing knowledge bases and platforms developed in previous projects but will provide new concepts, connections, and components that are essential for a marketplace to work. The primary goals can be detailed in five major objectives: a) Gather the outcomes of previous European funded projects, and contribute to their dissemination and exploitation to be used as an instrument for supporting the implementation of the Water Framework Directive (WFD). b) Assess the level of standardization and interoperability of these outcomes as a mechanism to integrate ICT-based tools, and incorporate open data platforms and generate a palette of interchangeable components that are able to use the water data emerging from the data sharing processes and data models stimulated by initiatives such as the INSPIRE directive. c) Create the marketplace as a service: a forum formed by water research projects representatives, stakeholders in the water domain, and companies (in particular SMEs), who are capable of moving current products into the market and offer them to, for example, river basin managers, at different levels. The user segment will mainly benefit from the capability of the water partnerships (e.g. the Global Water Partnership), in bringing together a wide variety of water sector stakeholders and practitioners such as decision makers, public and private users, local, regional and international entities, multidisciplinary stakeholders. d) Build an open virtual marketplace that includes the Water Knowledge Portal of projects and research (WISE-RTD), a user feedback facility and a success stories portfolio, additionally to the current tools and policies lists.

Partners:

Nr	Participant	Country
1	CENTRO DE INVESTIGACION ECOLOGICA Y APLICACIONES FORESTALES	ES
2	TECHNISCHE UNIVERSITEIT DELFT	NL
3	52°North Initiative for Geospatial Open Source Software GmbH	DE
4	RANDBEE SRL	IT
5	ADELPHI RESEARCH GGMBH	DE
6	ANTEA BELGIUM	BE
7	GLOBAL WATER PARTNERSHIP CENTRAL AND EASTERN EUROPE	SK
8	Orion Innovations (UK) Ltd	UK

Topic: WATER-4a-2014 **Type of Action** CSA **Duration (months):** 36
Title: Knowledge Inventory for hydrogeology research

Project total costs 1,119,338.00 € **Project EU contribution:** 1,119,338 €

Abstract:

Practical and scientific knowledge related to hydrogeology research and innovation are scattered amongst various actors in Europe. The overall objective of KINDRA is to create an inventory of this knowledge-base and then use the inventory to identify critical research challenges in line with the implementation of the WFD and new innovation areas within integrated water resources management based on the latest research. Project objectives: 1. Create a uniform EU-harmonised categorisation approach / terminology for reporting groundwater research (a Hydrogeological Research Classification System – HRC-SYS). Since such uniform classification does not exist at the moment, ongoing research activities, national/European hydrogeological research activities, agendas and strategies are difficult to report and even more difficult to compare. 2. Carry out EU-wide assessment of existing practical and scientific knowledge (using the developed HRC-SYS) focusing on EU, national, regional, international and EU-third party scientific activities. This assessment will be implemented with the help of the national members of EFG. 3. Create a European Inventory of Groundwater Research and Innovation (EIGR). This register will be supported by a web-service that will be searchable by selected key-words and will support users with query functions for statistics, diagrams, and others concise data elaboration. 4. Use the data in the register and the developed analytical tools (qualitative/quantitative) to assess the performance of key ongoing EU, national, regional, international and EU-third party hydrogeological scientific and innovation activities and results. 5. Compare the results with existing recommendations and position papers on groundwater related research requirements. 6. Define research gaps and corresponding suggestions for research agendas in line with WFD, and WssTP recommendations.

Partners:

Nr	Participant	Country
1	UNIVERSITA DEGLI STUDI DI ROMA LA SAPIENZA	IT
2	FEDERATION EUROPEENNE DES GEOLOGUES	FR
3	AGENCIA DE MEDIO AMBIENTE Y AGUA DE ANDALUCIA	ES
4	LA PALMA RESEARCH CENTRE FOR FUTURE STUDIES SL	ES
5	MISKOLCI EGYETEM	HU
6	Geological Survey of Denmark and Greenland	DK

Topic: WATER-4a-2014 **Type of Action** CSA **Duration (months):** 30
Title: FREE and open source software tools for WATER resource management

Project total costs 1,411,162.50 € **Project EU contribution:** 1,411,163 €

Abstract:

FREEWAT aims at promoting water management and planning by simplifying the application of the Water Framework Directive and other EU water related Directives. FREEWAT will be an open source and public domain GIS integrated modelling environment for the simulation of water quantity and quality in surface water and groundwater with an integrated water management and planning module. Specific objectives of the FREEWAT project are:- to coordinate previous EU and national funded research to integrate existing software modules for water management in a single environment into the GIS based FREEWAT;- to support the FREEWAT application in an innovative participatory approach gathering technical staff and relevant stakeholders (in primis policy and decision makers) in designing scenarios for the proper application of water policies. FREEWAT will initiate a process aimed at filling the gap between EU and US on widespread-standardised ICT tools and models for management of water quantity and quality and will set a well recognisable and flagship initiative. The open source characteristics of the platform allow to consider this an initiative "ad includendum" (looking for inclusion of other entities), as further research institutions, private developers etc. may contribute to the platform development. Through creating a common environment among water research/professionals, policy makers and implementers, FREEWAT main impact will be on enhancing science- and participatory approach and evidence-based decision making in water resource management, hence producing relevant and appropriate outcomes for policy implementation. The Consortium is constituted by partners from various water sectors from 10 EU countries, plus Turkey and Ukraine. Synergies with the UNESCO HOPE initiative on free and open source software in water management greatly boost the value of the project. Large stakeholders involvement guarantees results dissemination and exploitation.

Partners:

Nr	Participant	Country
1	SCUOLA SUPERIORE DI STUDI UNIVERSITARI E DI PERFEZIONAMENTO SANT'ANNA	IT
2	TEA SISTEMI SPA	IT
3	TECHNISCHE UNIVERSITAET DARMSTADT	DE
4	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
5	OSLANDIA	FR
6	UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION -UNESCO	FR
7	REGIONE TOSCANA	IT
8	METCENAS OPS	CZ
9	ZETA AMALTEA SL	ES
10	INSTITUT ZA EKOLOSKI INZENIRING DOO	SI
11	ERCIYES UNIVERSITESI	TR
12	ETAIREIA AXIOPOIISEOS KAI DIACHEIRISEOS TIS PERIOUSIAS TOU ETHNIKOU METSOVIU POLYTEC	EL
13	INSTITUTUL NATIONAL DE HIDROLOGIE SI GOSPODARIRE A APELOR	RO
14	TARTU ULIKOOL	EE
15	TARAS SHEVCHENKO NATIONAL UNIVERSITY OF KYIV	UA
16	PARAGON LIMITED	MT
17	UNIVERSITAET BREMEN	DE

Topic: WATER-4a-2014	Type of Action CSA	Duration (months):	24
Title: Blueprints for Smart Cities: Developing the methodology for a coordinated approach to the integration of the water and waste sectors within the EIP Smart Cities and Communities			
Project total costs	995,918.75 €	Project EU contribution:	995,919 €

Abstract:

BlueSCities aims to develop the methodology for a coordinated approach to the integration of the water and waste sectors within the 'Smart Cities and Communities' EIP. It will identify synergies in accordance with the Smart City context and complement other priority areas such as energy, transport and ICT. It will seek to contribute to the achievements of the 20-20-20 objectives. Placing emphasis on local solutions for global issues, the proposal seeks improved public engagement and enhanced decision-making processes at all political levels based on scientific knowledge and adequate social and economic awareness. BlueSCities will build on the hitherto successful implementation of the EIP Water Action Group, CITY BLUEPRINTS, which will provide the data required for a practicable planning cycle. The necessary socio-technological tools will be produced. It will aim to improve exchange synergies between researchers and users, decision-makers and consumers, industry, SMEs and national and international authorities. The project in order to achieve this, will further review the current situation in 50 European cities employing its unique methods of analysis, produce detailed case studies of four specifically chosen municipalities/cities, and demonstrate a self-assessment baseline assessment tool for water and waste in cities, which will enhance the implementation of European Smart City activities, to be published in the Blue City Atlas. It will, in a carefully planned step-by step process, collate data and formulate sufficient recommendations in order to produce an administrative methodology capable of eliminating cross sector barriers between water, waste and Smart City sectors to be described in a practical guidance document for the use of all relevant stakeholders. This will be supported by a programme of dissemination ensuring a wider public understanding of the nature of water and waste systems within the structures of European municipalities, regions and countries.

Partners:

Nr	Participant	Country
1	FUNDACIO CTM CENTRE TECNOLOGIC	ES
2	KWR WATER B.V.	NL
3	JRC -JOINT RESEARCH CENTRE- EUROPEAN COMMISSION	BE
4	TEKNOLOGIAN TUTKIMUSKESKUS VTT	FI
5	REDINN SRL	IT
6	DE MONTFORT UNIVERSITY	UK
7	ISTANBUL UNIVERSITESI	TR
8	IREN ACQUA GAS SPA	IT
9	STRANE INNOVATION SAS	FR
10	EASTON CONSULT	BE
11	TECNOLOGIE INNOVATIVE PER IL CONTROLLO AMBIENTALE E LO SVILUPPO SOSTENIBILE SCRL	IT
12	NATIONAL TECHNICAL UNIVERSITY OF ATHENS - NTUA	EL

Topic: WATER-4a-2014 **Type of Action** CSA **Duration (months):** 24
Title: Water Innovation through Dissemination Exploitation of Smart Technologies

Project total costs 1,022,030.00 € **Project EU contribution:** 1,022,030 €

Abstract:

The role of ICT in contributing to the “Smart Technologies EIP Priority” is widely recognised by the scientific community and water business professionals. Despite relevant progress and innovation achieved in this field, several barriers hinder the implementation of Smart Water Technologies such as the fragmentation of the sector, slow adoption, absence of SME development, and no holistic vision of water supply considering its whole life cycle. Moreover, at present a fully integrated Smart Water Network does not exist in Europe or globally. Hence, current lack of knowledge of EU water research and innovation results on industry, policy makers, and citizens is slowing down the widespread application of solutions that can leverage the development of the urban systems and infrastructures of tomorrow. This scenario shows that achieving water-related challenges cannot progress with the sole contribution of research. In this sense, the project has the vision of establishing and supporting a thriving, interconnected ICT for water community to promote the dissemination and exploitation of EU funded activities and results in this area. WIDEST will address its goals through a project-to-project approach and the coordination among relevant stakeholders by means of five objectives that will include, amongst others: Conducting literature reviews of relevant academic and commercial references; Establishing common frameworks such as standards, guidelines, website, video channel; Organizing events including conferences, workshops, special sessions; Producing three Topical Roadmaps and one Overall Roadmap; Producing a Portfolio of effective ICT for water management technologies including the methodology to build, update and execute it. The project is backed by a strong consortium composed by institutions with proven track record and expertise across different facets of ICT for water research, including established connections with key stakeholders.

Partners:

Nr	Participant	Country
1	FUNDACIO PRIVADA BARCELONA DIGITAL CENTRE TECNOLOGIC	ES
2	THE UNIVERSITY OF EXETER	UK
3	CENTRO ANDALUZ DE INVESTIGACIONES DEL AGUA	ES
4	INTERNATIONAL WATER ASSOCIATION	UK
5	EUROPEAN WATER SUPPLY AND SANITATION TECHNOLOGY PLATFORM AISBL	BE
6	UNIVERSITE DE NICE SOPHIA ANTIPOLIS	FR

Topic: WATER-5a-2014 **Type of Action** CSA **Duration (months):** 36
Title: Policies, Innovation And Networks for enhancing Opportunities for China Europe Water Cooperation

Project total costs 1,107,375.00 € **Project EU contribution:** 1,107,375 €

Abstract:

The overall objective of PIANO is to create a strategic cooperation partnership for water research and innovation between Europe and China, promoting the creation of networks of companies (including SMEs), entrepreneurs, not for profit organisations, policy makers, regulators and funding bodies to create business and social opportunities for China Europe Water Cooperation. PIANO will contribute to and is endorsed by the China Europe Water Platform (CEWP), and its 10 active EU Member States. First, PIANO will strengthen the existing CEWP network to create a comprehensive China Europe water research and innovation network. Second, based on a comparative analysis of the water innovation landscape in Europe and China, PIANO will identify European technological water innovations with potential for implementation and replication in China. In addition, PIANO will identify opportunities for joint development to address water challenges, where both Europe and China lack market ready technological water innovations. Third, PIANO will identify drivers and barriers for implementation and replication of technical innovations. PIANO will also identify strategies to overcome obstacles and take advantage of drivers, to facilitate creation of business opportunities. Fourth, PIANO will promote knowledge exchange and a policy dialogue to create an enabling environment for the uptake of technological water innovations. Fifth, PIANO will develop a shared strategic research and innovation agenda between Europe and China in the water sector. PIANO will align with current and future strategic initiatives to optimise opportunities for the EU and China across the water sector. To ensure success and achieve high impact, PIANO will be executed by a consortium of 9 leading European partners from both public and private sectors. Also, 13 leading Chinese partners are active PIANO participants, including the Ministries of Water Resources and of Environmental Protection.

Partners:

Nr	Participant	Country
1	UNIVERSITAET FUER BODENKULTUR WIEN	AT
2	DANMARKS TEKNISKE UNIVERSITET	DK
3	OFFICE INTERNATIONAL DE L'EAU	FR
4	Istituto Superiore per la Protezione e la Ricerca Ambientale	IT
5	LABORATORIO NACIONAL DE ENGENHARIA CIVIL	PT
6	Stiftelsen Stockholm International Water Institute	SE
7	W.S. ATKINS INTERNATIONAL LTD	UK
8	EUROPAISCHE VEREINIGUNG FUR WASSERWIRTSCHAFT EV	DE
9	European Chamber of Commerce in China	CN

Topic: BG-08-2014 **Type of Action** RIA **Duration (months):** 51
Title: Optimizing and Enhancing the Integrated Atlantic Ocean Observing System

Project total costs 20,652,923.00 € **Project EU contribution:** 20,652,921 €

Abstract:

The overarching objective of AtlantOS is to achieve a transition from a loosely-coordinated set of existing ocean observing activities to a sustainable, efficient, and fit-for-purpose Integrated Atlantic Ocean Observing System (IAOOS), by defining requirements and systems design, improving the readiness of observing networks and data systems, and engaging stakeholders around the Atlantic; and leaving a legacy and strengthened contribution to the Global Ocean Observing System (GOOS) and the Global Earth Observation System of Systems (GEOSS). AtlantOS will fill existing in-situ observing system gaps and will ensure that data are readily accessible and useable. AtlantOS will demonstrate the utility of integrating in-situ and Earth observing satellite based observations towards informing a wide range of sectors using the Copernicus Marine Monitoring Services and the European Marine Observation and Data Network and connect them with similar activities around the Atlantic. AtlantOS will support activities to share, integrate and standardize in-situ observations, reduce the cost by network optimization and deployment of new technologies, and increase the competitiveness of European industries, and particularly of the small and medium enterprises of the marine sector. AtlantOS will promote innovation, documentation and exploitation of innovative observing systems. All AtlantOS work packages will strengthen the trans-Atlantic collaboration, through close interaction with partner institutions from Canada, United States, and the South Atlantic region. AtlantOS will develop a results-oriented dialogue with key stakeholders communities to enable a meaningful exchange between the products and services that IAOOS can deliver and the demands and needs of the stakeholder communities. Finally, AtlantOS will establish a structured dialogue with funding bodies, including the European Commission, USA, Canada and other countries to ensure sustainability and adequate growth of IAOOS.

Partners:

Nr	Participant	Country
1	HELMHOLTZ ZENTRUM FÜR OZEANFORSCHUNG KIEL	DE
2	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
3	MARINE INSTITUTE	IE
4	UNIVERSITÄT BREMEN	DE
5	DANMARKS METEOROLOGISKE INSTITUT	DK
6	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	FR
7	UNIVERSITÉ PIERRE ET MARIE CURIE - PARIS 6	FR
8	INTERNATIONAL COUNCIL FOR THE EXPLORATION OF THE SEA	DK
9	KONSORTIUM DEUTSCHE MEERESFORSCHUNG e.V.	DE
10	INSTYTUT OCEANOLOGII POLSKIEJ AKADEMII NAUK	PL
11	HAVFORSKNINGSINSTITUTTET	NO
12	UNIVERSITETET I BERGEN	NO
13	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
14	NORSK INSTITUTT FOR VANNFORSKNING	NO
15	CONSORCIO PARA EL DISEÑO, CONSTRUCCIÓN, EQUIPAMIENTO Y EXPLOTACIÓN DE LA PLATAFORMA	ES
16	SIR ALISTER HARDY FOUNDATION FOR OCEAN SCIENCE	UK
17	DANMARKS TEKNISKE UNIVERSITET	DK
18	THE SCOTTISH ASSOCIATION FOR MARINESCIENCE LBG	UK
19	IMAR- INSTITUTO DO MAR	PT
20	STICHTING NIOZ, KONINKLIJK NEDERLANDS INSTITUUT VOOR ONDERZOEK DER ZEE	NL
21	MET OFFICE	UK
22	ALFRED-WEGENER-INSTITUT HELMHOLTZ- ZENTRUM FÜR POLAR- UND MEERESFORSCHUNG	DE
23	HAVSTOVAN	FO
24	THE UNIVERSITY OF EXETER	UK
25	INSTITUT DE RECHERCHE POUR LE DÉVELOPPEMENT	FR
26	EUMETNET GROUPEMENT D'INTERET ECONOMIQUE	BE
27	COLLECTE LOCALISATION SATELLITES SA	FR
28	CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI SCARL	IT
29	VLAAMS INSTITUUT VOOR DE ZEE VZW	BE

30	CIIMAR - Centro Interdisciplinar de Investigação Marinha e Ambiental	PT
31	IEEE FRANCE SECTION	FR
32	FONDATION EUROPEENNE DE LA SCIENCE	FR
33	UNIVERSITY OF PLYMOUTH	UK
34	UNIVERSIDADE DO ALGARVE	PT
35	INSTITUTO ESPANOL DE OCEANOGRAFIA	ES
36	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
37	MERCATOR OCEAN	FR
38	ALMA MATER STUDIORUM - UNIVERSITA DI BOLOGNA	IT
39	UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION -UNESCO	FR
40	EURO-ARGO ERIC	FR
41	EUROGOOS AISBL	BE
42	EUROPEAN CENTRE FOR MEDIUM-RANGE WEATHER FORECASTS	UK
43	PLYMOUTH MARINE LABORATORY	UK
44	DAITHI O'MURCHU MARINE RESEARCH STATION LTD	IE
45	SEASCAPE CONSULTANTS LTD	UK
46	Bruncin	HR
47	Ribocon GmbH	DE
48	DEVELOGIC GMBH	DE
49	NKE INSTRUMENTATION SARL	FR
50	CONTROS SYSTEMS & SOLUTIONS GMBH	DE
51	ACRI-ST SAS	FR
52	T.E. LABORATORIES LIMITED	IE
53	ETT SPA	IT
54	MARIENE INFORMATIE SERVICE MARIS BV	NL
55	BLUE LOBSTER IT LIMITED	UK
56	CLU srl	IT
57	MAX PLANCK GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V.	DE
58	DALHOUSIE UNIVERSITY	CA
59	MEOPAR INCORPORATED	CA
60	MINISTERIO DA CIENCIA E TECNOLOGIA	BR
61	WOODS HOLE OCEANOGRAPHIC INSTITUTION	US
62	COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH	ZA

Topic: SC5-16-2014 **Type of Action** RIA **Duration (months):** 48
Title: ECOPOTENTIAL: IMPROVING FUTURE ECOSYSTEM BENEFITS THROUGH EARTH OBSERVATIONS

Project total costs 15,993,931.00 € **Project EU contribution:** 14,999,340 €

Abstract:

Terrestrial and marine ecosystems provide essential services to human societies. Anthropogenic pressures, however, cause serious threat to ecosystems, leading to habitat degradation and increased risk of collapse, with related loss of ecosystem services. Knowledge-based conservation, management and restoration policies are needed to improve ecosystem benefits in face of increasing pressures. ECOPOTENTIAL will make significant progress beyond the state-of-the-art and create a new unified framework for ecosystem studies and management of protected areas (PA). ECOPOTENTIAL will focus on internationally recognized PAs in Europe and beyond; most PAs are UNESCO World Natural Heritage Sites, Biosphere Reserves, national parks and Natura 2000 sites. LTER sites and Large Marine Ecosystems are included. Best use of Earth Observation (EO) and monitoring data will be made possible by new EO open-access ecosystem data services (ECOPERNICUS). New modelling approaches including information from EO data will be developed, ecosystem services in current and future conditions will be assessed and the requirements of future protected areas will be defined. Open and interoperable access to data and knowledge will be assured by a GEO Ecosystem Virtual Laboratory Platform, fully integrated in GEOSS. Support to transparent and knowledge-based conservation and management policies, able to include information from EO data, will be given. Knowledge gained in the PAs will be upscaled to pan-European conditions and used for planning and management of future PAs. A permanent stakeholder consultancy group (GEO Ecosystem Community of Practice) will be created. Capacity building will be pursued at all levels. SMEs will be involved to create expertise leading to new job opportunities, ensuring commercial uptake and long-term continuation of services. In summary, ECOPOTENTIAL will use the most advanced technologies to improve future ecosystem benefits for humankind.

Partners:

Nr	Participant	Country
1	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
2	UNIVERSITA DEL SALENTO	IT
3	ACCADEMIA EUROPEA PER LA RICERCA APPLICATA ED IL PERFEZIONAMENTO PROFESSIONALE BO	IT
4	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
5	HELMHOLTZ-ZENTRUM FUER UMWELTFORSCHUNG GMBH - UFZ	DE
6	Karlsruher Institut fuer Technologie	DE
7	UNIVERSITAET BAYREUTH	DE
8	DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV	DE
9	EUROPEAN SPACE AGENCY	FR
10	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	FR
11	UNIVERSITY OF LEEDS	UK
12	ENVIRONMENT SYSTEMS LIMITED	UK
13	UNIVERSITATEA DIN BUCURESTI	RO
14	ICETA - Instituto de Ciências e Tecnologias Agrárias e Agro-Alimentares	PT
15	INSTITUTO SUPERIOR TECNICO	PT
16	ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS	EL
17	FOUNDATION FOR RESEARCH AND TECHNOLOGY HELLAS	EL
18	ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE	CH
19	BEN-GURION UNIVERSITY OF THE NEGEV	IL
20	ISRAEL NATURE AND NATIONAL PARKS PROTECTION AUTHORITY ISRAEL NATURE AND PARKS AUT	IL
21	PSI Hydrobiological Institute - Ohrid	MK
22	COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH	ZA
23	Istituto Superiore per la Protezione e la Ricerca Ambientale	IT
24	POLITECNICO DI MILANO	IT
25	CENTRO DE INVESTIGACION ECOLOGICA YAPLICACIONES FORESTALES	ES
26	UNIVERSITAT AUTONOMA DE BARCELONA	ES
27	UNIVERSIDAD DE GRANADA	ES
28	UMWELTBUNDESAMT GMBH	AT
29	UNIVERSITAET POTSDAM	DE
30	MUSEUM FUR NATURKUNDE - LEIBNIZ-INSTITUT FUR EVOLUTIONS- UND BIODIVERSITATSFORSCHU	DE
31	FONDATION TOUR DU VALAT	FR
32	STICHTING DEI TARES	NI

Topic: SC5-16-2014 **Type of Action** RIA **Duration (months):** 36
Title: Satellite-based Wetland Observation Service

Project total costs 4,979,198.00 € **Project EU contribution:** 4,979,198 €

Abstract:

The objective of the project SWOS is to develop a monitoring and information service focussing on wetland ecosystems. Globally wetlands are the ecosystems with the highest rate of loss. This is alarming, considering their significance as biodiversity hotspots and ecosystems with a central role in the water cycle, including improving water quality and reducing water scarcity, in climate regulation and the economic benefit gained from using their services. A key limitation to their more effective conservation, sustainable management and restoration is the missing knowledge underpinning the application of European policy by Member States. Under the Biodiversity Strategy, Member States have recently committed to the mapping and assessment of ecosystem services (MAES); this provides a key instrument for an improved integration of wetlands in policy. SWOS will take full advantage of the Sentinel satellites and integrate results from the ESA Globwetland projects. Status maps and indicators, as well as near real-time observations will allow the assessment of biodiversity and the monitoring of dynamic changes in an unmatched temporal and spatial resolution. The Service Portal will allow the integration and web-based analysis of new maps and in-situ measurements and provide a unique entry point to locate, access and connect existing information and databases. It follows a GEOSS compatible data-broker approach and adopts international standards. SWOS contributes to establishing a Global Wetland Observing System, as requested by Ramsar, it will facilitate local and EU monitoring tasks and input into international reporting obligations. SWOS will position Europe in a leading role for wetland activities within the GEO ecosystem, biodiversity, water, land cover tasks. The direct involvement of users working at different scales and support of key user organizations ensures the usability and acceptance of the service, the harmonization with related activities and a long-term impact.

Partners:

Nr	Participant	Country
1	JENA-OPTRONIK GMBH	DE
2	TerraSphere Imaging & GIS B.V.	NL
3	REMOTE SENSING SOLUTIONS GMBH	DE
4	BROCKMANN GEOMATICS SWEDEN AB	SE
5	FRIEDRICH-SCHILLER-UNIVERSITÄT JENA	DE
6	UNIVERSIDAD DE MALAGA	ES
7	RHEINISCHE FRIEDRICH-WILHELMS-UNIVERSITÄT BONN	DE
8	MOUSEIO GOULANDRI FYSIKIS ISTORIAS	EL
9	FONDATION TOUR DU VALAT	FR
10	UNITE TECHNIQUE DU SEMIDE GEIE	FR
11	STICHTING WETLANDS INTERNATIONAL	NL
12	UICN, BUREAU DE REPRESENTATION AUPRES DE L'UNION EUROPEENNE AISBL	BE

Topic: SC5-18a-2014	Type of Action CSA	Duration (months):	24
Title: Coordinating an Observation Network of Networks EnCompassing saTellite and IN-situ to fill the Gaps in European Observations			
Project total costs	999,995.94 €	Project EU contribution:	999,996 €

Abstract:

ConnectinGEO's primary goal is to link existing coordinated Earth Observation networks with science and technology (S&T) communities, the industry sector and the GEOSS and Copernicus stakeholders. The aim is to facilitate a broader and more accessible knowledge base to support the needs of the GEO Societal Benefit Areas (SBAs) and their users. A broad range of subjects from climate, natural resources and raw materials, to the emerging UN Sustainable Development Goals (SDGs) will be addressed. A tangible outcome of the project will be a prioritized list of critical gaps within the European Union in observations and the models that translate observations into practice-relevant knowledge. The prioritized list will include the research activities required to address these gaps. Ultimately, this will increase coherency of European observation networks, increase the use of Earth observations for assessments and forecasts and inform the planning for future observation systems through a sustainable approach that will survive beyond the end of this project. ConnectinGEO has 4 major objectives: a) Enable a European Network of Earth Observation Networks (ENEON) including space-based, airborne and in-situ observations networks. b) Provide a methodology to convert the knowledge needs into a coherent observation and measurement compendium for ENEON strategy and development. c) Apply the ConnectinGEO methodology to identify and assess the priority of gaps. d) Open the results of the project and exploit them beyond the project end.

Partners:

Nr	Participant	Country
1	CENTRO DE INVESTIGACION ECOLOGICA Y APLICACIONES FORESTALES	ES
2	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
3	TIWAH UG (HAFTUNGSBESCHRAENKT)	DE
4	52°North Initiative for Geospatial Open Source Software GmbH	DE
5	INTERNATIONALES INSTITUT FUER ANGEWANDTE SYSTEMANALYSE	AT
6	CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI SCARL	IT
7	SCIENCE AND TECHNOLOGY B.V.	NL
8	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
9	INSTITUT D'AERONOMIE SPATIALE DE BELGIQUE	BE
10	ASSOCIATION POUR LA RECHERCHE ET LE DEVELOPPEMENT DES METHODES ET PROCESSUS IND	FR
11	NORSK INSTITUTT FOR LUFTFORSKNING	NO
12	THE UNIVERSITY OF EXETER	UK
13	IEEE FRANCE SECTION	FR
14	Institut Mines-Telecom	FR
15	EUROPEAN ASSOCIATION OF REMOTE SENSING COMPANIES	BE

Topic: EE-03-2014 **Type of Action** RIA **Duration (months):** 60
Title: Robust Internal Thermal Insulation of Historic Buildings

Project total costs 5,331,375.00 € **Project EU contribution:** 4,962,375 €

Abstract:

RIBuild will strengthen the knowledge on how and under what conditions internal thermal insulation is to be implemented in historic buildings, without compromising their architectural and cultural values, with an acceptable safety level against deterioration and collapse of heavy external wall structures. The general objective of RIBuild is to develop effective, comprehensive decision guidelines to optimise the design and implementation of internal thermal insulation in historic buildings across the EU. RIBuild focuses on heavy external walls made of stone, brick and timber framing, as most historic buildings are made of these materials. The general objective is achieved through three main activities: To obtain a thorough knowledge level to characterise the eligibility of the building for a deep internal thermal insulation renovation. This knowledge is obtained through screening of historic buildings, investigation of material properties and threshold values for failure. To determine the conditions under which different internal insulation measures are reliable and affordable measures based on probabilistic modelling of the hygrothermal performance, the environmental impact and the cost/benefit. To develop a set of comprehensive decision guidelines, which are demonstrated in a number of buildings. RIBuild addresses the most difficult retrofitting measure of historic buildings: internal thermal insulation. The adaption of knowledge developed by RIBuild contributes to sustainable historic buildings with improved energy efficiency implying an easier conversion of energy supply from inefficient fossil fuels to efficient renewable energy sources. RIBuild also assesses the hygrothermal performance of the building construction, thus no collateral damage occurs; in case of failure an easy roll back of the measures is possible. The guidelines developed in RIBuild strongly support the deep and holistic retrofitting approach which historic buildings face in the coming years.

Partners:

Nr	Participant	Country
1	AALBORG UNIVERSITET	DK
2	RIGAS TEHNISKA UNIVERSITATE	LV
3	TECHNISCHE UNIVERSITAET DRESDEN	DE
4	KATHOLIEKE UNIVERSITEIT LEUVEN	BE
5	UNIVERSITA POLITECNICA DELLE MARCHE	IT
6	DANMARKS TEKNISKE UNIVERSITET	DK
7	SP SVERIGES TEKNISKA FORSKNING SINSTITUT AB	SE
8	HAUTE ECOLE SPECIALISEE DE SUISSE OCCIDENTALE	CH
9	INTRO FLEX APS	DK
10	ERIK MOLLER ARKITEKTER AS	DK

Topic: SC5-19a-2014 **Type of Action** CSA **Duration (months):** 48
Title: National Contact Points for Climate action, Raw materials, Environment and Resource Efficiency

Project total costs 2,092,683.75 € **Project EU contribution:** 1,999,932 €

Abstract:

The National Contact Points perform valuable services in guiding and supporting national applicants in preparing proposals for Horizon 2020 funding. We expect that through an enhanced cooperation and networking between these national entities, a higher quality of their consulting services and thus of proposals and projects can be achieved. Therefore, the overall objective of NCPs CaRE is to form a joint cooperation network of experienced and less experienced NCPs on SC5 "Climate action, environment, resource efficiency and raw materials" which aims at pooling their resources and know-how to raise the overall quality of services provided to their clients. By involving 24 formally nominated National Contact Points across Europe, the NCPs CaRE project will significantly strengthen trans-national cooperation. In addition, NCPs CaRE will extensively involve the 26 NCPs that have decided to become "associated partner". To harness synergies is especially relevant to SC5 NCPs, since potential applicants within this Challenge are very diverse with respect to their scientific or organisational background, level of experience, involvement in transnational networks. Concretely, activities of NCPs CaRE towards this goal include, amongst others, teaming and twinning schemes, the compilation of best practices handbooks and manuals, events, meetings and trainings both on-line and on a face-to-face basis, as well as a wide range of other communication and dissemination tools and platforms. These activities foreseen by NCPs CaRE will contribute to enhancing the impact of R&I in SC5 and ensure a more efficient use of resources and R&I developments by improving the work flow between NCPs, applicants, the Commission, and other parties with a stake in SC5. Tailor-made like they are for the SC5 constituency, these activities will make it easier for all participating and benefitting NCPs to enhance the number of proposals with regards to both quantity and quality.

Partners:

Nr	Participant	Country
1	FORSCHUNGSZENTRUM JUELICH GMBH	DE
2	RESEARCH PROMOTION FOUNDATION	CY
3	AGENCE DE L'ENVIRONNEMENT ET DE LA MAITRISE DE L'ENERGIE	FR
4	SUOMEN AKATEMIA	FI
5	AGENCIJA ZA MOBILNOST I PROGRAME EUROPSKE UNIJE	HR
6	AGENZIA PER LA PROMOZIONE DELLA RICERCA EUROPEA	IT
7	AGENCE BRUXELLOISE POUR L'ENTREPRISE	BE
8	CENTRO PARA EL DESARROLLO TECNOLOGICO INDUSTRIAL.	ES
9	CENTRUL PROIECTE INTERNATIONALE	MD
10	CENTRUM VEDECKO TECHNICKYCH INFORMACII SLOVENSKEJ REPUBLIKY	SK
11	DIENST VOOR WETENSCHAPPELIJKE EN TECHNISCHE INFORMATIE- SERVICE D'INFORMATION SCIE	BE
12	SIHTASUTUS EESTI TEADUSAGENTUUR	EE
13	VEREIN EURESEARCH	CH
14	MINISTERIE VAN ECONOMISCHE ZAKEN	NL
15	FUNDAÇÃO PARA A CIÊNCIA E A TECNOLOGIA	PT
16	FOUNDATION FOR RESEARCH AND TECHNOLOGY HELLAS	EL
17	INSTYTUT PODSTAWOWYCH PROBLEMOW TECHNIKI POLSKIEJ AKADEMII NAUK	PL
18	LUXINNOVATION GIE	LU
19	MATIMOP, ISRAELI INDUSTRY CENTER FOR RESEARCH & DEVELOPMENT	IL
20	Ministrstvo za izobraževanje, znanost in sport	SI
21	MINISTARSTVO PROSVETE, NAUKE I TEHNOLOSKOG RAZVOJA	RS
22	THE ICELANDIC CENTRE FOR RESEARCH	IS
23	TECHNOLOGICKE CENTRUM AKADEMIE VED CESKE REPUBLIKY	CZ

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The objective of the Societal Challenge '**Climate action, environment, resource efficiency and raw materials**' is to achieve a resource – and water – efficient and climate change resilient economy and society, the protection and sustainable management of natural resources and ecosystems, and a sustainable supply and use of raw materials, in order to meet the needs of a growing global population within the sustainable limits of the planet's natural resources and eco-systems.

Helping to build a green economy – a circular economy in sync with the natural environment – is part of the answer. The calls launched in 2014 focussed on investing in innovation for a green economy. This will require great progress in social and public sector innovation.

Actions described in this publication address gaps in the knowledge base needed to understand changes in the environment, identify the policies, methods and tools that would most effectively tackle the above mentioned challenges, and support innovators and businesses to bring green solutions to the market. Waste and water have been selected as particular priorities, on the grounds of their substantial potential for business opportunities and job creation while tackling important resource efficiency challenges.

This catalogue aims to briefly present the projects resulting from the 2014 calls for proposals in the Societal Challenge 'Climate action, environment, resource efficiency and raw materials'. All together the 67 projects presented here will mobilise resources totalling around EUR 400 million, of which more than EUR 335 million as EU funding. The first set of projects started beginning of 2015; the rest will follow during the first semester of 2015 and could last up to 5 years duration.

More about research and innovation in the area:

<http://ec.europa.eu/programmes/horizon2020/en/h2020-section/climate-action-environment-resource-efficiency-and-raw-materials>

Funding opportunities are published in the Participant Portal

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/index.html>

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