Research & Innovation Projects

CALLS 2014, 2015, 2016 and first part of 2017

Climate action, environment, resource efficiency and raw materials

HORIZON 2020

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

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PREFACE

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.

The calls launched in 2014, 2015, 2016 and 2017 focus on investing in systemic innovation by promoting resource efficiency for a greener and competitive economy as a key part of smart, inclusive and sustainable growth. Systemic innovation calls for the adoption of a challenge-driven, solutions-oriented research and innovation strategy that crosses disciplinary boundaries and involves co-creation of knowledge and co-delivery of outcomes.

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

The 266 projects resulting from the 2014, 2015, 2016 and first part of 2017 calls for proposals[1] in the Societal Challenge 'Climate action, environment, resource efficiency and raw materials' are here briefly presented. Altogether the 266 projects are mobilising resources totalling around EUR 1 642 million, of which more than EUR 1 271 million as EU funding. The projects could last up to 5 years duration.

This presentation is organised following the structure of the Horizon 2020 Specific Programme[2] for the societal challenge 'Climate action, environment, resource efficiency and raw materials'. Therefore the projects are grouped in accordance to objectives of the action and the most relevant activity/sub-activity and then sorted in descending order per project number.

To **search specific information** on a project or topic, either you use a thematic search following the mentioned structure or a free text search across the entire document using the 'Find' command <Ctrl+F> and introducing free text keywords (e.g. pesticides, Tantalum, reuse, …).

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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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[1] Including the SC5 funded projects resulting from the calls for SMEs Instruments - phase 2.

[2] COUNCIL DECISION of 3 December 2013 establishing the specific programme implementing Horizon 2020 - the Framework Programme for Research and Innovation (2014-2020) http://ec.europa.eu/research/participants/portal/doc/call/h2020/common/1595115-h2020-sp-oj_en.pdf

Structure of the specific programme Horizon 2020 for the societal challenge 'Climate action, environment, resource efficiency and raw materials'

5.	**CLIMATE ACTION, ENVIRONMENT, RESOURCE EFFICIENCY AND RAW MATERIALS**
5.1.	**Fighting and adapting to climate change**
5.1.1	Improving the understanding of climate change and the provision of reliable climate projections
5.1.2	Assessing impacts and vulnerabilities and developing innovative cost-effective adaptation, risk prevention and management measures
5.1.3	Supporting mitigation policies, including studies that focus on impact from other sectoral policies
5.2.	**Protecting the environment, sustainably managing natural resources, water, biodiversity and ecosystems**
5.2.1	Furthering our understanding of biodiversity and the functioning of ecosystems, their interactions with social systems and their role in sustaining the economy and human well-being
5.2.2	Developing integrated approaches to address water-related challenges and the transition to sustainable management and use of water resources and services
5.2.3	Providing knowledge and tools for effective decision making and public engagement
5.3.	**Ensuring the sustainable supply of non-energy and non-agricultural raw materials**
5.3.1	Improving the knowledge base on the availability of raw materials
5.3.2	Promoting the sustainable supply and use of raw materials, including mineral resources, from land and sea, covering exploration, extraction, processing, re-use ,recycling and recovery
5.3.3	Finding alternatives for critical raw materials
5.3.4	Improving societal awareness and skills on raw materials
5.4.	**Enabling the transition towards a green economy and society through eco-innovation**
5.4.1	Strengthening eco-innovative technologies, processes, services and products, including exploring ways to reduce the quantities of raw materials in production and consumption, overcoming barriers in this context and boosting their market uptake
5.4.2	Supporting innovative policies and societal changes
5.4.3	Measuring and assessing progress towards a green economy
5.4.4	Fostering resource efficiency through digital systems
5.5.	**Developing comprehensive and sustained global environmental observation and information systems**
5.6.	**Cultural heritage**
5.6.1	Identifying resilience levels via observations, monitoring and modelling
5.6.2	Providing for a better understanding on how communities perceive and respond to climate change and seismic and volcanic hazards
5.7.	**Specific implementation aspects**

Summary of calls and projects per year

Year	Call identifier	Nr of projects	EU grant (EUR)	Total cost (EUR)
2014	H2020-BG-2014-1	1	2,174,503	2,174,504
	H2020-BG-2014-2	1	20,652,921	20,652,921
	H2020-DRS-2014	3	17,602,290	17,781,177
	H2020-EE-2014-1-PPP	1	4,962,375	5,331,375
	H2020-SC5-2014-one-stage	17	76,095,069	104,762,265
	H2020-SC5-2014-two-stage	9	81,512,500	84,861,704
	H2020-SMEINST-2-2014	13	16,294,262	23,315,146
	H2020-WASTE-2014-one-stage	7	23,084,681	23,924,316
	H2020-WASTE-2014-two-stage	5	42,621,678	51,827,594
	H2020-WATER-2014-one-stage	7	12,720,454	25,411,196
	H2020-WATER-2014-two-stage	13	50,713,295	58,212,895
	Total 2014	**77**	**348,434,028**	**418,255,093**
2015	H2020-BG-2015-2	2	19,094,620	19,433,781
	H2020-DRS-2015	5	30,567,008	33,147,743
	H2020-SC5-2015-one-stage	18	111,742,506	206,572,474
	H2020-SC5-2015-two-stage	9	50,111,663	53,185,544
	H2020-SMEINST-2-2015	11	17,393,394	24,847,705
	H2020-WASTE-2015-one-stage	2	2,986,543	2,986,543
	H2020-WASTE-2015-two-stage	7	49,222,532	54,864,604
	H2020-WATER-2015-one-stage	2	12,733,567	33,636,957
	H2020-WATER-2015-two-stage	16	87,278,191	103,624,092
	Total 2015	**72**	**381,130,022**	**532,299,443**
2016	H2020-BG-2016-1	3	30,989,658	32,308,258
	H2020-CIRC-2016OneStage	2	4,756,223	4,785,340
	H2020-CIRC-2016TwoStage	10	80,652,659	96,427,308
	H2020-LCE-2016-ERA	1	10,000,000	31,303,030
	H2020-SC5-2016-OneStageA	2	2,285,068	2,316,523
	H2020-SC5-2016-OneStageB	23	99,240,595	121,280,838
	H2020-SC5-2016-TwoStage	9	54,102,485	64,227,159
	H2020-SCC-NBS-1stage-2016	3	20,298,331	33,947,538
	H2020-SCC-NBS-2stage-2016	4	49,357,915	52,682,944
	H2020-SMEINST-2-2016-2017	13	21,648,718	30,926,741
	Total 2016	**70**	**373,331,650**	**470,205,677**
2017	H2020-BG-2017-1	1	11,467,318	11,467,318
	H2020-SC5-2017-OneStageA	1	274,517	274,517
	H2020-SC5-2017-OneStageB	27	123,661,651	164,831,287
	H2020-SFS-2017-1	1	8,534,033	8,534,033
	H2020-SMEINST-2-2017	17	24,972,111	36,476,970
	Total 2017	**47**	**168,909,630**	**221,584,125**
	Grand Total	**266**	**1,271,805,329**	**1,642,344,337**

Summary of projects per type of action

Type of Action	Nr of projects	EU grant (EUR)	Total cost (EUR)
CSA (Coordinated and Support Action)	53	99,245,937	102,897,035
ERA-NET-Cofund	12	106,757,967	354,014,170
IA (Innovation Action)	57	383,152,120	452,228,841
PCP (Pre-Commercial Procurement)	1	5,000,000	6,189,075
RIA (Research and Innovation Action)	89	597,340,820	611,448,654
SME-2 (SME Instrument Phase 2)	54	80,308,484	115,566,562
Total	**266**	**1,271,805,329**	**1,642,344,337**

Summary of projects per Activity of the societal challenge 'Climate action, environment, resource efficiency and raw materials'

SC5 Activity	Sub-activity	Nr of projects	EU grant (EUR)	Total cost (EUR)
5.1	5.1.1	8	73,022,289	75,664,962
	5.1.2	25	150,483,910	221,134,215
	5.1.3	12	45,954,856	47,427,766
	Total	**45**	**269,461,055**	**344,226,943**
5.2	5.2.1	15	136,645,556	194,937,919
	5.2.2	21	109,329,159	174,257,806
	5.2.3	11	33,093,195	34,402,028
	Total	**47**	**279,067,910**	**403,597,753**
5.3	5.3.1	12	24,472,837	25,301,536
	5.3.2	26	178,700,835	198,214,324
	5.3.3	4	18,677,201	19,874,918
	5.3.4	7	11,295,184	11,700,809
	Total	**49**	**233,146,057**	**255,091,587**
5.4	5.4.1	81	278,324,788	350,007,197
	5.4.2	6	20,059,970	20,093,963
	5.4.3	2	3,495,459	3,495,459
	5.4.4	8	9,839,702	12,096,137
	Total	**97**	**311,719,919**	**385,692,755**
5.5	**5.5.0**	**18**	**128,609,396**	**173,965,603**
5.6	5.6.1	4	23,781,597	24,150,597
	5.6.2	1	9,873,586	10,586,949
	Total	**5**	**33,655,183**	**34,737,545**
5.7	**5.7.0**	**5**	**16,145,809**	**45,032,151**
	Grand Total	**266**	**1,271,805,329**	**1,642,344,337**

Project Nr.	Project Acronym	Project Title	Type of Action	Sub-activity	Page
5.1 Fighting and adapting to climate change					
776810	VERIFY	Observation-based system for monitoring and verification of greenhouse gases	RIA	5.1.1	17
776613	EUCP	European Climate Prediction system	RIA	5.1.1	19
730258	BE-OI	Beyond EPICA - Oldest Ice	CSA	5.1.1	20
727862	APPLICATE	Advanced Prediction in Polar regions and beyond: Modelling, observing system design and LInkages associated with ArctiC ClimATE change	RIA	5.1.1	21
727852	Blue-Action	Arctic Impact on Weather and Climate	RIA	5.1.1	22
689029	ECOMS2	European Climate Observations, Modelling and Services - 2	CSA	5.1.1	24
641816	CRESCENDO	Coordinated Research in Earth Systems and Climate: Experiments, kNowledge, Dissemination and Outreach	RIA	5.1.1	25
641727	PRIMAVERA	PRocess-based climate sIMulation: AdVances in high resolution modelling and European climate Risk Assessment	RIA	5.1.1	26
776868	SECLI-FIRM	The Added Value of Seasonal Climate Forecasts for Integrated Risk Management Decisions	RIA	5.1.2	27
776787	S2S4E	Sub-seasonal to Seasonal climate forecasting for Energy	RIA	5.1.2	28
776609	SINCERE	Strengthening INternational Cooperation on climatE change REsearch	CSA	5.1.2	29
776608	AXIS	Assessment of Cross(X)-sectoral climate Impacts and pathways for Sustainable transformation	ERA-NET-Cofund	5.1.2	30
776467	MED-GOLD	Turning climate-related information into added value for traditional MEDiterranean Grape, OLive and Durum wheat food systems	RIA	5.1.2	31
773421	Nunataryuk	Permafrost thaw and the changing arctic coast: science for socio-economic adaptation	RIA	5.1.2	32
730482	CLARA	Climate forecast enabled knowledge services	IA	5.1.2	33
730381	H2020_Insurance	Oasis Innovation Hub for Catastrophe and Climate Extremes Risk Assessment	IA	5.1.2	34
730355	CLARITY	Integrated Climate Adaptation Service Tools for Improving Resilience Measure Efficiency	IA	5.1.2	35
730253	VISCA	Vineyards´ Integrated Smart Climate Application	IA	5.1.2	36
730203	PROSNOW	Provision of a prediction system allowing for management and optimization of snow in Alpine ski resorts	IA	5.1.2	37
730004	PUCS	Pan-European Urban Climate Services	IA	5.1.2	38
700699	BRIGAID	BRIdges the GAp for Innovations in Disaster resilience	IA	5.1.2	39
700342	ESPREssO	Enhancing Synergies for disaster PRevention in the EurOpean Union	CSA	5.1.2	40
700174	RESCCUE	RESCCUE - RESilience to cope with Climate Change in Urban arEas - a multisectorial approach focusing on water	IA	5.1.2	41
690462	ERA4CS	European Research Area for Climate Services	ERA-NET-Cofund	5.1.2	42
690105	ICARUS	Integrated Climate forcing and Air pollution Reduction in Urban Systems	RIA	5.1.2	44
689954	iSCAPE	Improving the Smart Control of Air Pollution in Europe	RIA	5.1.2	45
689289	CLAiR-CITY	Citizen Led Air pollution Reduction in Cities	RIA	5.1.2	46
653824	EU-CIRCLE	A panEuropean framework for strengthening Critical Infrastructure resilience to climate change	RIA	5.1.2	47

653522	RESIN	Climate Resilient Cities and Infrastructures	RIA	5.1.2	48
653255	PLACARD	PLAtform for Climate Adaptation and Risk reDuction	CSA	5.1.2	49
642147	CD-LINKS	Linking Climate and Development Policies - Leveraging International Networks and Knowledge Sharing	RIA	5.1.2	50
642018	GREEN-WIN	Green growth and win-win strategies for sustainable climate action	RIA	5.1.2	51
641811	IMPREX	IMproving PRedictions and management of hydrological EXtremes	RIA	5.1.2	52
776661	SOCLIMPACT	DownScaling CLImate imPACTs and decarbonisation pathways in EU islands, and enhancing socioeconomic and non-market evaluation of Climate Change for Europe, for 2050 and beyond.	RIA	5.1.3	53
776646	DEEDS	DialoguE on European Decarbonisation Strategies	CSA	5.1.3	54
776479	COACCH	CO-designing the Assessment of Climate CHange costs	RIA	5.1.3	55
730500	EU-MACS	European Market for Climate Services	RIA	5.1.3	56
730459	EUCalc	EU Calculator: trade-offs and pathways towards sustainable and low-carbon European Societies	RIA	5.1.3	57
730427	COP21 RIPPLES	COP21: Results and Implications for Pathways and Policies for Low Emissions European Societies	RIA	5.1.3	58
730403	INNOPATHS	Innovation pathways, strategies and policies for the Low-Carbon Transition in Europe	RIA	5.1.3	59
730272	MARCO	MArket Research for a Climate Services Observatory	RIA	5.1.3	60
730053	REINVENT	Realising Innovation in Transitions for Decarbonisation	RIA	5.1.3	61
652641	EU-PolarNet	Connecting Science with Society	CSA	5.1.3	62
642260	TRANSrisk	Transitions pathways and risk analysis for climate change mitigation and adaption strategies	RIA	5.1.3	63
642242	CARISMA	Coordination and Assessment of Research and Innovation in Support of Climate Mitigation Actions	CSA	5.1.3	64
5.2 Protection of the environment, sustainable management of natural resources, water, biodiversity and ecosystems					
776617	BiodivScen	Promoting and implementing joint programming at the international level to reinforce research on the development of scenarios of biodiversity and ecosystem services	ERA-NET-Cofund	5.2.1	65
730468	Nature4Cities	Nature Based Solutions for re-naturing cities: knowledge diffusion and decision support platform through new collaborative models	RIA	5.2.1	66
730426	URBAN GreenUP	New Strategy for Re-Naturing Cities through Nature-Based Solutions	IA	5.2.1	67
730283	GROW GREEN	Green Cities for Climate and Water Resilience, Sustainable Economic Growth, Healthy Citizens and Environments	IA	5.2.1	68
730254	EN-SUGI	Eranet Sustainable Urbanisation Global Initiative	ERA-NET-Cofund	5.2.1	69
730243	NATURVATION	Nature Based Urban Innovation	RIA	5.2.1	70
730222	CONNECTING Nature	COproductioN with NaturE for City Transitioning, INnovation and Governance	IA	5.2.1	71
730052	UNALAB	Urban Nature Labs	IA	5.2.1	72
689682	AMBER	Adaptive Management of Barriers in European Rivers	RIA	5.2.1	73
689518	MERCES	Marine Ecosystem Restoration in Changing European Seas	RIA	5.2.1	74
679849	SponGES	Deep-sea Sponge Grounds Ecosystems of the North Atlantic: an integrated approach towards their preservation and sustainable exploitation	RIA	5.2.1	75
678760	ATLAS	A Trans-AtLantic Assessment and deep-water ecosystem-based Spatial management plan for Europe	RIA	5.2.1	76

642420	BiodivERsA3	Consolidating the European Research Area on biodiversity and ecosystem services	ERA-NET-Cofund	5.2.1	77
642317	AQUACROSS	Knowledge, Assessment, and Management for AQUAtic Biodiversity and Ecosystem Services aCROSS EU policies (AQUACROSS)	RIA	5.2.1	78
641918	AfricanBioServices	Linking biodiversity, ecosystem functions and services in the Great Serengeti-Mara Ecosystem (GSME) - drivers of change, causalities and sustainable management strategies	RIA	5.2.1	79
776692	WaterWorks2017	Water Works 2018-2022 in Support of the Water JPI (WaterWorks2017) and of the EC Call SC5-33-2017: Closing the water cycle gap	ERA-NET-Cofund	5.2.2	80
730264	IC4WATER	Tackling Water Challenges in the International Context	CSA	5.2.2	81
690378	FLOWERED	de-FLuoridation technologies for imprOving quality of WatEr and agRo-animal products along the East African Rift Valley in the context of aDaptation to climate change.	RIA	5.2.2	82
690323	SMART-Plant	Scale-up of low-carbon footprint material recovery techniques in existing wastewater treatment plants	IA	5.2.2	83
690268	DAFNE	DAFNE: Use of a Decision-Analytic Framework to explore the water-energy-food NExus in complex and trans-boundary water resources systems of fast growing developing countries.	RIA	5.2.2	84
689817	INNOQUA	Innovative Ecological on-site Sanitation System for Water and Resource Savings	IA	5.2.2	85
689450	AquaNES	Demonstrating synergies in combined natural and engineered processes for water treatment systems	IA	5.2.2	86
689341	INTCATCH	Development and application of Novel, Integrated Tools for monitoring and managing Catchments	IA	5.2.2	87
689271	WaterWorks2015	Water Works 2016-2020 in Support of the Water JPI (WaterWorks2015) - Sustainable water use in agriculture, to increase water use efficiency and reduce soil and water pollution	ERA-NET-Cofund	5.2.2	88
689242	INCOVER	Innovative Eco-Technologies for Resource Recovery from Wastewater	IA	5.2.2	89
689150	SIM4NEXUS	Sustainable Integrated Management FOR the NEXUS of water-land-food-energy-climate for a resource-efficient Europe	RIA	5.2.2	90
688989	INTEGROIL	Demonstration of a Decision Support System for a Novel Integrated Solution aimed at Water Reuse in the Oil & Gas Industry	IA	5.2.2	91
688320	MADFORWATER	DevelopMent AnD application of integrated technological and management solutions FOR wasteWATER treatment and efficient reuse in agriculture tailored to the needs of Mediterranean African Countries	RIA	5.2.2	92
642433	PIANO	Policies, Innovation And Networks for enhancing Opportunities for China Europe Water Cooperation	CSA	5.2.2	93
642258	MOSES	Managing crOp water Saving with Enterprise Services	IA	5.2.2	94
642228	SUBSOL	bringing coastal SUBsurface water SOLutions to the market	IA	5.2.2	95
641931	CENTAUR	Cost Effective Neural Technique for Alleviation of Urban Flood Risk	IA	5.2.2	96
641768	REGROUND	Colloidal Iron Oxide Nanoparticles for the REclamation of Toxic Metal Contaminated GROUNDwater Aquifers, Drinking Water Wells, and River Bank Filtrations	IA	5.2.2	97
641739	BINGO	Bringing INnovation to onGOing water management – A better future under climate change	RIA	5.2.2	98
641715	WaterWorks2014	Water Works 2014-2019 in Support of the Water JPI	ERA-NET-Cofund	5.2.2	99

640771	MASLOWATEN	MArket uptake of an innovative irrigation Solution based on LOW WATer-ENergy consumption	IA	5.2.2	100
730497	NAIAD	NAture Insurance value: Assessment and Demonstration	RIA	5.2.3	101
730338	ThinkNature	Development of a multi-stakeholder dialogue platform and Think tank to promote innovation with Nature based solutions	CSA	5.2.3	102
724060	4PRIMA	Partnership for Research and Innovation in the Mediterranean Area	CSA	5.2.3	103
690474	EKLIPSE	Establishing a European Knowledge and Learning Mechanism to Improve the Policy-Science-Society Interface on Biodiversity and Ecosystem Services	CSA	5.2.3	104
689669	MAGIC	Moving Towards Adaptive Governance in Complexity: Informing Nexus Security	RIA	5.2.3	105
689162	AfriAlliance	Africa-EU Innovation Alliance for Water and Climate	CSA	5.2.3	106
642372	INSPIRATION	INtegrated Spatial PlannIng, land use and soil management Research ActTION	CSA	5.2.3	107
642224	FREEWAT	FREE and open source software tools for WATer resource management	CSA	5.2.3	108
642047	KINDRA	Knowledge Inventory for hydrogeology research	CSA	5.2.3	109
642045	BRODISE	BROWNFIELD Decontamination In Southern Europe. Preparing PCP to R+D for efficient, cost effective and innovative solutions for brownfields decontamination	CSA	5.2.3	110
642007	ESMERALDA	Enhancing ecoSysteM sERvices mApping for poLicy and Decision mAking	CSA	5.2.3	111
5.3 Ensuring the sustainable supply of non-energy and non-agricultural raw materials					
776811	MIREU	Mining and Metallurgy Regions of EU	CSA	5.3.1	113
776754	ROSEWOOD	European Network of Regions On SustainablE WOOD mobilisation	CSA	5.3.1	114
776745	COLLECTORS	waste COLLECTiOn systems assessed and good pRacticeS identified	CSA	5.3.1	115
776679	Minland	Mineral resources in sustainable land-use planning	CSA	5.3.1	116
776517	ORAMA	Optimising quality of information in RAw MAterials data collection across Europe	CSA	5.3.1	117
730330	MinFuture	Global material flows and demand-supply forecasting for mineral strategies	CSA	5.3.1	118
730227	SCRREEN	Solutions for CRitical Raw materials - a European Expert Network	CSA	5.3.1	119
689648	MICA	Mineral Intelligence Capacity Analysis	CSA	5.3.1	120
689527	MIN-GUIDE	Minerals Policy Guidance for Europe	CSA	5.3.1	121
642139	MINATURA 2020	Developing a concept for a European minerals deposit framework	CSA	5.3.1	122
642130	INTRAW	International cooperation on Raw materials	CSA	5.3.1	123
641999	ProSUM	Prospecting Secondary raw materials in the Urban mine and Mining waste	CSA	5.3.1	124
778893	PROMETHEUS	Platinum gRoup MEtals saving by monoliTHos Efficient and disrUptive catalySt innovation	SME-2	5.3.2	125
776487	INFACT	Innovative, Non-invasive and Fully Acceptable Exploration Technologies	RIA	5.3.2	126
775971	Smart Exploration	Sustainable mineral resources by utilizing new Exploration technologies	RIA	5.3.2	127
730480	ITERAMS	Integrated mineral technologies for more sustainable raw material supply	RIA	5.3.2	128
730471	CHROMIC	effiCient mineral processing and Hydrometallurgical RecOvery of by-product Metals from low-grade metal contaIning seCondary raw materials	RIA	5.3.2	129
730411	IMPaCT	Integrated Modular Plant and Containerised Tools for Selective, Low-impact Mining of Small High-grade Deposits	RIA	5.3.2	130
730302	SIMS	Sustainable Intelligent Mining Systems	IA	5.3.2	131
730294	SLIM	Sustainable Low Impact Mining solution for exploitation of small mineral deposits based on advanced rock blasting and environmental technologies	RIA	5.3.2	132
730270	X-MINE	Real-Time Mineral X-Ray Analysis for Efficient and Sustainable Mining	IA	5.3.2	133

730238	ERA-MIN 2	Implement a European-wide coordination of research and innovation programs on raw materials to strengthen the industry competitiveness and the shift to a circular economy	ERA-NET-Cofund	5.3.2	134
730224	PLATIRUS	PLATInum group metals Recovery Using Secondary raw materials	RIA	5.3.2	135
730105	SCALE	Production of Scandium compounds and Scandium Aluminum alloys from European metallurgical by- products	RIA	5.3.2	136
690416	ROBUST	Robotic subsea exploration technologies	RIA	5.3.2	137
690088	METGROW PLUS	Metal Recovery from Low Grade Ores and Wastes Plus	RIA	5.3.2	138
690008	UNEXMIN	Autonomous Underwater Explorer for Flooded Mines	RIA	5.3.2	139
689909	HiTech AlkCarb	New geomodels to explore deeper for High-Technology critical raw materials in Alkaline rocks and Carbonatites	RIA	5.3.2	140
689868	SOLSA	Sonic Drilling coupled with Automated Mineralogy and chemistry On-Line-On-Mine-Real-Time	RIA	5.3.2	141
689515	INTMET	Integrated innovative metallurgical system to benefit efficiently polymetallic, complex and low grade ores and concentrates	RIA	5.3.2	142
688975	Blue Nodules	Breakthrough Solutions for the Sustainable Harvesting and Processing of Deep Sea Polymetallic Nodules	RIA	5.3.2	143
642477	VAMOS	¡Viable and Alternative Mine Operating System!	RIA	5.3.2	144
642456	BioMOre	New Mining Concept for Extracting Metals from Deep Ore Deposits using Biotechnology	RIA	5.3.2	145
642201	OptimOre	Increasing yield on Tungsten and Tantalum ore production by means of advanced and flexible control on crushing, milling and separation process	RIA	5.3.2	146
642085	HISER	Holistic Innovative Solutions for an Efficient Recycling and Recovery of Valuable Raw Materials from Complex Construction and Demolition Waste	RIA	5.3.2	147
641989	Real-Time-Mining	Real-time optimization of extraction and the logistic process in highly complex geological and selective mining settings	RIA	5.3.2	148
641747	CloseWEEE	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	RIA	5.3.2	149
641650	FAME	Flexible and Mobile Economic Processing Technologies	RIA	5.3.2	150
689510	EQUINOX	A novel process for manufacturing complex shaped Fe-Al intermetallic parts resistant to extreme environments	RIA	5.3.3	151
689279	Flintstone2020	Next generation of superhard non-CRM materials and solutions in tooling	RIA	5.3.3	152
641927	INFINITY	Indium-Free Transparent Conductive Oxides for Glass and Plastic Substrates	RIA	5.3.3	153
641864	INREP	Towards Indium free TCOs	RIA	5.3.3	154
776642	intermin	INTERNATIONAL NETWORK OF RAW MATERIALS TRAINING CENTRES	CSA	5.3.4	155
730127	FORAM	Towards a World Forum on Raw Materials (FORAM)	CSA	5.3.4	156
690388	VERAM	Vision and Roadmap for European Raw Materials	CSA	5.3.4	157
690182	IMPACTPapeRec	Boosting the implementation of participatory strategies on separate paper collection for efficient recycling	CSA	5.3.4	158
689364	STRADE	Strategic Dialogue on Sustainable Raw Materials for Europe	CSA	5.3.4	159
688993	MSP-REFRAM	Multi-Stakeholder Platform for a Secure Supply of Refractory Metals in Europe	CSA	5.3.4	160
641988	SMART GROUND	SMART data collection and inteGRation platform to enhance availability and accessibility of data and infOrmation in the EU territory on SecoNDary Raw Materials	CSA	5.3.4	161

5.4 Enabling the transition towards a green economy and society through eco-innovation

784480	NATEDE	Nature, Technology and Design	SME-2	5.4.1	162
783848	AMBROSIA	Aquaporin-Inside™ Membranes for Brackish water Reverse Osmosis Application	SME-2	5.4.1	163
783717	soundproof4win	Soundproof window with ventilation function	SME-2	5.4.1	164
783681	eco-soft	Industrial manufacturing of eco-innovative, safe, sustainable functionalised microencapsulated fragrances for fabric softeners	SME-2	5.4.1	165
783638	reNEW	Sustainable cleaning agent and organic fertilizer recovery from sewage sludge	SME-2	5.4.1	166
778742	Propelair	The refinement, miniaturisation and demonstration of an ultra low flush toilet capable of saving 2.8 billion litres of clean, potable water being unnecessarily wasted in Europe every day.	SME-2	5.4.1	167
778065	MUBIC	Mushroom and biogas production in a circular economy	SME-2	5.4.1	168
777780	NUOVOpb	A unique Lead Acid Battery (LAB) recycling technology to reduce CO2 emissions by 89%, reduce waste by 81%, and transform the battery recycling industry	SME-2	5.4.1	169
777770	HOMEBIOGAS	Turning food industry's organic wastw into value	SME-2	5.4.1	170
776838	POSIDON	POlluted SIte DecontaminatiON - PCP	PCP	5.4.1	171
768397	Home of Cool	A novel environment-friendly limited space cooler for high volume food and beverage vending industries.	SME-2	5.4.1	172
767678	BIOO Panel	Green Electricity from plants' photosynthesis	SME-2	5.4.1	173
767333	ALGAMATER	Using microalgae bioreactor technology to deliver the world's most cost-effective, energy-efficient and adaptable system for the treatment of toxic industrial and landfill wastewater	SME-2	5.4.1	174
766649	ECOSHEET-PRO	An Eco-Innovative Alternative to Plywood	SME-2	5.4.1	175
766614	CLEANTECHBLOCK2	Market maturation of CleanTechBlock technology	SME-2	5.4.1	176
756865	ODORPREP	Real time, automatic and remote-activated sampling system for industrial odour emissions compliant with the European Standard EN 13725	SME-2	5.4.1	177
756165	nanoHPcs	Sustainable nanoHVOF and nanoaxialPlasma coating solutions against wear problems of extrusion machines allowing an eco-efficient use of materials and the increase of recycling in the plastics industry	SME-2	5.4.1	178
756083	SMAV	SMAV: Best for the Environment Soda Fountain Smart Valves	SME-2	5.4.1	179
739468	SunAqua18	Sustainable Desalination System	SME-2	5.4.1	180
738808	PAPTIC	PAPTIC – The Good Conscience Alternative	SME-2	5.4.1	181
738759	SMARTSAND	Transforming fly ash waste from coal-fired power plants into lightweight engineered sand for multiple applications	SME-2	5.4.1	182
738719	AIRLITE	INNOVATIVE FUNCTIONAL PAINT FOR AIR PURIFICATION	SME-2	5.4.1	183
734039	CO2Catalyst	Pilot scale demonstration of novel CO2 co-polymerisation catalysts in the PU polyol market	SME-2	5.4.1	184
733676	REW-TYRES	Innovative and compact process for recycling rubber suitable to improve the environmental footprint of the tyre industry over the life-cycle	SME-2	5.4.1	185
733487	INTERCOME	INTERnational COmmercialization of innovative products based on MicroalgaE	SME-2	5.4.1	186
730456	ECOBULK	Circular Process for Eco-Designed Bulky Products and Internal Car Parts	IA	5.4.1	187
730423	CIRC-PACK	Towards circular economy in the plastic packaging value chain	IA	5.4.1	188

730400	SYSTEMIC	Systemic large scale eco-innovation to advance circular economy and mineral recovery from organic waste in Europe	IA	5.4.1	189
730398	Water2REturn	REcovery and REcycling of nutrients TURNing wasteWATER into added-value products for a circular economy in agriculture	IA	5.4.1	190
730390	ZERO BRINE	Re-designing the value and supply chain of water and minerals: a circular economy approach for the recovery of resources from saline impaired effluent (brine) generated by process industries	IA	5.4.1	191
730323	FiberEUse	Large scale demonstration of new circular economy value-chains based on the reuse of end-of-life fiber reinforced composites.	IA	5.4.1	192
730308	PolyCE	Post-Consumer High-tech Recycled Polymers for a Circular Economy – PolyCE	IA	5.4.1	193
730305	PAPERCHAIN	New market niches for the Pulp and Paper Industry waste based on circular economy approaches	IA	5.4.1	194
730292	PlastiCircle	Improvement of the plastic packaging waste chain from a circular economy approach	IA	5.4.1	195
730285	RUN4LIFE	RECOVERY AND UTILIZATION OF NUTRIENTS 4 LOW IMPACT FERTILIZER	IA	5.4.1	196
726618	ARENA	The first on-site mobile solution for complete synthetic grass recycling and materials reuse	SME-2	5.4.1	197
724586	PHOSave	Innovative solution for phosphate recovery from exhausted extinguishing powders	SME-2	5.4.1	198
719201	CleanOil	Global business challenge: Breaking the oilgas water dependency with a cost-effective no-waste nanomembrane technology for water reuse	SME-2	5.4.1	199
719098	SEEGLASS	Glass Recovering Revolution: High performance Optical Sorter for glass collection from Waste	SME-2	5.4.1	200
718212	Lt-AD	Low-temperature Anaerobic Digestion treatment of low-strength wastewaters	SME-2	5.4.1	201
711540	InnoPellet	Self-supporting biofuel sludge pellet producing system for small and medium sized sewage plants	SME-2	5.4.1	202
711501	WATIFY	Up-scaling, demonstration and first market application of Hydrokemos' patented technology as the most eco-efficient and cost-effective solution for nitrate polluted water treatment	SME-2	5.4.1	203
698688	WATLY	An autonomous and mobile water treatment plant powered by solar energy	SME-2	5.4.1	204
697958	WHEY2VALUE	Whey2Value: Valorising waste whey into high-value products	SME-2	5.4.1	205
697234	LEFAPO	Lead free automotive SLI power	SME-2	5.4.1	206
690103	URBANREC	New approaches for the valorisation of URBAN bulky waste into high added value RECycled products	IA	5.4.1	207
689925	SafeWaterAfrica	Self-Sustaining Cleaning Technology for Safe Water Supply and Management in Rural African Areas	RIA	5.4.1	208
689785	SALTGAE	Demonstration project to prove the techno-economic feasibility of using algae to treat saline wastewater from the food industry.	IA	5.4.1	209
689427	VicInAqua	Integrated aquaculture based on sustainable water recirculating system for the Victoria Lake Basin (VicInAqua)	RIA	5.4.1	210
689239	WADI	WADI	IA	5.4.1	211
689229	DECISIVE	A DECentrallzed management Scheme for Innovative Valorization of urban biowastE	IA	5.4.1	212
689157	FORCE	Cities Cooperating for Circular Economy	IA	5.4.1	213
688995	Waste4Think	Moving towards Life Cycle Thinking by integrating Advanced Waste Management Systems	IA	5.4.1	214
688928	WATERSPOUTT	Water - Sustainable Point-Of-Use Treatment Technologies	RIA	5.4.1	215
685074	IRON	High sensitivity multi-gas handheld gas analysis technology	SME-2	5.4.1	216

684516	CHeaP	Cost-effective Combined Heat and Power generator for camping vans	SME-2	5.4.1	217
684143	HTC4WASTE	Up-scaling, demonstration and first market application of Loritus' patented hydrothermal carbonisation as an eco-efficient and cost-effective organic waste processing technology	SME-2	5.4.1	218
674683	AluSalt	Efficient Aluminium Salt cake Recycling Technology	SME-2	5.4.1	219
673771	DEPURGAN	Swine-farm revolution	SME-2	5.4.1	220
673690	Robolution	Robotic Recycling Revolution	SME-2	5.4.1	221
673663	CLIPP PLUS	Manufacture and commercialization of high quality recycled polyolefin films using an innovative continuous extrusion recycling process assisted by sc-CO2 for printed plastic waste	SME-2	5.4.1	222
673662	OX-SIHA	INTEGRAL WATER SANITATION SYSTEM	SME-2	5.4.1	223
673526	BLOSTER	Innovative biopesticides production: valorisation of endemic plants and green industrial residues	SME-2	5.4.1	224
672550	iPURXL	iPURXL: Scale-Up of Liquid Nano-reactor for the Destruction of Contaminants in Turbid Fluids	SME-2	5.4.1	225
672309	ULTRAWINE	Eco-innovative maceration system based on LFHP ULTRAsound technology for WINEmaking	SME-2	5.4.1	226
666726	ScalinGreen	Innovative solutions to scale-up urban green surfaces across Europe	SME-2	5.4.1	227
666427	ADD-ON	A demonstration plant of enhanced biogas production with Add-On technology	SME-2	5.4.1	228
666425	ECO-SILENTWOOD	Cost competitive eco-friendly and acoustic wooden doors for indoor applications	SME-2	5.4.1	229
666206	WINTHERWAX	WINdow based on THERmally modified wood with high performance WAX coating	SME-2	5.4.1	230
642494	ECWRTI	ECOLORO: Reuse of Waste Water from the Textile Industry	IA	5.4.1	231
642384	BAMB	Buildings as Material Banks: Integrating Materials Passports with Reversible Building Design to Optimise Circular Industrial Value Chains	IA	5.4.1	232
642356	CYTO-WATER	Integrated and portable image cytometer for rapid response to Legionella and Escherichia coli in industrial and environmental waters	IA	5.4.1	233
642231	New_Innonet	NEW_InnoNet: The Near-zero European Waste Innovation Network	CSA	5.4.1	234
642190	iMETland	iMETland: A new generation of Microbial Electrochemical Wetland for effective decentralized wastewater treatment	IA	5.4.1	235
642154	FISSAC	FOSTERING INDUSTRIAL SYMBIOSIS FOR A SUSTAINABLE RESOURCE INTENSIVE INDUSTRY ACROSS THE EXTENDED CONSTRUCTION VALUE CHAIN	IA	5.4.1	236
642067	RESLAG	Turning waste from steel industry into a valuable low cost feedstock for energy intensive industry	IA	5.4.1	237
641998	REMEB	ECO-FRIENDLY CERAMIC MEMBRANE BIOREACTOR (MBR) BASED ON RECYCLED AGRICULTURAL AND INDUSTRIAL WASTES FOR WASTE WATER REUSE	IA	5.4.1	238
641972	CABRISS	Implementation of a CirculAr economy Based on Recycled, reused and recovered Indium, Silicon and Silver materials for photovoltaic and other applications	IA	5.4.1	239
641942	RESYNTEX	A new circular economy concept: from textile waste towards chemical and textile industries feedstock	IA	5.4.1	240
641702	Eco-UV	Low carbon footprint and eco-innovative UV water disinfection	IA	5.4.1	241
641661	POWERSTEP	Full scale demonstration of energy positive sewage treatment plant concepts towards market penetration	IA	5.4.1	242
730378	R2PI	TRANSITION FROM LINEAR 2 CIRCULAR: POLICY AND INNOVATION	RIA	5.4.2	243
730313	SCREEN	Synergic Circular Economy across European Regions	CSA	5.4.2	244

690452	UrBAN-WASTE	Urban strategies for Waste Management in Tourist Cities	RIA	5.4.2	245
690047	Urban_Wins	Urban metabolism accounts for building Waste management Innovative Networks and Strategies	RIA	5.4.2	246
688920	REPAiR	REPAiR - REsource Management in Peri-urban AReas: Going Beyond Urban Metabolism	RIA	5.4.2	247
642451	PPI4Waste	Promotion of Public Procurement of Innovation for Resource Efficiency and Waste Treatment	CSA	5.4.2	248
730316	CIRCULAR IMPACTS	Measuring the IMPACTS of the transition to the CIRCULAR economy	CSA	5.4.3	249
641974	green.eu	European Global Transition Network on Eco-Innovation, Green Economy and Sustainable Development	CSA	5.4.3	250
783944	PREDISMART	AN INTELLIGENT PREDICTION SYSTEM FOR THE SMART EFFICIENT USE OF RESOURCES IN CITIES	SME-2	5.4.4	251
778501	Plume Air Cloud	Plume Air Cloud – Air Quality Data Crowdsourcing Platform for Environmentally-friendly Cities	SME-2	5.4.4	252
756841	RUBSEE	Extending artificial intelligence revolution in the waste field beyond sorting	SME-2	5.4.4	253
673581	SOMAPI	Swap.com On-line department store for Massive Amount of Pre-owned Items	SME-2	5.4.4	254
642423	WIDEST	Water Innovation through Dissemination Exploitation of Smart Technologies	CSA	5.4.4	255
642354	BlueSCities	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	CSA	5.4.4	256
641821	WATERINNEU	Applying European market leadership to river basin networks and spreading of innovation on water ICT models, tools and data	CSA	5.4.4	257
641660	EWIT	EWIT: Developing an e-waste implementation toolkit to support the recycling and the secondary raw material recovery strategies in metropolitan areas in Africa	CSA	5.4.4	258
5.5 Developing comprehensive and sustained global environmental observation and information systems					
776825	MELOA	Multi-purpose/Multi-sensor Extra Light Oceanography Apparatus	RIA	5.5.0	259
776740	WeObserve	An Ecosystem of Citizen Observatories for Environmental Monitoring	CSA	5.5.0	260
776691	TWIGA	Transforming Weather Water data into value-added Information services for sustainable Growth in Africa	RIA	5.5.0	261
776480	MONOCLE	Multiscale Observation Networks for Optical monitoring of Coastal waters, Lakes and Estuaries	RIA	5.5.0	262
775983	HYPERNETS	A new hyperspectral radiometer integrated in automated networks of water and land bidirectional reflectance measurements for satellite validation	RIA	5.5.0	263
774652	AfriCultuReS	Enhancing Food Security in AFRIcan AgriCULTUral Systems with the Support of REmote Sensing	RIA	5.5.0	264
730329	NextGEOSS	Next Generation GEOSS for Innovation Business	RIA	5.5.0	265
727890	INTAROS	Integrated Arctic observation system	RIA	5.5.0	266
690199	GROW	GROW Observatory	IA	5.5.0	268
690133	GEO-CRADLE	Coordinating and integRating state-of-the-art Earth Observation Activities in the regions of North Africa, Middle East, and Balkans and Developing Links with GEO related initiatives towards GEOSS	CSA	5.5.0	269
689812	LANDSENSE	A Citizen Observatory and Innovation Marketplace for Land Use and Land Cover Monitoring	IA	5.5.0	270
689744	Ground Truth 2.0	Ground Truth 2.0 - Environmental knowledge discovery of human sensed data	IA	5.5.0	271

689443	ERA-PLANET	The European network for observing our changing planet	ERA-NET-Cofund	5.5.0	272
688930	SCENT	Smart Toolbox for Engaging Citizens into a People-Centric Observation Web	IA	5.5.0	274
642088	SWOS	Satellite-based Wetland Observation Service	RIA	5.5.0	275
641762	ECOPOTENTIAL	ECOPOTENTIAL: IMPROVING FUTURE ECOSYSTEM BENEFITS THROUGH EARTH OBSERVATIONS	RIA	5.5.0	276
641538	ConnectinGEO	Coordinating an Observation Network of Networks EnCompassing saTellite and IN-situ to fill the Gaps in European Observations	CSA	5.5.0	278
633211	AtlantOS	Optimizing and Enhancing the Integrated Atlantic Ocean Observing System	RIA	5.5.0	279
5.6 Cultural heritage					
776758	CLIC	CLIC - Circular models Leveraging Investments in Cultural heritage adaptive reuse	RIA	5.6.1	281
700395	HERACLES	HEritage Resilience Against CLimate Events on Site	RIA	5.6.1	282
700191	STORM	Safeguarding Cultural Heritage through Technical and Organisational Resources Management	RIA	5.6.1	283
637268	RIBuild	Robust Internal Thermal Insulation of Historic Buildings	RIA	5.6.1	284
730280	ROCK	Regeneration and Optimisation of Cultural heritage in creative and Knowledge cities	IA	5.6.2	285
5.7 Specific implementation aspects: Climate action, environment, resource efficiency and raw materials					
769003	NBS2017	Nature-based Solutions: From Innovation to Common-use	CSA	5.7.0	287
731166	GeoERA	Establishing the European Geological Surveys Research Area to deliver a Geological Service for Europe	ERA-NET-Cofund	5.7.0	288
730211	T2S	Transformations to Sustainability	ERA-NET-Cofund	5.7.0	290
724052	T2gE	Transition to the Green Economy	CSA	5.7.0	291
642025	NCPs CaRE	National Contact Points for Climate action, Raw materials, Environment and Resource Efficiency	CSA	5.7.0	292

Call: H2020-SC5-2017-OneStageB **Type of Action:** RIA

Title: Observation-based system for monitoring and verification of greenhouse gases

Project total costs: 10,229,340 € **Project EU contribution:** 9,998,965 € **Duration (months):** 48

Abstract:

As the negative impacts of rising global temperatures become increasingly evident, national governments, regional authorities and private stakeholders are enhancing efforts to curve down the emissions the greenhouse gases (GHG) responsible for global warming. Measuring the effectiveness of GHG emission reduction policies against agreed-upon international targets require accurate and precise estimates of emissions and their trends. These estimates need to be established and regularly updated using transparent methods, tracable to international standards. VERIFY proposes to quantify more accurately carbon stocks and the fluxes of carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O) across the EU based on independent observations in support of inventories that rely only on statistical data. The same approach will also be tested for US, China and Indonesia, in collaboration with foreign partnes. Accurate characterization of the space-time variations of GHG fluxes, separating their anthropogenic and natural components and their drivers, will be based on advanced modelling approaches using atmospheric GHG measurements, tracer transport inversions and various arrays of land observations, in-situ and from space. The improved knowledge of GHG budgets from VERIFY will be used to improve national inventories, in collaboration with national inventory agencies, and to deliver policy-relevant information to track progress of the EU mitigation efforts to meet the targets of the Paris Agreement on Climate, in line with international cooperation mechanisms promoted by the WMO, the IPCC and the UNFCCC.

Partners:

Nr	Participant	Country
1	COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	FR
2	JRC -JOINT RESEARCH CENTRE- EUROPEAN COMMISSION	BE
3	MAX-PLANCK-GESELLSCHAFT ZUR FORDERUNG DER WISSENSCHAFTEN EV	DE
4	NORSK INSTITUTT FOR LUFTFORSKNING STIFTELSE	NO
5	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK TNO	NL
6	KARLSRUHER INSTITUT FUER TECHNOLOGIE	DE
7	FONDAZIONE CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI	IT
8	INTERNATIONALES INSTITUT FUER ANGEWANDTE SYSTEMANALYSE	AT
9	EIDGENOSSISCHE MATERIALPRUFUNGS- UND FORSCHUNGSANSTALT	CH
10	INTEGRATED CARBON OBSERVATION SYSTEM EUROPEAN RESEARCH INFRASTRUCTURE CONSORTIUM	FI
11	CICERO SENTER KLIMAFORSKNING STIFTELSE	NO
12	EUROPEAN CENTRE FOR MEDIUM-RANGE WEATHER FORECASTS	UK
13	ILMATIETEEN LAITOS	FI
14	STICHTING WAGENINGEN RESEARCH	NL
15	UNIVERSITAET BREMEN	DE
16	UNIVERSITY OF EAST ANGLIA	UK
17	RUPRECHT-KARLS-UNIVERSITAET HEIDELBERG	DE
18	STICHTING VU	NL
19	THE UNIVERSITY OF EDINBURGH	UK
20	LUNDS UNIVERSITET	SE
21	THE UNIVERSITY COURT OF THE UNIVERSITY OF ABERDEEN	UK
22	UNIVERSITETET I BERGEN	NO
23	WAGENINGEN UNIVERSITY	NL
24	UNIVERSITE LIBRE DE BRUXELLES	BE
25	UNIVERSITY OF BRISTOL	UK
26	ISTANBUL UNIVERSITESI	TR
27	ARTTIC	FR
28	CITEPA	FR
29	ENVIRONMENTAL PROTECTION AGENCY OF IRELAND	IE
30	Istituto Superiore per la Protezione e la Ricerca Ambientale	IT
31	NIBIO - NORSK INSTITUTT FOR BIOOKONOMI	NO
32	UMWELTBUNDESAMT	DE
33	RIJKSINSTITUUT VOOR VOLKSGEZONDHEID EN MILIEU	NL
34	UMWELTBUNDESAMT GESELLSCHAFT MIT BESCHRANKER HAFTHUNG (UBA GMBH)	AT

35	CLIMATE KIC	FR
36	ORGANISATION METEOROLOGIQUE MONDIALE	CH
37	SAINT PETERSBURG STATE UNIVERSITY	RU
38	FEDERAL STATE AUTONOMOUS EDUCATIONAL INSTITUTION OF HIGHER PROFESSIONAL EDUCATION "URAL FEDERAL UNIVERSITY NAMED AFTER THE FIRST PRESIDENT OF RUSSIA B.N.YELTSIN"	RU

Sub-activity: 5.1.1 **EUCP** **776613**

Call: H2020-SC5-2017-OneStageB **Type of Action:** RIA

Title: European Climate Prediction system

Project total costs:	12,999,515 €	**Project EU contribution:**	12,999,515 €	**Duration (months):**	48

Abstract:

The European Climate Prediction system project (EUCP) has four objectives, all directly relevant to the work programme, and fully meet the challenge, scope and impact of the work programme.1. Develop an innovative ensemble climate prediction system based on high-resolution climate models for Europe for the near-term (~1-40years), including improved methods used to characterise uncertainty in climate predictions, regional downscaling, and evaluation against observations. 2. Use the climate prediction system to produce consistent, authoritative and actionable climate information. This information will be co-designed with users to constitute a robust foundation for Europe-wide climate service activities to support climate-related risk assessments and climate change adaptation programmes.3. Demonstrate the value of this climate prediction system through high impact extreme weather events in the near past and near future drawing on convection permitting regional climate models translated into risk information for, and with, targeted end users. 4. Develop, and publish, methodologies, good practice and guidance for producing and using authoritative climate predictions for 1-40year timescale.The system (objective1) will combine initialised climate predictions on the multi-annual timescale with longer-term climate projections and high resolution regional downscaling, using observations for evaluation. Methodologies will be developed to characterise uncertainty and to seamlessly blend the predictions and projections. Users will be engaged through active user groups. The system will be utilised (objective2) with users to co-produce information suitable for European climate service activities. A set of demonstrators will show the value of this information in real-world applications with user involvement (objective3). Key outputs will include disseminating and publishing the project's methodologies, and user-relevant data and knowledge (objective4).

Partners:

Nr	Participant	Country
1	MET OFFICE	UK
2	BARCELONA SUPERCOMPUTING CENTER - CENTRO NACIONAL DE SUPERCOMPUTACION	ES
3	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
4	STICHTING DELTARES	NL
5	DANMARKS METEOROLOGISKE INSTITUT	DK
6	EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH	CH
7	HELMHOLTZ-ZENTRUM GEESTHACHT ZENTRUM FUR MATERIAL- UND KUSTENFORSCHUNG GMBH	DE
8	FONDAZIONE CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI	IT
9	UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION -UNESCO	FR
10	INTERNATIONALES INSTITUT FUER ANGEWANDTE SYSTEMANALYSE	AT
11	KONINKLIJK NEDERLANDS METEOROLOGISCH INSTITUUT-KNMI	NL
12	SVERIGES METEOROLOGISKA OCH HYDROLOGISKA INSTITUT	SE
13	THE UNIVERSITY OF EDINBURGH	UK
14	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD	UK
15	KOBENHAVNS UNIVERSITET	DK
16	STICHTING NETHERLANDS ESCIENCE CENTER	NL

Sub-activity: 5.1.1

BE-OI

730258

Call: H2020-SC5-2016-OneStageB

Type of Action: CSA

Title: Beyond EPICA - Oldest Ice

Project total costs:	2,594,000 €	**Project EU contribution:**	2,223,000 €	**Duration (months):**	36

Abstract:

To better constrain the response of Earth's climate system to continuing emissions, it is essential to turn to the past. A key advance would be to understand the transition in Earth's climate response to changes in orbital forcing during the 'mid-Pleistocene transition' (900 to 1200 thousand years ago) and in particular the role of greenhouse gases. Unravelling such key linkages between the carbon cycle, ice sheets, atmosphere and ocean behaviour is vital for society to better design effective mitigation and adaptation strategies. Only ice cores contain the unique and quantitative information about past climate forcing and atmospheric responses. But the ice providing essential evidence about past mechanisms of climate change more than 1 Ma ago required for our understanding of these changes (termed the "Oldest Ice" core), has not been found to date.The consortium BEYOND EPICA – OLDEST ICE (BE-OI), formed by 14 European institutions, takes on this challenge to prepare the ground for obtaining 1.5 million year old ice from East Antarctica. BE-OI has the objectives to:- support the site selection through creation and synthesis of all necessary information on Antarctic sites through specific geophysical surveys and the use of fast drilling tools to qualify sites and validate the age of their ice;- select and evaluate the optimum drill site for the future "Oldest Ice" core project and establish a science and management plan for a future drilling;- coordinate the technical and scientific planning to ensure the availability of the technical means to implement suitable drill systems and analytical methodologies for a future ice-core drilling, and of well-trained personnel to operate them successfully;- establish the budget and the financial background for a future deep-drilling campaign;- embed the scientific aims of an "Oldest Ice" core project within the wider paleoclimate data and modelling communities through international and cross-disciplinary cooperation.

Partners:

Nr	Participant	Country
1	ALFRED-WEGENER-INSTITUT HELMHOLTZ-ZENTRUM FUR POALR- UND MEERESFORSCHUNG	DE
2	INSTITUT POLAIRE FRANCAIS PAUL EMILE VICTOR	FR
3	AGENZIA NAZIONALE PER LE NUOVE TECNOLOGIE, L'ENERGIA E LO SVILUPPO ECONOMICO SOSTENIBILE	IT
4	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
5	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
6	UNIVERSITEIT UTRECHT	NL
7	NORSK POLARINSTITUTT	NO
8	STOCKHOLMS UNIVERSITET	SE
9	UNIVERSITAT BERN	CH
10	ALMA MATER STUDIORUM - UNIVERSITA DI BOLOGNA	IT
11	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF CAMBRIDGE	UK
12	KOBENHAVNS UNIVERSITET	DK
13	UNIVERSITE LIBRE DE BRUXELLES	BE
14	LUNDS UNIVERSITET	SE

Sub-activity: 5.1.1

APPLICATE

727862

Call: H2020-BG-2016-1 **Type of Action:** RIA

Title: Advanced Prediction in Polar regions and beyond: Modelling, observing system design and LInkages associated with ArctiC ClimATE change

Project total costs:	8,715,066 €	**Project EU contribution:**	7,999,591 €	**Duration (months):**	48

Abstract:

Arctic climate change increases the need of a growing number of stakeholders for trustworthy weather and climate predictions, both within the Arctic and beyond. APPLICATE will address this challenge and develop enhanced predictive capacity by bringing together scientists from academia, research institutions and operational prediction centres, including experts in weather and climate prediction and forecast dissemination. APPLICATE will develop a comprehensive framework for observationally constraining and assessing weather and climate models using advanced metrics and diagnostics. This framework will be used to establish the performance of existing models and measure the progress made within the project. APPLICATE will make significant model improvements, focusing on aspects that are known to play pivotal roles in both weather and climate prediction, namely: the atmospheric boundary layer including clouds; sea ice; snow; atmosphere-sea ice-ocean coupling; and oceanic transports. In addition to model developments, APPLICATE will enhance predictive capacity by contributing to the design of the future Arctic observing system and through improved forecast initialization techniques. The impact of Arctic climate change on the weather and climate of the Northern Hemisphere through atmospheric and oceanic linkages will be determined by a comprehensive set of novel multi-model numerical experiments using both coupled and uncoupled ocean and atmosphere models. APPLICATE will develop strong user-engagement and dissemination activities, including pro-active engagement of end-users and the exploitation of modern methods for communication and dissemination. Knowledge-transfer will also benefit from the direct engagement of operational prediction centres in APPLICATE. The educational component of APPLICATE will be developed and implemented in collaboration with the Association of Early Career Polar Scientists (APECS).

Partners:

Nr	Participant	Country
1	ALFRED-WEGENER-INSTITUT HELMHOLTZ-ZENTRUM FUR POALR- UND MEERESFORSCHUNG	DE
2	BARCELONA SUPERCOMPUTING CENTER - CENTRO NACIONAL DE SUPERCOMPUTACION	ES
3	EUROPEAN CENTRE FOR MEDIUM-RANGE WEATHER FORECASTS	UK
4	UNIVERSITETET I BERGEN	NO
5	UNI RESEARCH AS	NO
6	METEOROLOGISK INSTITUTT	NO
7	MET OFFICE	UK
8	UNIVERSITE CATHOLIQUE DE LOUVAIN	BE
9	THE UNIVERSITY OF READING	UK
10	STOCKHOLMS UNIVERSITET	SE
11	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
12	CENTRE EUROPEEN DE RECHERCHE ET DE FORMATION AVANCEE EN CALCUL SCIENTIFIQUE	FR
13	NORDURSLODAGATTIN EHF	IS
14	UNIVERSITETET I TROMSOE	NO
15	P.P. SHIRSHOV INSTITUTE OF OCEANOLOGY OF RUSSIAN ACADEMY OF SCIENCES	RU
16	THE FEDERAL STATE BUDGETARY INSTITUTION VOEIKOV MAIN GEOPHYSICAL OBSERVATORY	RU

Call: H2020-BG-2016-1 **Type of Action:** RIA

Title: Arctic Impact on Weather and Climate

Project total costs: 8,103,125 € **Project EU contribution:** 7,500,000 € **Duration (months):** 51

Abstract:

Blue-Action will provide fundamental and empirically-grounded, executable science that quantifies and explains the role of a changing Arctic in increasing predictive capability of weather and climate of the Northern Hemisphere.To achieve this Blue-Action will take a transdisciplinary approach, bridging scientific understanding within Arctic climate, weather and risk management research, with key stakeholder knowledge of the impacts of climatic weather extremes and hazardous events; leading to the co-design of better services.This bridge will build on innovative statistical and dynamical approaches to predict weather and climate extremes. In dialogue with users, Blue-Arctic will take stock in existing knowledge about cross-sectoral impacts and vulnerabilities with respect to the occurrence of these events when associated to weather and climate predictions. Modeling and prediction capabilities will be enhanced by targeting firstly, lower latitude oceanic and atmospheric drivers of regional Arctic changes and secondly, Arctic impacts on Northern Hemisphere climate and weather extremes. Coordinated multi-model experiments will be key to test new higher resolution model configurations, innovative methods to reduce forecast error, and advanced methods to improve uptake of new Earth observations assets are planned.Blue-Action thereby demonstrates how such an uptake may assist in creating better optimized observation system for various modelling applications. The improved robust and reliable forecasting can help meteorological and climate services to better deliver tailored predictions and advice, including sub-seasonal to seasonal time scales, will take Arctic climate prediction beyond seasons and to teleconnections over the Northern Hemisphere. Blue-Action will through its concerted efforts therefore contribute to the improvement of climate models to represent Arctic warming realistically and address its impact on regional and global atmospheric and oceanic circulation.

Partners:

Nr	Participant	Country
1	DANMARKS METEOROLOGISKE INSTITUT	DK
2	LAPIN YLIOPISTO	FI
3	CAMARA MUNICIPAL DE ALMADA	PT
4	FONDAZIONE CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI	IT
5	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
6	YONSEI UNIVERSITY	KR
7	DNV GL AS	NO
8	DANMARKS PELAGISKE PRODUCENTORGANISATION FORENING	DK
9	DANMARKS TEKNISKE UNIVERSITET	DK
10	FORESIGHT INTELLIGENCE GBR	DE
11	HELMHOLTZ ZENTRUM FUR OZEANFORSCHUNG KIEL	DE
12	HAVSTOVAN	FO
13	INSTITUTE OF ATMOSPHERIC PHYSICS OFCHINESE ACADEMY OF SCIENCES	CN
14	ORGANIZATION OF THE RUSSIAN ACADEMYOF SCIENCES A.M. OBUKHOV INSTITUTEOF ATMOSPHERIC PHYSICS RAS	RU
15	INSTITUTE FOR ADVANCED SUSTAINABILITY STUDIES EV	DE
17	FEDERAL STATE BUDGETARY INSTITUTION - INSTITUTE OF WORLD ECONOMY AND INTERNATIONAL RELATIONS OF THE RUSSIAN ACADEMY OF SCIENCES	RU
18	KONSORTIUM DEUTSCHE MEERESFORSCHUNG e.V.	DE
19	MEOPAR INCORPORATED	CA
20	MERCATOR OCEAN	FR
21	MAX-PLANCK-GESELLSCHAFT ZUR FORDERUNG DER WISSENSCHAFTEN EV	DE
22	HAFRANNSOKNASTOFNUNIN	IS
23	MARINE SCOTLAND	UK
24	UNIVERSITY CORPORATION FOR ATMOSPHERIC RESEARCH NONPROFIT CORPORATION	US
25	STIFTELSEN NANSEN SENTER FOR MILJOOG FJERNMALING	NO
26	STICHTING NIOZ, KONINKLIJK NEDERLANDS INSTITUUT VOOR ONDERZOEK DER ZEE	NL
27	STICHTING NETHERLANDS ESCIENCE CENTER	NL
28	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
29	PELAGIC FREEZER TRAWLER ASSOCIATION	NL
30	RUKAKESKUS OY	FI
31	THE SCOTTISH ASSOCIATION FOR MARINESCIENCE LBG	UK

32	SAMS RESEARCH SERVICES LIMITED	UK
33	UNIVERSITAET HAMBURG	DE
34	UNIVERSITETET I BERGEN	NO
35	UNI RESEARCH AS	NO
36	UNIVERSITY OF SOUTHAMPTON	UK
37	UNIVERSITY OF WASHINGTON	US
38	THE UNIVERSITY OF READING	UK
39	WOODS HOLE OCEANOGRAPHIC INSTITUTION	US
40	WOC - WORLD OCEAN LIMITED	UK
41	FUNDACION PRIVADA INSTITUTO DE SALUD GLOBAL BARCELONA	ES
42	CLIMATE-KIC APS	DK

Sub-activity: 5.1.1

Climateurope

689029

Call: H2020-SC5-2015-one-stage

Type of Action: CSA

Title: European Climate Observations, Modelling and Services - 2

Project total costs:	3,052,435 €	**Project EU contribution:**	2,994,373 €	**Duration (months):**	60

Abstract:

The Climateurope Action will coordinate and support Europe's knowledge base to enable better management of climate-related risks and opportunities thereby creating greater social and economic value. Climateurope has four main objectives:1. Develop a European framework for Earth-system modelling and climate service activities. The framework will be built around a managed network of European, national and international activities and organisations. Such a network does not yet exist but is becoming increasingly necessary.2. Coordinate and integrate European climate modelling, climate observations and climate service infrastructure initiatives (including JPI-Climate, Climate-KIC, Copernicus C3S) and facilitate dialogue among the relevant stakeholders, including climate science communities, funding bodies, providers and users. This will improve synergies, reduce fragmentation and promote alignment between activities. The user communities will include public sector, businesses, industry and society.3. Establish multi-disciplinary expert groups to assess the state-of-the-art in Earth-system modelling and climate services in Europe; and identify existing gaps, new challenges and emerging needs.4. Enhance communication and dissemination activities with stakeholders, in particular through events to bring the network together and showcase progress; stakeholder-oriented reports on the state-of-the-art in Earth-system modelling and climate services in Europe; operating a website; and undertaking additional stakeholder interactions to increase awareness and maximise project impacts.This CSA will deliver a range of highly beneficial impacts. Two key impacts are (i) to greatly enhance the transfer of information between suppliers and users to improve the resilience of European society to climate change and mitigation of the risk of dangerous climate change; and (ii) to improve coordination to increase efficiency, reduce fragmentation and create synergies with international R&I programmes.

Partners:

Nr	Participant	Country
1	MET OFFICE	UK
2	AGENCE NATIONALE DE LA RECHERCHE	FR
3	BARCELONA SUPERCOMPUTING CENTER - CENTRO NACIONAL DE SUPERCOMPUTACION	ES
4	FONDAZIONE CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI	IT
5	IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY AND MEDICINE	UK
6	EUROPEAN CENTRE FOR MEDIUM-RANGE WEATHER FORECASTS	UK
7	HELMHOLTZ-ZENTRUM GEESTHACHT ZENTRUM FUR MATERIAL- UND KUSTENFORSCHUNG GMBH	DE
8	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
9	KONINKLIJK NEDERLANDS METEOROLOGISCH INSTITUUT-KNMI	NL
10	REPUBLICKI HIDROMETEOROLOSKI ZAVODSRBIJE	RS
11	SVERIGES METEOROLOGISKA OCH HYDROLOGISKA INSTITUT	SE

Sub-activity: 5.1.1 **CRESCENDO** **641816**

Call: H2020-SC5-2014-two-stage **Type of Action:** RIA

Title: Coordinated Research in Earth Systems and Climate: Experiments, kNowledge, Dissemination and Outreach

Project total costs: 15,003,511 € **Project EU contribution:** 14,338,876 € **Duration (months):** 60

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 CNRS	FR
3	MAX-PLANCK-GESELLSCHAFT ZUR FORDERUNG DER WISSENSCHAFTEN EV	DE
4	FONDAZIONE CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI	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 SOSTENIBILE	IT
13	METEO-FRANCE	FR
14	UNIVERSITY OF EAST ANGLIA	UK
15	UNIVERSITAET HAMBURG	DE
16	EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH	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
25	LUDWIG-MAXIMILIANS-UNIVERSITAET MUENCHEN	DE

Call: H2020-SC5-2014-two-stage **Type of Action:** RIA

Title: PRocess-based climate sIMulation: AdVances in high resolution modelling and European climate Risk Assessment

Project total costs: 14,967,970 € **Project EU contribution:** 14,967,970 € **Duration (months):** 48

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 FORDERUNG DER WISSENSCHAFTEN EV	DE
7	UNIVERSITE CATHOLIQUE DE LOUVAIN	BE
8	BARCELONA SUPERCOMPUTING CENTER - CENTRO NACIONAL DE SUPERCOMPUTACION	ES
9	FONDAZIONE CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI	IT
10	ALFRED-WEGENER-INSTITUT HELMHOLTZ-ZENTRUM FUR POALR- 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
20	ADMINISTRATIA NATIONALA DE METEOROLOGIE R.A.	RO

Sub-activity: 5.1.2

SECLI-FIRM

776868

Call: H2020-SC5-2017-OneStageB **Type of Action:** RIA

Title: The Added Value of Seasonal Climate Forecasts for Integrated Risk Management Decisions

Project total costs:	4,638,500 €	**Project EU contribution:**	4,638,500 €	**Duration (months):**	42

Abstract:

The central objective of SECLI-FIRM is to demonstrate how the use of improved climate forecasts, out to several months ahead, can add practical and economic value to decision-making processes and outcomes, primarily in the energy sector, but also in the water sector. Specifically for the energy sector, SECLI-CLIM will assess the impact on operational planning and portfolio management, such as hedging and asset optimization, thus enabling quantification of the value-add provided by seasonal forecasts which have been calibrated, evaluated and tailored for each specific application. Improvements in management decisions will ultimately lead to an improved supply-demand balance and therefore to a more efficient energy system, particularly with respect to renewable energy, with corresponding benefits for climate change mitigation. A simple, but effective, methodology will be used to assess value added. A control case will only utilise climatological conditions based on historical averaged values – currently the most common approach – while a test case will also consider individually optimised and tailored state-of-the-art probabilistic seasonal forecasts. This will be done for nine case studies for Europe and South America: recent seasons with anomalous/extreme climate conditions leading to problematic and quantifiable impacts for the energy and/or water industry. Crucially for success, the case studies will be co-designed by industrial and research partners.These case studies will provide the basis for developing pilot climate services for a number of specific applications, allowing evaluation of the added value of near real-time information for decision making. Thus SECLI-FIRM will promote research advances in the optimisation of seasonal forecasts for specific applications (e.g. by evaluating both local processes and large-scale teleconnections), as well as promoting the uptake of seasonal forecasts by industry and hence expansion of the climate services market.

Partners:

Nr	Participant	Country
1	UNIVERSITY OF EAST ANGLIA	UK
2	ENEL TRADE SPA	IT
3	AGENZIA NAZIONALE PER LE NUOVE TECNOLOGIE, L'ENERGIA E LO SVILUPPO ECONOMICO SOSTENIBILE	IT
4	MET OFFICE	UK
5	AWS TRUEPOWER SL	ES
6	KONINKLIJK NEDERLANDS METEOROLOGISCH INSTITUUT-KNMI	NL
7	WORLD ENERGY & METEOROLOGY COUNCIL	UK
8	ACCADEMIA EUROPEA DI BOLZANO	IT
9	ALPERIA SpA	IT

Call: H2020-SC5-2017-OneStageB **Type of Action:** RIA

Title: Sub-seasonal to Seasonal climate forecasting for Energy

Project total costs:	4,771,289 €	**Project EU contribution:**	4,771,289 €	**Duration (months):**	36

Abstract:

Large scale deployment of renewable energy (RE) is key to comply with the GHG emissions reduction set by the COP21 agreement. Despite cost competitive in many settings, RE diffusion remains limited largely due to its variability. This works as a major barrier to RE's integration in electricity networks as knowledge of power output and demand forecasting beyond a few days remains poor. To help solve this problem, S2S4E will offer an innovative service to improve RE variability management by developing new research methods exploring the frontiers of weather conditions for future weeks and months. The main output of S2S4E will be a user co-designed Decision Support Tool (DST) that for the first time integrates sub-seasonal to seasonal (S2S) climate predictions with RE production and electricity demand. To support the dissemination of climate services, a pilot of the DST will be developed in two steps. The first will draw on historical case studies pointed as relevant by energy companies - e.g. periods with an unusual climate behaviour affecting the energy market. The second step will improve probabilistic S2S real-time forecasts built up into the DST and assess their performances in real life decision-making in these companies. This process will be co-designed with consortium's partners which represent different needs and interests in terms of regions, RE sources (wind, solar and hydro) and electricity demand. Besides the partners, S2S4E will engage other users from the energy sector as well as other business areas and research communities to further explore DST application and impact. As a result, DST will enable RE producers and providers, electricity network managers and policy makers to design better informed S2S strategies able to improve RE integration, business profitability, electricity system management, and GHG emissions' reduction. The long-term objective is to make the European energy sector more resilient to climate variability and extreme events.

Partners:

Nr	Participant	Country
1	BARCELONA SUPERCOMPUTING CENTER - CENTRO NACIONAL DE SUPERCOMPUTACION	ES
2	CICERO SENTER KLIMAFORSKNING STIFTELSE	NO
3	EDP RENOVAVEIS SA	ES
4	ENBW ENERGIE BADEN-WURTTEMBERG AG	DE
5	AGENZIA NAZIONALE PER LE NUOVE TECNOLOGIE, L'ENERGIA E LO SVILUPPO ECONOMICO SOSTENIBILE	IT
6	THE UNIVERSITY OF READING	UK
7	SVERIGES METEOROLOGISKA OCH HYDROLOGISKA INSTITUT	SE
8	ELECTRICITE DE FRANCE	FR
9	CAPGEMINI TECHNOLOGY SERVICES	FR
10	LGI CONSULTING SARL	FR
11	THE CLIMATE DATA FACTORY	FR
12	NNERGIX ENERGY MANAGEMENT S.L.	ES

Sub-activity: 5.1.2

SINCERE

776609

Call: H2020-SC5-2017-OneStageB **Type of Action:** CSA

Title: Strengthening INternational Cooperation on climatE change REsearch

Project total costs:	2,224,225 €	**Project EU contribution:**	2,224,225 €	**Duration (months):**	48

Abstract:

SINCERE, consistent with the EU research and innovation policy, will strengthen open international climate change research and innovation cooperation involving European partners in support of the implementation of the Paris Climate Agreement, including in the broader context of the Sendai Framework for Disaster reduction and the UN Sustainable Development Goals. SINCERE aims to strengthen the delivery of the JPI Climate Strategic Research and Innovation Agenda (SRIA), building on existing collaborations, such as with other JPIs, the business sector and global financial institutions, and other key international research, policy and societal actors. Expanding JPI Climate to include member countries in Eastern Europe is a particular goal. Two Flagship Actions, focused on the design of research and innovation collaborations in Africa and Latin America, aim to expand and deepen knowledge to support the uptake of climate change adaptation and mitigation policies, climate services and resilience to disasters linked to climate change. Targeted activities supported by an innovative outreach programme will enhance the international impact of JPI Climate research and innovation activities supporting both global science programmes and policy processes. SINCERE is uniquely positioned to internationalise European climate change research and innovation collaboration, bringing together major national European research funding organizations represented in JPI Climate and a number of research performing organisations mandated by JPI Climate Governing Board members, along with new partners, including two international partners. SINCERE partners have contributed to setting up and implementing the JPI Climate SRIA. This brings the advantages of trust and ease of communication between SINCERE and the governance of JPI Climate, notably the Governing Board and its Executive Committee, as well as the Central Secretariat, which is based at the same institution as the SINCERE coordinator.

Partners:

Nr	Participant	Country
1	SERVICE PUBLIC FEDERAL DE PROGRAMMATION POLITIQUE SCIENTIFIQUE	BE
2	FONDAZIONE CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI	IT
3	NEDERLANDSE ORGANISATIE VOOR WETENSCHAPPELIJK ONDERZOEK	NL
4	STICHTING WAGENINGEN RESEARCH	NL
5	DANMARKS TEKNISKE UNIVERSITET	DK
6	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD	UK
7	Ministerio de Ciencia, Tecnología e Innovación Productiva	AR
8	AARHUS UNIVERSITET	DK
9	UNIVERSITAET FUER BODENKULTUR WIEN	AT
10	Ministrstvo za izobrazevanje, znanost in sport	SI
11	ECONOMIC AND SOCIAL RESEARCH COUNCIL	UK
12	NORGES FORSKNINGSRAD	NO
13	DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV	DE
14	Institutul de Ecologie si Geografie	MD
15	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
16	ENVIRONMENTAL PROTECTION AGENCY OF IRELAND	IE
17	MINISTERIO DE ECONOMIA, INDUSTRIA Y COMPETITIVIDAD	ES
18	INSTITUT DE RECHERCHE POUR LE DEVELOPPEMENT	FR
19	ILMATIETEEN LAITOS	FI
20	EIDGENOESSISCHES DEPARTEMENT DES INNERN	CH

Sub-activity: 5.1.2 **AXIS** **776608**

Call: H2020-SC5-2017-OneStageB **Type of Action:** ERA-NET-Cofund

Title: Assessment of Cross(X)-sectoral climate Impacts and pathways for Sustainable transformation

Project total costs:	15,783,582 €	**Project EU contribution:**	5,208,582 €	**Duration (months):**	60

Abstract:

The AXIS consortium is set up to enhance integration of an array of research disciplines connected to climate research around the common goal to enhance the assessment of potential impacts of climate change on the bio-physical systems and human society. To this end AXIS plans to launch and implement a single transnational call – funded by 11 European research funders. Through an open process AXIS has developed three topics for this call. Each topic is intended to enhance collaboration across typical community borders: between different sectoral views of climate impacts as well as between bio-physical climate impacts and socio-economic effects. For all topics stakeholder engagement is given a high relevance in the call, thus representing another dimension of interaction across boundaries: interaction of the science community with end-users (stakeholders) of the created knowledge (transdisciplinarity). The three anticipated research areas (topics) are: (1) Cross-sectoral and cross-scale climate change impact assessments; (2) Integration of biophysical climate change impacts estimates with economic models; (3) Developing pathways to achieve the long-term objectives of the Paris Agreement, taking into account interactions with SDGs closely linked to SDG 13 (“climate action”). The AXIS consortium is deeply embedded in JPI Climate and aims to implement elements of its Strategic Research & Innovation Agenda. JPI Climate and the ERA-NET promoting Climate Services ERA4CS include a number of additional activities. Therefore within this proposal no addition activities are planned.Close partnership of the AXIS consortium and JPI Climate with other key international initiatives (Belmont Forum, GFCS, Future Earth, UN PROVIA, Copernicus) will be sought in order to continue to work against fragmentation of disciplines and geographies in climate science. In this respect a close connection with the parallel CSA proposal SINCERE is planned.

Partners:

Nr	Participant	Country
1	DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV	DE
2	OESTERREICHISCHE FORSCHUNGSFOERDERUNGSGESELLSCHAFT MBH	AT
3	SERVICE PUBLIC FEDERAL DE PROGRAMMATION POLITIQUE SCIENTIFIQUE	BE
4	FONDS NATIONAL DE LA RECHERCHE SCIENTIFIQUE	BE
5	MINISTERIO DE ECONOMIA, INDUSTRIA Y COMPETITIVIDAD	ES
6	AGENCE NATIONALE DE LA RECHERCHE	FR
7	CENTRUL PROIECTE INTERNATIONALE	MD
8	ENVIRONMENTAL PROTECTION AGENCY OF IRELAND	IE
9	NEDERLANDSE ORGANISATIE VOOR WETENSCHAPPELIJK ONDERZOEK	NL
10	NORGES FORSKNINGSRAD	NO
11	FORSKNINGSRÅDET FÖR MILJÖ, AREELLA NÄRINGAR OCH SAMHÄLLSBYGGANDE	SE

Sub-activity: 5.1.2

MED-GOLD

776467

Call: H2020-SC5-2017-OneStageB **Type of Action:** RIA

Title: Turning climate-related information into added value for traditional MEDiterranean Grape, OLive and Durum wheat food systems

Project total costs:	4,990,968 €	**Project EU contribution:**	4,990,968 €	**Duration (months):**	48

Abstract:

MED-GOLD will demonstrate the proof-of-concept for climate services in the agriculture sector by developing case studies for three hallmarks of the Mediterranean food system: grapes, olives and durum wheat. Agriculture is primarily climate-driven and hence highly vulnerable to climate variability and change. Evidence suggests that the Mediterranean region is under immediate threat of shifting climate patterns and the associated ecological, economic and social effects. Developing a capacity to turn the increasingly big climate-related data into tailored climate services that can inform decision-making in agriculture, is therefore a priority both in Europe and worldwide. The long-term goal of this project is to make European agriculture and food systems more competitive, resilient, and efficient in the face of climate change, by using climate services to minimize climate-driven risks/costs and seize opportunities for added-value.The MED-GOLD project aims to develop climate services for olive, grape, and durum wheat crop systems that are the basis for producing olive oil, wine and pasta. This set of crops and related food products is of utmost climatic, ecological, economic, and cultural relevance to the Mediterranean region. Because olive oil, wine and pasta are not only hallmarks of the Mediterranean diet but also food commodities with a global market, there is considerable potential for developing climate services with high added-value for olive, grape, and durum wheat. A key challenge is to co-design prototype pilot service applications involving both suppliers and users in the three major traditional Mediterranean crop systems so as to demonstrate the added-value of data/information-driven responses to changes in the climate system. The operational decision-making of users will be reviewed to either identify key decisions or introduce new actions that can benefit from climate-related information at different timescales from months to decades.

Partners:

Nr	Participant	Country
1	AGENZIA NAZIONALE PER LE NUOVE TECNOLOGIE, L'ENERGIA E LO SVILUPPO ECONOMICO SOSTENIBILE	IT
2	BARILLA G. E R. FRATELLI SPA	IT
3	BEETOBIT SRL	IT
4	BARCELONA SUPERCOMPUTING CENTER - CENTRO NACIONAL DE SUPERCOMPUTACION	ES
5	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
6	DCOOP SOCIEDAD COOPERATIVA ANDALUZA	ES
7	EASYTOSEE AGTECH, SOCIEDAD LIMITADA	ES
8	GMV AEROSPACE AND DEFENCE SA	ES
9	HORTA SRL	IT
10	JRC -JOINT RESEARCH CENTRE- EUROPEAN COMMISSION	BE
11	MET OFFICE	UK
12	NATIONAL OBSERVATORY OF ATHENS	EL
13	SOGRAPE VINHOS S.A.	PT
14	UNIVERSIDAD MILITAR NUEVA GRANADA	CO
15	UNIVERSITY OF LEEDS	UK
16	PANEPISTIMIO THESSALIAS	EL

Sub-activity: 5.1.2

Nunataryuk

773421

Call: H2020-BG-2017-1 **Type of Action:** RIA

Title: Permafrost thaw and the changing arctic coast: science for socio-economic adaptation

Project total costs: 11,467,318 € **Project EU contribution:** 11,467,318 € **Duration (months):** 60

Abstract:

Most human activity in the Arctic takes place along permafrost coasts, making them a key interface. They have become one of the most dynamic ecosystems on Earth because permafrost thaw is now exposing these coasts to rapid change: change that threatens the rich biodiversity, puts pressure on communities that live there and contributes to the vulnerability of the global climate system. NUNATARYUK will determine the impacts of thawing coastal and subsea permafrost on the global climate, and will develop targeted and co-designed adaptation and mitigation strategies for the Arctic coastal population. NUNATARYUK brings together world-leading specialists in natural science and socio-economics to: (1) develop quantitative understanding of the fluxes and fates of organic matter released from thawing coastal and subsea permafrost; (2) assess what risks are posed by thawing coastal permafrost, to infrastructure, indigenous and local communities and people's health, and from pollution; (3) use this understanding to estimate the long-term impacts of permafrost thaw on global climate and the economy.NUNATARYUK will be guided by a Stakeholders' Forum of representatives from Arctic coastal communities and indigenous societies, creating a legacy of collaborative community involvement and a mechanism for developing and applying innovative evidence-based interventions to enable the sustainable development of the Arctic.

Partners:

Nr	Participant	Country
1	ALFRED-WEGENER-INSTITUT HELMHOLTZ- ZENTRUM FUER POLAR- UND MEERESFORSCHUNG	DE
2	STOCKHOLMS UNIVERSITET	SE
3	STICHTING VU	NL
4	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
5	UNIVERSITE LAVAL	CA
6	MAX-PLANCK-GESELLSCHAFT ZUR FORDERUNG DER WISSENSCHAFTEN EV	DE
7	OULUN YLIOPISTO	FI
8	DANMARKS TEKNISKE UNIVERSITET	DK
9	NORDREGIO	SE
10	STOFNUN VILHJALMS STEFANSSONAR	IS
11	UNIVERSITAT WIEN	AT
12	B. GEOS GMBH	AT
13	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
14	UNIVERSITETET I OSLO	NO
15	INSTITUTO DE GEOGRAFIA E ORDENAMENTO DO TERRITORIO DA UNIVERSIDADE DELISBOA	PT
16	INTERNATIONALES INSTITUT FUER ANGEWANDTE SYSTEMANALYSE	AT
17	UNIVERSITAET HAMBURG	DE
18	UNIVERSITE LIBRE DE BRUXELLES	BE
19	NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU	NO
20	UNIVERSITE DE VERSAILLES SAINT-QUENTIN-EN-YVELINES.	FR
21	STIFTELSEN GRID ARENDAL	NO
22	NORDURSLODAGATTIN EHF	IS
23	INFORMUS GMBH	DE
24	ACRI-HE	FR
25	UNIVERSITE PIERRE ET MARIE CURIE - PARIS 6	FR
26	HELMHOLTZ ZENTRUM POTSDAM DEUTSCHESGEOFORSCHUNGSZENTRUM GFZ	DE
27	KOMMUNE KUJALLEQ	GL

Sub-activity: 5.1.2 **CLARA** **730482**

Call: H2020-SC5-2016-TwoStage **Type of Action:** IA

Title: Climate forecast enabled knowledge services

Project total costs:	3,821,700 €	**Project EU contribution:**	3,459,075 €	**Duration (months):**	36

Abstract:

Climate variability and change (CVC) embody sizeable economic, social and environmental risks in Europe and globally . Climate services (CSs) (Brasseur and Gallardo, 2016; Brooks, 2013; Lourenco et al., 2015) are essential for catalysing economic and societal transformations that not only reduce these risks and/or improve societal resilience, but also unlock Europe's innovation potential, competitiveness and economic growth. As a part of European efforts to catalyse the potential of climate services for more efficient natural resource management and improved disaster risk management and resilience, the CLARA project will boost innovation and uptake of climate services based on front line seasonal and decadal forecasts and climate projections. Building upon the advancements in climate modelling and science in the context of the Copernicus Climate Change Service (C3S), the CLARA project will illustrate genuine benefits and economic value of CSs in the face of climate variability and short-term climate change. A portfolio of user co-designed and co-developed climate services will help to improve policy and decision makings in the five priority areas GFCS: disaster risk reduction, water resource management, agriculture and food (security), renewable energy sources, and public health. Carefully designed business and marketing strategies will promote their uptake, help to energise the European market with climate services, and foster the European innovation potential.

Partners:

Nr	Participant	Country
1	FONDAZIONE CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI	IT
2	SVERIGES METEOROLOGISKA OCH HYDROLOGISKA INSTITUT	SE
3	AGENZIA REGIONALE PER LA PREVENZIONE, L'AMBIENTE E L'ENERGIA DELL'EMILIA-ROMAGNA	IT
4	Istituto Superiore per la Protezione e la Ricerca Ambientale	IT
5	UNIVERSIDAD DE CORDOBA	ES
6	GECOSISTEMA SRL	IT
7	APERTUM IT AB	SE
8	THE CLIMATE DATA FACTORY	FR
9	DCMR MILIEUDIENST RIJNMOND	NL
10	REGIONE EMILIA ROMAGNA	IT
11	SISTEMAS ABIERTOS DE INFORMACION GEOGRAFICA SOCIEDAD LIMITADA	ES

Call: H2020-SC5-2016-TwoStage **Type of Action:** IA

Title: Oasis Innovation Hub for Catastrophe and Climate Extremes Risk Assessment

Project total costs:	5,438,922 €	**Project EU contribution:**	4,802,522 €	**Duration (months):**	36

Abstract:

Globally, there is increased concern of the potential impacts of extreme climate events and their impact on loss and damage of people, assets and property as a result of these events. Therefore, natural partners in using climate services to assess risk are the Global Insurance Sector, who are key implementers in increasing societies resilience and recovery of extreme events and who are integral, co-design partners in this programme. This project intends to operationalize a system, called the Oasis Loss Modelling Framework, that combines climate services with damage and loss information and provides a standardised risk assessment process that can assess potential losses, areas at most risk and quantify financial losses of modelled scenarios. We intend to prove the Oasis LMF system through undertaking a range of demonstrators linked and co-designed to 'real' situations and end-user communities in the insurance, municipalities and business sectors (see list of partners & collaborators). These demonstrators have already been agreed with our end-users and develop work around hydro-climatic risk (in the Danube Region), Typhoon Risk, African Farmer Risk – through using climate information to support the underwriting of micro-insurance, climate v health and climate v forest asset risk assessment. We also intend to further expand access by all sectors to the models, tools and services developed within this programme and the broader climate services sector by operationalizing an open eMarket place and matchmaking facility for catastrophe and climate data and models, tools and services and through broadening awareness in the climate modelling and end-users communities to the Framework, and the transparent and comparable standard it offers to support evidence based risk assessment and adaptation planning.

Partners:

Nr	Participant	Country
1	POTSDAM INSTITUT FUER KLIMAFOLGENFORSCHUNG	DE
2	IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY AND MEDICINE	UK
3	OASIS LOSS MODELLING FRAMEWORK LIMITED	UK
4	ARIA TECHNOLOGIES SA	FR
5	TECHNISCHE UNIVERSITEIT DELFT	NL
6	HELMHOLTZ ZENTRUM POTSDAM DEUTSCHESGEOFORSCHUNGSZENTRUM GFZ	DE
7	PANNON PRO INNOVACIOS SZOLGALTATO KORLATOLT FELELOSSEGU TARSASAG	HU
8	DANMARKS TEKNISKE UNIVERSITET	DK
9	BETTERPOINTS LIMITED	UK
10	GENILLARD & CO GMBH	DE
11	ONF INTERNATIONAL	FR
12	TECNOSYLVA SL	ES
13	UNIVERSITE D'AIX MARSEILLE	FR
14	CHARITE - UNIVERSITAETSMEDIZIN BERLIN	DE
15	FRESH-THOUGHTS CONSULTING GMBH	AT
16	KLIMABARAT TELEPULESEK SZOVETSEGE	HU
17	UNIVERZITET U NOVOM SADU FAKULTET TEHNICKIH NAUKA	RS
18	GAF AG	DE
19	TRANS-AFRICAN HYDRO-METEOROLOGICAL OBSERVATORY	KE
20	CITY UNIVERSITY OF HONG KONG	HK

Sub-activity: 5.1.2

CLARITY

730355

Call: H2020-SC5-2016-TwoStage **Type of Action:** IA

Title: Integrated Climate Adaptation Service Tools for Improving Resilience Measure Efficiency

Project total costs:	5,882,535 €	**Project EU contribution:**	4,999,999 €	**Duration (months):**	36

Abstract:

Urban areas and traffic infrastructure linking such areas are highly vulnerable to climate change. Smart use of existing climate intelligence can increase urban resilience and generate added value for businesses and society at large.

Based on the results of FP7 climate change, future internet and crisis preparedness projects (SUDPLAN, ENVIROFI, CRISMA) with an average TRL of 4-5 and following an agile and user-centred design process, end-users, purveyors and providers of climate intelligence will co-create an integrated Climate Services Information System (CSIS) to integrate resilience into urban infrastructure. As a result, CLARITY will provide an operational eco-system of cloud based climate services to calculate and present the expected effects of CC-induced and -amplified hazards at the level of risk, vulnerability and impact functions. CLARITY will offer what-If decision support functions to investigate the effects of adaptation measures and risk reduction options in the specific project context, and allow the comparison of alternative strategies. Four demonstration cases will showcase CLARITY climate services in different climatic, regional, infrastructure and hazard contexts in Italy, Sweden, Austria and Spain; focusing on the planning and implementation of urban infrastructure development projects. CLARITY will provide the practical means to include the effects of CC hazards and possible adaptation and risk management strategies into planning and implementation of such projects, focusing on increasing CC resilience. Decision makers involved in these projects will be empowered to perform climate proof and adaptive planning of adaptation and risk reduction options.

Partners:

Nr	Participant	Country
1	AIT AUSTRIAN INSTITUTE OF TECHNOLOGY GMBH	AT
2	ATOS SPAIN SA	ES
3	cismet GmbH	DE
4	SVERIGES METEOROLOGISKA OCH HYDROLOGISKA INSTITUT	SE
5	FARISA ASESORES Y CONSULTORES SL	ES
6	ZENTRALANSTALT FUR METEOROLOGIE UNDGEODYNAMIK	AT
7	UNIVERSITA DEGLI STUDI DI NAPOLI FEDERICO II.	IT
8	STOCKHOLMS STAD	SE
9	EUREKA COMUNICAZIONE TELEMATICA SRL	IT
10	Comune di Napoli	IT
11	AGENCIA ESTATAL DE METEOROLOGIA	ES
12	WSP SVERIGE AB	SE
13	ACCIONA CONSTRUCCION SA	ES
14	SMART CITIES CONSULTING GMBH	AT
15	LANSSTYRELSEN I JONKOPINGS LAN	SE
16	CENTRO DE ESTUDIOS Y EXPERIMENTACION DE OBRAS PUBLICAS - CEDEX	ES
17	STADT LINZ	AT

Call: H2020-SC5-2016-TwoStage **Type of Action:** IA

Title: Vineyards´ Integrated Smart Climate Application

Project total costs:	3,197,959 €	**Project EU contribution:**	2,793,145 €	**Duration (months):**	36

Abstract:

Internationalization of the markets has allowed for the globalization of agriculture, benefiting - directly or indirectly – relevant countries or even entire regions like the EU, who is the first trader in agriculture products of the world.Among the different varieties of agriculture species, the wine-grapes are specially threatened by climate change, since subtle differences in microclimate impacts directly through over-ripening, rising acidity levels, greater vulnerability to pests and diseases, etc., resulting in changes in wine quality and properties.The wine industry needs therefore to tackle adaptation measures, and long term adaptation planning will provide producers with a comparative advantage over competitors. VISCA is a Climate Service (CS) and Decision Support System (DSS) that integrates climate, agricultural and end-users´ specifications in order to design medium- and long-term adaptation strategies to climate change. VISCA will be validated by real demonstration with end-users on three demo sites belonging to three wine stakeholders from Spain, Italy and Portugal, which are included as partners in the consortium (Codorniu, Mastroberardino and Symington).The main objective of VISCA is making South-European wine industries resilient to climate changes, while minimizing costs and risks through an improvement of the production management (quality and quantity of final product). This objective will be achieved with the integration of climatic data, phenological , irrigation models, and end-users' requirements into a Decision Support System (DSS) co-designed with wine producers from Spain, Italy and Portugal. VISCA will supply well-founded decisions of specific aspects of crop planning (e.g., budburst, harvesting, defoliation, minimum water needs), and suggest preventive actions against extreme events and long-term suitability maps.

Partners:

Nr	Participant	Country
1	METEOSIM SL	ES
2	BARCELONA SUPERCOMPUTING CENTER - CENTRO NACIONAL DE SUPERCOMPUTACION	ES
3	CODORNIU SA	ES
4	INSTITUT DE RECERCA I TECNOLOGIA AGROALIMENTARIES	ES
5	ISTITUTO SUPERIORE MARIO BOELLA SULLE TECNOLOGIE DELL'INFORMAZIONE E DELLE TELECOMUNICAZIONI ASSOCIAZIONE	IT
6	UNIVERSITA DEGLI STUDI DI NAPOLI FEDERICO II.	IT
7	AZIENDA VINICOLA MICHELE MASTROBERARDINO SPA	IT
8	SYMINGTON - VINHOS SA	PT
9	UNIVERSIDADE DO PORTO	PT
10	UNITE TECHNIQUE DU SEMIDE GEIE	FR
11	ALPHA CONSULTANTS (UK) LTD	UK

Sub-activity: 5.1.2

PROSNOW

730203

Call: H2020-SC5-2016-TwoStage **Type of Action:** IA

Title: Provision of a prediction system allowing for management and optimization of snow in Alpine ski resorts

Project total costs:	3,557,866 €	**Project EU contribution:**	3,209,616 €	**Duration (months):**	36

Abstract:

The PROSNOW project ambitions to build a demonstrator of a meteorological and climate prediction system from one week to several months ahead applied to snow management, specifically tailored to the needs of the ski industry using a co-design approach. This novel climate service holds significant potential to increase the resilience of socio-economic mountain stakeholders and supports their real-time climate change adaptation potential. PROSNOW will apply state-of-the-art knowledge relevant to the predictability of atmospheric and snow conditions, then develop products well beyond state-of-the-art operational tools. Improved anticipation capabilities at all time scales, spanning from “weather forecast” (up to 5 days typically) to “climate prediction” at the seasonal scale (up to several months), will be achieved through a seamless integration of weather and seasonal prediction products, together with snowpack models, in-situ and remotely-sensed observations and cutting-edge statistical tools in support of the decision making process. The project proposes an Alpine-wide system (France, Switzerland, Germany, Austria and Italy). It will associate research institutions for weather forecasts, climate predictions at the seasonal scale and snowpack modeling, a group of providers proposing high tech solutions for snow monitoring and management, and a relevant ensemble of eight representative resorts in the Alps. The added value of such services for ski resorts will be investigated and documented, making it possible to initiate a commercial exploitation of the service at the end of the project.

Partners:

Nr	Participant	Country
1	METEO-FRANCE	FR
2	EIDGENOESSISCHE FORSCHUNGSANSTALT WSL	CH
3	TOURISME TERRITOIRES TRANSPORTS ENVIRONNEMENT CONSEIL	FR
4	INSTITUT NATIONAL DE RECHERCHE EN SCIENCES ET TECHNOLOGIES POUR L'ENVIRONNEMENT ET L'AGRICULTURE	FR
5	UNIVERSITAET INNSBRUCK	AT
6	UNIVERSITAET FUER BODENKULTUR WIEN	AT
7	ACCADEMIA EUROPEA DI BOLZANO	IT
8	JOANNEUM RESEARCH FORSCHUNGSGESELLSCHAFT MBH	AT
9	ALPSOLUT SRL	IT
10	TECHNOALPIN SPA	IT
11	CGx AERO in SYS	FR
12	SNOWSAT	FR
13	DIANEIGE SA	FR

Sub-activity: 5.1.2

PUCS

730004

Call: H2020-SC5-2016-TwoStage

Type of Action: IA

Title: Pan-European Urban Climate Services

Project total costs:	3,514,416 €	**Project EU contribution:**	2,936,601 €	**Duration (months):**	30

Abstract:

Urban areas are very vulnerable to climate change impacts, because of the high concentration of people, infrastructure, and economic activity, but also because cities tend to exacerbate climate extremes such as heat waves and flash floods. The objective of the Pan-European Urban Climate Service (PUCS) project is to establish a service that translates the best available scientific urban climate data into relevant information for public and private end-users operating in cities.

This will be achieved by demonstrating the benefits of urban climate information to end-users, considering the sectors of energy, cultural heritage, mobility, energy, health, and urban planning. During the first half of the 30-month project, end-users (included as partners) and climate service providers will be involved in the co-design/-development of six concrete sectoral cases, to be implemented in Antwerp, Barcelona, Bern, Prague, Rome, and Vienna. Each of these cases will be subject to a detailed socio-economic impact analysis, quantifying the benefits of using urban climate information. The second half of the project will focus on upscaling and market replication, initially aiming at the extension with six new cases, involving new (non-financed) end-users. Through a business development strategy, supported by dissemination and marketing activities, we ultimately aim at acquiring six more cases by the end of the project, involving new business intermediaries without PUCS project financing, and demonstrating the long-term market viability of the service. PUCS aims at a genuine market uptake of (urban) climate services, based on a distributed network of local business intermediaries throughout Europe, enhancing the awareness for urban climate-related issues in the end-user community, and converting (mature) research results into tailored added-value information, thus removing important barriers for the deployment of urban climate services.

Partners:

Nr	Participant	Country
1	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.	BE
2	METEOTEST SOCIETE COOPERATIVE	CH
3	GISAT S.R.O.	CZ
4	KATHOLIEKE UNIVERSITEIT LEUVEN	BE
5	FUNDACION PRIVADA INSTITUTO DE SALUD GLOBAL BARCELONA	ES
6	JOANNEUM RESEARCH FORSCHUNGSGESELLSCHAFT MBH	AT
7	T6 ECOSYSTEMS SRL	IT
8	ARCTIK SPRL	BE
9	STAD ANTWERPEN	BE
10	BIKECITYGUIDE APPS GMBH	AT
11	SOPRINTENDENZA SPECIALE PER IL COLOSSEO IL MUSEO NAZIONALE ROMANO E L'AREA ARCHEOLOGICA DI ROMA	IT
12	INES ENERGIEPLANUNG GMBH	CH
13	IURS - INSTITUT PRO UDRZITELNY ROZVOJ SIDEL ZS	CZ
14	Agencia de Salut Publica de Barcelona	ES

Sub-activity: 5.1.2

BRIGAID

700699

Call: H2020-DRS-2015

Type of Action: IA

Title: BRIdges the GAp for Innovations in Disaster resilience

Project total costs:	8,813,997 €	**Project EU contribution:**	7,739,806 €	**Duration (months):**	48

Abstract:

Recent studies from the IPCC indicate that Europe is particularly prone to increased risks of river and coastal floods, droughts resulting in water restrictions and damages from extreme weather such as heat events and wildfires. Evaluations also show a huge potential to reduce these risks with novel adaptation strategies. Researchers, innovators and incubators develop innovative products and services to reduce the increased climate change risks. Many of these innovations however hardly arrive at the markets. BRIGAID BRIdges the GAp for Innovations in Disaster resilience. BRIGAID's approach is supported by three pillars. (1) At first BRIGAID takes into account the geographical variability of climate-related hazards and their interaction with socio-economic changes, (2) BRIGAID establishes structural, on-going support for innovations that are ready for validation in field tests and real life demonstrations and (3) BRIGAID develops a framework that enables an independent, scientific judgement of the socio-technological effectiveness of an innovation. BRIGAID's objective is ambitious but achievable with strong consortium partners in EU, two Associated Countries and support from Overseas Territories. BRIGAID (a) brings actively together innovators and end-users in Communities of Innovation, resulting in increased opportunities for market-uptake; (b) contributes to the development of a technological and performance standards for adaptation options by providing a Test and Implementation Framework (TIF) and test facilities throughout Europe; (c) Improves innovation capacity and the integration of new knowledge by establishing an innovators network and (d) strengthens the competitiveness and growth of companies with the support of a dedicated business team. Finally BRIGAID develops a business models and market outreach to launch innovations to the market and secure investments in innovations beyond BRIGAID’s lifetime.

Partners:

Nr	Participant	Country
1	TECHNISCHE UNIVERSITEIT DELFT	NL
2	HKV LIJN IN WATER BV	NL
3	FUTUREWATER SL	ES
4	KATHOLIEKE UNIVERSITEIT LEUVEN	BE
5	ECOLOGIC INSTITUT gemeinnützige GmbH	DE
6	L'Orangerie Studio	ES
7	ALMA MATER STUDIORUM - UNIVERSITA DI BOLOGNA	IT
8	RINA CONSULTING - D'APPOLONIA SPA	IT
9	THETIS SPA	IT
10	INTERNATIONAL CENTER FOR RESEARCH ON THE ENVIRONMENT AND THE ECONOMY	EL
11	MIGAL GALILEE RESEARCH INSTITUTE LTD	IL
12	AQUAPROIECT SA	RO
13	I-CATALIST SL	ES
14	AGJENCIA KOMBETARE E PLANIFIKIMIT TE TERRITORIT	AL
15	GEOMATICS RESEARCH & DEVELOPMENT SRL	IT
16	SPECTRUM CONSTRUCT SRL	RO
17	UNIVERSITE CATHOLIQUE DE LOUVAIN	BE
18	Instituto Superior de Agronomia	PT
19	GIFF GESTAO INTEGRADA DE FOGOS FLORESTAIS SA	PT
20	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD	UK
21	NATIONAL ADMINISTRATION APELE ROMANE	RO
22	UNIVERSITATEA TEHNICA DE CONSTRUCTII BUCURESTI	RO
23	THE FUNDING COMPANY	NL
24	CONSUS CARBON ENGINEERING SPOLKA Z OGRANICZONA ODPAWIEDZIALNOSCIA	PL
25	BUREAU VERITAS POLSKA SP ZOO	PL

Sub-activity: 5.1.2

ESPREssO

700342

Call: H2020-DRS-2015

Type of Action: CSA

Title: Enhancing Synergies for disaster PRevention in the EurOpean Union

Project total costs:	2,374,368 €	**Project EU contribution:**	2,068,021 €	**Duration (months):**	30

Abstract:

ESPREssO aims at contributing to a new strategic vision to approach natural risk reduction and climate change adaptation, thereby opening new frontiers for research and policy making. From this perspective it wants also to be of support to the EC research and development and to the JRC Knowledge Centre on Disaster Risk Management.To achieve this goal, the project structure is built upon the central role of three main challenges to be addressed in order to propose ways to mitigate differences, to identify gaps, and to overcome the boundaries among different topics:1 To propose ways to create more coherent national and European approaches on Disaster Risk Reduction, Climate Change Adaptation and resilience strengthening;2.To enhance risk management capabilities by bridging the gap between science and legal/policy issues at local and national levels in six European countries;3.To address the issue of efficient management of trans-boundary crises.Activities on the three ESPREssO challenges will be performed in all work-packages. The first 3 WPs are essentially dedicated to collection of information: on relevant stakeholders' needs, perspectives and priorities (WP1), on the existing knowledge of legal, policy and science approach at the EU level and across identified countries (WP2), and development of hazard-specific scenarios as a basis for a Risk Management Simulation tool to elicit stakeholders (WP3). The other two WPs are dedicated to the analysis of information and the preparation of proposals: analysis of information and evaluation of the proposed strategies (WP4), and preparation and dissemination of guidelines (WP5).A comprehensive approach to the ESPREssO challenges requires a strong, multi-disciplinary group. The ESPREssO team is consequently formed by partners having a well-known expertise in legal and governance issues and natural risk management, socio-economic aspects and resilience, hard science, statistical approaches to multi-risk and resilience.

Partners:

Nr	Participant	Country
1	AMRA - ANALISI E MONITORAGGIO DEL RISCHIO AMBIENTALE SCARL	IT
2	HELMHOLTZ ZENTRUM POTSDAM DEUTSCHESGEOFORSCHUNGSZENTRUM GFZ	DE
3	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
4	Deutsches Komitee Katastrophenvorsorge e.V.	DE
5	EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH	CH
6	THE UNIVERSITY OF HUDDERSFIELD	UK
7	KOBENHAVNS UNIVERSITET	DK

Sub-activity: 5.1.2

RESCCUE

700174

Call: H2020-DRS-2015 **Type of Action:** IA

Title: RESCCUE - RESilience to cope with Climate Change in Urban arEas - a multisectorial approach focusing on water

Project total costs:	8,097,191 €	**Project EU contribution:**	6,896,992 €	**Duration (months):**	48

Abstract:

RESCCUE aims to deliver a framework enabling city resilience assessment, planning and management by integrating into software tools new knowledge related to the detailed water-centred modelling of strategic urban services performance into a comprehensive resilience platform. These tools will assess urban resilience from a multisectorial approach, for current and future climate change scenarios and including multiple hazards. The project will review and integrate in the general framework existing options to assess climate change impacts and urban systems vulnerabilities allowing to assess multisectorial dependencies under multiple climate change scenarios. An adaptation strategies portfolio, including climate services, ecosystem-based approaches and resource efficiency measures will be incorporated as key components of the deployment strategy. The possible approaches will be ranked by their cost-efficiency in terms of CAPEX and OPEX to evaluate their benefits potential. This will enable city managers and urban system operators deciding the optimal investments to cope with future situations. The validation platform is formed by 3 EU cities (Barcelona, Lisboa and Bristol) that will allow testing the innovative tools developed in the project and disseminating their results among other cities belonging to major international networks. In terms of market potential, RESCCUE will generate large potential benefits, in terms of avoided costs during and after emergencies, that will contribute to their large-scale deployment. The structure of the consortium will guarantee the market uptake of the results, as the complete value chain needed is already represented. The project is coordinated by Aquatec, a large consultancy firm part of a multinational company focused on securing and recovering resources, and includes partners from the research domain, operation of critical urban systems, city managers and international organisations devoted to urban resilience.

Partners:

Nr	Participant	Country
1	AQUATEC PROYECTOS PARA EL SECTOR DEL AGUA SA	ES
2	CETAQUA, CENTRO TECNOLOGICO DEL AGUA, FUNDACION PRIVADA	ES
3	FUNDACION PARA LA INVESTIGACION DEL CLIMA	ES
4	OPTICITS INGENIERIA URBANA SL	ES
5	THE UNIVERSITY OF EXETER	UK
6	LABORATORIO NACIONAL DE ENGENHARIA CIVIL	PT
7	AJUNTAMENT DE BARCELONA	ES
8	FUNDACIO INSTITUT DE RECERCA DE L'ENERGIA DE CATALUNYA	ES
9	UNITED NATIONS HUMAN SETTLEMENTS PROGRAMME	KE
10	ENDESA DISTRIBUCION ELECTRICA S.L	ES
11	CAMARA MUNICIPAL DE LISBOA	PT
12	EDP DISTRIBUICAO ENERGIA SA	PT
13	HIDRA - HIDRAULICA E AMBIENTE LDA	PT
14	BRISTOL CITY COUNCIL	UK
15	SUEZ ADVANCED SOLUTIONS UK LIMITED	UK
16	URBAN DNA SOLUTIONS LLP	UK
17	ADP - AGUAS DE PORTUGAL, SGPS SA	PT
18	ECOLE DES INGENIEURS DE LA VILLE DEPARIS	FR

Call: H2020-SC5-2015-one-stage **Type of Action:** ERA-NET-Cofund

Title: European Research Area for Climate Services

Project total costs: 78,284,239 € **Project EU contribution:** 25,000,000 € **Duration (months):** 60

Abstract:

Within the European Research Area (ERA), the ERA4CS Consortium is aiming to boost, research for Climate Services (CS), including climate adaptation, mitigation and disaster risk management, allowing regions, cities and key economic sectors to develop opportunities and strengthen Europe's leadership. CS are seen by this consortium as driven by user demands to provide knowledge to face impacts of climate variability and change, as well as guidance both to researchers and decision-makers in policy and business. ERA4CS will focus on the development of a "climate information translation" layer bridging "user communities" and "climate system sciences". It implies the development of tools, methods, standards and quality control for reliable, qualified and tailored information required by the various field actors for smart decisions.ERA4CS will boost the JPI Climate initiative by mobilizing more countries, within EU Member States and Associated Countries, by involving both the research performing organizations (RPOs) and the research funding organizations (RFOs), the distinct national climate services and the various disciplines of academia, including Social Sciences and Humanities. ERA4CS will launch a joint transnational co-funded call, with over 16 countries and up to 75M€, with two complementary topics: (i) a "cash" topic, supported by 12 RFOs, on co-development for user needs and action-oriented projects; (ii) an "in-kind" topic, supported by 28 RPOs, on institutional integration of the research components of national CS. Finally, ERA4CS additional activities will initiate a strong partnership between JPI Climate and others key European and international initiatives (as Copernicus, KIC-Climate, JPIs, WMO/GFCS, Future Earth, Belmont Forum…) in order to work towards a common vision and a multiyear implementation strategy, including better co-alignment of national programs and activities up to 2020 and beyond.

Partners:

Nr	Participant	Country
1	AGENCE NATIONALE DE LA RECHERCHE	FR
2	BUNDESMINISTERIUM FÜR WISSENSCHAFT, FORSCHUNG UND WIRTSCHAFT	AT
3	SERVICE PUBLIC FEDERAL DE PROGRAMMATION POLITIQUE SCIENTIFIQUE	BE
4	DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV	DE
5	INNOVATIONSFONDEN	DK
6	MINISTERIO DE ECONOMIA, INDUSTRIA Y COMPETITIVIDAD	ES
7	ENVIRONMENTAL PROTECTION AGENCY OF IRELAND	IE
8	NEDERLANDSE ORGANISATIE VOOR WETENSCHAPPELIJK ONDERZOEK	NL
9	NORGES FORSKNINGSRAD	NO
10	FUNDACAO PARA A CIENCIA E A TECNOLOGIA	PT
11	Unitatea Executiva pentru Finantarea Invatamantului Superior, a Cercetarii, Dezvoltarii si Inovarii	RO
12	FORSKNINGSRÅDET FÖR MILJÖ, AREELLA NÄRINGAR OCH SAMHÄLLSBYGGANDE	SE
13	UNIVERSITAET GRAZ	AT
14	INSTITUT ROYAL METEOROLOGIQUE DE BELGIQUE	BE
15	ALFRED-WEGENER-INSTITUT HELMHOLTZ-ZENTRUM FUR POALR- UND MEERESFORSCHUNG	DE
16	HELMHOLTZ-ZENTRUM GEESTHACHT ZENTRUM FUR MATERIAL- UND KUSTENFORSCHUNG GMBH	DE
17	DANMARKS METEOROLOGISKE INSTITUT	DK
18	AGENCIA ESTATAL DE METEOROLOGIA	ES
19	BARCELONA SUPERCOMPUTING CENTER - CENTRO NACIONAL DE SUPERCOMPUTACION	ES
20	AGENCIA ESTATAL CONSEJO SUPERIOR DEINVESTIGACIONES CIENTIFICAS	ES
21	UNIVERSIDAD DE CANTABRIA	ES
22	UNIVERSITAT ROVIRA I VIRGILI	ES
23	ILMATIETEEN LAITOS	FI
24	SUOMEN YMPARISTOKESKUS	FI
25	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
26	COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	FR
27	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
28	INSTITUT NATIONAL DE L'INFORMATION GEOGRAPHIQUE ET FORESTIERE	FR
29	INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE	FR
30	METEO-FRANCE	FR
31	NATIONAL CENTER FOR SCIENTIFIC RESEARCH "DEMOKRITOS"	EL
32	DEPARTMENT OF HOUSING, PLANNING, COMMUNITY AND LOCAL GOVERNMENT	IE

33	FONDAZIONE CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI	IT
34	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
35	KONINKLIJK NEDERLANDS METEOROLOGISCH INSTITUUT-KNMI	NL
36	METEOROLOGISK INSTITUTT	NO
37	ADMINISTRATIA NATIONALA DE METEOROLOGIE R.A.	RO
38	SVERIGES METEOROLOGISKA OCH HYDROLOGISKA INSTITUT	SE
39	THE UNIVERSITY OF READING	UK
40	MET OFFICE	UK
41	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
42	MINISTERO DELL'ISTRUZIONE, DELL'UNIVERSITA' E DELLA RICERCA	IT
44	FUNDACAO DA FACULDADE DE CIENCIAS DA UNIVERSIDADE DE LISBOA FP	PT
45	SLOVENSKA AKADEMIA VIED	SK
46	USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI	CZ

Call: H2020-SC5-2015-two-stage **Type of Action:** RIA

Title: Integrated Climate forcing and Air pollution Reduction in Urban Systems

Project total costs:	6,815,765 €	**Project EU contribution:**	6,472,015 €	**Duration (months):**	48

Abstract:

ICARUS will develop innovative tools for urban impact assessment in support of air quality and climate change governance in the EU. This will lead to designing and implementing win-win strategies to improve the air quality and reduce the carbon footprint in European cities. An integrated approach will be used for air pollution monitoring and assessment combining ground-based measurements, atmospheric transport and chemical transformation modelling and air pollution indicators derived from satellite, airborne and personal remote sensing. The ICARUS methodology and toolkit will be applied in nine EU cities of variable size, socio-economic condition and history. Technological and non-technological measures and policy options will be analyzed and proposed to the responsible authorities for air pollution and/or climate change at the city level. Based on the advanced monitoring and assessment tools outlined above, a cloud-based solution will be developed to inform citizens of environment-conscious alternatives that may have a positive impact on air quality and carbon footprint and finally on their health and motivate them to adopt alternative behaviours. Agent-based modelling will be used to capture the interactions of population subgroups, industries and service providers in response to the policies considered in the project. Thus, social and cultural factors, socio-economic status (SES) and societal dynamics will be explicitly taken into account to assess overall policy impact. Our findings will be translated into a web-based guidebook for sustainable air pollution and climate change governance in all EU cities. ICARUS will develop a vision of a future green city: a visionary model that will seek to minimize environmental and health impacts. Transition pathways will be drawn that will demonstrate how current cities could be transformed towards cities with close to zero or negative carbon footprint and maximal wellbeing within the next 50 years.

Partners:

Nr	Participant	Country
1	ARISTOTELIO PANEPISTIMIO THESSALONIKIS	EL
2	UNIVERSITAET STUTTGART	DE
3	UNIVERSITY OF BRISTOL	UK
4	THE UNIVERSITY OF EXETER	UK
5	INSTITUTO DE SALUD CARLOS III	ES
6	LANDESHAUPTSTADT STUTTGART	DE
7	ETAIREIA ANAPTYXIS KAI TOURISTIKIS PROVOLIS ATHINON - ANAPTYXIAKI ANONYMOS ETAIREIA ORGANISMOU TOPIKIS AFTODIOIKISIS	EL
8	INSTITUT JOZEF STEFAN	SI
9	ENVIROS SRO	CZ
10	CENTRO EUROPEO DI FORMAZIONE E RICERCA IN INGEGNERIA SISMICA	IT
11	UPCOM BVBA	BE
12	KARTERIS APOSTOLOS KARTERIS MARIN OE	EL
13	WISSENSCHAFTLICHE VEREINIGUNG FUR DEN UMWELTSCHULZ IM MITTELMEER - MESAEP	DE
14	Masarykova univerzita	CZ
15	SCHWEIZERISCHES TROPEN- UND PUBLIC HEALTH-INSTITUT	CH
16	NATIONAL CENTER FOR SCIENTIFIC RESEARCH "DEMOKRITOS"	EL
17	FONDAZIONE CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI	IT
18	TH SOULOS I KYLAFI EE	EL

Sub-activity: 5.1.2 **iSCAPE** **689954**

Call: H2020-SC5-2015-two-stage **Type of Action:** RIA

Title: Improving the Smart Control of Air Pollution in Europe

Project total costs:	5,850,830 €	**Project EU contribution:**	5,850,829 €	**Duration (months):**	36

Abstract:

The iSCAPE project aims to integrate and advance the control of air quality and carbon emissions in European cities in the context of climate change through the development of sustainable and passive air pollution remediation strategies, policy interventions and behavioural change initiatives. It will tackle the problem of reducing air pollution at target receptors with an innovative SME-led approach, focusing on the use of “Passive Control Systems” in urban spaces. Improvements in air quality, microclimate and behavioural aspects of urban dwellers will be achieved by applying real-world physical interventions on the urban tissue to alter ventilation rates and dispersion patterns in the selected cities assessed for future climate change scenarios and representative of different cultural&life styles in Europe. Through the approach of Living Labs the team will deploy a network of air quality and meteorological sensors (both stationary and mobile) and evaluate through analysis and a suite of up-to-date numerical modelling the benefits expected from the interventions on a neighbourhood and city-wide scale for several aspects ranging from quantification of pollutant concentration to exposure. iSCAPE encapsulates the concept of “smart cities” by promoting the use of low-cost sensors, engaging citizens in the use of alternative solution processes to environmental problems. iSCAPE will support sustainable urban development by promoting the sharing of results with policy-makers and planners using local test-cases, and providing scientific evidence ready-to-use solutions potentially leading to real-time operational interventions. This integrated approach will include the development and assessment of a framework aimed at changing the mobility behaviour of people by studying processes and dynamics that lead to more resilient, healthy, and sustainable cities, by bringing together theory from urban planning, public policy, urban and environmental sociology and urban geography.

Partners:

Nr	Participant	Country
1	UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN	IE
2	ALMA MATER STUDIORUM - UNIVERSITA DI BOLOGNA	IT
3	UNIVERSITY OF SURREY	UK
4	ILMATIETEEN LAITOS	FI
5	UNIVERSITEIT HASSELT	BE
6	TECHNISCHE UNIVERSITAT DORTMUND	DE
7	JRC -JOINT RESEARCH CENTRE- EUROPEAN COMMISSION	BE
8	INSTITUT D'ARQUITECTURA AVANCADA DE CATALUNYA	ES
9	T6 ECOSYSTEMS SRL	IT
10	NANOAIR SOLUTIONS S.L.	ES
11	FUTURE CITIES CATAPULT LIMITED	UK
12	DUBLIN CITY COUNCIL	IE
13	AGENZIA REGIONALE PER LA PREVENZIONE, L'AMBIENTE E L'ENERGIA DELL'EMILIA-ROMAGNA	IT
14	EUROPEAN NETWORK OF LIVING LABS	BE
15	THE PROVOST, FELLOWS, FOUNDATION SCHOLARS & THE OTHER MEMBERS OF BOARD OF THE COLLEGE OF THE HOLY & UNDIVIDED TRINITY OF QUEEN ELIZABETH NEAR DUBLIN	IE

Call: H2020-SC5-2015-two-stage **Type of Action:** RIA

Title: Citizen Led Air pollution Reduction in Cities

Project total costs:	6,692,548 €	**Project EU contribution:**	6,692,548 €	**Duration (months):**	48

Abstract:

CLAiR-City will apportion air pollution emissions and concentrations, carbon footprints and health outcomes by city citizens' behaviour and day-to-day activities in order to make these challenges relevant to how people chose to live, behave and interact within their city environment. Through an innovative engagement and quantification toolkit, we will stimulate the public engagement necessary to allow citizens to define a range of future city scenarios for reducing their emissions to be used for supporting and informing the development of bespoke city policy packages out to 2050.Using six pilot cities/regions (Amsterdam, NL; Bristol, UK; Aveiro, PT; Liguria, IT; Ljubljana, SI; and Sosnowiec, PO), CLAiR-City will source apportion current emissions/concentrations and carbon emissions not only by technology but by citizens' activities, behavior and practices. CLAiR-City will explore and evaluate current local, national and international policy and governance structures to better understand the immediate policy horizon and how that may impact on citizens and their city's future. Then, working with the new methods of source apportionment to combine both baseline citizen and policy evidence, CLAiR-City will use innovative engagement methods such as Games, an App and Citizen Days to inform and empower citizens to understand the current challenges and then subsequently define their own visions of their city's future based on how their want to live out to 2050. The impact of these citizen-led future city scenarios will analysed, to develop city specific policy packages in which the clean-air, low-carbon, healthy future, as democratically defined by the city citizens, is described and quantified. The results of the CLAiR-City process will be evaluated to provide policy lessons at city, national and EU levels. Additionally, the toolkit structure will be developed for all EU cities with more than 50,000 citizens establishing a basis to roll out the CLAiR-City process across Europe.

Partners:

Nr	Participant	Country
1	TRINOMICS BV	NL
2	CENTRAAL BUREAU VOOR DE STATISTIEK	NL
3	DANMARKS TEKNISKE UNIVERSITET	DK
4	NORSK INSTITUTT FOR LUFTFORSKNING STIFTELSE	NO
5	MINISTERIE VAN INFRASTRUCTUUR EN MILIEU	NL
6	REGIONAL ENVIRONMENTAL CENTER FOR CENTRAL AND EASTERN EUROPE -REC	HU
7	TECHNE CONSULTING SRL	IT
8	TRANSPORT & MOBILITY LEUVEN NV	BE
9	UNIVERSIDADE DE AVEIRO	PT
10	UNIVERSITY OF THE WEST OF ENGLAND, BRISTOL	UK
11	GEMEENTE AMSTERDAM	NL
12	BRISTOL CITY COUNCIL	UK
13	COMUNIDADE INTERMUNICIPAL DA REGIAO DE AVEIRO	PT
14	REGIONE LIGURIA	IT
15	MUNICIPALITY OF LJUBLJANA	SI
16	GMINA SOSNOWIEC - MIASTO NA PRAWACH POWIATU	PL

Call: H2020-DRS-2014 **Type of Action:** RIA

Title: A panEuropean framework for strengthening Critical Infrastructure resilience to climate change

Project total costs:	7,283,525 €	**Project EU contribution:**	7,283,525 €	**Duration (months):**	36

Abstract:

It is presently acknowledged and scientifically proven than 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 ETAIRIA PERIORISMENIS EFTHINIS EPE	EL
8	ENTENTE POUR LA FORÊT MÉDITERRANÉENNE	FR
9	RINA CONSULTING - D'APPOLONIA SPA	IT
10	DRZAVNI HIDROMETEOROLOSKI ZAVOD	HR
11	XUVASI LTD	UK
12	MRK MANAGEMENT CONSULTANTS GMBH	DE
13	European University Cyprus	CY
14	KENTRO MELETON ASFALEIAS	EL
15	THE UNIVERSITY OF SALFORD	UK
16	Drzavna uprava za zastitu i spasavanje	HR
17	ADITESS ADVANCED INTEGRATED TECHNOLOGY SOLUTIONS & SERVICES LTD	CY
18	THE COUNCIL OF THE BOROUGH OF TORBAY	UK
19	MINISTRY OF NATIONAL DEFENCE, GREECE	EL
20	VELEUCILISTE VELIKA GORICA	HR
21	THE UNIVERSITY OF HUDDERSFIELD	UK

Sub-activity: 5.1.2 **RESIN** **653522**

Call: H2020-DRS-2014 **Type of Action:** RIA

Title: Climate Resilient Cities and Infrastructures

Project total costs:	7,466,005 €	**Project EU contribution:**	7,466,005 €	**Duration (months):**	42

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 datasetsThe 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	ECOLE DES INGENIEURS DE LA VILLE DEPARIS	FR
6	ITTI SP ZOO	PL
7	STICHTING NEDERLANDS NORMALISATIE - INSTITUUT	NL
8	ARCADIS NEDERLAND BV	NL
9	ASOCIACION BC3 BASQUE CENTRE FOR CLIMATE CHANGE - KLIMA ALDAKETA IKERGAI	ES
10	HLAVNE MESTO SLOVENSKEJ REPUBLIKY BRATISLAVA	SK
11	THE UNIVERSITY OF MANCHESTER	UK
12	UNIVERZITA KOMENSKEHO 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

Sub-activity: 5.1.2

PLACARD

653255

Call: H2020-DRS-2014

Type of Action: CSA

Title: PLAtform for Climate Adaptation and Risk reDuction

Project total costs:	3,031,648 €	**Project EU contribution:**	2,852,760 €	**Duration (months):**	60

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 inpost-2015 agendas.

Partners:

Nr	Participant	Country
1	FUNDACAO DA FACULDADE DE CIENCIAS DA UNIVERSIDADE DE LISBOA FP	PT
2	STIFTELSEN THE STOCKHOLM ENVIRONMENT INSTITUTE	SE
3	HELMHOLTZ-ZENTRUM FUER UMWELTFORSCHUNG GMBH - UFZ	DE
4	FONDAZIONE CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI	IT
5	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD	UK
6	UMWELTBUNDESAMT GESELLSCHAFT MIT BESCHRANKER HAFTHUNG (UBA GMBH)	AT
8	UNIVERSITE DE GENEVE	CH
9	STICHTING INTERNATIONAL RED CROSS RED CRESCENT CENTRE ON CLIMATE CHANGE AND DISASTER PREPAREDNESS	NL
10	STICHTING WAGENINGEN RESEARCH	NL

Sub-activity: 5.1.2 **CD-LINKS** **642147**

Call: H2020-SC5-2014-two-stage **Type of Action:** RIA

Title: Linking Climate and Development Policies - Leveraging International Networks and Knowledge Sharing

Project total costs: 5,212,963 € **Project EU contribution:** 5,037,963 € **Duration (months):** 48

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	FONDAZIONE CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI	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 INTERNATIONALES	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 EDUCATION NATIONAL RESEARCH UNIVERSITY HIGHER SCHOOL OF ECONOMICS	RU
15	NATIONAL INSTITUTE FOR ENVIRONMENTAL STUDIES INCORPORATED ADMINISTRATIVE AGENCY	JP
16	RESEARCH INSTITUTE OF INNOVATIVE TECHNOLOGY FOR THE EARTH	JP

Call: H2020-SC5-2014-two-stage **Type of Action:** RIA

Title: Green growth and win-win strategies for sustainable climate action

Project total costs:	3,925,013 €	**Project EU contribution:**	3,624,763 €	**Duration (months):**	36

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 IKE	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	KR
11	JAGER JILL	AT
12	UNIVERSITA CA' FOSCARI VENEZIA	IT
13	BOGAZICI UNIVERSITESI	TR
14	UNIVERSITAS UDAYANA	ID
15	UNIVERSITY OF CAPE TOWN	ZA
16	ASSOCIATION 2 INVESTING INITIATIVE	FR

Sub-activity: 5.1.2 **IMPREX** **641811**

Call: H2020-WATER-2014-two-stage **Type of Action:** RIA

Title: IMproving PRedictions and management of hydrological EXtremes

Project total costs:	7,996,848 €	**Project EU contribution:**	7,996,848 €	**Duration (months):**	48

Abstract:

IMproving PRedictions and management of hydrological EXtremesFor 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 L'AGRICULTURE	FR
5	POTSDAM INSTITUT FUER KLIMAFOLGENFORSCHUNG	DE
6	ARCTIK SPRL	BE
7	BARCELONA SUPERCOMPUTING CENTER - CENTRO NACIONAL DE SUPERCOMPUTACION	ES
8	MET OFFICE	UK
9	THE RESEARCH COMMITTEE OF THE 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	NL
14	ADELPHI RESEARCH GEMEINNUTZIGE GMBH	DE
15	HKV LIJN IN WATER BV	NL
16	FUTUREWATER SL	ES
17	CETAQUA, CENTRO TECNOLOGICO DEL AGUA, FUNDACION 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 DEUTSCHESGEOFORSCHUNGSZENTRUM GFZ	DE
22	Bundesanstalt fuer Gewaesserkunde	DE
23	STICHTING WATER FOOTPRINT NETWORK	NL

Sub-activity: 5.1.3

SOCLIMPACT

776661

Call: H2020-SC5-2017-OneStageB **Type of Action:** RIA

Title: DownScaling CLImate imPACTs and decarbonisation pathways in EU islands, and enhancing socioeconomic and non-market evaluation of Climate Change for Europe, for 2050 and beyond.

Project total costs: 4,481,340 € **Project EU contribution:** 4,481,340 € **Duration (months):** 36

Abstract:

The warming of the climate system is unequivocal and continued emission of greenhouse gases will cause further warming and changes. Islands are particularly vulnerable to Climate Change (CC) consequences but the coarse spatial resolution of available projections makes it difficult to derive valid statements for islands. Moreover, science-based information about the economic impacts of CC in marine and maritime sectors is scarce, and current economic models lack of solid non-market assesment. Policy makers must have accurate information about likely impact chains and about the costs and benefits of possible strategies to implement efficient measures. SOCLIMPACT aims at modelling downscaled CC effects and their socioeconomic impacts in European islands for 2030–2100, in the context of the EU Blue Economy sectors, and assess corresponding decarbonisation and adaptation pathways, complementing current available projections for Europe, and nourishing actual economic models with non-market assessment, by:• Developing a thorough understanding on how CC will impact the EU islands located in different regions of the world.• Contributing to the improvement of the economic valuation of climate impacts by adopting revealed and stated preference methods.• Increasing the effectiveness of the economic modelling of climate impact chains, through the implementation of an integrated methodological framework (GINFORS, GEM-E3 and non-market indicators).• Facilitating climate-related policy decision making for Blue Growth, by ranking and mapping the more appropriate mitigation and adaptation strategies.• Delivering accurate information to policy makers, practitioners and other relevant stakeholders.SOCLIMPACT addresses completely this Work Programme providing advances in the economic valuation of climate-induced impacts, and in climate and economic models, allowing downscaled projections of complex impact chains, and facilitating the resilience capacity of these vulnerable lands.

Partners:

Nr	Participant	Country
1	UNIVERSIDAD DE LAS PALMAS DE GRAN CANARIA	ES
2	INSTITUTO TECNOLOGICO DE CANARIAS, S.A.	ES
3	UNIVERSITAT DE LES ILLES BALEARS	ES
4	CENTRO TECNOLOGICO DE CIENCIAS MARINAS	ES
5	UNIVERSIDAD DE CASTILLA - LA MANCHA	ES
6	GESELLSCHAFT FUER WIRTSCHAFTLICHE STRUKTURFORSCHUNG MBH	DE
7	TOURISME TERRITOIRES TRANSPORTS ENVIRONNEMENT CONSEIL	FR
8	AGENCIA REGIONAL DA ENERGIA EAMBIENTE DA REGIAO AUTONOMA DA MADEIRA	PT
9	THE CYPRUS INSTITUTE	CY
10	NATIONAL OBSERVATORY OF ATHENS	EL
11	Osservatorio Turistico delle Isole Europee	IT
12	anci sardegna	IT
13	AQUABIOTECH LIMITED	MT
14	UNIVERSITA TA MALTA	MT
15	INTERFUSION SERVICES LIMITED	CY
16	BUCKINGHAMSHIRE NEW UNIVERSITY	UK
17	AGENZIA NAZIONALE PER LE NUOVE TECNOLOGIE, L'ENERGIA E LO SVILUPPO ECONOMICO SOSTENIBILE	IT
18	UNIVERSITE DES ANTILLES	FR
19	E3-MODELLING IKE	EL
20	BALTIC ENVIRONMENTAL FORUM DEUTSCHLAND EV	DE
21	ALMA MATER STUDIORUM - UNIVERSITA DI BOLOGNA	IT
22	FONDAZIONE CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI	IT
23	FUNDACAO DA FACULDADE DE CIENCIAS DA UNIVERSIDADE DE LISBOA FP	PT
24	JOHANN WOLFGANG GOETHE-UNIVERSITATFRANKFURT AM MAIN	DE
25	KRITI	EL

Sub-activity: 5.1.3 **DEEDS** **776646**

Call: H2020-SC5-2017-OneStageB **Type of Action:** CSA

Title: DialoguE on European Decarbonisation Strategies

Project total costs:	2,993,831 €	**Project EU contribution:**	2,993,831 €	**Duration (months):**	36

Abstract:

The main objective of the DEEDS project is to create a broad dialogue on the vision for a carbon-free Europe by 2050 and associated decarbonisation pathways. DEEDS will do this through 1) developing a solid knowledge base and synthesizing six Decarbonisation Pathways documents for important sectors of the European economy: energy production, industry, mobility, agriculture, cities, and an integrated pathways document, 2) organizing a stakeholder dialogue for knowledge assessment, and co-creation of policies and strategies with policy makers (on different levels), business representatives, NGO's and other stakeholders, and 3) producing six policy briefs with policy recommendations and a Business Guide for decarbonisation in Europe (by WBCSD).DEEDS has designed a specific interface for supporting the EDPI and its High-level Panel in their tasks and has built in some flexibility to be able to accommodate questions and requests for 'deep dives' of the HLP and DG R&I. The project will support further alignment and coordination of European and Member State research and innovation through targeted Research & Policy Workshops that will result in a Research Agenda for Decarbonisation Pathways in Europe. We have secured cooperation with networks in Europe on several topics and levels relevant for the project that will assist DEEDS to invite stakeholders to the dialogue sessions and to disseminate the DEEDS outcomes to their constituency. The project is supported by a targeted communication and dissemination approach that will create outreach through traditional media, like a website, factsheets, brochures, and through social media, like twitter, short video clips, blog articles, etc.In this way DEEDS will strengthen the information flow, enhance the exchange of experiences on R&I activities, and creates an evidence based dialogue between science, business, policy and civil society on the decarbonization of Europe's economy.

Partners:

Nr	Participant	Country
1	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK TNO	NL
2	FONDAZIONE ENI ENRICO MATTEI	IT
3	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
4	E3-MODELLING IKE	EL
5	STICHTING ENERGIEONDERZOEK CENTRUM NEDERLAND	NL
6	EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH	CH
7	INTERNATIONALES INSTITUT FUER ANGEWANDTE SYSTEMANALYSE	AT
8	KIC INNOENERGY SE	NL
9	KUNGLIGA TEKNISKA HOEGSKOLAN	SE
10	POTSDAM INSTITUT FUER KLIMAFOLGENFORSCHUNG	DE
11	PAUL SCHERRER INSTITUT	CH
12	UNIVERSITY COLLEGE CORK - NATIONAL UNIVERSITY OF IRELAND, CORK	IE
13	UNIVERSITY COLLEGE LONDON	UK
14	WORLD BUSINESS COUNCIL FOR SUSTAINABLE DEVELOPMENT	CH
15	STIFTUNG WORLD FUTURE COUNCIL	DE

Sub-activity: 5.1.3

COACCH

776479

Call: H2020-SC5-2017-OneStageB

Type of Action: RIA

Title: CO-designing the Assessment of Climate CHange costs

Project total costs:	4,999,844 €	**Project EU contribution:**	4,999,844 €	**Duration (months):**	42

Abstract:

COACCH will develop an innovative science-practice and integrated approach to co-design and co-deliver an improved downscaled assessment of the risks and costs of climate change in Europe, working with end users from research, business, investment, and policy making communities throughout the project. COACCH will advance the evidence base on complex climate change impact chains, assessing their market, non-market, macroeconomic and social consequences in the EU. It will integrate spatially-explicit impact models, macroeconomic models with subnational resolution, statistical downscaling techniques and innovative non-modelling approaches, covering market (agriculture, forestry, fishery, industry, services, energy, built environment, infrastructure) and non-market sectors (ecosystems, health). It will explicitly look at competitiveness and growth, as well as at the social and economic repercussion of major global climate change in Europe. COACCH will deliver new knowledge on the impacts and economic consequences of climate tipping points of major concern for Europe, and explore the new concept of climate-induced socio-economic tipping points, at European and national level. COACCH will advance the economic valuation of climate action, identifying short to long-term mitigation and adaptation policy under climate change, including extreme events and tipping points. It will compare the respective performances according to different criteria of decision making under uncertainty, reducing uncertainty around valuation. The project will also produce a new generation of climate damage functions accessible to various users. Finally, COACCH will use a wide range of innovative communication and dissemination activities, to promote easier access to the results and ensure the outreach and impact of the project, and contribute to major international scientific networks and reports (IPCC, Climate-ADAPT platform).

Partners:

Nr	Participant	Country
1	FONDAZIONE ENI ENRICO MATTEI	IT
2	PAUL WATKISS ASSOCIATES LTD	UK
3	INTERNATIONALES INSTITUT FUER ANGEWANDTE SYSTEMANALYSE	AT
4	UNIVERSITAET GRAZ	AT
5	STICHTING VU	NL
6	ECOLOGIC INSTITUT gemeinnützige GmbH	DE
7	UNIVERZITA KARLOVA	CZ
8	FONDAZIONE CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI	IT
9	MINISTERIE VAN INFRASTRUCTUUR EN MILIEU	NL
10	ASOCIACION BC3 BASQUE CENTRE FOR CLIMATE CHANGE - KLIMA ALDAKETA IKERGAI	ES
11	CLIMATE ANALYTICS GMBH	DE
12	STICHTING DELTARES	NL
13	GCF - GLOBAL CLIMATE FORUM EV	DE
14	POTSDAM INSTITUT FUER KLIMAFOLGENFORSCHUNG	DE

Call: H2020-SC5-2016-OneStageB **Type of Action:** RIA

Title: European Market for Climate Services

Project total costs:	1,499,621 €	**Project EU contribution:**	1,499,621 €	**Duration (months):**	24

Abstract:

The project analyses the market structures and drivers, obstacles and opportunities from scientific, technical, legal, ethical, governance and socioeconomic vantage points. The analysis is grounded in economic and political science theories on how service markets with public and private features can develop, and how innovations may succeed. The consortium offers a good cross-section of representation from various vantage points in the climate services market, complemented by expert knowledge on market research and innovation policy. The consortium has excellent connections to many climate service user types and other stakeholders. The study will engage a large diversity of stakeholders in many ways, especially through the explorative market development exercises employing different co-design approaches. Next to reporting based analysis of market functioning and solutions, the protocols developed in the explorative market development exercises are meant for replication at large scale.

Partners:

Nr	Participant	Country
1	ILMATIETEEN LAITOS	FI
2	HELMHOLTZ-ZENTRUM GEESTHACHT ZENTRUM FUR MATERIAL- UND KUSTENFORSCHUNG GMBH	DE
3	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
4	ACCLIMATISE GROUP LTD	UK
5	FONDAZIONE CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI	IT
6	UNTERNEHMERTUM GMBH	DE
7	UNIVERSITEIT TWENTE	NL
8	JOANNEUM RESEARCH FORSCHUNGSGESELLSCHAFT MBH	AT
9	EUROPEAN NETWORK OF LIVING LABS	BE

Call: H2020-SC5-2016-OneStageB **Type of Action:** RIA

Title: EU Calculator: trade-offs and pathways towards sustainable and low-carbon European Societies

Project total costs:	5,875,174 €	**Project EU contribution:**	5,283,351 €	**Duration (months):**	36

Abstract:

EUCalc replies to topic a) Managing technology transition. The EUCalc project will deliver a much needed comprehensive framework for research, business, and decision making which enables an appraisal of synergies and trade-offs of feasible decarbonisation pathways on the national scale of Europe and its member countries + Switzerland. The novel and pragmatic modelling approach is rooted between pure complex energy system and emissions models and integrated impact assessment tools, introduces an intermediate level of complexity and a multi-sector approach and is developed in a co-design process with scientific and societal actors. EUCalc explores decisions made in different sectors, like power generation, transport, industry, agriculture, energy usage and lifestyles in terms of climatological, societal, and economic consequences. For politicians at European and member state level, stakeholders and innovators EUCalc will therefore provide a Transition Pathways Explorer, which can be used as a much more concrete planning tool for the needed technological and societal challenges, associated inertia and lock-in effects. EUCalc will enable to address EU sustainability challenges in a pragmatic way without compromising on scientific rigour. It is meant to become a widely used democratic tool for policy and decision making. It will close - based on sound model components - a gap between actual climate-energy-system models and an increasing demands of decision makers for information at short notice. This will be supported by involving an extended number of decision-makers from policy and business as well as other stakeholders through expert consultations and the co-design of a Transition Pathways Explorer, a My Europe 2050 education tool and a Massive Open Online Course.

Partners:

Nr	Participant	Country
1	POTSDAM INSTITUT FUER KLIMAFOLGENFORSCHUNG	DE
2	IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY AND MEDICINE	UK
3	CLIMACT SA	BE
4	BUILDINGS PERFORMANCE INSTITUTE EUROPE ASBL	BE
5	OSTERREICHISCHE GESELLSCHAFT FUR UMWELT UND TECHNIK	AT
6	KOBENHAVNS UNIVERSITET	DK
7	ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE	CH
8	UNIVERSITY OF EAST ANGLIA	UK
9	PANNON PRO INNOVACIOS SZOLGALTATO KORLATOLT FELELOSSEGU TARSASAG	HU
10	CMF CLIMATE MEDIA FACTORY UG (HAFTUNGSBESCHRANKT) GMBH	DE
11	T6 ECOSYSTEMS SRL	IT
12	FONDACIJA MREZA ZA PROMJENE JUGOISTOCNE EVROPE	BA
13	TECHNISCHE UNIVERSITEIT DELFT	NL

Sub-activity: 5.1.3

COP21 RIPPLES

730427

Call: H2020-SC5-2016-OneStageB **Type of Action:** RIA

Title: COP21: Results and Implications for Pathways and Policies for Low Emissions European Societies

Project total costs:	2,986,924 €	**Project EU contribution:**	2,986,924 €	**Duration (months):**	36

Abstract:

The COP21 outcome represents an important new strategic context for EU climate policy. Analysing the implications of this new context requires an interdisciplinary approach, combining analysis of the evolution of the international climate regime as well as of NDCs and their socio-economic implications. Such analysis is also urgent, given the timelines imposed by the Paris Agreement for a “facilitative dialogue” in 2018 with a view to creating the conditions for the revision of NDC in 2020. In order to address the context described above, this project has four objectives : 1) Assess the adequacy of the NDCs submitted at COP21 in light of the global temperature target of limiting warming to 2°C/1.5°C. Through the analysis of GHG scenarios and energy system scenarios , the project will pay particular attention to the concrete system changes induced by NDCs, and compare them with the changes required to meet the global temperature limit. The project will also analyse scenarios limiting warming to 1.5°C, and the impact of NDCs on other sectors, in particular land-use. 2) Assess the implications of NDCs and deeper mitigation pathways on other European socio-economic objectives. By integrating GHG and energy system scenarios into a range of different macro-economic, global energy system models and other quantified methodologies, the project will investigate implications for European socio-economic objectives related to innovation and technology deployment; trade and competiveness; investment, financial flows and economic growth (“green growth”); and global energy markets and energy security. 3. Assess the adequacy of the outcomes of COP21, and the implications and opportunities emerging from ongoing UNFCCC negotiations. The project will undertake a social sciences-based (in particular international law and international relations) assessment of the outcome of COP21. 4) Policy recommendations for EU climate policy and climate diplomacy.

Partners:

Nr	Participant	Country
1	FONDATION INSTITUT DE RECHERCHE POUR LE DEVELOPPEMENT DURABLE ET LES RELATIONS INTERNATIONALES	FR
2	FONDAZIONE CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI	IT
3	WISEEUROPA - FUNDACJA WARSZAWSKI INSTYTUT STUDIOW EKONOMICZNYCH I EUROPEJSKICH	PL
4	AGENZIA NAZIONALE PER LE NUOVE TECNOLOGIE, L'ENERGIA E LO SVILUPPO ECONOMICO SOSTENIBILE	IT
5	WUPPERTAL INSTITUT FUR KLIMA, UMWELT, ENERGIE GMBH	DE
6	BRUEGEL AISBL*	BE
7	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
8	VRIJE UNIVERSITEIT BRUSSEL	BE
9	UNIVERSITY COLLEGE LONDON	UK
10	FUNDACAO COORDENACAO DE PROJETOS PESQUISAS E ESTUDOS TECNOLOGICOS COPPETEC	BR
11	CLIMATE STRATEGIES	UK
12	UNIVERSITY OF EAST ANGLIA	UK
13	CLIMATE ANALYTICS GMBH	DE
14	SOFIISKI UNIVERSITET SVETI KLIMENT OHRIDSKI	BG
15	TSINGHUA UNIVERSITY	CN
16	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD	UK
17	UNIVERSITY OF CAPE TOWN	ZA
18	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF CAMBRIDGE	UK

Sub-activity: 5.1.3

INNOPATHS

730403

Call: H2020-SC5-2016-OneStageB **Type of Action:** RIA

Title: Innovation pathways, strategies and policies for the Low-Carbon Transition in Europe

Project total costs:	6,345,579 €	**Project EU contribution:**	5,996,716 €	**Duration (months):**	48

Abstract:

The Paris Agreement substantially increased the need for countries and regions to understand the full economic, social and environmental implications of the deep decarbonisation to which the global community is now committed. The EU has long had decarbonisation ambitions, but there remains considerable uncertainty as to precisely how these ambitions will be achieved, or what the impacts of such achievement will be on the EU economy and society more generally. INNOPATHS will resolve this uncertainty to the extent possible, will characterise and provide a quantification of the uncertainty which remains, and will describe in great detail a number of possible low-carbon pathways for the EU, together with the economic, social and environmental impacts to which they are likely to lead. These pathways will be co-designed with the aid of 23 stakeholders from different sectors who have already provided letters of support to INNOPATHS. INNOPATHS will suggest through this analysis how the benefits of these pathways, such as new industries, jobs and competitiveness, may be maximized, and how any negative impacts, such as those on low-income households, or on carbon-intensive sectors, may be mitigated. INNOPATHS will communicate its insights through the normal scientific channels, and make substantial contributions to the scientific literature, but will go well beyond this in terms of interactions with stakeholders, building on the co-design processes in the project to reach out to stakeholder networks of businesses, NGOs, local and national policy makers. INNOPATHS will create four innovative online tools to explain its pathways, technological transitions and policies, to different constituencies. Through these tools and other dissemination and communication mechanisms, INNOPATHS will have a substantial impact on the climate and energy policy debates up to and beyond 2020, increasing the probability that decisions in this area will be taken in an informed and cost-effective way

Partners:

Nr	Participant	Country
1	UNIVERSITY COLLEGE LONDON	UK
2	FONDAZIONE CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI	IT
3	POTSDAM INSTITUT FUER KLIMAFOLGENFORSCHUNG	DE
4	E3-MODELLING IKE	EL
5	AALTO-KORKEAKOULUSAATIO	FI
6	POLITECHNIKA WARSZAWSKA	PL
7	FONDATION NATIONALE DES SCIENCES POLITIQUES	FR
8	THE UNIVERSITY OF SUSSEX	UK
9	UNIVERSITEIT UTRECHT	NL
10	EUROPEAN UNIVERSITY INSTITUTE	IT
11	EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH	CH
12	ALLIANZ CLIMATE SOLUTIONS GmbH	DE
13	ICLEI EUROPEAN SECRETARIAT GMBH (ICLEI EUROPASEKRETARIAT GMBH)*	DE
14	NICE AND SERIOUS LTD	UK
15	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF CAMBRIDGE	UK

Sub-activity: 5.1.3

MARCO

730272

Call: H2020-SC5-2016-OneStageB

Type of Action: RIA

Title: MArket Research for a Climate Services Observatory

Project total costs:	1,530,054 €	**Project EU contribution:**	1,520,304 €	**Duration (months):**	24

Abstract:

Climate-related tools, products, data and services may greatly contribute to climate change mitigation and adaptation. However, current strategies face knowledge gaps, lack of visibility of climate services, and low awareness of key potential customers for using key information and the associated economic benefits. This reality triggers the need and potential for developing a global market for climate services. The 'MArket Research for a Climate services Observatory' (MARCO) proposal gathers market research firms, climate scientists, climate services practitioners, and innovation actors, around the Climate-KIC, to provide a detailed insight into the market for climate services in Europe, in line with the challenge of enabling market growth outlined in the EC's "R&I roadmap for climate services".The project's key objectives are to: assess the EU market of climate services; validate and enrich the market assessment with case studies; forecast future user needs and assess market growth until 2030; unveil opportunities and promote market growth.To achieve this, MARCO will build on a phased approach with feedback loops between several methodologies to ensure validation of findings. This will start with defining the framework for market characterisation, followed by exhaustive, integrated market research combining climate vulnerability analysis deriving into potential market estimation, confronted to actual transactional market quantification, qualitative surveys, and nine case studies on specific sectors and regions. This will be followed by a gap analysis and innovation modelling to reveal the untapped market. A foresight exercise will then outline market growth till 2030. Finally, recommendations for market observation and facilitation will be expressed.Stakeholders will be involved at all points of the process, with a continuous dialogue network and two workshops. The Climate KIC and partners will ensure sound dissemination of results, all made public.

Partners:

Nr	Participant	Country
1	CLIMATE KIC	FR
2	ACCLIMATISE GROUP LTD	UK
3	DANMARKS TEKNISKE UNIVERSITET	DK
4	ILMATIETEEN LAITOS	FI
5	HELMHOLTZ-ZENTRUM GEESTHACHT ZENTRUM FUR MATERIAL- UND KUSTENFORSCHUNG GMBH	DE
6	INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE	FR
7	JOANNEUM RESEARCH FORSCHUNGSGESELLSCHAFT MBH	AT
8	KMATRIX DATA SERVICES LIMITED	UK
9	LGI CONSULTING SARL	FR
10	SMITH INNOVATION APS	DK
11	UNTERNEHMERTUM GMBH	DE

Call: H2020-SC5-2016-OneStageB **Type of Action:** RIA

Title: Realising Innovation in Transitions for Decarbonisation

Project total costs:	4,500,000 €	**Project EU contribution:**	4,500,000 €	**Duration (months):**	48

Abstract:

It is high time for the EU to develop pathways and strategies for decarbonisation also in emissions intensive sectors such as steel, plastics, paper, and meat and dairy. These are sectors where low carbon transitions are still relatively unexplored. Some progressive companies and other actors are just beginning to consider such pathways. The overall aim of REINVENT is to help Europe achieve its long-term climate objectives, while supporting the development of other societal benefits and the economy. A new evidence-based framework to assess the viability, challenges and governance implications of decarbonisation pathways will be developed and tools provided. It builds on the integration of conceptual work, empirical mapping and case-studies of innovations and climate initiatives, co-creation of knowledge and co-design of pathways, and careful assessment of the implications for other societal goals. The approach is to study and understand transitions and emerging initiatives from within sectoral contexts where government climate policy is only one of many factors that shape perceptions and strategies. As a result, REINVENT supports systemic innovation and system-wide transformation in the studied sectors. The project provides stakeholders with access to leading research and analytical capacity concerning key dimensions of low carbon transitions; it is also a platform for dialogue and learning about feasible pathways so that policies can be better aligned with the specific needs and conditions in different sectors. REINVENT will make an innovative scientific and societal contribution through (a) focusing on important economic sectors that are relatively unexplored yet important for the whole economy, (b) studying transitions from within these sectors, and (c) taking whole value chains into account through (d) a new analytical approach capable of advancing our understanding of key drivers, dynamics and implications of decarbonisation.

Partners:

Nr	Participant	Country
1	LUNDS UNIVERSITET	SE
2	UNIVERSITEIT UTRECHT	NL
3	UNIVERSITY OF DURHAM	UK
4	WUPPERTAL INSTITUT FUR KLIMA, UMWELT, ENERGIE GMBH	DE
5	MINISTERIE VAN INFRASTRUCTUUR EN MILIEU	NL

Sub-activity: 5.1.3

EU-PolarNet

652641

Call: H2020-BG-2014-1

Type of Action: CSA

Title: Connecting Science with Society

Project total costs:	2,174,504 €	**Project EU contribution:**	2,174,503 €	**Duration (months):**	60

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 FUR POALR- UND MEERESFORSCHUNG	DE
2	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	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 DELISBOA	PT
8	RIJKSUNIVERSITEIT GRONINGEN	NL
9	NORGES FORSKNINGSRAD	NO
10	MINISTERIO DE ECONOMIA Y COMPETITIVIDAD	ES
11	AGENCIA ESTATAL CONSEJO SUPERIOR DEINVESTIGACIONES CIENTIFICAS	ES
12	UNIVERSITAT WIEN	AT
13	BULGARSKI ANTARKTICHESKI 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

Sub-activity: 5.1.3

TRANSrisk

642260

Call: H2020-SC5-2014-two-stage

Type of Action: RIA

Title: Transitions pathways and risk analysis for climate change mitigation and adaption strategies

Project total costs:	7,974,243 €	**Project EU contribution:**	7,454,018 €	**Duration (months):**	36

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	THE UNIVERSITY OF SUSSEX	UK
2	ASOCIACION BC3 BASQUE CENTRE FOR CLIMATE CHANGE - KLIMA ALDAKETA IKERGAI	ES
3	CAMBRIDGE ECONOMETRICS LIMITED	UK
4	STICHTING ENERGIEONDERZOEK CENTRUM NEDERLAND	NL
5	FUNDACJA NAUKOWA INSTYTUT BADAN STRUKTURALNYCH	PL
6	EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH	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	PONTIFICIA UNIVERSIDAD CATOLICA DE CHILE	CL

Sub-activity: 5.1.3

CARISMA

642242

Call: H2020-SC5-2014-one-stage

Type of Action: CSA

Title: Coordination and Assessment of Research and Innovation in Support of Climate Mitigation Actions

Project total costs:	2,066,654 €	**Project EU contribution:**	2,064,404 €	**Duration (months):**	42

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
5	UNIVERSITAET GRAZ	AT
6	STIFTELSEN THE STOCKHOLM ENVIRONMENT INSTITUTE	SE
7	ZENTRUM FUER EUROPAEISCHE WIRTSCHAFTSFORSCHUNG GmbH	DE
8	CENTRE FOR EUROPEAN POLICY STUDIES	BE
9	ENVIROS SRO	CZ
10	DANMARKS TEKNISKE UNIVERSITET	DK
11	I4CE - INSTITUTE FOR CLIMATE ECONOMICS	FR

Sub-activity: 5.2.1

BiodivScen

776617

Call: H2020-SC5-2017-OneStageB

Type of Action: ERA-NET-Cofund

Title: Promoting and implementing joint programming at the international level to reinforce research on the development of scenarios of biodiversity and ecosystem services

Project total costs: 21,212,123 €

Project EU contribution: 7,000,000 €

Duration (months): 60

Abstract:

Current knowledge and conventional awareness-raising have largely proven insufficient to tackle the issue of biodiversity and ecosystems degradation. In this context, scenarios of biodiversity and ecosystem services (ESS) can play a key role both in informing policy makers and practitioners and raising awareness on biodiversity issues for the general public, as it has been the case for climate change.By networking 27 funding agencies from 24 countries from Europe and other continents, BiodivScen aims to promote and support coordinated international research on scenarios of 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 improve the conservation and sustainable use of biodiversity and ecosystems.The BiodivScen objectives are to:- coordinate the research agendas of major European and interantional research funders to agree on shared research priorities related to scenarios of biodiversity & ESS- design and implement an ambitious joint call for research proposals focussed on the development of scenarios of biodiversity & ESS- promote and support research collaboration across national borders and across disciplinary boundaries, in order to build capacity, overcome fragmentation and have a lasting effect on the international research community and landscape- encourage and support dialogue and collaboration between academia and research stakeholders, and more particularly stakeholder engagement in the funded research projects, in order to increase the impact of research on policy and practice- ease rapid and efficient uptake of funded research results by the IPBES for its future assessments, and by other relevant initiatives- reinforce open access to data and data sharing- prepare a longer term collaboration between all BiodivScen partners in close relation to BiodivERsA and the Belmo

Partners:

Nr	Participant	Country
1	FONDATION FRANCAISE POUR LA RECHERCHE SUR LA BIODIVERSITE	FR
2	Ministerio de Ciencia, Tecnología e Innovación Productiva	AR
3	FONDS ZUR FÖRDERUNG DER WISSENSCHAFTLICHEN FORSCHUNG	AT
4	SERVICE PUBLIC FEDERAL DE PROGRAMMATION POLITIQUE SCIENTIFIQUE	BE
5	FUNDACAO DE AMPARO A PESQUISA DO ESTADO DE SAO PAULO	BR
6	BULGARIAN NATIONAL SCIENCE FUND	BG
7	SIHTASUTUS EESTI TEADUSAGENTUUR	EE
8	SUOMEN AKATEMIA	FI
9	AGENCE NATIONALE DE LA RECHERCHE	FR
10	DEUTSCHE FORSCHUNGSGEMEINSCHAFT	DE
11	DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV	DE
12	VIDEKFEJLESZTESI MINISZTERIUM	HU
13	ENVIRONMENTAL PROTECTION AGENCY OF IRELAND	IE
14	Programme d'Appui Stratégique à la Recherche Scientifique en Côte d'Ivoire	CI
15	Lietuvos mokslo taryba	LT
16	NORGES FORSKNINGSRAD	NO
17	NARODOWE CENTRUM NAUKI	PL
18	Unitatea Executiva pentru Finantarea Invatamantului Superior, a Cercetarii, Dezvoltarii si Inovarii	RO
19	SLOVENSKA AKADEMIA VIED	SK
20	MINISTERIO DE ECONOMIA, INDUSTRIA Y COMPETITIVIDAD	ES
21	FORSKNINGSRÅDET FÖR MILJÖ, AREELLA NÄRINGAR OCH SAMHÄLLSBYGGANDE	SE
22	SCHWEIZERISCHER NATIONALFONDS ZUR FORDERUNG DER WISSENSCHAFTLICHEN FORSCHUNG	CH
23	NEDERLANDSE ORGANISATIE VOOR WETENSCHAPPELIJK ONDERZOEK	NL
24	TURKIYE BILIMSEL VE TEKNOLOJIK ARASTIRMA KURUMU	TR

Call: H2020-SCC-NBS-1stage-2016 **Type of Action:** RIA

Title: Nature Based Solutions for re-naturing cities: knowledge diffusion and decision support platform through new collaborative models

Project total costs: 7,499,981 € **Project EU contribution:** 7,499,981 € **Duration (months):** 48

Abstract:

Based on a detailed mapping of urban challenges and relevant nature-based solutions (NBS), Nature4Cities aims at developing complementary and interactive modules to engage urban stakeholders in a collective-learning process about re-naturing cities, develop and circulate new business, financial and governance models for NBS projects, as well as provide tools for the impacts assessment, valorisation and follow-up of NBS projects. The different modules are:•a database of generic NBS and associated environmental, economic and social performances •an observatory of NBS projects best practices / case studies •a set of innovative business, financial and governance models for the deployment of NBS in a range of different contexts, together with a tool to help urban stakeholders identify eligible models regarding their NBS project contexts •a NBS project impact assessment toolbox providing capabilities for environmental, economic and social impacts evaluation at different stages in the project development cycle from opportunity/feasibility studies to design steps and project follow-up). This toolbox will built on a range of tools, from generic indicator-based assessment for early project stages, down to detailed modelisations of NBS behaviors.These modules that already have a proper purpose on their own, will furthermore be integrated in a NBS dissemination and assessment self-learning platform [N4C Platform] to assist NBS project developers along the entire life cycle of their projects from opportunity studies and project definition down to performance monitoring.Nature4Cities indicators, methodologies, tools and platform will be field tested in real working environments and on real nature-based solution projects and developments in selected cities in Europe, which will be partners of the project and engage their technical urban and environmental planning teams.

Partners:

Nr	Participant	Country
1	NOBATEK	FR
2	FUNDACION TECNALIA RESEARCH & INNOVATION	ES
3	LUXEMBOURG INSTITUTE OF SCIENCE AND TECHNOLOGY	LU
4	FUNDACIO EURECAT	ES
5	FUNDACION CARTIF	ES
6	CENTRE D ETUDES ET D EXPERTISE SUR LES RISQUES L ENVIRONNEMENT LA MOBILITE ET L AMENAGEMENT	FR
7	SZEGEDI TUDOMANYEGYETEM	HU
8	INSTITUT SUPERIEUR DES SCIENCES AGRONOMIQUES, AGROALIMENTAIRES, HORTICOLES ET DU PAYSAGE	FR
9	MIDDLE EAST TECHNICAL UNIVERSITY	TR
10	ACCIONA CONSTRUCCION SA	ES
11	RINA CONSULTING - D'APPOLONIA SPA	IT
12	GREEN4CITIES GMBH	AT
13	R2M SOLUTION SRL	IT
14	EKODENGE MUHENDISLIK MIMARLIK DANISMANLIK TICARET ANONIM SIRKETI	TR
15	ARGEDOR BILISIM TEKNOLOJILERI SANAYI VE TICARET LIMITED SIRKETI	TR
16	COLOUREE SRL	IT
17	INNOVA INTEGRA LIMITED	UK
18	TERRANIS SAS	FR
19	DUNEWORKS BV	NL
20	PLANTE&CITE	FR
21	MAGYAR URBANISZTIKAI TUDASKOZPONT NONPROFIT KFT	HU
22	CITTA METROPOLITANA DI MILANO	IT
23	CANKAYA BELEDIYESI	TR
24	SZEGED MEGYEI JOGU VAROS ONKORMANYZATA	HU
25	AYUNTAMIENTO DE ALCALA DE HENARES	ES
26	UNIVERSITE DE NANTES	FR

Call: H2020-SCC-NBS-2stage-2016 **Type of Action:** IA

Title: New Strategy for Re-Naturing Cities through Nature-Based Solutions

Project total costs: 14,811,824 € **Project EU contribution:** 13,970,642 € **Duration (months):** 60

Abstract:

Urban GreenUP aims at obtaining a tailored methodology (1) to support the co-development of Renaturing Urban Plans focused on climate change mitigation and adaptation and efficient water management, and (2) to assist in the implementation of NBS in an effective way. NBS classification and parametrization will be addressed and some resources to support decision making will be established as part of the project activities. A large scale and fully replicable demonstration action of NBS accompanied by innovative business models will provide evidences about the benefits of NBS contributing to the creation of new market opportunities for European companies, and fostering citizen insight and awareness about environmental problems.Three European cities will assume the demos as front-runners (Valladolid, Liverpool and Izmir), other set of two European cities will act as followers to strengthen the replication potential of the results (Ludwigsburg and Mantova) and finally three non-European cities (Medellín, Chengdu and Quy Nhon) will allow to identify the market opportunities for European companies out of Europe and fostering the European leadership in NBS implementation at global level.URBAN GreenUp also aims to: fostering the creation of a global market and EU international cooperation; deploy a wide Exploitation and Market deployment procedure for NBS solutions & deploy an Impact-based Communication and Dissemination strategy.

Partners:

Nr	Participant	Country
1	FUNDACION CARTIF	ES
2	AYUNTAMIENTO DE VALLADOLID	ES
3	ACCIONA CONSTRUCCION SA	ES
4	SINGULARGREEN SL	ES
5	FUNDACION CENTRO DE LAS NUEVAS TECNOLOGIAS DEL AGUA	ES
6	CONFEDERACION HIDROGRAFICA DEL DUERO	ES
7	LIVERPOOL CITY COUNCIL	UK
8	COMMUNITY FOREST TRUST	UK
9	THE UNIVERSITY OF LIVERPOOL	UK
10	IZMIR BUYUKSEHIR BELEDIYESI	TR
11	DE SURDURULEBILIR ENERJI VE INSAAT SANAYI TICARET LIMITED SIRKETI	TR
12	EGE UNIVERSITY	TR
13	IZMIR INSTITUTE OF TECHNOLOGY	TR
14	BITNET BILISIM HIZMETLERI LIMITED SIRKETI	TR
15	GMV AEROSPACE AND DEFENCE SA	ES
16	FONDAZIONE ICONS	IT
17	ACONDICIONAMIENTO TARRASENSE ASSOCIACION	ES
18	UNIVERSITA COMMERCIALE LUIGI BOCCONI	IT
19	CONG TY TNHH DAI HOC RMIT VIET NAM	VN
20	SOCIEDADE PORTUGUESA DE INOVACAO - CONSULTADORIA EMPRESARIAL E FOMENTO DA INOVACAO S.A.	PT
21	COMUNE DI MANTOVA	IT
22	STADT LUDWIGSBURG	DE
23	ALCALDIA DE MEDELLIN	CO
24	BIN DINH PEOPLE'S COMMITTEE	VN
25	SCIENCE AND TECHNOLOGY BUREAU OF CHENGDU HI-TECH INDUSTRIAL DEVELOPMENT ZONE	CN

Sub-activity: 5.2.1

GROW GREEN

730283

Call: H2020-SCC-NBS-2stage-2016 **Type of Action:** IA

Title: Green Cities for Climate and Water Resilience, Sustainable Economic Growth, Healthy Citizens and Environments

Project total costs:	11,589,852 €	**Project EU contribution:**	11,224,058 €	**Duration (months):**	60

Abstract:

The frontrunner cities of Manchester (UK), Valencia (Spain), Wroclaw (Poland) and Wuhan (China) and the follower cities Brest(France), Zadar (Croatia) and Modena (Italy) are currently inhabited by 12.7 million people and sit at the heart of wider metropolitan areas which are home to 17.8 million people. All cities already experience flooding and heat stress, with projections for these issues to increase due to climate change and ongoing development. Working in complex, resource-constrained urban environments, the municipalities for each city have committed to delivering joined-up, cost-effective, smart solutions to address these and other urban challenges. They recognise that the cities of the future will need to achieve more with less resources and deliver genuine sustainable development that realises a broad range of social, economic and environmental objectives. Each city believes that nature-based solutions (NBS) are a critical part of this approach.GROW GREEN brings the partner cities together on the basis of these similarities but also their differences. Across the 6 European and 1 Chinese City they represent the range of different cities that are found across the world, and the different climate risks that they face. The cities will demonstrate a replicable approach for the development and implementation of city NBS strategies.The outcome will be more than simply demonstrating a methodology that works in the partner cities. GROW GREEN will provide the platform for a step change in the way that NBS are embedded in the long-term planning, development, operation and management of cities around the world. The project outputs will be promoted directly to 4-5 follower+ cities in Latin America, Africa and India to encourage them to develop and implement NBS strategies and to 146 Chinese ‘Sponge Cities’. These channels have been designed to create global demand for NBS and to promote European NBS products and services to meet this demand.

Partners:

Nr	Participant	Country
1	MANCHESTER CITY COUNCIL	UK
2	MANCHESTER CLIMATE CHANGE AGENCY CIC	UK
3	AYUNTAMIENTO DE VALENCIA	ES
4	FUNDACION DE LA COMUNITAT VALENCIANA PARA LA PROMOCION ESTRATEGICA EL DESARROLLO Y LA INNOVACION URBANA	ES
5	WROCLAW MIASTO	PL
6	AGENCJA ROZWOJU AGLOMERACJI WROCLAWSKIEJ SPOLKA AKCYJNA	PL
7	FUNDACION TECNALIA RESEARCH & INNOVATION	ES
8	GRAD ZADAR	HR
9	COMUNE DI MODENA	IT
10	BREST METROPOLE	FR
11	BIPOLAIRE ARQUITECTOS SLP	ES
12	OUISHARE	FR
13	UNIVERSITAT POLITECNICA DE VALENCIA	ES
14	THE UNIVERSITY OF MANCHESTER	UK
15	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF CAMBRIDGE	UK
16	UICN, BUREAU DE REPRESENTATION AUPRES DE L'UNION EUROPEENNE AISBL	BE
17	UNION INTERNATIONALE POUR LA CONSERVATION DE LA NATURE ET DE SES RESSOURCES	CH
18	TRINOMICS BV	NL
19	UNIWERSYTET PRZYRODNICZY WE WROCLAWIU	PL
20	Commission for the New Economy	UK
21	ACONDICIONAMIENTO TARRASENSE ASSOCIACION	ES
22	THE GUINNESS PARTNERSHIP LIMITED	UK

Sub-activity: 5.2.1

EN-SUGI

730254

Call: H2020-SCC-NBS-1stage-2016

Type of Action: ERA-NET-Cofund

Title: Eranet Sustainable Urbanisation Global Initiative

Project total costs:	18,649,260 €	**Project EU contribution:**	5,000,053 €	**Duration (months):**	60

Abstract:

Cities around the globe are struggling to meet the needs of their citizens with respect to food, energy and water. These three sectors are inextricably linked and actions in one sector more often have impacts in one or both of the others; these interacting sectors can therefore be seen as a Food-Energy-Water Nexus (FEW Nexus) of systems. The ERANET Sustainable Urbanisation Global Initiative (EN-SUGI) will bring together the fragmented research and innovation expertise across Europe and beyond to find innovative new solutions to this FEW Nexus challenge. Furthermore, by linking the activity of the Joint Programming Initiative (JPI) Urban Europe and the Belmont Forum (BF), EN-SUGI develops more resilient, applied urban solutions that bring research and innovation together from across the globe.EN-SUGI is a project that foresees the participation of 19 Funding Agencies eligible for the EU top up, 18 from JPI Urban Europe and 1 from Argentina, and 6 FAs non eligible for EU top up, under the umbrella of the Belmont forum , collaborating on a volunteer base.EN-SUGI Main objectives and impacts are:To support development of practical innovations and new collaborative research that will allow urban areas to understand and address the challenges of the Food-Energy-Water systems. (Impact = 12-14 projects funded, and 15 cities/local authorities engaged)To provide a framework for aligning R&I agendas of JPI Urban Europe and the BF,. The alignment will help foster transdisciplinary collaboration and co-creation in research and innovation, and facilitate the use of global expertise and knowledge (Impact = 24 funding organisations involved)EN-SUGI will foster development of international relationships between the different parts of the research and innovation community – to enable them to contribute to addressing those challenges and goals, while aligning them to wider, strategic initiatives, including the SRIA agenda, Future Earth and UN –Habitat.

Partners:

Nr	Participant	Country
1	The Technology Strategy Board	UK
2	NEDERLANDSE ORGANISATIE VOOR WETENSCHAPPELIJK ONDERZOEK	NL
3	OESTERREICHISCHE FORSCHUNGSFOERDERUNGSGESELLSCHAFT MBH	AT
4	FORSCHUNGSZENTRUM JULICH GMBH	DE
5	FORSKNINGSRÅDET FÖR MILJÖ, AREELLA NÄRINGAR OCH SAMHÄLLSBYGGANDE	SE
6	ECONOMIC AND SOCIAL RESEARCH COUNCIL	UK
7	Unitatea Executiva pentru Finantarea Invatamantului Superior, a Cercetarii, Dezvoltarii si Inovarii	RO
8	FONDS VOOR WETENSCHAPPELIJK ONDERZOEK-VLAANDEREN	BE
9	BUNDESMINISTERIUM FUER VERKEHR, INNOVATION UND TECHNOLOGIE	AT
10	AGENCE NATIONALE DE LA RECHERCHE	FR
11	JAVNA AGENCIJA ZA RAZISKOVALNO DEJAVNOST REPUBLIKE SLOVENIJE	SI
12	IDRYMA PROOTHISIS EREVNAS	CY
13	THE ARTS AND HUMANITIES RESEARCH COUNCIL	UK
14	VALSTS IZGLITIBAS ATTISTIBAS AGENTURA	LV
15	NORGES FORSKNINGSRAD	NO
16	Institut pour l'Encouragement de la Recherche scientifique et de l'Innovation de Bruxelles	BE
17	TURKIYE BILIMSEL VE TEKNOLOJIK ARASTIRMA KURUMU	TR
18	Ministerio de Ciencia, Tecnología e Innovación Productiva	AR
19	BUNDESMINISTERIUM FUER BILDUNG UND FORSCHUNG	DE
20	STATENS ENERGIMYNDIGHET	SE
21	NARODOWE CENTRUM NAUKI	PL

Sub-activity: 5.2.1

NATURVATION

730243

Call: H2020-SCC-NBS-1stage-2016

Type of Action: RIA

Title: Nature Based Urban Innovation

Project total costs:	7,798,296 €	**Project EU contribution:**	7,798,296 €	**Duration (months):**	48

Abstract:

Nature-Based Solutions (NBS) have the potential to respond to climate change, enhance biodiversity and improve environmental quality while contributing to economic regeneration and social well-being. Yet there is a substantial gap between the promise of NBS and their uptake. To unlock the potential of NBS for sustainable urban development, NATURVATION will take a transdisciplinary, internationally comparative approach to: advance assessment approaches (Objective 1) to capture the multiple impacts & values of NBS to deliver a robust evidence base for decision-making; enable innovation (Objective 2) to identify the most promising governance, business/finance and participation models and how to overcome the systemic conditions that currently limit their use to support systemic integration; and generate momentum to realise the potential of NBS through co-design, co-development & co-implementation of new partnerships, knowledge, recommendations, processes and tools required to build capacity, enable replication and foster cultural change (Objective 3). Our transdisciplinary approach working with 'urban-regional innovation partnerships' in six different cities and a Task Force of highly respected international organisations working in this arena integrates science, social science and humanities (SSH) and practical expertise and experience to achieve a step-change in the use of NBS for urban sustainability.

Partners:

Nr	Participant	Country
1	UNIVERSITY OF DURHAM	UK
2	KOZEP-EUROPAI EGYETEM	HU
3	ECOLOGIC INSTITUT gemeinnützige GmbH	DE
4	ICLEI EUROPEAN SECRETARIAT GMBH (ICLEI EUROPASEKRETARIAT GMBH)*	DE
5	LEIBNIZ-INSTITUT FUR LANDERKUNDE EV	DE
6	MINISTERIE VAN INFRASTRUCTUUR EN MILIEU	NL
7	LUNDS UNIVERSITET	SE
8	UNIVERSITAT AUTONOMA DE BARCELONA	ES
9	UNIVERSITEIT UTRECHT	NL
10	SERVEIS DE SUPORT A LA GESTIO SL	ES
11	MAGYAR TUDOMANYOS AKADEMIA KOZGAZDASAG- ES REGIONALIS TUDOMANYI KUTATOKOZPONT	HU
12	NEWCASTLE CITY COUNCIL	UK
13	MALMO STAD	SE
14	GEMEENTE UTRECHT	NL

Sub-activity: 5.2.1

CONNECTING Nature

730222

Call: H2020-SCC-NBS-2stage-2016 **Type of Action:** IA

Title: COproductioN with NaturE for City Transitioning, INnovation and Governance

Project total costs: 12,002,568 € **Project EU contribution:** 11,394,282 € **Duration (months):** 60

Abstract:

The overarching objective of CONNECTING is to position Europe as a global leader in the innovation and implementation of nature-based solutions. The project partners will form a community of cities fostering peer-to-peer, transdisciplinary capacity-building between front-runner, fast-follower and multiplier cities. CONNECTING will co-develop the policy and practices necessary to scale up urban resilience, innovation and governance via nature-based solutions. An open innovation ecosystem approach bringing together city governments, SMEs, academia and civic society will be used to co-produce usable and actionable knowledge in all cities. CONNECTING will provide the reference framework for a new generation of urban nature-based solution processes and empower transitioning ambassadors who will globalise this approach through a strategy targeting multiplier cities. This novel approach, coupled with the high capacity of the consortium, makes CONNECTING an exciting prospect. In addition, linking all open-sourced data to the Oppla platform will ensure perpetuation beyond the end of the project.

Partners:

Nr	Participant	Country
1	THE PROVOST, FELLOWS, FOUNDATION SCHOLARS & THE OTHER MEMBERS OF BOARD OF THE COLLEGE OF THE HOLY & UNDIVIDED TRINITY OF QUEEN ELIZABETH NEAR DUBLIN	IE
2	STAD GENK	BE
3	GLASGOW CITY COUNCIL	UK
4	MIASTO POZNAN	PL
5	Ayuntamiento de A Coruna	ES
6	CITTA METROPOLITANA DI BOLOGNA	IT
7	OBSHTINA BURGAS	BG
8	MUNICIPALITY OF IOANNINA	EL
9	EMPRESA MUNICIPAL DE INICIATIVAS Y ACTIVIDADES EMPRESARIALES DE MALAGA SA	ES
10	ANAPTYXIAKI ETAIREIA LEFKOSIAS (ANEL) LTD	CY
11	DIMOS PAVLOU MILAS	EL
12	SARAJEVSKA REGIONALNA RAZVOJNA AGENCIJA SERDA DOO SARAJEVO	BA
13	CENTER FOR ECOLOGICAL-NOOSPHERE STUDIES NATIONAL ACADEMY OF SCIENCES OF THE REPUBLIC OF ARMENIA	AM
14	DUTCH RESEARCH INSTITUTE FOR TRANSITIONS BV	NL
15	UNIVERSITY OF EAST LONDON	UK
16	UNIVERSIDADE DA CORUNA	ES
17	HUMBOLDT-UNIVERSITAET ZU BERLIN	DE
18	UNIWERSYTET IM. ADAMA MICKIEWICZA W POZNANIU	PL
19	UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN	IE
20	UNIVERSITATEA DE VEST DIN TIMISOARA	RO
21	ABU INTERNATIONAL PROJECT MANAGEMENT LIMITED	IE
22	BIOAZUL	ES
23	CLIMATE ALLIANCE - KLIMA-BUENDNIS - ALIANZA DEL CLIMA e.V.	DE
24	HELIX PFLANZEN GMBH	DE
25	ICLEI EUROPEAN SECRETARIAT GMBH (ICLEI EUROPASEKRETARIAT GMBH)*	DE
26	TTI-Technologie-Transfer-Initiative GmbH	DE
27	GIS and RS Consulting Center GeoGraphic	GE
28	URBANISTICNI INSTITUT REPUBLIKE SLOVENIJE	SI
29	OPPLA EEIG	NL

Call: H2020-SCC-NBS-2stage-2016 **Type of Action:** IA

Title: Urban Nature Labs

Project total costs: 14,278,699 € **Project EU contribution:** 12,768,932 € **Duration (months):** 60

Abstract:

UNaLab will develop, via co-creation with stakeholders and implementation of 'living lab' demonstration areas, a robust evidence base and European framework of innovative, replicable, and locally-attuned nature-based solutions to enhance the climate and water resilience of cities. UNaLab focuses on urban ecological water management, accompanied with greening measures and innovative and inclusive urban design. The UNaLab partners aim to develop smarter, more inclusive, more resilient and more sustainable local societies through nature based innovation jointly created with and for stakeholders and citizens. UNaLab's 3 front runner cities: Tampere, Eindhoven and Genova, have a track record in smart and citizen driven solutions for sustainable development. They support 7 follower cities: Stavanger, Prague, Castellon, Cannes, Basaksehir, Hong Kong and Buenos Aires plus share experiences with observers as City of Guangzhou and the Brazilian network of Smart Cities. Therefore UNaLab results will impact on different urban socio-economic realities, with diversity in size, challenges and climate conditions. In order to create an EU reference demonstration and go-to-market environment for NBS, UNaLab will use and further develop the ENoLL Urban Living Lab model, and the European Awareness Scenario Workshop method for the co-creation of solutions, and the roadmap approach, in this way achieving an innovative NBS toolbox. Roadmaps will be used in all 10 cities, but in particular serve the follower cities. VTT, with a track record in the field of urban sustainability and Smart Cities, leads UNaLab. The UNaLab consortium is comprised of 29 partners across 12 different European countries and three non-EU countries. The consortium is well-balanced, representing key stakeholders within the value chain of urban challenges and smart, sustainable cities (public bodies, research institutions, large industries, small and medium enterprises.

Partners:

Nr	Participant	Country
1	Teknologian tutkimuskeskus VTT Oy	FI
2	FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	DE
3	GEMEENTE EINDHOVEN	NL
4	COMUNE DI GENOVA	IT
5	TAMPEREEN KAUPUNKI	FI
6	Stavanger kommune	NO
7	AYUNTAMIENTO DE CASTELLON DE LA PLANA	ES
8	COMMUNE DE CANNES	FR
9	INSTITUT PLANOVANI A ROZVOJE HLAVNIHO MESTA PRAHY	CZ
10	TC BASAKSEHIR BELEDIYESI	TR
11	EUROPEAN NETWORK OF LIVING LABS	BE
12	European Regions Research and Innovation Network	BE
13	LAND ITALIA SRL	IT
14	ENGINEERING - INGEGNERIA INFORMATICA SPA	IT
15	M3S SRL	IT
16	RAMBOLL MANAGEMENT CONSULTING OY	FI
17	INNOHUB BV	NL
18	P.G.KUIJPERS & ZONEN BV	NL
19	RINA CONSULTING - D'APPOLONIA SPA	IT
20	INFRASTRUTTURE RECUPERO ENERGIA AGENZIA REGIONALE LIGURE - I.R.E. SPA	IT
21	FUNDACIO GENERAL DE LA UNIVERSITAT JAUME I FUNDACIO DE LA COMUNITAT VALENCIANA	ES
22	HLAVNI MESTO PRAHA	CZ
23	TECHNISCHE UNIVERSITEIT EINDHOVEN	NL
24	UNIVERSIDADE DE AVEIRO	PT
25	UNIVERSITAET STUTTGART	DE
26	LULEA TEKNISKA UNIVERSITET	SE
27	HONG KONG POLYTECHNIC UNIVERSITY	CN
28	UBATEC SA	AR

Call: H2020-SC5-2015-two-stage **Type of Action:** RIA

Title: Adaptive Management of Barriers in European Rivers

Project total costs: 6,238,104 € **Project EU contribution:** 6,020,173 € **Duration (months):** 48

Abstract:

Rivers rank among some of the most threatened ecosystems in the world, and are the focus of costly restoration programmes that cost billions to taxpayers. Much of Europe depends on water from rivers for drinking, food production, and the generation of hydropower, which is essential for meeting the EU renewable energy target. Yet only half the EU surface waters have met the WFD's 2015 target of good ecological status, due in part to the fragmentation of habitats caused by tens of thousands of dams and weirs which also pose a flood hazard. Some barriers are old and out of use, but may have historical value, while the life span of others will soon come to an end and may need to be removed. But barriers also provide energy, water, fishing and leisure opportunities, and may also help to prevent the spread of aquatic invasive species. Improving stream connectivity has been flagged as one of the priorities for more efficient stream restoration but effective rehabilitation of ecosystem functioning in European rivers needs to take the complexity and trade-offs imposed by barriers into account. AMBER will deliver innovative solutions to river fragmentation in Europe by developing more efficient methods of restoring stream connectivity through adaptive barrier management. The project seeks to address the complex challenge of river fragmentation through a comprehensive barrier adaptive management process, based on the integration of programme design, management, and monitoring to systematically test assumptions about barrier mitigation, adapt and learn.

Partners:

Nr	Participant	Country
1	SWANSEA UNIVERSITY	UK
2	UNIVERSITY OF DURHAM	UK
3	UNIVERSITY OF SOUTHAMPTON	UK
4	UNIVERSITY OF THE HIGHLANDS AND ISLANDS LBG	UK
5	DANMARKS TEKNISKE UNIVERSITET	DK
6	UNIVERSITY COLLEGE CORK - NATIONAL UNIVERSITY OF IRELAND, CORK	IE
7	IASCACH INTIRE EIREANN	IE
8	STICHTING WERELD VISMIGRATIE	NL
9	UNIVERSIDAD DE OVIEDO	ES
10	ASOCIACION PARA EL ESTUDIO Y MEJORADE LOS SALMONIDOS AEMS	ES
11	EUROPEJSKIE REGIONALNE CENTRUM EKOHYDROLOGII POLSKIEJ AKADEMII NAUK	PL
12	INSTYTUT RYBACTWA SRODLADOWEGO IM STANISTAWA SAKOWICZA	PL
13	POLITECNICO DI MILANO	IT
14	CONSERVATOIRE NATIONAL DU SAUMON SAUVAGE	FR
15	WWF SCHWEIZ	CH
16	KAUPPERT KLEMENS	DE
17	SYDKRAFT HYDROPOWER AB	SE
18	INNOGY SE	DE
19	JRC -JOINT RESEARCH CENTRE- EUROPEAN COMMISSION	BE
20	ELECTRICITE DE FRANCE	FR

Call: H2020-SC5-2015-two-stage **Type of Action:** RIA

Title: Marine Ecosystem Restoration in Changing European Seas

Project total costs:	6,651,118 €	**Project EU contribution:**	6,651,118 €	**Duration (months):**	48

Abstract:

The project MERCES is focused on the restoration of different degraded marine habitats, with the aim of: 1) assessing the potential of different technologies and approaches; 2) quantifying the returns in terms of ecosystems services and their socio-economic impacts; 3) defining the legal-policy and governance frameworks needed to optimize the effectiveness of the different restoration approaches. Specific aims include: a) improving existing, and developing new, restoration actions of degraded marine habitats; b) increasing the adaptation of EU degraded marine habitats to global change; c) enhancing marine ecosystem resilience and services; d) conducting cost-benefit analyses for marine restoration measures; e) creating new industrial targets and opportunities.To achieve these objectives MERCES created a multi-disciplinary consortium with skills in marine ecology, restoration, law, policy and governance, socio-economics, knowledge transfer, dissemination and communication. MERCES will start from the inventory of EU degraded marine habitats (WP1), conduct pilot restoration experiments (WP2, WP3, WP4), assess the effects of restoration on ecosystem services (WP5). The legal, policy and governance outputs will make effective the potential of marine restoration (WP6) and one dedicated WP will assess the socio-economic returns of marine ecosystems' restoration (WP7). The transfer of knowledge and the links with the industrial stakeholders will be the focus of WP8. The results of MERCES will be disseminated to the widest audience (WP9). The project will be managed through a dedicated management office (WP10).MERCES will contribute to the Blue Growth by: i) improving the EU scientific knowledge on marine restoration, ii) contributing to EU Marine Directives; iii) implementing the Restoration Agenda, iv) enhancing the industrial capacity in this field, v) increasing the competitiveness of EU in the world market of restoration, and vi) offering new employment opportunities.

Partners:

Nr	Participant	Country
1	UNIVERSITA POLITECNICA DELLE MARCHE	IT
2	AGENCIA ESTATAL CONSEJO SUPERIOR DEINVESTIGACIONES CIENTIFICAS	ES
3	HELLENIC CENTRE FOR MARINE RESEARCH	EL
4	IMAR- INSTITUTO DO MAR	PT
5	ALFRED-WEGENER-INSTITUT HELMHOLTZ-ZENTRUM FUR POALR- UND MEERESFORSCHUNG	DE
6	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
7	NATIONAL UNIVERSITY OF IRELAND GALWAY	IE
8	WAGENINGEN UNIVERSITY	NL
9	AALBORG UNIVERSITET	DK
10	ABO AKADEMI	FI
11	TARTU ULIKOOL	EE
12	FACULTY OF SCIENCE UNIVERSITY OF ZAGREB	HR
13	CONSORZIO NAZIONALE INTERUNIVERSITARIO PER LE SCIENZE DEL MARE ASSOCIAZIONE	IT
14	STICHTING NIOZ, KONINKLIJK NEDERLANDS INSTITUUT VOOR ONDERZOEK DER ZEE	NL
15	ECOPATH INTERNATIONAL INITIATIVE ASOCIACION	ES
16	STICHTING KATHOLIEKE UNIVERSITEIT	NL
17	NORSK INSTITUTT FOR VANNFORSKNING	NO
18	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
19	ECOREACH SRL	IT
21	STUDIO ASSOCIATO GAIA SNC DEI DOTTORI ANTONIO SARA E MARTINA MILANESE	IT
22	DEEP SEAS ENVIRONMENTAL SOLUTIONS LTD	UK
23	Marine Law and Ocean Policy Research Services Ltd	IE
24	WWF ITALIA	IT
25	WCMC LBG	UK
26	AKDENIZ KORUMA DERNEGI	TR
27	UNIVERSITAT DE BARCELONA	ES
28	HERIOT-WATT UNIVERSITY	UK
29	IODINE SPRL	BE

Sub-activity: 5.2.1 **SponGES** **679849**

Call: H2020-BG-2015-2 **Type of Action:** RIA

Title: Deep-sea Sponge Grounds Ecosystems of the North Atlantic: an integrated approach towards their preservation and sustainable exploitation

Project total costs: 10,225,865 € **Project EU contribution:** 9,994,303 € **Duration (months):** 48

Abstract:

The objective of SponGES is to develop an integrated ecosystem-based approach to preserve and sustainably use vulnerable sponge ecosystems of the North Atlantic. The SponGES consortium, an international and interdisciplinary collaboration of research institutions, environmental non-governmental and intergovernmental organizations, will focus on one of the most diverse, ecologically and biologically important and vulnerable marine ecosystems of the deep-sea - sponge grounds – that to date have received very little research and conservation attention. Our approach will address the scope and challenges of EC's Blue Growth Call by strengthening the knowledge base, improving innovation, predicting changes, and providing decision support tools for management and sustainable use of marine resources. SponGES will fill knowledge gaps on vulnerable sponge ecosystems and provide guidelines for their preservation and sustainable exploitation. North Atlantic deep-sea sponge grounds will be mapped and characterized, and a geographical information system on sponge grounds will be developed to determine drivers of past and present distribution. Diversity, biogeographic and connectivity patterns will be investigated through a genomic approach. Function of sponge ecosystems and the goods and services they provide, e.g. in habitat provision, bentho-pelagic coupling and biogeochemical cycling will be identified and quantified. This project will further unlock the potential of sponge grounds for innovative blue biotechnology namely towards drug discovery and tissue engineering. It will improve predictive capacities by quantifying threats related to fishing, climate change, and local disturbances. SpongeGES outputs will form the basis for modeling and predicting future ecosystem dynamics under environmental changes. SponGES will develop an adaptive ecosystem-based management plan that enables conservation and good governance of these marine resources on regional and international levels.

Partners:

Nr	Participant	Country
1	UNIVERSITETET I BERGEN	NO
2	FLORIDA ATLANTIC UNIVERSITY BOARD OF TRUSTEES	US
3	INSTITUTO ESPANOL DE OCEANOGRAFIA	ES
4	UPPSALA UNIVERSITET	SE
5	NATURAL HISTORY MUSEUM	UK
6	AGENCIA ESTATAL CONSEJO SUPERIOR DEINVESTIGACIONES CIENTIFICAS	ES
7	UNIVERSITEIT VAN AMSTERDAM	NL
8	WAGENINGEN UNIVERSITY	NL
9	BANGOR UNIVERSITY	UK
10	UNIVERSITY OF BRISTOL	UK
11	UNIVERSIDADE DO MINHO	PT
12	IMAR- INSTITUTO DO MAR	PT
13	ECOLOGY ACTION CENTRE	CA
14	STICHTING NIOZ, KONINKLIJK NEDERLANDS INSTITUUT VOOR ONDERZOEK DER ZEE	NL
15	HELMHOLTZ ZENTRUM FUR OZEANFORSCHUNG KIEL	DE
16	UNIVERSITEIT UTRECHT	NL
17	STUDIO ASSOCIATO GAIA SNC DEI DOTTORI ANTONIO SARA E MARTINA MILANESE	IT
18	FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS FAO	IT
19	ALFRED-WEGENER-INSTITUT HELMHOLTZ-ZENTRUM FUR POALR- UND MEERESFORSCHUNG	DE

Sub-activity: 5.2.1

ATLAS

678760

Call: H2020-BG-2015-2 **Type of Action:** RIA

Title: A Trans-AtLantic Assessment and deep-water ecosystem-based Spatial management plan for Europe

Project total costs:	9,207,916 €	**Project EU contribution:**	9,100,317 €	**Duration (months):**	48

Abstract:

ATLAS creates a dynamic new partnership between multinational industries, SMEs, governments and academia to assess the Atlantic's deep-sea ecosystems and Marine Genetic Resources to create the integrated and adaptive planning products needed for sustainable Blue Growth. ATLAS will gather diverse new information on sensitive Atlantic ecosystems (incl. VMEs and EBSAs) to produce a step-change in our understanding of their connectivity, functioning and responses to future changes in human use and ocean climate. This is possible because ATLAS takes innovative approaches to its work and interweaves its objectives by placing business, policy and socioeconomic development at the forefront with science. ATLAS not only uses trans-Atlantic oceanographic arrays to understand and predict future change in living marine resources, but enhances their capacity with new sensors to make measurements directly relevant to ecosystem function. The ATLAS team has the track record needed to meet the project's ambitions and has already developed a programme of 25 deep-sea cruises, with more pending final decision. These cruises will study a network of 12 Case Studies spanning the Atlantic including sponge, cold-water coral, seamount and mid-ocean ridge ecosystems. The team has an unprecedented track record in policy development at national, European and international levels. An annual ATLAS Science-Policy Panel in Brussels will take the latest results and Blue Growth opportunities identified from the project directly to policy makers. Finally, ATLAS has a strong trans-Atlantic partnership in Canada and the USA where both government and academic partners will interact closely with ATLAS through shared cruises, staff secondments, scientific collaboration and work to inform Atlantic policy development. ATLAS has been created and designed with our N American partners to foster trans-Atlantic collaboration and the wider objectives of the Galway Statement on Atlantic Ocean Cooperation.

Partners:

Nr	Participant	Country
1	THE UNIVERSITY OF EDINBURGH	UK
2	AARHUS UNIVERSITET	DK
3	IMAR- INSTITUTO DO MAR	PT
4	SECRETARIA REGIONAL DO MAR, CIENCIA E TECNOLOGIA	PT
5	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
6	GIANNI MATTHEW	NL
7	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
8	MARINE SCOTLAND	UK
9	UNIVERSITAET BREMEN	DE
11	STICHTING NIOZ, KONINKLIJK NEDERLANDS INSTITUUT VOOR ONDERZOEK DER ZEE	NL
12	DYNAMIC EARTH CHARITABLE TRUST	UK
13	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD	UK
14	UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN	IE
15	UNIVERSITY COLLEGE LONDON	UK
16	NATIONAL UNIVERSITY OF IRELAND GALWAY	IE
17	THE UNIVERSITY OF LIVERPOOL	UK
18	SYDDANSK UNIVERSITET	DK
19	UNIVERSITETET I TROMSOE	NO
20	THE SCOTTISH ASSOCIATION FOR MARINESCIENCE LBG	UK
21	SEASCAPE CONSULTANTS LTD	UK
22	INSTITUTO ESPANOL DE OCEANOGRAFIA	ES
23	UNIVERSITY OF NORTH CAROLINA AT WILMINGTON	US
24	AquaTT UETP Ltd	IE
25	IODINE SPRL	BE
26	HERIOT-WATT UNIVERSITY	UK

Call: H2020-SC5-2014-one-stage **Type of Action:** ERA-NET-Cofund

Title: Consolidating the European Research Area on biodiversity and ecosystem services

Project total costs: 37,967,427 € **Project EU contribution:** 11,988,018 € **Duration (months):** 60

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	BULGARIAN NATIONAL SCIENCE FUND	BG
6	SIHTASUTUS EESTI TEADUSAGENTUUR	EE
7	AGENCE NATIONALE DE LA RECHERCHE	FR
8	MINISTERE DE L'ENVIRONNEMENT, DE L'ENERGIE ET DE LA MER	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 E TECNOLOGIA	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, AREELLA NÄRINGAR OCH SAMHÄLLSBYGGANDE	SE
26	NATURVARDSVERKET	SE
27	SCHWEIZERISCHER NATIONALFONDS ZUR FORDERUNG DER WISSENSCHAFTLICHEN FORSCHUNG	CH
28	MINISTRY OF FOOD AGRICULTURE AND LIVESTOCK	TR
30	JNCC SUPPORT CO LBG	UK
32	SLOVENSKA AKADEMIA VIED	SK
33	SUOMEN AKATEMIA	FI

Call: H2020-SC5-2014-two-stage **Type of Action:** RIA

Title: Knowledge, Assessment, and Management for AQUAtic Biodiversity and Ecosystem Services aCROSS EU policies (AQUACROSS)

Project total costs: 6,913,116 € **Project EU contribution:** 6,343,614 € **Duration (months):** 42

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 EV	DE
3	UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION -UNESCO	FR
4	STICHTING WAGENINGEN RESEARCH	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 GEWAESSERSCHUTZ	CH
15	UICN, BUREAU DE REPRESENTATION AUPRES DE L'UNION EUROPEENNE AISBL	BE
16	ASOCIACION BC3 BASQUE CENTRE FOR CLIMATE CHANGE - KLIMA ALDAKETA IKERGAI	ES

Call: H2020-SC5-2014-two-stage **Type of Action:** RIA

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:	9,891,769 €	**Project EU contribution:**	9,891,769 €	**Duration (months):**	51

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	UNIVERSITAET HOHENHEIM	DE
6	STIFTELSEN NORSK INSTITUTT FOR NATURFORSKNING NINA	NO
7	International Livestock Research Institute	KE
8	UNIVERSITY OF DAR ES SALAAM	TZ
9	Sokoine University of Agriculture	TZ
10	UNIVERSITY OF GLASGOW	UK
11	KENYA WILDLIFE SERVICE	KE
12	UNIVERSITY OF DODOMA	TZ
13	MINISTRY OF ENVIRONMENT AND MINERAL RESOURCES	KE

Sub-activity: 5.2.2 **WaterWorks2017** **776692**

Call: H2020-SC5-2017-OneStageB **Type of Action:** ERA-NET-Cofund

Title: Water Works 2018-2022 in Support of the Water JPI (WaterWorks2017) and of the EC Call SC5-33-2017: Closing the water cycle gap

Project total costs: 22,283,676 € **Project EU contribution:** 7,320,613 € **Duration (months):** 60

Abstract:

The WaterWorks2017 proposal is pooling resources from the 23 participating research programme owners / managers of 19 countries to implement a joint call for proposals, with EU co-funding in the area of closing the water cycle gap. It will support delivery of priorities identified in the Water Joint Programming Initiative (Water JPI) Strategic Research and Innovation Agenda (SRIA) in order to reconcile water supply and demand, both in terms of quantity and quality, and also in terms of space and time. It covers the following sub-themes:• Enabling Sustainable Management of Water Resources;• Strengthening Socio-economic Approaches to Water Management.WaterWorks2017 includes 8 organisations from associated and third countries in an effort to reinforce international cooperation. Additional Activities will also be carried out to further support the implementation and strategy of the Water JPI. The overall aims include:• Supporting the implementation and development of the Water JPI on priorities identified in its SRIA;• Pooling financial resources from participating national and regional research programmes and implementing a co-funded transnational and multi-disciplinary call for research and innovation proposals;• Pooling additional financial resources to implement a joint call for proposals resulting in grants to third parties without EU co-funding (through a Thematic Annual Programming action - TAP); • Overcoming the fragmentation of European water related RDI activities while avoiding overlaps with ongoing actions co-funded by the European Commission and/or the Member States; • Improving the implementation of research and innovation programmes in these fields through exchange of good practices;• Contributing to the implementation of EU Water policies, the UN Sustainable Development Goals (SDGs), in particular SDG 6 and SDG 13, as well as the conclusions of the COP21 Agreement; and• Seeking synergies with international research programmes beyond Europe.

Partners:

Nr	Participant	Country
1	AGENCE NATIONALE DE LA RECHERCHE	FR
2	FORSKNINGSRÅDET FÖR MILJÖ, AREELLA NÄRINGAR OCH SAMHÄLLSBYGGANDE	SE
3	ENVIRONMENTAL PROTECTION AGENCY OF IRELAND	IE
4	NORGES FORSKNINGSRAD	NO
5	SUOMEN AKATEMIA	FI
6	MINISTERIO DE ECONOMIA, INDUSTRIA Y COMPETITIVIDAD	ES
7	CENTRO PARA EL DESARROLLO TECNOLOGICO INDUSTRIAL.	ES
8	IDRYMA PROOTHISIS EREVNAS	CY
9	CENTRUL PROIECTE INTERNATIONALE	MD
10	Unitatea Executiva pentru Finantarea Invatamantului Superior, a Cercetarii, Dezvoltarii si Inovarii	RO
11	NEDERLANDSE ORGANISATIE VOOR WETENSCHAPPELIJK ONDERZOEK	NL
12	FONDS NATIONAL DE LA RECHERCHE SCIENTIFIQUE	BE
13	SIHTASUTUS EESTI TEADUSAGENTUUR	EE
14	MINISTERO DELL'ISTRUZIONE, DELL'UNIVERSITA' E DELLA RICERCA	IT
15	NARODOWE CENTRUM BADAN I ROZWOJU	PL
16	Ministry of National Infrastructure, Energy and Water Resources	IL
17	INSTITUTION DE LA RECHERCHE ET DE L'ENSEIGNEMENT SUPERIEUR AGRICOLES	TN
18	WATER RESEARCH COMMISSION	ZA
19	ACADEMY OF SCIENTIFIC RESEARCH AND TECHNOLOGY ASRT	EG
20	CONSELHO NACIONAL DAS FUNDACOES DE ESTADUAIS DE AMPARO A PESQUISA	BR
21	MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC RESEARCH	TN
22	MINISTERIE VAN INFRASTRUCTUUR EN MILIEU	NL
23	Istituto Superiore per la Protezione e la Ricerca Ambientale	IT

Sub-activity: 5.2.2

IC4WATER

730264

Call: H2020-SC5-2016-OneStageB

Type of Action: CSA

Title: Tackling Water Challenges in the International Context

Project total costs:	2,289,000 €	**Project EU contribution:**	2,289,000 €	**Duration (months):**	60

Abstract:

The Joint Programming Initiative Water Challenges for a Changing World, the Water JPI, is an intergovernmental initiative which strives to achieve sustainable water systems for a sustainable economy in Europe and abroad.IC4WATER's objectives include supporting agencies in stepping up international cooperation: through the sharing of best practices, networking, closer coordination of existing activities, and the establishment of new relationships to facilitate multidisciplinary networking across the water challenges at a wider scale, both with respect to research and geographical areas. A mapping of the existing research cooperation models (mainly bilateral – between a Member State or the European Commission and some Beyond Europe countries) and a comparative analysis of existing cooperation models will be issued to identify barriers and challenges to transnational collaboration, and formulate successful mechanisms for working together efficiently beyond this bilateral approach.In order to become more than a 'network of networks' and a dialogue platform for research programmes and to bring genuine added value to the current cooperation models, IC4WATER will be focusing on key topics of the Water JPI Strategic Research & Innovation Agenda. As an initial focus, the Water JPI Governing Board, which endorsed the IC4Water concept in November 2015, has agreed a plan to pilot new principles of international transnational cooperation through concrete joint programming, focusing on the theme of UN Sustainable Development Goals related to Water challenges. A shortlist of key 'UN SDG thematic' RDI areas will be scoped in more detail and will serve as recommendations for joint activities (opportunities for cooperation with funding RDI governmental institutions or for RDI support for market development, first domains of development of the Water JPI knowledge hub, joint transnational call with partners willing to commit additional national / regional funds for RDI projects).

Partners:

Nr	Participant	Country
1	AGENCE NATIONALE DE LA RECHERCHE	FR
2	MINISTERIO DE ECONOMIA, INDUSTRIA Y COMPETITIVIDAD	ES
3	ENVIRONMENTAL PROTECTION AGENCY OF IRELAND	IE
4	FUNDACAO PARA A CIENCIA E A TECNOLOGIA	PT
5	SUOMEN AKATEMIA	FI
6	NORGES FORSKNINGSRAD	NO
7	INNOVATIONSFONDEN	DK
8	IDRYMA PROOTHISIS EREVNAS	CY
9	FORSKNINGSRÅDET FÖR MILJÖ, AREELLA NÄRINGAR OCH SAMHÄLLSBYGGANDE	SE
10	Unitatea Executiva pentru Finantarea Invatamantului Superior, a Cercetarii, Dezvoltarii si Inovarii	RO
11	MINISTERIE VAN INFRASTRUCTUUR EN MILIEU	NL
12	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
13	CENTRUL PROIECTE INTERNATIONALE	MD
14	Istituto Superiore per la Protezione e la Ricerca Ambientale	IT
15	MINISTERO DELL'ISTRUZIONE, DELL'UNIVERSITA' E DELLA RICERCA	IT
16	FORSCHUNGSZENTRUM JULICH GMBH	DE
17	Ministry of National Infrastructure, Energy and Water Resources	IL
18	EUROPEAN WATER SUPPLY AND SANITATION TECHNOLOGY PLATFORM	BE
19	KESKKONNAMINISTEERIUM	EE

Sub-activity: 5.2.2

FLOWERED

690378

Call: H2020-WATER-2015-two-stage

Type of Action: RIA

Title: de-FLuoridation technologies for imprOving quality of WatEr and agRo-animal products along the East African Rift Valley in the context of aDaptation to climate change.

Project total costs:	2,989,201 €	**Project EU contribution:**	2,989,201 €	**Duration (months):**	36

Abstract:

FLOWERED objective is to contribute to the development of a sustainable water management system in areas affected by fluoride (F) contamination in water, soils and food in the African Rift Valley countries (Ethiopia, Kenya, Tanzania), thus to improve living standards (environmental, health and food security) of its population. FLOWERED aims to study, test and implement innovative defluoridation technologies for drinking and irrigation water that will mainly operate at small village scale and to develop an integrated, sustainable and participative water and agriculture management at a cross-boundary catchment scale. On the basis of the complexity of the issue of water de-fluoridation, the proposed scientific approach in FLOWERED is based on a detailed knowledge of the geological and hydrogeological setting that controls contamination of water that constitute the prerequisite for the implementation of a sustainable water management and for the proposal of sustainable and suitable strategies for water sanitation and agricultural system. Innovative agricultural practices will be assessed, aiming to mitigate the impacts of F contamination of water and soil on productivity of selected food and forage crops and dairy cattle health and production. The development of an innovative and shared Geo-data system will support the integrated, sustainable and participative management system. FLOWERED, focusing on innovative technologies and practices and taking into account local experiences, will implement an integrated water and agriculture management system and will enable local communities to manage water resources, starting from using efficient defluoridation techniques and applying sustainable agricultural practices. The integrated approaches improve knowledge for EU partners, local researchers, farmers and decision makers. The Project through the involvement of SMEs will strengthen the development co-innovative demonstration processes as well as new market opportunities.

Partners:

Nr	Participant	Country
1	UNIVERSITA DEGLI STUDI DI CAGLIARI	IT
2	UNIVERSITA DEGLI STUDI DI SASSARI	IT
3	UNIVERSITA' DEGLI STUDI DI SIENA	IT
4	UNIVERSITAT DE BARCELONA	ES
5	ABERYSTWYTH UNIVERSITY	UK
6	ADDIS ABABA UNIVERSITY	ET
7	UNIVERSITY OF ELDORET	KE
8	THE NELSON MANDELA AFRICAN INSTITUTE OF SCIENCE AND TECHNOLOGY	TZ
9	OIKOS EAST AFRICA	TZ
10	OBSERVATOIRE DU SAHARA ET DU SAHEL	TN
11	HYDRO TECHNICAL ENGINEERING SRL	IT
12	PLANETEK ITALIA SRL	IT
13	D D'ENGINY BIOREM SL	ES
14	GEOMATRIX PLC	ET

Call: H2020-WATER-2015-two-stage **Type of Action:** IA

Title: Scale-up of low-carbon footprint material recovery techniques in existing wastewater treatment plants

Project total costs:	9,768,806 €	**Project EU contribution:**	7,536,300 €	**Duration (months):**	48

Abstract:

SMART-Plant will scale-up in real environment eco-innovative and energy-efficient solutions to renovate existing wastewater treatment plants and close the circular value chain by applying low-carbon techniques to recover materials that are otherwise lost. 7+2 pilot systems will be optimized fore > 2 years in real environment in 5 municipal water treatment plants, inclunding also 2 post-processing facilities. The systems will be authomatisedwith the aim of optimizing wastewater treatment, resource recovery, energy-efficiency and reduction of greenhouse emissions. A comprehensive SMART portfolio comprising biopolymers, cellulose, fertilizersand intermediates will be recoveredand processed up to the final commercializable end-products. The integration of resource recovery assets to system-wide asset management programs will be evaluated in each site following the resource recovery paradigm for the wastewater treatment plant of the future, enabled through SMART-Plant solutions. The project will prove the feasibility of circular management of urban wastewater and environmental sustainability of the systems, to be demonstrated through Life Cycle Assessment and Life Cycle Costing approaches to prove the global benefit of the scaled-up water solutions. Dynamic modeling and superstructure framework for decision support will be developed and validated to identify the optimum SMART-Plant system integration options for recovered resources and technologies.Global market deployment will be achieved as right fit solution for water utilities and relevant industrial stakeholders, considering the strategic implications of the resource recovery paradigm in case of both public and private water management. New public-private partnership models will be explored connecting the water sector to the chemical industry and its downstream segments such asthe contruction and agricultural sector, thus generating new opportunities for funding, as well as potential public-private competition.

Partners:

Nr	Participant	Country
1	UNIVERSITA POLITECNICA DELLE MARCHE	IT
2	UNIVERSITA DEGLI STUDI DI ROMA LA SAPIENZA	IT
3	BRUNEL UNIVERSITY LONDON	UK
4	CRANFIELD UNIVERSITY	UK
5	UNIVERSITAT AUTONOMA DE BARCELONA	ES
6	FUNDACIO UNIVERSITARIA BALMES	ES
7	NATIONAL TECHNICAL UNIVERSITY OF ATHENS - NTUA	EL
8	KWB KOMPENTENTZZENTRUM WASSER BERLIN GEMEINNUTZIGE GMBH	DE
9	BIOTREND - INOVACAO E ENGENHARIA EM BIOTECNOLOGIA SA	PT
10	SOCAMEX S.A.U.	ES
11	BYK ADDITIVES LIMITED	UK
13	AGROBICS LTD	IL
14	SALSNES FILTER AS	NO
15	INSTITUTO DE BIOLOGIA EXPERIMENTAL E TECNOLOGICA	PT
16	ETAIREIA YDREYSEOS KAI APOCHETEFSEOS PROTEYOYSIS ANONIMI ETAIREIA	EL
17	ALTO TREVIGIANO SERVIZI SRL	IT
18	MEKOROT WATER COMPANY LIMITED	IL
19	Aigues de Manresa, S.A.	ES
20	CIRTEC BV	NL
22	SEVERN TRENT WATER LIMITED	UK
23	AKTOR TECHNICAL AE	EL
25	WELLNESS SMART CITIES SLU	ES
26	INNOEXC GMBH	CH
28	SCAE SRL	IT
29	SPECIALIST BUILDING PRODUCTS LIMITED	UK
30	UNIVERSITA DEGLI STUDI DI VERONA	IT

Sub-activity: 5.2.2 **DAFNE** **690268**

Call: H2020-WATER-2015-two-stage **Type of Action:** RIA

Title: DAFNE: Use of a Decision-Analytic Framework to explore the water-energy-food NExus in complex and trans-boundary water resources systems of fast growing developing countries.

Project total costs: 5,420,223 € **Project EU contribution:** 3,408,659 € **Duration (months):** 48

Abstract:

Global trends in population growth and rising economic prosperity will increase the demand for energy, food and water, with more severe impact in fast-growing economies, such as in several African countries. The constraints on water, energy, and food could well hamper economic development, lead to social and geopolitical tensions, and cause lasting environmental damage. DAFNE advocates an integrated and adaptive water resources planning and management approach that explicitly addresses the water-energy-food (WEF) nexus from a novel participatory and multidisciplinary perspective. This includes social, economic, and ecologic dimensions, involves both public and private actors and is socially inclusive, enhances resource efficiency and prevents the loss of ecosystem services in regions where large infrastructures exist or are being built and intensive agriculture is expanding. A decision-analytic-framework (DAF) will be developed to quantitatively assess the social, economic, and environmental impact of expanding energy and food production in complex physical and political contexts, where natural and social processes are strongly interconnected and the institutional setting involves multiple stakeholders and decision-makers. The DAFNE approach will be demonstrated by analysing two cross-boundary case studies, the Zambezi and the Omo river basins. The WEF nexus will be quantified and analysed as the trade-off between conflicting objectives such as hydropower production vs irrigation, land exploitation vs conservation, etc. The nexus will be translated in economic values and impact on growth, ecosystems and ecosystem services. DAFNE will allow a better understanding of the WEF nexus, and generate and explore alternative planning and management solutions based on the cooperation of public and private stakeholders, which foster the profitable but equitable use of resources without transgressing environmental limits or creating societal and/or stakeholder conflicts.

Partners:

Nr	Participant	Country
1	EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH	CH
2	POLITECNICO DI MILANO	IT
3	INTERNATIONAL CENTER FOR RESEARCH ON THE ENVIRONMENT AND THE ECONOMY	EL
4	KATHOLIEKE UNIVERSITEIT LEUVEN	BE
5	THE UNIVERSITY COURT OF THE UNIVERSITY OF ABERDEEN	UK
6	UNIVERSITAET OSNABRUECK	DE
7	INTERNATIONAL WATER MANAGEMENT INSTITUTE IWMI	LK
8	AFRICAN COLLABORATIVE CENTRE FOR EARTH SYSTEM SCIENCE (ACCESS)	KE
9	UNIVERSITY OF ZAMBIA	ZM
10	UNIVERSIDADE EDUARDO MONDLANE	MZ
11	VISTA Geowissenschaftliche Fernerkundung GmbH	DE
12	ATEC-3D LTD	UK
13	EUROPEAN INSTITUTE FOR PARTICIPATORY MEDIA EV	DE
14	WATER AND LAND RESOURCE CENTER	ET

Call: H2020-WATER-2015-two-stage **Type of Action:** IA

Title: Innovative Ecological on-site Sanitation System for Water and Resource Savings

Project total costs:	8,127,514 €	**Project EU contribution:**	6,996,214 €	**Duration (months):**	48

Abstract:

INNOQUA will accelerate the path to market of a modular set of innovative, patent protected, award winning and scalable fully ecological sanitation solutions that address wide market needs in rural communities, for agricultural industries, for sustainable home-builders or collective housing owners and for developing countries worldwide. The modular system is based on the purification capacity of biological organisms (worms, zooplankton and microorganism) and sorption materials bringing ecological, safe and affordable sanitation capacity where it is needed most while fully addressing the thematic and cross cutting priorities of the EIP on Water.We will perform demonstration scale deployment and resulting exploitation of the system to include commercial development, technology integration, eco-design, controlled environment pilots (in NUI Galway facilities in Ireland and UDG facilities in Spain), real use demo sites and market uptake preparation in several EU and non-EU countries (France, Italy, Ireland, Romania, UK, Ecuador, Peru, India and Tanzania), and further preparation for post project uptake. Such an integrated solution is innovative and has not been employed in the past. This integrated but modular solution for the final reuse of wastewater is particularly attractive for small to medium remote water stressed European communities with high water demand for either agriculture and/or the conservation of natural freshwater ecosystems. The system is aimed at being a sustainable solution for ‘zero’ wastewater production with the complete reuse of wastewater. The system is ideal for small to medium scale situations where an integrated solution for the treatment of wastewater is required to reduce the waste directed to surface freshwaters for the attainment of good quality water, as stated by the Water Framework Directive. The robust but efficient technologies are also ideal for deployment in markets where resources are limited and skilled staff unavailable.

Partners:

Nr	Participant	Country
1	NOBATEK	FR
2	UNIVERSITAT DE GIRONA	ES
3	FUNDACIO EURECAT	ES
4	R2M SOLUTION SRL	IT
5	NATIONAL UNIVERSITY OF IRELAND GALWAY	IE
6	SUEZ ADVANCED SOLUTIONS UK LIMITED	UK
7	UNIVERSIDAD DE CUENCA	EC
8	DE 5 SERVICES SRL	IT
9	BREMER ARBEITSGEMEINSCHAFT FUR UBERSEEFORSCHUNG UND ENTWICKLUNG (BREMEN OVERSEA RESEARCH AND DEVELOPMENTASSOCIATION) BORDA EV	DE
10	WATER TECHNOLOGY ENGINEERING LTD	UK
11	EKODENGE MUHENDISLIK MIMARLIK DANISMANLIK TICARET ANONIM SIRKETI	TR
12	INSTITUTUL NATIONAL DE CERCETARE DEZVOLTARE PENTRU ECOLOGIE INDUSTRIALA	RO
13	RITMIC COM SRL	RO
14	INBROOLL INDUSTRIES SL	ES
15	SCOTTISH WATER	UK
16	HELIO PUR TECHNOLOGIES	FR
17	BERSON MILIEUTECHNIEK BV	NL
18	LOMBRITEK ASSOCIATION	FR
19	YEPEZ MADRUNERO GRACE	EC
20	UNIVERSIDAD CATOLICA DE SANTA MARIA	PE

Call: H2020-WATER-2015-two-stage **Type of Action:** IA

Title: Demonstrating synergies in combined natural and engineered processes for water treatment systems

Project total costs: 10,740,012 € **Project EU contribution:** 7,837,292 € **Duration (months):** 36

Abstract:

The AquaNES project will catalyse innovations in water and wastewater treatment processes and management through improved combinations of natural and engineered components. Among the demonstrated solutions are natural treatment processes such as bank filtration (BF), managed aquifer recharge (MAR) and constructed wetlands (CW) plus engineered pre- and post-treatment options. The project focuses on 13 demonstration sites in Europe, India and Israel covering a repre-sentative range of regional, climatic, and hydrogeological conditions in which different combined natural-engineered treatment systems (cNES) will be demonstrated through active collaboration of knowledge and technology providers, water utilities and end-users. Our specific objectives are • to demonstrate the benefits of post-treatment options such as membranes, activated carbon and ozonation after bank filtration for the production of safe drinking water

• to validate the treatment and storage capacity of soil-aquifer systems in combination with oxidative pre-treatments • to demonstrate the combination of constructed wetlands with different technical post- or pre-treatment options (ozone or bioreactor systems) as a wastewater treatment option• to evidence reductions in operating costs and energy consumption• to test a robust risk assessment framework for cNES• to deliver design guidance for cNES informed by industrial or near-industrial scale expe-riences• to identify and profile new market opportunities in Europe and overseas for cNESThe AquaNES project will demonstrate combined natural-engineered treatment systems as sus-tainable adaptations to issues such as water scarcity, excess water in cities and micro-pollutants in the water cycle. It will thus have impact across the EIP Water's thematic priorities and cross-cutting issues, particularly on 'Water reuse & recycling', 'Water and wastewater treatment', 'Water-energy nexus', 'Ecosystem services', 'Water governance', and 'DSS & monitoring'.

Partners:

Nr	Participant	Country
1	FACHHOCHSCHULE NORDWESTSCHWEIZ	CH
2	AKUT UMWELTSCHUTZ INGENIEURE BURKARD UND PARTNER	DE
3	AUTARCON GMBH	DE
4	BioDetection Systems B.V.	NL
5	HYDROBUSINESS BV	NL
6	IMAGEAU SAS	FR
7	GEO-HYD	FR
8	MicroLAN	NL
9	X-FLOW BV	NL
10	VERTECH GROUP	FR
11	WADIS LTD	IL
12	WATSTECH LIMITED	UK
13	XYLEM SERVICES GMBH	DE
14	FOVAROSI VIZMUVEK ZARTKORUEN MUKODORESZVENYTARSASAG	HU
15	BERLINER WASSERBETRIEBE	DE
16	DIMOTIKI EPICHIRISI YDREVSIS APOCHETEFSIS DIMOY THIRAS NOMOU KYKLADON	EL
17	DIMOS ANTIPAROU	EL
18	DREWAG NETZ GMBH	DE
19	ERFTVERBAND	DE
20	IWB INDUSTRIELLE WERKE BASEL	CH
21	MEKOROT WATER COMPANY LIMITED	IL
22	UNIWERSYTET IM. ADAMA MICKIEWICZA W POZNANIU	PL
23	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
24	CRANFIELD UNIVERSITY	UK
25	Hochschule fuer Technik und Wirtschaft Dresden	DE
26	EOTVOS JOZSEF FOISKOLA	HU
27	KWB KOMPENTENTZZENTRUM WASSER BERLIN GEMEINNUTZIGE GMBH	DE
28	KWR WATER B.V.	NL
29	NATIONAL TECHNICAL UNIVERSITY OF ATHENS - NTUA	EL
30	Uttarakhand Jal Sansthan	IN

Sub-activity: 5.2.2

INTCATCH

689341

Call: H2020-WATER-2015-two-stage **Type of Action:** IA

Title: Development and application of Novel, Integrated Tools for monitoring and managing Catchments

Project total costs:	8,770,935 €	**Project EU contribution:**	7,570,335 €	**Duration (months):**	44

Abstract:

INTCATCH will instigate a paradigm shift in the monitoring and management of surface water quality that is fit for global waters in the period 2020-2050. INTCATCH will do this by developing efficient, user-friendly water monitoring strategies and systems based on innovative technologies that will provide real time data for important parameters, moving towards SMART Rivers. The business model will transform water governance by facilitating sustainable water quality management by community groups and NGOs using a clouds data linked to a decision support system and eco-innovative technologies.The INTCATCH project will use demonstration activities to showcase eco-innovative autonomous and radio controlled boats, sensors, DNA test kits and run-off treatment technologies. Actions which develop and evaluate these in a range of catchments will address the important innovation barriers to uptake, notably, a lack of knowledge of new technologies and their capabilities, identified by the European Innovation Plan (EIP) on water. By conceptually moving the laboratory to the 'field', the monitoring techniques that will be developed aim to supersede the inefficient, time dependent, costly and labour-intensive routine sampling and analysis procedures currently deployed to understand the quality of receiving waters. It will compliment routine monitoring that is required for baseline datasets, but also enable cost-effective impact and management investigations. INTCATCH will incentivise stakeholder innovation in monitoring and will facilitate new financing for innovation through its innovative franchise business model and empowerment of community groups and NGOs. The market ambition is that the INTCATCH business will facilitate an eco-innovative approach to deliver good quality water bodies across Europe and beyond. This will support green growth, increase resilience to climate change and capture greater market-share for Europe's innovative industries.

Partners:

Nr	Participant	Country
1	BRUNEL UNIVERSITY LONDON	UK
2	UNIVERSITA DEGLI STUDI DI VERONA	IT
3	FUNDACIO UNIVERSITARIA BALMES	ES
4	NATIONAL TECHNICAL UNIVERSITY OF ATHENS - NTUA	EL
5	TECHNITAL SPA	IT
6	ISTITUTO SUPERIORE DI SANITA	IT
7	ETAIREIA YDREYSEOS KAI APOCHETEFSEOS PROTEYOYSIS ANONIMI ETAIREIA	EL
8	GEORG-AUGUST-UNIVERSITAT GOTTINGENSTIFTUNG OFFENTLICHEN RECHTS	DE
9	UNIVERSITAET FUER BODENKULTUR WIEN	AT
10	GO SYSTEM-ELEKTRONIK GMBH	DE
11	FUNDACIO INSTITUT CATALA DE NANOCIENCIA I NANOTECNOLOGIA	ES
12	AJUNTAMENT DE MANLLEU	ES
13	ENVIRONMENT AGENCY	UK
14	THAMES21 LIMITED	UK
15	ENVIRONMENTAL SUSTAINABILITY ASSOCIATES LIMITED	UK
16	DOWNSTREAM SOLUTIONS CIC	UK
17	PERSONAL GENOMICS SRL	IT
18	AZIENDA GARDESANA SERVIZI SPA	IT
19	ALGORITHMICA SRL	IT
20	SALSNES FILTER AS	NO

Call: H2020-WATER-2015-one-stage **Type of Action:** ERA-NET-Cofund

Title: Water Works 2016-2020 in Support of the Water JPI (WaterWorks2015) - Sustainable water use in agriculture, to increase water use efficiency and reduce soil and water pollution

Project total costs: 30,398,222 € **Project EU contribution:** 9,494,832 € **Duration (months):** 60

Abstract:

WaterWorks2015 aims at pooling resources from the 32 participating research programme owners / managers of 23 countries to implement a joint call for proposals, with EU co-funding in the area of sustainable water use in agriculture and forestry. It's a collaboration between the Joint Programming Initiatives (JPIs), Water JPI “Water Challenges for a Changing World” and FACCE JPI “Agriculture, Food Security and Climate Change”. Achieving a “sustainable water use in agriculture, to increase water use efficiency and reduce soil and water pollution” is at the intersection of the two JPIs, contributing to the implementation of their respective Strategic Research Agendas. WaterWorks2015 includes 9 organisations from associated and third countries in an effort to reinforce international cooperation. Additional Activities will also be carried out to further support the implementation and strategy of the Water JPI.The overall aims include:• Increasing the value of relevant national and EU R&D funding by concerted and joint planning, implementation and evaluation of national research programmes; • Pooling financial resources from participating states towards the definition and implementation of a Co-funded transnational and multi-disciplinary Call for research and innovation proposals. The aim of the Call will be to support the implementation of initiatives and environmental policies, in particular those related to water and agriculture & forestry, as a way to increase water use efficiency and to reduce soil and water pollution; • Overcoming the fragmentation of European water and agriculture/forestry-related research and innovation activities; • Supporting the implementation and the development of the two Joint Programming Initiatives, seeking synergies in overlapping research issues.

Partners:

Nr	Participant	Country
1	AGENCE NATIONALE DE LA RECHERCHE	FR
2	MINISTERIO DE ECONOMIA, INDUSTRIA Y COMPETITIVIDAD	ES
3	ENVIRONMENTAL PROTECTION AGENCY OF IRELAND	IE
4	FUNDACAO PARA A CIENCIA E A TECNOLOGIA	PT
5	SUOMEN AKATEMIA	FI
6	NORGES FORSKNINGSRAD	NO
8	INNOVATIONSFONDEN	DK
9	IDRYMA PROOTHISIS EREVNAS	CY
10	FORSKNINGSRÅDET FÖR MILJÖ, AREELLA NÄRINGAR OCH SAMHÄLLSBYGGANDE	SE
11	Unitatea Executiva pentru Finantarea Invatamantului Superior, a Cercetarii, Dezvoltarii si Inovarii	RO
12	FORSCHUNGSZENTRUM JULICH GMBH	DE
13	MINISTRY OF SCIENCE AND TECHNOLOGY	TW
14	FONDS NATIONAL DE LA RECHERCHE SCIENTIFIQUE	BE
15	Bundesanstalt für Landwirtschaft und Ernährung	DE
16	MINISTRY OF AGRICULTURE AND FORESTRY	FI
17	MINISTERO DELL'ISTRUZIONE, DELL'UNIVERSITA' E DELLA RICERCA	IT
18	Istituto Superiore per la Protezione e la Ricerca Ambientale	IT
19	CENTRUL PROIECTE INTERNATIONALE	MD
20	Bundesministerium für Ernährung, Landwirtschaft und Verbraucherschutz	DE
21	NARODOWE CENTRUM BADAN I ROZWOJU	PL
22	INSTITUTION DE LA RECHERCHE ET DE L'ENSEIGNEMENT SUPERIEUR AGRICOLES	TN
23	MINISTERO DELLE POLITICHE AGRICOLE ALIMENTARI E FORESTALI	IT
25	ACADEMY OF SCIENTIFIC RESEARCH AND TECHNOLOGY ASRT	EG
26	Fachagentur Nachwachsende Rohstoffe e.V.	DE
27	CENTRO PARA EL DESARROLLO TECNOLOGICO INDUSTRIAL.	ES
28	TURKIYE BILIMSEL VE TEKNOLOJIK ARASTIRMA KURUMU	TR
29	TURKIYE SU ENSTITUSU	TR
30	WATER RESEARCH COMMISSION	ZA
31	NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL	CA
32	MINISTERIE VAN ECONOMISCHE ZAKEN	NL
33	FONDS FLANKEREND ECONOMISCH EN INNOVATIEBELEID	BE

Call: H2020-WATER-2015-two-stage **Type of Action:** IA

Title: Innovative Eco-Technologies for Resource Recovery from Wastewater

Project total costs:	8,431,385 €	**Project EU contribution:**	7,209,032 €	**Duration (months):**	36

Abstract:

Taking into account the current global water scarcity and the expensive operation and maintenance cost of wastewater treatment, INCOVER concept has been designed to move wastewater treatment from being primarily a sanitation technology towards a bio-product recovery industry and a recycled water supplier. A wastewater specific Decision Support System methodology will be tailored to the INCOVER technologies and provide data and selection criteria for a holistic wastewater management approachThree added-value plants treating wastewater from three case-studies (municipalities, farms and food and beverage industries) will be implemented, assessed and optimised concurrently. INCOVER plants will be implemented at demonstration scale in order to achieve Technology Readiness Level(TRL) of 7-8 to ensure straightforward up scaling to 100,000 population equivalents (PE). INCOVER added-value plants will generate benefits from wastewater offering three recovery solutions: 1) Chemical recovery (bio-plastic and organic acids) via algae/bacteria and yeast biotechnology; 2) Near-zero-energy plant providing upgraded bio-methane via pre-treatment and anaerobic co-digestion systems; 3) Bio-production and reclaimed water via adsorption, biotechnology based on wetlands systems and hydrothermal carbonisation. To improve added-value production efficiency, INCOVER solutions will include monitoring and control via optical sensing and soft-sensorsINCOVER solutions will reduce at least a 50% overall operation and maintenance cost of wastewater treatment through the use of wastewater as a source for energy demand and added-value production to follow UE circular economy strategy. In addition, strategies to facilitate the market uptake of INCOVER innovations will be carried out in order to close the gap between demonstration and end-usersAn estimated turnover of 188 million€ for INCOVER lead-users is expected after the initial exploitation strategy of 5 years implementing 27 INCOVER solutions

Partners:

Nr	Participant	Country
1	ASOCIACION DE INVESTIGACION METALURGICA DEL NOROESTE	ES
2	FCC AQUALIA SA	ES
3	AARHUS UNIVERSITET	DK
4	UNIVERSITAT POLITECNICA DE CATALUNYA	ES
5	HELMHOLTZ-ZENTRUM FUER UMWELTFORSCHUNG GMBH - UFZ	DE
6	FUTURE INTELLIGENCE EREVNA TILEPIKINONIAKON KE PLIROFORIAKON SYSTIMATON EPE	EL
7	GREGERSEN PEDER	DK
8	SIMBIENTE - ENGENHARIA E GESTAO AMBIENTAL LDA	PT
9	UNIVERSIDAD DE VALLADOLID	ES
10	SOLARSPRING GMBH	DE
11	TEKNOLOGISK INSTITUT	DK
12	AUTARCON GMBH	DE
13	INSTITUTO DE BIOLOGIA EXPERIMENTAL E TECNOLOGICA	PT
14	RENERGIE SYSTEME GMBH & CO KG	DE
15	BIOTREND - INOVACAO E ENGENHARIA EM BIOTECNOLOGIA SA	PT
16	OFFICE INTERNATIONAL DE L'EAU	FR
17	ISLE UTILITIES LIMITED	UK
18	ICLEI EUROPEAN SECRETARIAT GMBH (ICLEI EUROPASEKRETARIAT GMBH)*	DE

Call: H2020-WATER-2015-two-stage **Type of Action:** RIA

Title: Sustainable Integrated Management FOR the NEXUS of water-land-food-energy-climate for a resource-efficient Europe

Project total costs:	7,895,658 €	**Project EU contribution:**	7,895,658 €	**Duration (months):**	48

Abstract:

Land, food, energy, water and climate are interconnected, comprising a coherent system (the 'Nexus'), dominated by complexity and feedback. The integrated management of the Nexus is critical to secure the efficient and sustainable use of resources. Barriers to a resource efficient Europe are policy inconsistencies and incoherence, knowledge gaps, especially regarding integration methodologies and tools for the Nexus, and knowledge and technology lock-ins. SIM4NEXUS will develop innovative methodologies to address these barriers, by building on well-known and scientifically established existing "thematic" models, simulating different components/"themes" of the Nexus and by developing: (a) novel complexity science methodologies and approaches for integrating the outputs of the thematic models; (b) a Geoplatform for seamless integration of public domain data and metadata for decision and policy making; (c) a Knowledge Elicitation Engine for integrating strategies at different spatial and temporal scales with top down and bottom up learning process, discovering new and emergent knowledge, in the form of unknown relations between the Nexus components and policies/strategies; (d) a web-based Serious Game for multiple users, as an enhanced interactive visualisation tool, providing an immersive experience to decision- and policy-makers. The Serious Game will assist the users (as players) in better understanding and visualising policies at various geo-/spatial scales and from a holistic point of view, towards a better scientific understanding of the Nexus. The Serious Game will be validated (applied, tested, verified and used) via ten Case Studies ranging from regional to national level. Two further Strategic Serious Games at European and Global levels will also be developed for demonstration, education and further exploitation purposes, accompanied by a robust business plan and IPR framework, for taking advantage of the post-project situation and business potential.

Partners:

Nr	Participant	Country
1	STICHTING WAGENINGEN RESEARCH	NL
2	PANEPISTIMIO THESSALIAS	EL
3	THE UNIVERSITY OF EXETER	UK
4	STICHTING IHE DELFT	NL
5	POTSDAM INSTITUT FUER KLIMAFOLGENFORSCHUNG	DE
6	UNIVERSIDAD POLITECNICA DE MADRID	ES
7	UNIVERSITA COMMERCIALE LUIGI BOCCONI	IT
8	UNITED NATIONS UNIVERSITY	JP
9	STICHTING KATHOLIEKE UNIVERSITEIT	NL
10	KUNGLIGA TEKNISKA HOEGSKOLAN	SE
11	UPPSALA UNIVERSITET	SE
12	FUNDACIO EURECAT	ES
13	UNIVERSITA DEGLI STUDI DI SASSARI	IT
14	ENKI OPS	CZ
15	MINISTERIE VAN INFRASTRUCTUUR EN MILIEU	NL
16	DHI	DK
17	SOUTH WEST WATER LIMITED	UK
18	ACTEON SARL	FR
19	EPSILON MALTA LIMITED	MT
20	CAMBRIDGE ECONOMETRICS LIMITED	UK
21	STRANE INNOVATION SAS	FR
22	FRESH-THOUGHTS CONSULTING GMBH	AT
23	BALTIJAS VIDES FORUMS	LV
25	OBCIANSKE ZDRUZENIE MVO L'UDIA A VODA KOSICE	SK
26	EUROPEAN WATER SUPPLY AND SANITATION TECHNOLOGY PLATFORM	BE

Call: H2020-WATER-2015-two-stage **Type of Action:** IA

Title: Demonstration of a Decision Support System for a Novel Integrated Solution aimed at Water Reuse in the Oil & Gas Industry

Project total costs:	5,794,443 €	**Project EU contribution:**	4,273,536 €	**Duration (months):**	36

Abstract:

The Oil&Gas (O&G) industry is one of the 8 most water-intensive industries; indeed, it could be conceived as a water industry which delivers oil as a by-product. Specifically, by 2020 it is expected that over 500 million barrels/day of produced water (PW) and about 15 million m³/day of refinery wastewater (RW) are generated. Despite the necessity and potential beneficial impacts of reusing the water involved in extraction and refining activities, several significant barriers are hampering this opportunity. Firstly, the existent commercial water treatment technologies cannot be used directly in the O&G sector without an extensive adaptation, and they are not flexible and reliable enough to bear the complexity and variability of PW/RW composition. Moreover, there is no expertise or experience in the O&G sector in the design and operation of water treatment systems.The INTEGROIL project aims to develop and demonstrate a robust but flexible integrated solution for treating O&G water flows with variable compositions to different water qualities depending on the final reuse objective. This new solution will be readily designed with different modules each comprising innovative water treatment technologies that will be operated and optimized in an integrated manner through a novel Decision Support System, in line with 3 priorities of the EIP Water. The INTEGROIL approach ensures minimal design and operational efforts involved from the O&G end-user side and that the energy and chemical costs are kept to an absolute minimum for a certain target water quality. Its feasibility and long-term application will be assessed through demo activities in 2 real operational conditions, that will provide critical information for the commercialisation actions to be undertaken.The INTEGROIL consortium brings together 10 entities (6 SMEs) covering the full value chain, including technology developers, O&G end-users, a Sustainability Assessment firm and a professional association.

Partners:

Nr	Participant	Country
1	ACCIONA AGUA SA	ES
2	LIKUID NANOTEK SL	ES
3	BWA WATER ADDITIVES UK LIMITED	UK
4	RECHERCHE EXPLOITATION PRODUITS REP	FR
5	APLICACIONS DE LA CATALISI SL	ES
6	UNIVERSITAT ROVIRA I VIRGILI	ES
7	Turkiye Petrol Rafinerileri Anonim Sirketi	TR
8	2.-O LCA CONSULTANTS APS	DK
9	EUROPEAN DESALINATION SOCIETY	IT
10	INNOTEC21 GMBH	DE

Sub-activity: 5.2.2

MADFORWATER

688320

Call: H2020-WATER-2015-two-stage

Type of Action: RIA

Title: DevelopMent AnD application of integrated technological and management solutions FOR wasteWATER treatment and efficient reuse in agriculture tailored to the needs of Mediterranean African Countries

Project total costs:	4,039,419 €	**Project EU contribution:**	2,910,869 €	**Duration (months):**	48

Abstract:

Climate change and population growth are expected to exacerbate the water crisis of Mediterranean African Countries (MACs), where agriculture accounts for 80-85% of freshwater consumption. The aim of MADFORWATER is to develop a set of integrated technological and management solutions to enhance wastewater treatment, reuse for irrigation and water efficiency in agriculture in three MACs (Tunisia, Morocco and Egypt). MADFORWATER will develop and adapt to three main hydrological basins in the selected MACs technologies for the production of irrigation-quality water from drainage canals, municipal, agro-industrial and industrial wastewaters, and technologies for water efficiency and reuse in agriculture, initially validated at laboratory scale. Selected technologies will be further adapted and validated in four field pilot plants of integrated wastewater treatment/reuse. Integrated strategies for wastewater treatment and reuse targeted to the selected basins will be developed, and guidelines for the development of integrated water management strategies in other basins of the three target MACs will be produced, considering climate change, population increase and economic growth scenarios. The social and technical suitability of the developed technologies and non-technological instruments in relation to the local context will be evaluated with the participation of MAC stakeholders and partners. Guidelines on economic instruments and policies for the effective implementation of the proposed water management solutions in the target MACs will be developed. The project will lead to a relevant long-term impact in Egypt, Morocco and Tunisia in terms of increased wastewater treatment, wastewater reuse, food production and income in the agricultural and water treatment sectors, and decreased groundwater exploitation, water pollution and food contamination. The MADFORWATER consortium consists of 18 partners, 5 of which from the 3 MACs and 1 from China.

Partners:

Nr	Participant	Country
1	ALMA MATER STUDIORUM - UNIVERSITA DI BOLOGNA	IT
2	INSTITUT SUPERIEUR DE BIOTECHNOLOGIE DE SIDI THABET	TN
3	THE RESEARCH COMMITTEE OF THE TECHNICAL UNIVERSITY OF CRETE	EL
4	FACULTY OF SCIENCES OF TUNIS, UNIVERSITY OF TUNIS EL MANAR	TN
5	STICHTING WAGENINGEN RESEARCH	NL
6	FACHHOCHSCHULE NORDWESTSCHWEIZ	CH
7	INSTITUT AGRONOMIQUE ET VETERINAIRE HASSAN II	MA
8	UNIVERSITA DEGLI STUDI DI MILANO	IT
9	FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS FAO	IT
10	UNIVERSIDAD POLITECNICA DE MADRID	ES
11	CENTRO INTERNAZIONALE DI ALTISTUDI AGRONOMICI MEDITERRANEI	IT
12	MINISTRY OF WATER RESOURCES AND IRRIGATION	EG
13	INSTITUT NATIONAL DE RECHERCHE EN SCIENCES ET TECHNOLOGIES POUR L'ENVIRONNEMENT ET L'AGRICULTURE	FR
14	PNO INNOVATIEADVIES BV	NL
15	S.K. EUROMARKET LTD	CY
16	ROLLAND-ARROSEURS SPRINKLERS	FR
17	KROFTA AMERICA LATINA SA	CH
18	NANJING UNIVERSITY	CN

Sub-activity: 5.2.2

PIANO

642433

Call: H2020-WATER-2014-one-stage

Type of Action: CSA

Title: Policies, Innovation And Networks for enhancing Opportunities for China Europe Water Cooperation

Project total costs:	1,107,375 €	**Project EU contribution:**	1,107,375 €	**Duration (months):**	36

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	EUROPAISHE VEREINIGUNG FUR WASSERWIRTSVHAFT EV	DE
9	European Chamber of Commerce in China	CN

Sub-activity: 5.2.2

MOSES

642258

Call: H2020-WATER-2014-two-stage

Type of Action: IA

Title: Managing crOp water Saving with Enterprise Services

Project total costs:	4,249,263 €	**Project EU contribution:**	3,768,013 €	**Duration (months):**	36

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 mapping2. seasonal weather forecasting and downscaling3. in-season monitoring of evapotranspiration and water availability4. seasonal and medium/short term irrigation forecastingFour 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 address to the irrigated agriculture users an integrated and innovative water management solution.

Partners:

Nr	Participant	Country
1	ESRI ITALIA SPA	IT
2	AGENZIA REGIONALE PER LA PREVENZIONE, L'AMBIENTE E L'ENERGIA 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 SA	BE
9	TECHNISCHE UNIVERSITEIT DELFT	NL
10	UNIVERSIDAD DE CASTILLA - LA MANCHA	ES
11	UNIVERSITE CHOUAIB DOUKKALI	MA
12	AGROMET SRL	IT
13	CONSORZIO DI BONIFICA DI SECONDO GRADO PER IL CANALE EMILIANO ROMAGNOLO CANALE GIANDOTTI	IT
14	ALIARA AGRÍCOLA SL	ES
15	ARYAVARTA SPACE ORGANIZATION	IN
16	CONSORZIO DI BONIFICA DELLA ROMAGNA	IT

Sub-activity: 5.2.2

SUBSOL

642228

Call: H2020-WATER-2014-two-stage

Type of Action: IA

Title: bringing coastal SUBsurface water SOLutions to the market

Project total costs:	4,170,008 €	**Project EU contribution:**	3,460,565 €	**Duration (months):**	36

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 GEMEINNUTZIGE GMBH	DE
3	ALPHAFILM & KOMMUNIKATION APS	DK
4	ARCADIS NEDERLAND BV	NL
5	B-E DE LIER BV	NL
6	BUNDESANSTALT FUER GEOWISSENSCHAFTEN UND ROHSTOFFE	DE
7	ROBOTEK GRUPPEN AS	DK
8	FONDEN TEKNOLOGIRADET	DK
9	ETAIRIA GEOGOLOGIKON-GEOFYSIKON EREVNON KL. DIMITRIADIS KAI SIA EE	EL
10	Geological Survey of Denmark and Greenland	DK
11	GREENER THAN GREEN TECHNOLOGIES AE	EL
12	NATIONAL TECHNICAL UNIVERSITY OF ATHENS - NTUA	EL
13	ORBICON AS	DK
14	GIOUMPITEK MELETI SCHEDIASMOS YLOPOIISI KAI POLISI ERGON PLIROFORIKIS ETAIREIA PERIORISMENIS EFTHYNIS	EL
15	VITENS NV	NL

Call: H2020-WATER-2014-two-stage **Type of Action:** IA

Title: Cost Effective Neural Technique for Alleviation of Urban Flood Risk

Project total costs:	3,532,121 €	**Project EU contribution:**	2,548,396 €	**Duration (months):**	36

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 LIMITED	UK
4	UNIVERSIDADE DE COIMBRA	PT
5	AC AGUAS DE COIMBRA EM	PT
6	EIDGENOESSISCHE ANSTALT FUER WASSERVERSORGUNG ABWASSERREINIGUNG UND GEWAESSERSCHUTZ	CH
7	STEINHARDT GMBH	DE
8	VEOLIA EAU - COMPAGNIE GENERALE DES EAUX SOCIETE EN COMMANDITE PAR ACTIONS	FR

Sub-activity: 5.2.2

REGROUND

641768

Call: H2020-WATER-2014-two-stage

Type of Action: IA

Title: Colloidal Iron Oxide Nanoparticles for the REclamation of Toxic Metal Contaminated GROUNDwater Aquifers, Drinking Water Wells, and River Bank Filtrations

Project total costs:	2,885,363 €	**Project EU contribution:**	2,734,223 €	**Duration (months):**	36

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

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 CONSULTORES SA	PT
7	ACONDICIONAMIENTO TARRASENSE ASSOCIACION	ES
8	KNOWLEDGE INNOVATION MARKET S.L.	ES

Sub-activity: 5.2.2 **BINGO** **641739**

Call: H2020-WATER-2014-two-stage **Type of Action:** RIA

Title: Bringing INnovation to onGOing water management – A better future under climate change

Project total costs:	7,822,423 €	**Project EU contribution:**	7,822,423 €	**Duration (months):**	48

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 FUR WASSERFORSCHUNG GEMEINNUTZIGE GMBH	DE
4	AQUATEC PROYECTOS PARA EL SECTOR DEL AGUA SA	ES
5	NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU	NO
6	INTERWIES EDUARD	DE
7	FREIE UNIVERSITAET BERLIN	DE
8	SOCIEDADE PORTUGUESA DE INOVACAO - CONSULTADORIA EMPRESARIAL E FOMENTO DA INOVACAO S.A.	PT
9	THE CYPRUS INSTITUTE	CY
10	I.A.CO ENVIRONMENTAL AND WATER CONSULTANTS LTD	CY
11	EPAL-EMPRESA PORTUGUESA DAS ÁGUAS LIVRES, SA	PT
12	COMUNIDADE INTERMUNICIPAL DA LEZIRIA DO TEJO	PT
13	AJUNTAMENT DE BADALONA	ES
14	AIGUES DE BARCELONA, EMPRESA METROPOLITANA DE GESTIO DEL CICLE INTEGRAL DE L'AIGUA SA	ES
15	VITENS NV	NL
16	WUPPERVERBAND	DE
17	DIRECAO-GERAL DE AGRICULTURA E DESENVOLVIMENTO RURAL	PT
18	AREA METROPOLITANA DE BARCELONA	ES
19	GELDERLAND	NL
20	BERGEN KOMMUNE	NO

Sub-activity: 5.2.2

WaterWorks2014

641715

Call: H2020-WATER-2014-one-stage

Type of Action: ERA-NET-Cofund

Title: Water Works 2014-2019 in Support of the Water JPI

Project total costs:	18,667,631 €	**Project EU contribution:**	6,160,307 €	**Duration (months):**	60

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, INDUSTRIA Y COMPETITIVIDAD	ES
2	FUNDACAO PARA A CIENCIA E A TECNOLOGIA	PT
3	IDRYMA PROOTHISIS EREVNAS	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	KESKKONNAMINISTEERIUM	EE
12	SIHTASUTUS EESTI TEADUSAGENTUUR	EE
13	CENTRO PARA EL DESARROLLO TECNOLOGICO INDUSTRIAL.	ES
14	FONDS NATIONAL DE LA RECHERCHE SCIENTIFIQUE	BE
15	Ministry of National Infrastructure, 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 SOSTENIBILE	IT
24	AGENCE NATIONALE DE LA RECHERCHE	FR
25	NEDERLANDSE ORGANISATIE VOOR WETENSCHAPPELIJK ONDERZOEK	NL

Call: H2020-WATER-2014-two-stage **Type of Action:** IA

Title: MArket uptake of an innovative irrigation Solution based on LOW WATer-ENergy consumption

Project total costs:	4,875,130 €	**Project EU contribution:**	3,996,318 €	**Duration (months):**	36

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 needsThis 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 waterMain 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 consumption2 To reduce the water consumption, using Automatisms and ICT and Precision Agriculture-based solutions3 Market uptake and market replication of a new green product for irrigation at TRL9 consuming 100% renewable electricity and 30% less waterThe 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 diseemination 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 BV	NL
4	RKD IRRIGACION SL	ES
5	KOMET AUSTRIA GMBH	AT
6	DOMUS INGENIERIA ENERGETICA SL	ES
7	SISTEMES ELECTRONICS PROGRES, S.A.	ES
8	UNIVERSIDADE DE EVORA	PT
9	UNIVERSITA DEGLI STUDI DI SASSARI	IT
10	ASOCIACION DE INVESTIGACION PARA LA MEJORA DEL CULTIVO DE LA REMOLACHA AZUCARERA	ES
11	ELAIA 2, INVESTIMENTOS SA	PT
12	EUROMEDITERRANEAN IRRIGATORS COMMUNITY	ES
13	MARTIFER SOLAR SA	PT

Call: H2020-SC5-2016-OneStageB **Type of Action:** RIA

Title: NAture Insurance value: Assessment and Demonstration

Project total costs:	5,081,176 €	**Project EU contribution:**	4,994,370 €	**Duration (months):**	36

Abstract:

NAIAD aims to operationalise the insurance value of ecosystems to reduce the human and economic cost of risks associated with water (floods and drought) by developing and testing - with key insurers and municipalities - the concepts, tools, applications and instruments (business models) necessary for its mainstreaming. We will do this in detail for 8 demonstration sites (DEMOs) throughout Europe and develop tools and methods applicable and transferable across all of Europe. The assumption is that Natural Assurance Schemes can reduce risk, especially to drought and flooding, and this risk reduction can be assessed and incorporated within insurance schemes. NAIAD´s conceptual frame is based on three pillars:(i) to help build a resilience approach to risk management through nature based solutions, (ii) the operationalisation and testing of scientific methods using a source-to-sea in DEMOs,(iii) the uptake of nature based solutions that are cost-effective and provide environmental, social and economic benefits.Trans-disciplinarity and stakeholder engagement are at the core of NAIAD for two reasons: first, because the conceptual and assessment methodologies combine physical, social and cultural and economic aspects, integrated into tools and methods but second, and most importantly “road tested” and validated with the stakeholders and end users themselves at the DEMOs.

NAIAD will contribute to providing a robust framework for assessing insurance value for ecosystem services by (i) enabling full operationalisation through improved understanding of ecosystem functionality and its insurance value at a broad range of scales in both urban and rural context; (ii) making explicit the links between ecosystem values and social risk perception; and (iii) the application of developed methods and tools in water management by relevant stakeholders, especially businesses, public authorities and utilities.

Partners:

Nr	Participant	Country
1	CONFEDERACION HIDROGRAFICA DEL DUERO	ES
2	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
3	KING'S COLLEGE LONDON	UK
4	I-CATALIST SL	ES
5	EUROPEJSKIE REGIONALNE CENTRUM EKOHYDROLOGII POLSKIEJ AKADEMII NAUK	PL
6	ZAVOD ZA IHTIOLOSKE IN EKOLOSKE RAZISKAVE REVIVO	SI
7	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
8	INSTITUTO GEOLÓGICO Y MINERO DE ESPAÑA	ES
9	HELMHOLTZ-ZENTRUM GEESTHACHT ZENTRUM FUR MATERIAL- UND KUSTENFORSCHUNG GMBH	DE
10	AMBIOTEK COMMUNITY INTEREST COMPANY	UK
11	Stiftelsen Stockholm International Water Institute	SE
12	INSTITUTUL NATIONAL DE CERCETARE-DEZVOLTARE PENTRU GEOLOGIE SI GEOECOLOGIE MARINA-GEOECOMAR	RO
13	Geological Survey of Denmark and Greenland	DK
14	BUSINESS DEVELOPMENT GROUP SRL	RO
15	CAISSE CENTRALE DE REASSURANCE	FR
16	UNIVERSIDAD POLITECNICA DE CARTAGENA	ES
17	ZAVOD ISKRIVA, ISKRISCE ZA RAZVOJ LOKALNIH POTENCIALOV	SI
18	INSTITUT NATIONAL DE RECHERCHE EN SCIENCES ET TECHNOLOGIES POUR L'ENVIRONNEMENT ET L'AGRICULTURE	FR
19	UNIVERSITE DE NICE SOPHIA ANTIPOLIS	FR
20	STICHTING IHE DELFT	NL
21	KOBENHAVNS KOMMUNE	DK
22	FIELD FACTORS BV	NL
23	STICHTING DELTARES	NL

Sub-activity: 5.2.3

ThinkNature

730338

Call: H2020-SC5-2016-OneStageB **Type of Action:** CSA

Title: Development of a multi-stakeholder dialogue platform and Think tank to promote innovation with Nature based solutions

Project total costs: 3,569,789 € **Project EU contribution:** 2,974,164 € **Duration (months):** 36

Abstract:

Nature-based solutions (NBS) aim to help societies to address a variety of environmental, social and economic challenges in sustainable ways. They are actions which are inspired by and supported by nature. Some involve using and enhancing existing natural solutions to challenges, while others are exploring more novel solutions, for example, based on how non-human organisms and communities cope with environmental extremes. NBS are energy and resource-efficient, and resilient to change, but to be successful they must be adapted to local conditions.The main objective of the present project is the development of a multi-stakeholder communication platform that will support the understanding and the promotion of nature based solutions in local, regional, EU and International level. Through dialogue uptake facilitation and steering mechanisms as well as knowledge capacity building, the ThinkNature Platform will bring together multi-disciplinary scientific expertise, policy, business and society, as well as citizens. This platform will be efficient, fluent to use and attractive to a wide variety of actors and stakeholders because it merges all aspects of NBS in a clear, pyramidal methodological approach. It will create a wide interactive society that builds new knowledge with a wide geographical scope. As a result, ThinkNature will provide the necessary policy and regulatory tools to solve significant societal challenges such as human well-being, tackling energy poverty, impacts of climate change, etc. through continuous dialogue and interaction.

Partners:

Nr	Participant	Country
1	THE RESEARCH COMMITTEE OF THE TECHNICAL UNIVERSITY OF CRETE	EL
2	UNIVERSITY OF LEEDS	UK
3	HELSINGIN YLIOPISTO	FI
4	FOUNDATION FOR RESEARCH AND TECHNOLOGY HELLAS	EL
5	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
6	STIFTUNG GLOBAL INFRASTRUCTURE BASEL	CH
7	EUROPEAN CONSTRUCTION, BUILT ENVIRONMENT AND ENERGY EFFICIENT BUILDINGS TECHNOLOGY PLATFORM	BE
8	VAN ROMPAEY SARA	BE
9	BOOK ON A TREE LTD	UK
10	INTERNATIONALE VERENIGING VAN STEDEBOUWKUNDIGEN	NL
11	CENTRE SCIENTIFIQUE ET TECHNIQUE DU BATIMENT	FR
12	EUROPEAN DREDGING ASSOCIATION	BE
13	AVON WILDLIFE TRUST	UK
15	KRITI	EL
16	STICHTING EUROPEES CENTRUM VOOR NATUURBESCHERMING	NL
17	FONDATION FRANCAISE POUR LA RECHERCHE SUR LA BIODIVERSITE	FR
18	OPPLA EEIG	NL

Sub-activity: 5.2.3 **4PRIMA** **724060**

Call: H2020-SC5-2016-OneStageA **Type of Action:** CSA

Title: Partnership for Research and Innovation in the Mediterranean Area

Project total costs: 1,999,379 € **Project EU contribution:** 1,999,379 € **Duration (months):** 18

Abstract:

The 4PRIMA Coordination and Support Action will create the bases and will develop a set of activities aimed at supporting the establishment of a long-term, well-structured and integrated partnership for research and innovation (R&I) on food systems and water resources, among countries from both sides of the Mediterranean Sea (“PRIMA Initiative”). In order to enable a sustainable development in this area, 4PRIMA will facilitate the establishment of favourable and stable conditions for a reinforced international cooperation on food systems and water research, based on a better coordination, collective ownership of R&I programmes and, consequently, clear and tangible mutual benefits.4PRIMA will develop a Strategic Research and Innovation Agenda (SRIA) and an associated implementation plan, as a result of an extensive participatory process that will target a critical mass of key players at international level and all relevant stakeholders of the food and water sectors. To achieve this main objective, 4PRIMA will take advantage of a wide portfolio of results and relationship generated in previous and on-going EU projects, as well as it will seek cooperation between EU and Mediterranean Partner Countries (MPCs), in coherence with the activities of the Strategic Forum for International Cooperation. Given the strategic relevance of an appropriate development and uptake of the SRIA to establish a long lasting partnership in the region, 4PRIMA science diplomacy actions will be essential to ensure the support to R&I policy dialogue addressing sensitive challenges between EU and MPCs. Moreover, in order to maximise its expected impact, 4PRIMA project will explore avenues for awareness raising and development of strategic alliances with key stakeholders, including EU, AC and MPCs countries that did not take part to the PRIMA joint programming process, with the goal to enlarge the participation to the “PRIMA Initiative”.

Partners:

Nr	Participant	Country
1	MINISTERO DELL'ISTRUZIONE, DELL'UNIVERSITA' E DELLA RICERCA	IT
2	IDRYMA PROOTHISIS EREVNAS	CY
3	MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC RESEARCH	EG
4	AGENCE NATIONALE DE LA RECHERCHE	FR
5	DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV	DE
6	ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS	EL
7	CENTRE INTERNATIONAL DE HAUTES ETUDES AGRONOMIQUES MEDITERRANEENNES	FR
8	EVRO-SREDOZEMSKA UNIVERZA	SI
9	UNITE TECHNIQUE DU SEMIDE GEIE	FR
10	UNIVERSITA' DEGLI STUDI DI SIENA	IT
11	THE HIGHER COUNCIL FOR SCIENCE AND TECHNOLOGY HCST	JO
12	CONSEIL NATIONAL DE LA RECHERCHE SCIENTIFIQUE	LB
13	MINISTRY FOR EDUCATION AND EMPLOYMENT	MT
14	MINISTERE DE L'ENSEIGNEMENT SUPERIEUR, DE LA RECHERCHE SCIENTIFIQUE ET DE LA FORMATION DES CADRES	MA
15	FUNDACAO PARA A CIENCIA E A TECNOLOGIA	PT
16	Unitatea Executiva pentru Finantarea Invatamantului Superior, a Cercetarii, Dezvoltarii si Inovarii	RO
17	MINISTERIO DE ECONOMIA, INDUSTRIA Y COMPETITIVIDAD	ES
18	TURKIYE BILIMSEL VE TEKNOLOJIK ARASTIRMA KURUMU	TR
19	MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC RESEARCH	TN

Call: H2020-SC5-2015-one-stage **Type of Action:** CSA

Title: Establishing a European Knowledge and Learning Mechanism to Improve the Policy-Science-Society Interface on Biodiversity and Ecosystem Services

Project total costs: 2,997,273 € **Project EU contribution:** 2,997,273 € **Duration (months):** 48

Abstract:

The aim of EKLIPSE is to establish an innovative, light, self-sustainable EU support mechanism for evidence-based policy on biodiversity and ecosystems services open to all relevant knowledge holders and users, and to hand over this mechanism to the wider knowledge community by the end of the project. The mechanism will build on existing science-policy-society interfaces and be further refined via iterative evaluation and learning throughout the project. The mechanism will provide trustworthy evidence for policy and society upon request and will make the knowledge community more able to provide synthesized and timely evidence by providing a platform for mutual learning and engagement. All relevant knowledge holders and users will be actively encouraged and supported by the project team through their individual strengths and interests, thus ensuring targeted contributions. Many institutions have already expressed their interest in the “Network of Networks” of potential contributors to the EU mechanism’s activities. EKLIPSE will directly support the further development of this network and ensure the involvement of relevant stakeholders in the following key areas: (a) jointly developing and setting up a business plan for the mechanism after the end of the project (WP1), (b) conducting joint evidence assessments using established and innovative methods to support policy and societal needs (WP3), (c) jointly identifying research needs and emerging issues (WP4), actively building the Network of Networks and (d) encouraging societal engagement (WP6). This will be supported by an interim governance structure, a strong communication component, including a Science-Policy-Society Forum, and an independent formative evaluation to ensure learning (WP2).

Partners:

Nr	Participant	Country
1	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
2	HELMHOLTZ-ZENTRUM FUER UMWELTFORSCHUNG GMBH - UFZ	DE
3	SUOMEN YMPARISTOKESKUS	FI
4	INSTITUT ROYAL DES SCIENCES NATURELLES DE BELGIQUE	BE
5	INSTITUT FUR SOZIAL OKOLOGISCHE FORSCHUNG GMBH	DE
6	FONDATION FRANCAISE POUR LA RECHERCHE SUR LA BIODIVERSITE	FR
7	ESSRG Kft.	HU
8	FUNDATIA PENTRU TEHNOLOGIA INFORMATIEI APLICATE IN MEDIU,AGRICULTURA SI SCHIMBARI GLOBALE	RO
9	UNIVERSIDADE DO PORTO	PT
10	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF CAMBRIDGE	UK

Sub-activity: 5.2.3

MAGIC

689669

Call: H2020-WATER-2015-two-stage

Type of Action: RIA

Title: Moving Towards Adaptive Governance in Complexity: Informing Nexus Security

Project total costs:	7,457,761 €	**Project EU contribution:**	7,457,761 €	**Duration (months):**	48

Abstract:

MAGIC is a proposal coordinated by the Institute of Environmental Science and Technology (ICTA) of the Autonomous University of Barcelona (UAB) in collaboration with partners which have a proven and track record in their respective fields of competence.Our objective is to open the path towards a new way of managing the Nexus in which researchers and decision makers work together in the search for development strategies that can contribute to the smart, sustainable and inclusive economic growth required by the EU 2020 Strategy, while maintaining a leading and informed participation in international discussions about global issues, like climate change or food security.In order to do so, MAGIC deploys a set of novel, cutting-edge and system-oriented approaches that originates from system ecology, bio-economics and Science and Technology Studies. Their combination allows MAGIC to highlights if a certain mix of EU policies results in undesirable or unforeseen outcomes. Climate, water, land energy, and food modeling are integrated into a socio- and bio-economics framework using an iterative and participatory method. Significant care is taken to embed these ideas and approaches within the advisory and decision making functions of the European Commission.Impacts are twofold.First, MAGIC contributes a methodological framework where the needs for advice of different DG in the design of development strategies for the EU are covered using a method that can embrace the complexity of the nexus, for a better understanding of the interactions it holds. Second, the project provides ‘on the flight’ advice to the EC about the timeliness and soundness for the EU 2020 Strategy and the EU position in international agreements of EU policies -like the Water Framework Directive, the Common Agricultural Policy, or the Low-Carbon Economy Strategy- and targets of implementing technologies -such as fracking, desalination, biofuels and GMOs.

Partners:

Nr	Participant	Country
1	UNIVERSITAT AUTONOMA DE BARCELONA	ES
2	THE JAMES HUTTON INSTITUTE	UK
3	WAGENINGEN UNIVERSITY	NL
4	UNIVERSITEIT TWENTE	NL
5	UNIVERSITETET I BERGEN	NO
6	JRC -JOINT RESEARCH CENTRE- EUROPEAN COMMISSION	BE
7	UNIVERSITA DEGLI STUDI DI NAPOLI FEDERICO II.	IT
8	CLIMATE ANALYTICS GMBH	DE
9	INSTITUTO TECNOLOGICO DE CANARIAS, S.A.	ES

Sub-activity: 5.2.3

AfriAlliance

689162

Call: H2020-WATER-2015-one-stage

Type of Action: CSA

Title: Africa-EU Innovation Alliance for Water and Climate

Project total costs:	3,238,735 €	**Project EU contribution:**	3,238,735 €	**Duration (months):**	60

Abstract:

The main objective of AfriAlliance is for African and European stakeholders to work together in the areas of water innovation, research, policy, and capacity development to prepare Africa for future Climate Change challenges. There are many but fragmented initiatives and networks in place, therefore we will not create new but will consolidate existing networks of scientists, decision makers, practitioners, citizens and other key stakeholders into an effective, problem-focused knowledge sharing mechanism via an overall coordination platform: the Africa-EU Innovation Alliance for Water and Climate. We will support them in identifying appropriate social innovation and technological solutions for key water and climate change challenges.We will take Africa-EU cooperation in this field to a practical level by sharing (non)technological innovation for local challenges, thus also identifying and boosting sustainable market and investment opportunities.Demand-driven, problem-focused Action Groups will share knowledge between the identified stakeholders and networks at all scales to effectively identify and address vulnerabilities. We will make extensive use of existing/emerging communication channels and events (EU/African platforms, conferences, social media) to streamline Climate Change issues into water-related networks to raise awareness about their impacts and propose adaptation measures.We will re-enforce and valorise Water and Climate Change research and (social) innovation (R&I) cooperation between Africa and Europe through a mix of forward-looking and bottom-up innovation and road mapping techniques. We will identify demands, opportunities, and constraints at different levels and develop strategic advice (short term demand-driven R&I outlook and long term R&I agenda) for improving Africa-EU collaboration. This will help policy makers to create a consistent approach to bilateral cooperation between Africa and the EU in the field of innovation for water and climate

Partners:

Nr	Participant	Country
1	STICHTING IHE DELFT	NL
2	WATERNET TRUST	BW
3	WATER RESEARCH COMMISSION	ZA
4	ICLEI - LOCAL GOVERNMENTS FOR SUSTAINABILITY - AFRICA	ZA
5	RESEAU INTERNATIONAL DES ORGANISMES DE BASSIN ASSOCIATION	FR
6	GLOBAL WATER PARTNERSHIP ORGANIZATION	SE
7	ASSOCIATION AFRICAINE DE L'EAU (AAE)	CI
8	WEST AFRICAN SCIENCE SERVICES CENTRE ON CLIMATE CHANGE AND ADAPTED LAND USE	GH
9	STICHTING BOTH ENDS	NL
10	STICHTING AKVO	NL
11	FONDATION 2IE ASSOCIATION	BF
12	COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH	ZA
13	WATER, ENVIRONMENT AND BUSINESS FORDEVELOPMENT SL	ES
14	OFFICE INTERNATIONAL DE L'EAU	FR
15	UNIVERSITEIT TWENTE	NL
16	EUROPEAN WATER SUPPLY AND SANITATION TECHNOLOGY PLATFORM	BE

Sub-activity: 5.2.3

INSPIRATION

642372

Call: H2020-SC5-2014-one-stage **Type of Action:** CSA

Title: INtegrated Spatial PlannIng, land use and soil management Research ActTION

Project total costs:	2,910,604 €	**Project EU contribution:**	2,598,761 €	**Duration (months):**	36

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 PROTECTIA MEDIULUI	RO
21	SUOMEN YMPARISTOKESKUS	FI
22	STATENS GEOTEKNISKA INSTITUT	SE
23	RIJKSINSTITUUT VOOR VOLKSGEZONDHEID EN MILIEU	NL
24	STADTLAND UG	DE

Sub-activity: 5.2.3

FREEWAT

642224

Call: H2020-WATER-2014-one-stage

Type of Action: CSA

Title: FREE and open source software tools for WATer resource management

Project total costs:	1,583,913 €	**Project EU contribution:**	1,411,163 €	**Duration (months):**	30

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 11 EU countries, plus Switzerland, 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 UNIVERSITAT DARMSTADT	DE
4	AGENCIA ESTATAL CONSEJO SUPERIOR DEINVESTIGACIONES 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 METSOVIOU POLYTECHNEIOU (E.M.P.)	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
18	STICHTING INTERNATIONAL GROUNDWATER RESOURCES ASSESMENT CENTRE	NL
19	SCUOLA UNIVERSITARIA PROFESSIONALEDELLA SVIZZERA ITALIANA	CH

Sub-activity: 5.2.3

KINDRA

642047

Call: H2020-WATER-2014-one-stage

Type of Action: CSA

Title: Knowledge Inventory for hydrogeology research

Project total costs:	1,119,338 €	**Project EU contribution:**	1,108,669 €	**Duration (months):**	36

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

Call: H2020-SC5-2014-one-stage **Type of Action:** CSA

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 € **Project EU contribution:** 1,310,755 € **Duration (months):** 20

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	ASOCIACION BC3 BASQUE CENTRE FOR CLIMATE CHANGE - KLIMA ALDAKETA IKERGAI	ES
10	FUNDACION TECNALIA RESEARCH & INNOVATION	ES
11	CITTALIA-CENTRO EUROPEO DI STUDI ERICERCHE PER I COMUNI E LE CITTA-FONDAZIONE DI RICERCHE DELL' ANCI	IT
12	REGIONE AUTONOMA FRIULI-VENEZIA GIULIA	IT

Sub-activity: 5.2.3 **ESMERALDA** **642007**

Call: H2020-SC5-2014-one-stage **Type of Action:** CSA

Title: Enhancing ecoSysteM sERvices mApping for poLicy and Decision mAking

Project total costs: 3,133,306 € **Project EU contribution:** 3,002,166 € **Duration (months):** 42

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, ESMERALDA 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. ESMERALDA will identify relevant stakeholders and take stock of their requirements at EU, national and regional levels. The objective of ESMERALDA 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 ESMERALDA 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	GOTTFRIED WILHELM LEIBNIZ UNIVERSITAET HANNOVER	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	NL
8	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.	BE
9	NATIONAL INSTITUTE OF GEOPHYSICS GEODESY AND GEOGRAPHY - BULGARIAN ACADEMY OF SCIENCES	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 L'AGRICULTURE	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
26	FABIS CONSULTING LIMITED	UK
27	DEPARTMENT OF ARTS, HERITAGE AND THE GAELTACHT	IE
28	STIFTELSEN NORSK INSTITUTT FOR NATURFORSKNING NINA	NO
29	TEL AVIV UNIVERSITY	IL
30	MINISTRY OF ENVIRONMENT	SK
31	EESTI MAAULIKOOL	EE

32	MYKOLO ROMERIO UNIVERSITETAS	LT
33	PANEPISTIMIO PATRON	EL
34	THE CYPRUS INSTITUTE	CY
35	CHRISTIAN-ALBRECHTS-UNIVERSITAET ZU KIEL	DE
36	USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI	CZ
37	ZNANSTVENORAZISKOVALNI CENTER SLOVENSKE AKADEMIJE ZNANOSTI IN UMETNOSTI	SI

Sub-activity: 5.3.1 **MIREU** **776811**

Call: H2020-SC5-2017-OneStageB **Type of Action:** CSA

Title: Mining and Metallurgy Regions of EU

Project total costs: 2,999,725 € **Project EU contribution:** 2,999,725 € **Duration (months):** 36

Abstract:

The project MIREU aims to establish a network of mining and metallurgy regions across Europe with a view to ensure the sustained and sustainable supply of mineral raw materials to the EU. The network will help the regions to share knowledge and experiences when facing the challenge to establish and maintain an extractive industry. MIREU will facilitate an exchange between all interested stakeholders in the regions, namely regulatory authorities, political and administrative bodies, development agencies, mining companies, non-government organisations, as well as the general public. The project will develop a shared knowledge base, taking into account the region-specific geographic and economic features, cultural, societal and language diversity, and their historical developments. The network will also learn from experience in other regions of the World. This knowledge base will allow to understand what has been conducive and what hampering to the development of extractive and metallurgical industries. It will also provide the context for a bottom-up integration of these activities into their respective socio-economic and socio-cultural context. Development is about people and, therefore, bringing people into the decision-finding procedure in order to achieve a 'social license to operate' will be a key aspect of the project. Guidelines and recommendations for actions to be taken to foster a sustained and sustainable development of the extractive industries will be developed in close co-operation with a range of selected regions from the European Union. These regions will form a nucleus and multipliers for a more extensive network beyond the life-time of the project.

Partners:

Nr	Participant	Country
1	GEOLOGIAN TUTKIMUSKESKUS	FI
2	GEOKOMPETENZZENTRUM FREIBERG EV	DE
3	AKADEMIA GORNICZO-HUTNICZA IM. STANISLAWA STASZICA W KRAKOWIE	PL
4	LAPIN YLIOPISTO	FI
5	UNIVERSIDAD DE BURGOS	ES
6	NOVA ID FCT - ASSOCIACAO PARA A INOVACAO E DESENVOLVIMENTO DA FCT	PT
7	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
8	European Regions Research and Innovation Network	BE
9	NATIONAL TECHNICAL UNIVERSITY OF ATHENS - NTUA	EL
10	COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	FR
11	THE UNIVERSITY OF EXETER	UK
12	MINPOL GMBH	AT
13	Regional Council of Lapland	FI
14	MONTANUNIVERSITAT LEOBEN	AT
15	Dirección General de Industria, Energía y Minas Junta de Andalucía	ES
16	INSTITUTO ARAGONES DE FOMENTO	ES
17	Dirección General de Energía y Minas-Junta de Castilla y León	ES
18	LULEA TEKNISKA UNIVERSITET	SE
19	Sociedad de Investigación y Explotación Minera de Castilla y León S.A.	ES
20	Joensuun Seudun Kehittämisyhtiö JOSEK Oy	FI
21	REGION LANGUEDOC ROUSSILLON MIDI PYRENEES	FR
22	COMMUNICATIONS, CLIMATE ACTION AND ENVIRONMENTS	IE
23	Agentia de Management Energetic Maramures	RO
24	CORNWALL COUNCIL	UK
25	Verein Steirische Eisenstrasse	AT
26	MINISTRY OF INDUSTRY AND TRADE	CZ
27	Kosice self-governing region	SK
28	TECHNICKA UNIVERZITA V KOSICIACH	SK
29	Institute for Territorial Development	PL
30	REGIONFORBUNDET VASTERBOTTENS LAN	SE
31	Empresa Nacional de Minería	CL
32	Comissão de Coordenação e Desenvolvimento Regional do Alentejo	PT

Sub-activity: 5.3.1

ROSEWOOD

776754

Call: H2020-SC5-2017-OneStageB

Type of Action: CSA

Title: European Network of Regions On SustainablE WOOD mobilisation

Project total costs:	1,497,935 €	**Project EU contribution:**	1,497,935 €	**Duration (months):**	24

Abstract:

ROSEWOOD is designed to develop regional networks that will connect actors of the wood mobilization value-chain from forest owners to relevant regional authorities but also forestry industry to cover and find answers to the main challenges in the field, especially the sustainability of the wood mobilization. Through the sharing of technological and non-technological innovations, best practice cases and RDI results, this multi-actor approach will close knowledge gaps and create new opportunities for economic partnerships between stakeholders and (inter)regional authorities. ROSEWOOD's focus on the transfer of know-how and information will enable and support foresters and regional authorities to exploit innovations and best-practices and facilitate the capture of grass root ideas for forestry development. ROSEWOOD will also provide practitioners with development skills (educational and entrepreneurial) and facilitate organizational innovations leading to novel exploitation chains through the development of a coaching methodology facilitating the uptake of new ideas and best practices. In addition, ROSEWOOD will explore the possible synergies between R&I investment and European Structural and Investment Funds to support the uptake of innovations within the value chain. These actions will contribute to an economically viable and sustainable development in forestry and in rural areas towards the enhancement of an EU Bioeconomy.ROSEWOOD's co-ordination and support actions will be implemented via Wood Mobilization Regional Hubs located within 4 communities across Europe providing greater opportunities for forestry to align its activities with local and regional development plans.

Partners:

Nr	Participant	Country
1	STEINBEIS 2I GMBH	DE
2	proHolzBW GmbH	DE
3	CENTAR KOMPETENCIJA D.O.O. ZA ISTRAZIVANJE I RAZVOJ	HR
4	CONSEJERIA DE FOMENTO Y MEDIO AMBIENTE - JUNTA DE CASTILLA Y LEON	ES
5	FUNDACION CENTRO DE SERVICIOS Y PROMOCION FORESTAL Y DE SU INDUSTRIA DE CASTILLA Y LEON	ES
6	HRVATSKI SUMARSKI INSTITUT	HR
7	KO-FA Association	RO
8	BITCOMP GMBH	DE
9	LUONNONVARAKESKUS	FI
10	LAPIN AMMATTIKORKEAKOULU OY	FI
11	CENTRE NATIONAL DE LA PROPRIETE FORESTIERE	FR
12	GOZDARSKI INSTITUT SLOVENIJE	SI
13	REGIONE TOSCANA	IT
14	BUNDESMINISTERIUM FUER LAND-UND FORSTWIRTSCHAFT UMWELT UND WASSERWIRTSCHAFT	AT
15	BERNER FACHHOCHSCHULE	CH

Sub-activity: 5.3.1

COLLECTORS

776745

Call: H2020-SC5-2017-OneStageB **Type of Action:** CSA

Title: waste COLLECTiOn systems assessed and good pRacticeS identified

Project total costs:	1,498,400 €	**Project EU contribution:**	1,498,400 €	**Duration (months):**	30

Abstract:

Five tonnes of waste per capita are generated every year in the EU. These annual 2.5 billion tonnes of waste contain large volumes of valuable materials for Europe's industrial base. Proper collection of waste is a pre-condition for their optimal recovery. The current trend of increasing higher collection rates is promising, but progress is uneven between Members States and between regions. Good regional practices have the potential to serve as good practice examples for other regions. So far, however, results of existing studies and good practices have not been effective enough in supporting the implementation of better-performing systems elsewhere. The main objective of the COLLECTORS project is to overcome this situation and to support decision-makers in shifting to better-performing collection system.COLLECTORS will therefore: (1) Increase awareness of the collection potential by compiling, harmonizing and presenting information on systems for packaging and paper waste, WEEE and construction products via an online information platform.(2) Improve decision-making on waste collection by the assessment of twelve good practices on their performance on: (1) quality of collected waste; (2) economics; (3) environment; (4) societal acceptance. (3) Stimulate successful implementation by capacity-building and policy support methods that will increase the technical and operational expertise of decision-makers on waste collection.(4) Engage citizens, decision-makers and other stakeholders throughout the project for validation of project results and to ensure the usability of COLLECTORS-output.

The COLLECTORS consortium is well-equipped to achieve these impacts as it is directly connected to more than 30 PROS and 2000+ authorities spread across the EU. In addition, the project is embedded in the full secondary raw material value chain ensuring alignment with waste management, recyclers and producers.

Partners:

Nr	Participant	Country
1	PNO CONSULTANTS BV	NL
2	BIPRO GMBH	DE
3	Teknologian tutkimuskeskus VTT Oy	FI
4	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.	BE
5	UNIVERSITEIT LEIDEN	NL
6	ASSOCIATION DES CITES ET DES REGIONS POUR LE RECYCLAGE ET LA GESTION DURABLE DES RESSOURCES	BE
7	STICHTING ZERO WASTE EUROPE	NL
8	WASTE OF ELECTRICAL AND ELECTRONICAL EQUIPMENT FORUM AISBL	BE
9	EUROCITIES ASBL	BE

Sub-activity: 5.3.1

Minland

776679

Call: H2020-SC5-2017-OneStageB

Type of Action: CSA

Title: Mineral resources in sustainable land-use planning

Project total costs:	1,498,691 €	**Project EU contribution:**	1,498,691 €	**Duration (months):**	24

Abstract:

Access to mineral resources in Europe is one of the pillars of the RMI. Yet, competing societal interests, such as expanding cities, infrastructure development, agriculture and nature conservation, have had negative effect on the available area for exploration and mining of mineral resources. Consequently, the supply of mineral raw materials within the EU is at risk. Therefore, the integration of mineral resources policies into land-use planning at different scales and levels is a key factor for achieving the goals of the RMI.The MINLAND project is designed for addressing this challenge: to facilitate minerals and land-use policy making and to strengthen a transparent land use practice. MINLAND is composed around the acknowledgement that the call requires a broad and competent consortium with strong links to related projects and activities, a comprehensive and structured data repository, an efficient work flow and strong and broad stakeholder involvement.MINLAND will address the challenge by: collecting and structuring information from member states and EU activities (stocktaking), performing in-depth analyses and case studies on relevant issues and aspects, and compiling comprehensive and practically applicable guidance documents. Along the work flow, stakeholders will be involved through workshops and participation in case studies and through other dissemination activities.

Partners:

Nr	Participant	Country
1	SVERIGES GEOLOGISKA UNDERSOKNING	SE
2	NORGES GEOLOGISKE UNDERSOKELSE	NO
3	MONTANUNIVERSITAT LEOBEN	AT
4	NATIONAL TECHNICAL UNIVERSITY OF ATHENS - NTUA	EL
5	WIRTSCHAFTSUNIVERSITAT WIEN	AT
6	GEOLOGIAN TUTKIMUSKESKUS	FI
7	MINPOL GMBH	AT
8	COMMUNICATIONS, CLIMATE ACTION AND ENVIRONMENTS	IE
9	FEDERATION EUROPEENNE DES GEOLOGUES	FR
10	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK TNO	NL
11	POLSKA ACADEMIA NAUK INSTYTUT GOSPODARKI SUROWCAMI MINERALNYMI I ENERGIA	PL
12	STICHTING WAGENINGEN RESEARCH	NL
13	DIRECAO-GERAL DE ENERGIA E GEOLOGIA	PT
14	INSTITUTO GEOLÓGICO Y MINERO DE ESPAÑA	ES
15	LANSSTYRELSEN I VASTERBOTTEN LAN	SE
16	BOLIDEN MINERAL AB	SE
17	INDUSTRIAL MINERALS ASSOCIATION EUROPE	BE
18	Laboratorio Nacional de Energia e Geologia I.P.	PT
19	EuroGeoSurveys - EGS	BE
20	REGIONE EMILIA ROMAGNA	IT
21	INSTITOUTO GEOLOGIKON KAI METALLEFTIKON EREVNON	EL
22	MACCABE DURNEY BARNES LTD	IE

Call: H2020-SC5-2017-OneStageB **Type of Action:** CSA

Title: Optimising quality of information in RAw MAterials data collection across Europe

Project total costs:	1,731,230 €	**Project EU contribution:**	1,731,230 €	**Duration (months):**	24

Abstract:

The ORAMA project focuses on optimising data collection for primary and secondary raw materials in Member States. A cornerstone to the EIP on Raw Materials is the development of the EU knowledge base on primary and secondary raw materials, commenced by a series of European-funded projects. As the next iteration, ORAMA addresses specific challenges related to data availability, geographical coverage, accessibility, standardisation, harmonisation, interoperability, quality, and thematic coverage in Member States.ORAMA will analyse data collection methods and recommendations from past and ongoing projects to identify best practices, develop practical guidelines and provide training to meet specific needs. These actions will demonstrate how to improve datasets for mineral occurrences, minerals intelligence data, economic, technical, environmental and social data for primary and secondary raw materials.

For primary raw materials, the focus is on harmonisation and improved coverage of spatial and statistical data, ensuring compliance with the INSPIRE Directive where appropriate. For Mining Waste, Waste Electrical and Electronic Equipment, End of Life Vehicles and Batteries, the focus is on developing 'INSPIRE-alike' protocols. The unified data model from the Minerals4EU and ProSUM projects will be applied to the datasets and outcomes will be combined with primary raw materials data. ORAMA will demonstrate how to create more robust Material Systems Analysis studies and reliable Sankey diagrams for stocks and flows of specific raw materials. Information is made accessible and compatible with the JRC's Raw Materials Information System to feed, for instance, future Raw Materials Scoreboard and Criticality Assessment studies. In the long term, ORAMA empowers the wider EU raw materials community with necessary facts to support policy decisions and sustainable investments in the primary and secondary raw material industries.

Partners:

Nr	Participant	Country
1	GEOLOGIAN TUTKIMUSKESKUS	FI
2	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
3	CHALMERS TEKNISKA HOEGSKOLA AB	SE
4	COMMUNICATIONS, CLIMATE ACTION AND ENVIRONMENTS	IE
5	EIDGENOSSISCHE MATERIALPRUFUNGS- UND FORSCHUNGSANSTALT	CH
6	GEOLOSKI ZAVOD SLOVENIJE	SI
7	Geological Survey of Denmark and Greenland	DK
8	INSTITUTO GEOLÓGICO Y MINERO DE ESPAÑA	ES
9	JRC -JOINT RESEARCH CENTRE- EUROPEAN COMMISSION	BE
10	HUNGARIAN OFFICE FOR MINING AND GEOLOGY	HU
11	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
12	NORGES GEOLOGISKE UNDERSOKELSE	NO
13	TECHNISCHE UNIVERSITAET BERLIN	DE
14	UNIVERSITEIT LEIDEN	NL
15	UNITED NATIONS UNIVERSITY	JP
16	WASTE OF ELECTRICAL AND ELECTRONICAL EQUIPMENT FORUM AISBL	BE

Call: H2020-SC5-2016-OneStageB **Type of Action:** CSA

Title: Global material flows and demand-supply forecasting for mineral strategies

Project total costs:	1,162,835 €	**Project EU contribution:**	999,710 €	**Duration (months):**	24

Abstract:

Global demand for minerals is growing rapidly, driven by rapid population growth, urbanisation and an increasingly diverse range of technical applications. Global material supply chains linking the extraction, transport and processing stages of raw materials have become increasingly complex and today involve multiple players and product components. An interactive platform that provides transparency about existing approaches and information gaps concerning global material flows is needed to understand these global supply chains; developing this capability is critical for maintaining competitiveness in the European economy.Against this backdrop, the proposed MinFuture project aims to identify, integrate, and develop expertise for global material flow analysis and scenario modelling. Specific activities include:• the analysis of barriers and gateways for delivering more transparent and interoperable materials information• the assessment of existing model approaches for global material flow analysis, including the demand- supply forecasting methods • the delivery of a 'common methodology' which integrates mineral data, information and knowledge across national boundaries and between governmental and non-governmental organisations; • the development of recommendations for a roadmap to implement the 'common methodology' at international level;• the creation of a web-portal to provide a central access point for material flow information, including links to existing data sources, models, tools and analysis; MinFuture brings together 16 international partners from across universities, public organisations and companies, to deliver new insight, strategic intelligence and a clear roadmap for enabling effective access to global material information.

Partners:

Nr	Participant	Country
1	NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU	NO
2	SYDDANSK UNIVERSITET	DK
3	TECHNISCHE UNIVERSITAET WIEN	AT
4	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
5	ECOLOGIC INSTITUT gemeinnützige GmbH	DE
6	BIO INTELLIGENCE SERVICE	FR
7	NORGES GEOLOGISKE UNDERSOKELSE	NO
8	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF CAMBRIDGE	UK
9	POLSKA ACADEMIA NAUK INSTYTUT GOSPODARKI SUROWCAMI MINERALNYMI I ENERGIA	PL
10	UNIVERZITA KARLOVA	CZ
11	UNIVERSITAT AUTONOMA DE BARCELONA	ES
12	IFEU - INSTITUT FUR ENERGIE UND UMWELTFORSCHUNG HEIDELBERG GMBH	DE
13	MINPOL GMBH	AT
14	THE RITSUMEIKAN TRUST ACADEMIC JURIDICAL PERSON	JP
15	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	US
16	COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION	AU

Sub-activity: 5.3.1

SCRREEN

730227

Call: H2020-SC5-2016-OneStageB **Type of Action:** CSA

Title: Solutions for CRitical Raw materials - a European Expert Network

Project total costs:	2,999,500 €	**Project EU contribution:**	2,999,500 €	**Duration (months):**	30

Abstract:

Since the publication of the first list of Critical Raw Materials (CRM) in 2010 by the Ad-hoc Working Group on CRM, numerous European projects have addressed (part of) the CRMs value and several initiatives have contributed to gather (part of) the related community into clusters and associations. This led to the production of important knowledge, unfortunately disseminated. Numerous databases have also been developed, sometimes as duplicates.For the first time in the history, SCRREEN aims at gathering European initiatives, associations, clusters, and projects working on CRMs into along lasting Expert Network on Critical Raw Materials, including the stakeholders, public authorities and civil society representatives. SCRREEN will contribute to improve the CRM strategy in Europe by (i) mapping primary and secondary resources as well as substitutes of CRMs, (ii) estimating the expected demand of various CRMs in the future and identifying major trends, (iii) providing policy and technology recommendations for actions improving the production and the potential substitution of CRM, (iv) addressing specifically WEEE and other EOL products issues related to their mapping and treatment standardization and (vi) identifying the knowledge gained over the last years and easing the access to these data beyond the project.The project consortium also acknowledges the challenges posed by the disruptions required to devlop new CRM strategies, which is why stakeholder dialogue is at the core of SCRREEN: policy, society, R&D and industrial decision-makers are involved to facilitate strategic knowledge-based decisions making to be carried out by these groups. A specific attention will also be brought on informing the general public on our strong dependence on imported raw materials, on the need to replace rare materials with substitutes and on the need to set up innovative and clean actions for exploration, extraction, processing and recycling.

Partners:

Nr	Participant	Country
1	COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	FR
2	ASSOCIATION FRANCAISE DE NORMALISATION	FR
3	AMPHOS 21 GROUP SL	ES
4	BUNDESANSTALT FUER GEOWISSENSCHAFTEN UND ROHSTOFFE	DE
5	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
6	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
7	CHALMERS TEKNISKA HOEGSKOLA AB	SE
8	ENCO SRL	IT
9	AGENZIA NAZIONALE PER LE NUOVE TECNOLOGIE, L'ENERGIA E LO SVILUPPO ECONOMICO SOSTENIBILE	IT
10	FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	DE
11	GEOLOSKI ZAVOD SLOVENIJE	SI
12	Geological Survey of Denmark and Greenland	DK
13	GEOLOGIAN TUTKIMUSKESKUS	FI
14	UNIVERSIDAD DE BURGOS	ES
15	OPTIMIZACION ORIENTADA A LA SOSTENIBILIDAD SL	ES
16	INSTYTUT METALI NIEZELAZNYCH	PL
17	KNOWLEDGE TRANSFER NETWORK LIMITED	UK
18	UNIVERSITEIT LEIDEN	NL
19	LGI CONSULTING SARL	FR
20	MINPOL GMBH	AT
21	PNO INNOVATION	BE
22	SVERIGES GEOLOGISKA UNDERSOKNING	SE
23	SWEREA MEFOS AB	SE
24	FUNDACION TECNALIA RESEARCH & INNOVATION	ES
25	NATIONAL TECHNICAL UNIVERSITY OF ATHENS - NTUA	EL
26	TECHNISCHE UNIVERSITEIT DELFT	NL
27	UNITED NATIONS UNIVERSITY	JP
28	Teknologian tutkimuskeskus VTT Oy	FI
29	ECODOM-CONSORZIO ITALIANO PER IL RECUPERO E RICICLAGGIO ELETTROD	IT
30	JRC -JOINT RESEARCH CENTRE- EUROPEAN COMMISSION	BE

Sub-activity: 5.3.1

MICA

689648

Call: H2020-SC5-2015-one-stage

Type of Action: CSA

Title: Mineral Intelligence Capacity Analysis

Project total costs:	2,005,205 €	**Project EU contribution:**	1,998,955 €	**Duration (months):**	26

Abstract:

Primary and secondary raw materials are fundamental to Europe's economy and growth. They represent the most important link in the value chain of industrial goods production, which plays a prominent role as a source of prosperity in Europe. However, as stated in the call, there exists to-date no raw materials knowledge infrastructure at EU level. The Mineral Intelligence Capacity Analysis (MICA) project contributes to on-going efforts towards the establishment of such an infrastructure by projects such as ProMine, EURare, Minventory, EuroGeoSource, Minerals4EU, ProSum, I2Mine, INTRAW, MINATURA2020 and others. The main objectives of MICA are: - Identification and definition of stakeholder groups and their raw material intelligence (RMI) requirements,- Consolidation of relevant data on primary and secondary raw materials,- Determination of appropriate methods and tools to satisfy stakeholder RMI requirements,- Investigation of (RMI-) options for European mineral policy development,- Development of the EU-Raw Materials Intelligence Capacity Platform (EU-RMICP) integrating information on data and methods/tools with user interface capable of answering stakeholder questions,- Linking the derived intelligence to the European Union Raw Materials Knowledge Base developed by the Minerals4EU project.The MICA project brings together a multidisciplinary team of experts from natural and technical sciences, social sciences including political sciences, and information science and technology to ensure that raw material intelligence is collected, collated, stored and made accessible in the most useful way corresponding to stakeholder needs. Furthermore, the MICA project integrates a group of 15 European geological surveys that contribute to the work program as third parties. They have specific roles in the fulfilment of tasks and will provide feedback to the project from the diverse range of backgrounds that characterizes the European geoscience community.

Partners:

Nr	Participant	Country
1	Geological Survey of Denmark and Greenland	DK
2	FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	DE
3	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
4	UNIVERSITEIT LEIDEN	NL
6	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
7	EuroGeoSurveys - EGS	BE
8	BUNDESANSTALT FUER GEOWISSENSCHAFTEN UND ROHSTOFFE	DE
9	GEOLOGIAN TUTKIMUSKESKUS	FI
10	UNIVERSITE GRENOBLE ALPES	FR
11	LA PALMA RESEARCH CENTRE FOR FUTURE STUDIES SL	ES
12	FEDERATION EUROPEENNE DES GEOLOGUES	FR
13	NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU	NO
14	UNIVERSITY COLLEGE LONDON	UK
15	GEOLOSKI ZAVOD SLOVENIJE	SI
16	JRC -JOINT RESEARCH CENTRE- EUROPEAN COMMISSION	BE
17	MINPOL GMBH	AT

Call: H2020-SC5-2015-one-stage **Type of Action:** CSA

Title: Minerals Policy Guidance for Europe

Project total costs:	1,999,625 €	**Project EU contribution:**	1,999,625 €	**Duration (months):**	36

Abstract:

MIN-GUIDE is a project addressing the need for a secure and sustainable supply of minerals in Europe by developing a 'Minerals Policy Guide'. The key objectives of the project are (1) providing guidance for EU and MS minerals policy, (2) facilitating minerals policy decision making through knowledge co-production for transferability of best practice minerals policy, and (3) fostering community and network building for the co-management of an innovation catalysing minerals policy framework.This will be achieved through a systematic profiling and policy benchmarking of relevant policy and legislation in Europe, which includes the identification of innovation friendly best practices through quantitative indicators and a qualitative analysis country-specific framework conditions, as well as through the compilation of minerals statistics and reporting systems. These insights will form the basis for developing an interactive, tailor-made online 'Minerals Policy Guide'. Another key feature of the MIN-GUIDE project will be knowledge co-production for minerals policy decision makers through Policy Laboratories exploring these best practice examples along the whole mineral production value chain (exploration and extraction, processing, recycling and mine closure). Furthermore, MIN-GUIDE will facilitate the building of a sustainable minerals policy stakeholder network through this knowledge co-production and utilization in Policy Laboratories as well as through three major Conferences. These Conferences will explore the minerals governance framework, work on recommendations for promoting innovation along the whole minerals production value chain, and put it into the wider context of the circular economy. The MIN-GUIDE project and in particular the dissemination of the 'Minerals Policy Guide' to specific target audiences will have the expected impact of guiding EU MS and EU level minerals policy-making towards a more coherent, transparent and innovation-catalysing framework.

Partners:

Nr	Participant	Country
1	WIRTSCHAFTSUNIVERSITAT WIEN	AT
2	THE UNIVERSITY OF WESTMINSTER LBG	UK
3	MONTANUNIVERSITAT LEOBEN	AT
4	LULEA TEKNISKA UNIVERSITET	SE
5	NATIONAL TECHNICAL UNIVERSITY OF ATHENS - NTUA	EL
6	INSTITUTO GEOLÓGICO Y MINERO DE ESPAÑA	ES
7	UNIVERSIDADE DE AVEIRO	PT
8	GOPA COM	BE
9	SVEUCILISTE U ZAGREBU RUDARSKO-GEOLOSKO-NAFTNI FAKULTET	HR
10	TYÖ- JA ELINKEINOMINISTERIÖ	FI

Sub-activity: 5.3.1

MINATURA 2020

642139

Call: H2020-SC5-2014-one-stage

Type of Action: CSA

Title: Developing a concept for a European minerals deposit framework

Project total costs:	2,092,688 €	**Project EU contribution:**	2,092,688 €	**Duration (months):**	36

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	MINPOL GMBH	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 WAGENINGEN RESEARCH	NL
12	ZAVOD ISKRIVA, ISKRISCE ZA RAZVOJ LOKALNIH POTENCIALOV	SI
13	HUNGARIAN OFFICE FOR MINING AND GEOLOGY	HU
14	UNIVERSITATEA DIN BUCURESTI	RO
15	GEOLOSKI ZAVOD SLOVENIJE	SI
16	FUNDACAO DA FACULDADE DE CIENCIAS DA UNIVERSIDADE DE LISBOA FP	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 - POVRSINSKO 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
24	REGIONE EMILIA ROMAGNA	IT
26	FCIENCIAS.ID - ASSOCIACAO PARA A INVESTIGACAO E DESENVOLVIMENTO DE CIENCIAS	PT

Sub-activity: 5.3.1

INTRAW

642130

Call: H2020-SC5-2014-one-stage

Type of Action: CSA

Title: International cooperation on Raw materials

Project total costs:	2,111,375 €	**Project EU contribution:**	2,104,801 €	**Duration (months):**	36

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
13	RECIFEMETAL-RECICLAGEM DE FERROS E METAIS SA	PT
14	RESOURCES COMPUTING INTERNATIONAL LTD	UK
15	AMERICAN GEOLOGICAL INSTITUTE	US
16	MINPOL GMBH	AT

Sub-activity: 5.3.1 **ProSUM** **641999**

Call: H2020-WASTE-2014-one-stage **Type of Action:** CSA

Title: Prospecting Secondary raw materials in the Urban mine and Mining waste

Project total costs: 3,704,328 € **Project EU contribution:** 3,051,578 € **Duration (months):** 36

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 (EUIN), 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 EUIN 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	EIDGENOSSISCHE MATERIALPRUFUNGS- 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	UK
18	EC CONSULTING	FR

Call: H2020-SMEINST-2-2017 **Type of Action:** SME-2

Title: Platinum gRoup MEtals saving by monoliTHos Efficient and disrUptive catalySt innovation

Project total costs:	1,405,250 €	**Project EU contribution:**	983,675 €	**Duration (months):**	24

Abstract:

In 2014, the EC released the European Critical Raw Materials Review (CRMs), highlighting a list of materials defined critical. Platinum Group Materials (PGMs), contained in this list, are among the least abundant of the Earth's elements and were classified as materials whose substitution is currently extremely difficult and recycling rate is very low. The supply of PGMs (Europe is the main importer) is currently ensured mostly by primary sources (72%) coming from both mines and recycled products (no mines in Europe), and it cannot meet the global demand (current deficit 20 tonnes). PGMs demand (up to 80%) is driven mainly by the emission control catalysts market which is expected to reach €6 billion by 2019.The PROMETHEUS project will bring to the market a disruptive innovation, allowing for the first time to substitute up to 60% of PGMs used in autocatalysts with copper nanoparticles, while keeping the same performances and durability. Specifically the PROMETHEUS project objectives are:1. Industrialising PROMETHEUS production and demonstrate on large scale its performances. PROMETHEUS has already been validated in the real environment with a key stakeholder (FIAT, Large multinational automotive industry) also supporting Phase 2;2. Substituting 67% of PGMs used in autocatalysts with copper nanoparticles, saving up to 40 tonnes of PGMs per year, 2 times the current global deficit;3. Decoupling Europe from a Critical Raw Material (PGMs), saving up to 60% of PGMs European demand per year (20 tonnes per year – the current global demand/supply deficit);4. Boosting European automotive and emission control catalyst markets. Copper costs ~6,800 times less than Platinum (4.5€/Kg against 30,550 €/Kg) which means that European industries can save almost €250 mln to be reinvested in RD&I and job growth. 5. Boosting MONOLITHOS growth. In 5 years after market introduction MONOLITHOS expects to have grown by 250% in personnel and achieve a total turnover of at least €100 mln

Partners:

Nr	Participant	Country
1	MONOLITHOS KATALITES KE ANAKIKLOSI ETAIREIA PERIORISMENIS EVTHINIS	EL

Call: H2020-SC5-2017-OneStageB **Type of Action:** RIA

Title: Innovative, Non-invasive and Fully Acceptable Exploration Technologies

Project total costs:	5,624,030 €	**Project EU contribution:**	5,624,030 €	**Duration (months):**	36

Abstract:

Exploration discovery of raw material resources requires innovations that either change the geological targets of exploration, the physical places that are reached, or the manner in which they are explored. Despite its rich history of mining and residual mineral wealth, current conditions within the EU present a number of social, political, legislative, cost, technical and physical obstacles to raw material exploration: obstacles to be overcome by innovation, dialogue and reform.The Innovative, Non-invasive and Fully Acceptable Exploration Technologies (INFACT) project unites stakeholders of Europe's future raw materials security in its consortium and activities. Via effective engagement of civil society, state, research and industry, the project will focus on each of these obstacles. It will co-develop improved systems and innovative technologies that are more acceptable to society and invigorate and equip the exploration industry, unlocking unrealised potential in new and mature areas. The project will develop innovative geophysical and remote sensing technologies (less-invasive than classical exploration methods) that promise to penetrate new depths, reach new sensitivities and resolve new parameters. The project will also set the EU as a leader on the world stage by establishing permanent infrastructure to drive innovation in the next generation of exploration tools: tools that are cost-effective, designed for EU conditions and its raw materials strategy, and high-performing in terms of environmental impact, social acceptability, and technical performance. INFACT is comprised of the following main components:Development and test of innovative, non-invasive exploration technologies Foundation of 3 test sites for exploration technology in the south, centre and north of EuropeStakeholder engagement, education and policy reformThese actions combine to reach each of the main areas in which the EU has the power to influence change in its raw materials security.

Partners:

Nr	Participant	Country
1	HELMHOLTZ-ZENTRUM DRESDEN-ROSSENDORF EV	DE
2	DIALOGIK GEMEINNUETZIGE GESELLSCHAFT FUER KOMMUNIKATIONS- UND KOOPERATIONSFORSCHUNG mbH	DE
3	Asistencias Técnicas Clave, s.l.	ES
4	SUOMEN YMPARISTOKESKUS	FI
5	FEDERATION EUROPEENNE DES GEOLOGUES	FR
6	Atalayamining	ES
7	COBRE LAS CRUCES SA	ES
8	AA Sakatti Mining Oy	FI
9	SRK Exploration Services Ltd.	UK
10	Aarhus Geofisica SrL	IT
11	GEOGNOSIA S.L.	ES
12	SUPRACON AG	DE
13	GALSA (PTY) LTD	ZA
14	AGENCIA DE INNOVACION Y DESARROLLODE ANDALUCIA	ES
15	FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	DE
16	OULUN YLIOPISTO	FI
17	ITA-SUOMEN YLIOPISTO	FI

Sub-activity: 5.3.2

Smart Exploration

775971

Call: H2020-SC5-2017-OneStageB **Type of Action:** RIA

Title: Sustainable mineral resources by utilizing new Exploration technologies

Project total costs:	5,217,844 €	**Project EU contribution:**	5,217,844 €	**Duration (months):**	36

Abstract:

Smart Exploration consists of a research and application team supported by a group of technologically advanced SMEs and the mining industry. The consortium will firstly focus on developing cost-effective, environmentally-friendly tools and methods for geophysical exploration in highly challenging brownfield areas where exploration expenditure is greater and the return time (from exploration to production) shorter. A second focus point will be long-term greenfield exploration with the aim of reducing exploration costs, implying significant improvement in development rates and a sustainable supply of raw materials at the same rate as the whole world wishes to grow. Therefore, new innovative ideas will also be tested for greenfield exploration to increase the potential of finding new major deposits of relevance to the EU. The overall objectives of the tasks are to develop (1) cost-effective and innovative exploration instruments comprising airborne, surface, downhole and in-mine modular-based geophysical systems, (2) new exploration targets through multidisciplinary and integrated approaches, (3) novel reprocessing and handling of legacy exploration data that will generate additional information and targets for detailed exploration, and (4) validating all these developments, to maximize their impacts, at relevant exploration sites covering greenfield, near-mine and in-mine areas using known targets. We anticipate that these developments will not only generate new technological and methodological markets for the EU, but will also result in improved exploration strategies in the EU and beyond. The nature of the consortium, the partners involved, and the commodities that are considered will result in highly useful exploitation of the developments envisaged in the project and a guarantee of their successful use beyond the project life.

Partners:

Nr	Participant	Country
1	UPPSALA UNIVERSITET	SE
2	SVERIGES GEOLOGISKA UNDERSOKNING	SE
3	NORDIC IRON ORE AB	SE
4	Ludvika kommun	SE
5	GEOVISTA AKTIEBOLAG	SE
6	MIC Nordic AB	SE
7	BITSIM AB	SE
8	AMKVO AB	SE
9	YARA SUOMI OY	FI
10	HELSINGIN YLIOPISTO	FI
11	TURUN YLIOPISTO	FI
12	SKYTEM SURVEYS APS	DK
13	AARHUS UNIVERSITET	DK
14	TECHNISCHE UNIVERSITEIT DELFT	NL
15	SEISMIC MECHATRONICS BV	NL
16	EAGE EVENTS BV	NL
17	POLITECNICO DI TORINO	IT
18	SOMINCOR - SOCIEDADE MINEIRA DE NEVES-CORVO SA	PT
19	Laboratorio Nacional de Energia e Geologia I.P.	PT
20	TECHNISCHE UNIVERSITAET BERGAKADEMIE FREIBERG	DE
21	Instytut Geofizyki Polskiej Akademii Nauk	PL
22	GEOPARTNER SP ZOO	PL
23	PROXIS SP ZOO	PL
24	NATIONAL TECHNICAL UNIVERSITY OF ATHENS - NTUA	EL
25	HELLAS GOLD S.A.	EL
26	SEISMOTECH GEOFISIKES MELETES ANONIMOS ETAIREIA	EL
27	Delphi-Distomon S.A.M	EL

Sub-activity: 5.3.2

ITERAMS

730480

Call: H2020-SC5-2016-OneStageB **Type of Action:** RIA

Title: Integrated mineral technologies for more sustainable raw material supply

Project total costs:	7,915,364 €	**Project EU contribution:**	7,915,364 €	**Duration (months):**	36

Abstract:

The aim of ITERAMS is to develop a proof of concept for more environmentally friendly and economic mine site operations, in Europe and globally. For that, the ITERAMS project focuses on the isolation of process waters completely from the adjacent water systems. This will require development of new methods for optimising and controlling water qualities at each process step. As a bonus, this will also facilitate the recovery of additional valuable constituents. The ITERAMS project will develop research and dimensioning protocols suitable for use at the mines processing different ores. In this context, validation of the concepts will have an essential role. In the planned project, it will be performed at selected mine sites processing sulphide ores, although the concepts will be generic and thus also suitable for other types of ores like gold, rare earth, and phosphate ores. The closure of water cycles at each process stage will inevitably increase their thermodynamical and kinetic unstability (as is also the case with conventional tailing ponds). In addition, water temperatures will also increase, causing higher bacterial growth, especially for iron and sulphur oxidising species. This will result in a dynamic situation that has never so far been worked on. The ITERAMS project will create new academic and industrial knowledge and capabilities to tackle such questions. The tightly closed water cycles can be realised only if the tailings can be filtered and stacked dry. ITERAMS will demonstrate the use of geopolymerisation to create water and oxygen tight covers on the deposited tailings. For that, the tailings streams will be modified for their easier geopolymerisation.The ITERAMS water and waste efficient methods will be validated at mine sites in Finland, in Portugal and additionally either in Chile or South Africa.

Partners:

Nr	Participant	Country
1	Teknologian tutkimuskeskus VTT Oy	FI
3	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
4	MONTANUNIVERSITAT LEOBEN	AT
5	BOLIDEN KEVITSA MINING OY	FI
6	HACETTEPE MINERAL TECHNOLOGIES LTD	TR
7	OULUN YLIOPISTO	FI
8	GREENDELTA GMBH	DE
9	IMA ENGINEERING LTD OY	FI
10	ANGLO AMERICAN PLC	UK
11	AALTO-KORKEAKOULUSAATIO	FI
12	UNIVERSITY OF CAPE TOWN	ZA
13	CASPEO SARL	FR
14	LAPPEENRANNAN TEKNILLINEN YLIOPISTO	FI
15	AMPHOS 21 CONSULTING SL	ES
16	SOMINCOR - SOCIEDADE MINEIRA DE NEVES-CORVO SA	PT
17	OUTOTEC (FINLAND) OY	FI

Sub-activity: 5.3.2

CHROMIC

730471

Call: H2020-SC5-2016-OneStageB **Type of Action:** RIA

Title: effiCient mineral processing and Hydrometallurgical RecOvery of by-product Metals from low-grade metal contaIning seCondary raw materials

Project total costs:	4,869,688 €	**Project EU contribution:**	4,869,688 €	**Duration (months):**	48

Abstract:

Europe is faced with the challenge of sustaining a secure supply of by-product metals, which play a fundamental role in the competitiveness of the manufacturing sector and innovations in high-tech sectors. To loosen the growth restrictions imposed by the inflexible supply from primary mining, alternative sources for these metals must be explored. At the same time a wealth of metals is entrapped within the vast amounts of secondary resources still being landfilled or used in applications where their intrinsic value is not fully utilized. To unlock the potential of these resources, a radically new approach to metal recovery must be deployed. Crucial factor within this new value chain is the zero-waste approach, which captures not only the contained metals but also valorises the residual matrix (often >95% of the bulk material). Such an approach requires the development of innovative, highly selective metal recovery technologies that fully capture the metal-value without impairing the properties of the residual matrix material for valorisation. CHROMIC aims to develop such new recovery processes for critical (Cr, Nb) and economically valuable (Mo, V) by-product metals from secondary resources, based on the smart integration of enhanced pre-treatment, selective alkaline leaching and highly selective metal recovery across the value chain. An overarching assessment of the related economic, environmental and health and safety aspects will be carried out in an iterative way to ensure that the developed technologies meet the requirements of the circular economy whilst being in line with current market demand. The technology will be developed for two models streams (stainless steel slags and ferrochrome slags) with the potential of replication to numerous industrial residues across Europe. Involvement of society from early on will smooth the path towards implementation, so that the CHROMIC processes can contribute to securing Europe's supply of critical raw materials.

Partners:

Nr	Participant	Country
1	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.	BE
2	MICROWAVE ENERGY APPLICATIONS MANAGEMENT	BE
3	ELEKTROWERK WEISWEILER GMBH	DE
4	RECMIX BELGIUM BVBA	BE
5	FORMICABLU SRL	IT
6	ARCHE	BE
7	TECHNICKA UNIVERZITA V KOSICIACH	SK
8	HELMHOLTZ-ZENTRUM DRESDEN-ROSSENDORF EV	DE
9	VDEH-BETRIEBSFORSCHUNGSINSTITUT GMBH	DE
10	INSTITUT FUR BAUSTOFF-FORSCHUNG EV	DE
11	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR

Call: H2020-SC5-2016-OneStageB **Type of Action:** RIA

Title: Integrated Modular Plant and Containerised Tools for Selective, Low-impact Mining of Small High-grade Deposits

Project total costs:	6,991,820 €	**Project EU contribution:**	6,991,820 €	**Duration (months):**	42

Abstract:

The current mining paradigm promotes extraction from large 'world-class' deposits that have required innovations in mining techniques to deal with low grades, large infrastructure to deal with high throughputs and large feasibility studies to prove long-term commercial viability. High investment in operations is no longer available in the current economic climate and many small companies have ceased to trade, concentrating production and limiting the ability of the raw materials market to respond to increased demand for raw materials or shortages in raw material supply. The problem is most extreme for critical raw materials that are produced in small quantities relative to traditional metal commodities because the potential return on investment is too low. The IMPaCT project proposes a solution that develops a new switch on-switch off (SOSO) mining paradigm to improve the viability of many critical metal and other small complex deposits. The whole systems approach that we have adopted to realise the SOSO mining paradigm centres around technological innovations in mining equipment design and mine planning that would reduce the feasibility studies required, throughput of extracted material, infrastructure, land use, resource consumption and waste. Successful business models for SOSO mining require that mining and processing technologies can be adapted to multiple deposits and commodities. Risks that are associated with the approach concern geological uncertainty, metallurgical variability and social acceptance. The work programme aims to develop the proof-of-concept of total and sustainable mining and processing solutions using case studies in the West Balkans, and subsequently to examine the step-changes that would be required for the technology to be applied globally. The companies involved in the project intend to commercialise the results. Dissemination activities include feedback to European and national policy makers, and the mining industry in general.

Partners:

Nr	Participant	Country
1	THE UNIVERSITY OF EXETER	UK
3	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
4	MINECO LIMITED	UK
5	RHEINISCH-WESTFAELISCHE TECHNISCHE HOCHSCHULE AACHEN	DE
6	IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY AND MEDICINE	UK
7	EXTRACTHIVE	FR
8	GLOBAL ECOPROCESS SERVICES OY	FI
9	CYMRU COAL LIMITED	UK
10	RADOS INTERNATIONAL SERVICES LTD	UK
11	ITA-SUOMEN YLIOPISTO	FI

Sub-activity: 5.3.2

SIMS

730302

Call: H2020-SC5-2016-TwoStage

Type of Action: IA

Title: Sustainable Intelligent Mining Systems

Project total costs:	16,162,100 €	**Project EU contribution:**	12,709,745 €	**Duration (months):**	36

Abstract:

Vision: The SIMS project aspires to create a long lasting impact on the way we test and demonstrate new technology and solutions for the mining industry. With a selected consortium ranging from mining companies, equipment and system suppliers to top-class universities, the SIMS project will boost development and innovation through joint activities aiming at creating a sustainable intelligent mining system. SIMS aims to develop, test and demonstrate new innovative technologies within the designated consortium, consisting of well developed mining operations, selected due to their maturity regarding innovative technologies, world-leading equipment and system suppliers, highly specialized SMEs and top-class universities. The consortium origins in the EIT Raw Materials partnership, and has joined for this proposal due to the common challenges and needs.Objectives:Efficiency - To increase resource efficiency and competitivenessSafety - To reduce the risk of rock falls and exposure of workers to hazardous situationsEnvironment - To minimize environmental impact of mining operationsTrust - To increase public trust, awareness and acceptance for mining. How: We address the call intelligent mining on land and aim to develop, test and demonstrate relevant technologies all aiming at realizing the vision of the intelligent mining system. To meet the project vision and support EU strategies as outlined in the call we have addressed the project objectives by selecting pilot test areas and tests that will support this. Relevance: Specific challenge Raw materials “Innovative pilot actions”: We will bring the most innovative new products in the area of mining and test these in a real life environment in the selected test mines. Addressing actions stated in: EIP-SIP Raw Materials Technology pillar 1A (priority area raw material research and innovation coordination), 1B (technology area for primary and secondary raw materials production).

Partners:

Nr	Participant	Country
1	ATLAS COPCO ROCK DRILLS AB	SE
2	LULEA TEKNISKA UNIVERSITET	SE
3	LUOSSAVAARA-KIIRUNAVAARA AB	SE
4	BOLIDEN MINERAL AB	SE
5	KGHM CUPRUM SP ZOO CENTRUM BADAWCZO-ROZWOJOWE	PL
6	ABB AB	SE
7	ERICSSON AB	SE
8	MOBILARIS AB	SE
9	RHEINISCH-WESTFAELISCHE TECHNISCHE HOCHSCHULE AACHEN	DE
10	K+S Kali GmbH	DE
11	AGNICO-EAGLE FINLAND OY	FI
12	IGW EUROPE AB	SE

Sub-activity: 5.3.2 **SLIM** **730294**

Call: H2020-SC5-2016-OneStageB **Type of Action:** RIA

Title: Sustainable Low Impact Mining solution for exploitation of small mineral deposits based on advanced rock blasting and environmental technologies

Project total costs: 6,979,200 € **Project EU contribution:** 6,979,200 € **Duration (months):** 48

Abstract:

The main economic, technological and environmental challenges of small mining include reducing high investment costs, reducing generation of waste and large tailings, identifying and addressing environmental impacts, and improving flexibility, automation and safety of operations. However, at the moment, there is no quick-fix available to reduce the environmental impact from mines, and it is neither realistic to expect production solutions very distant from today's technologies. Considering that the present mining technology is based on rock blasting and mobile mining equipment for loading and transportation, the major challenge is to generate a new sustainable systemic solution that affects positively the relevant mining value chain. SLIM aims to develop a cost-effective and sustainable selective low impact mining solution based on non-linear rock mass fragmentation by blasting models, airborne particulate matter, vibration affections and nitrate leaching mitigation actions for exploitation of small mineral deposits (including those with chemically complex ore-forming phases) through a new generation of explosives and an advanced automatic blast design software based on improved rock mass characterisation and fragmentation models for optimum fragmentation and minimum rock damage and far-field vibrations.SLIM consortium is led by UPM (es), with LTU (se), MUL (at) and TUG (at) as Research Insitutions, 3GSM (at - Rock fragmentation and blasting software), MAXAM (es - Explosives), ORGIVA (es - Fluorite mine) and ERZBERG (at - Iron mine) and ARNO (es - Quarry) as validators in relevant environment. BRGM (fr), INVESTORNET (dk), MINPOL (at), and ZABALA (es) complement the Environmental and Economic assessments, the Communication and Dissemination activities and Social Awareness actions.SLIM addresses the following issue: a) Sustainable selective low impact mining (2016), it has a planned duration of 48 months and a budget of €6,979,200 requesting €6,979,200 of EU funding.

Partners:

Nr	Participant	Country
1	UNIVERSIDAD POLITECNICA DE MADRID	ES
2	3GSM GmbH	AT
3	BENITO ARNO E HIJOS SA	ES
4	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
5	VA ERZBERG GMBH	AT
6	INVESTORNET-GATE2GROWTH APS	DK
7	LULEA TEKNISKA UNIVERSITET	SE
8	MAXAMCORP INTERNATIONAL SL	ES
9	MINPOL GMBH	AT
10	MONTANUNIVERSITAT LEOBEN	AT
11	MINERA DE ORGIVA SL	ES
12	TECHNISCHE UNIVERSITAET GRAZ	AT
13	ZABALA INNOVATION CONSULTING, S.A.	ES

Call: H2020-SC5-2016-TwoStage **Type of Action:** IA

Title: Real-Time Mineral X-Ray Analysis for Efficient and Sustainable Mining

Project total costs:	12,064,713 €	**Project EU contribution:**	9,318,197 €	**Duration (months):**	36

Abstract:

The X-MINE project supports better resource characterization and estimation as well as more efficient ore extraction in existing mine operations, making the mining of smaller and complex deposits economically feasible and increasing potential European mineral resources (specifically in the context of critical raw materials) without generating adverse environmental impact.The project will implement large-scale demonstrators of novel sensing technologies improving the efficiency and sustainability of mining operations based on X-Ray Fluorescence (XRF), X-Ray Transmission (XRT) technologies, 3D vision and their integration with mineral sorting equipment and mine planning software systems. The project will deploy these technologies in 4 existing mining operations in Sweden, Greece, Bulgaria and Cyprus. The sites have been chosen to illustrate different sizes (from small-scale to large-scale) and different target minerals (zinc-lead-silver-gold, copper-gold, gold) including the presence of associated critical metals such as indium, gallium, germanium, platinum group metals and rare earth elements. The pilots will be evaluated in the context of scientific, technical, socio-economic, lifecycle, health and safety performances. The sensing technologies developed in the project will improve exploration and extraction efficiency, resulting in less blasting required for mining. The technologies will also enable more efficient and automated mineral-selectivity at extraction stage, improving ore pre-concentration options and resulting in lower use of energy, water, chemicals and men hours (worker exposure) during downstream processing.The consortium includes 5 industrial suppliers, 4 research/academic organizations, 4 mining companies and 1 mining association. The project has a duration of 3 years and a requested EC contribution of €9.3M.

Partners:

Nr	Participant	Country
1	Teknologian tutkimuskeskus VTT Oy	FI
2	OREXPLORE AB	SE
3	ADVACAM OY	FI
4	ADVACAM SRO	CZ
5	Antmicro Sp. z o. o.	PL
6	SWICK MINING SERVICES LTD	AU
7	LOVISAGRUVAN AB	SE
8	HELLAS GOLD S.A.	EL
9	ASAREL MEDET AD	BG
10	HELLENIC COPPER MINES LTD	CY
11	SVERIGES GEOLOGISKA UNDERSOKNING	SE
12	INSTITUTUL GEOLOGIC AL ROMANIEI	RO
13	UPPSALA UNIVERSITET	SE
14	BERGSKRAFT BERGSLAGEN AB	SE

Sub-activity: 5.3.2

ERA-MIN 2

730238

Call: H2020-SC5-2016-OneStageB

Type of Action: ERA-NET-Cofund

Title: Implement a European-wide coordination of research and innovation programs on raw materials to strengthen the industry competitiveness and the shift to a circular economy

Project total costs:	16,058,787 €	**Project EU contribution:**	4,999,890 €	**Duration (months):**	60

Abstract:

Building on the experience of ERA-MIN FP7 funded project, the objective of the ERA-NET Cofund on Raw Materials (ERA-MIN 2) is to strengthen the coordination of national and regional research programmes in the field of non-energy non-agricultural raw materials by implementing one joint call for proposals resulting in grants to third parties with EU co-funding.In line with the integrated strategy proposed in the EU Raw Materials Initiative and the Strategic Implementation Plan of the European Innovation Partnership on Raw Materials, the ERA-MIN 2 Call topics will address the three segments of the non-energy non-agricultural raw materials: metallic, industrial and construction minerals and will cover the whole value chain: exploration, extraction, processing/refining, as well as recycling and substitution of critical raw materials. ERA-MIN 2 supports the objectives of the EIP on Raw Materials, particularly in the area of research and innovation co-ordination; improve synergy, co-ordination and coherence between regional, national and EU funding in the relevant research fields through international collaboration; reduce fragmentation of raw materials research and innovation efforts across Europe; improve use of human and financial resources in the area of raw materials research and innovation.As measures to maximise impact, ERA-MIN 2 will cooperate with the existing initiatives, projects and associations, by establishing an effective communication aiming to assure that all dissemination activities, including the promotion and follow up of project results, will reach out to a wider audience of stakeholders, therefore strengthening the raw material community.To further increase its impact and to better fulfil the overarching objectives, ERA-MIN-2 will develop and implement at least two additional joint calls without EU co-funding, in topics of common interest and based on the updated Roadmap provided by CSA VERAM.

Partners:

Nr	Participant	Country
1	FUNDACAO PARA A CIENCIA E A TECNOLOGIA	PT
2	VERKET FÖR INNOVATIONSSYSTEM	SE
3	FORSCHUNGSZENTRUM JULICH GMBH	DE
4	Unitatea Executiva pentru Finantarea Invatamantului Superior, a Cercetarii, Dezvoltarii si Inovarii	RO
5	MINISTERIO DE ECONOMIA, INDUSTRIA Y COMPETITIVIDAD	ES
6	Ministerio de Ciencia, Tecnología e Innovación Productiva	AR
7	NARODOWE CENTRUM BADAN I ROZWOJU	PL
8	COMISION NACIONAL DE INVESTIGACION CIENTIFICA Y TECNOLOGICA	CL
9	Ministrstvo za izobrazevanje, znanost in sport	SI
10	AGENCE NATIONALE DE LA RECHERCHE	FR
11	CENTRO PARA EL DESARROLLO TECNOLOGICO INDUSTRIAL.	ES
12	DEPARTMENT OF SCIENCE AND TECHNOLOGY	ZA
13	COMMUNICATIONS, CLIMATE ACTION AND ENVIRONMENTS	IE
14	AGENCE DE L'ENVIRONNEMENT ET DE LA MAITRISE DE L'ENERGIE	FR
15	TURKIYE BILIMSEL VE TEKNOLOJIK ARASTIRMA KURUMU	TR
16	INNOVAATIORAHOITUSKESKUS TEKES	FI
17	FONDS FLANKEREND ECONOMISCH EN INNOVATIEBELEID	BE
18	AGENCIA DE INNOVACION Y FINANCIACION EMPRESARIAL DE CASTILLA Y LEON	ES
19	FONDS VOOR WETENSCHAPPELIJK ONDERZOEK-VLAANDEREN	BE
20	MINISTERO DELL'ISTRUZIONE, DELL'UNIVERSITA' E DELLA RICERCA	IT
21	FINANCIADORA DE ESTUDOS E PROJETOS	BR

Sub-activity: 5.3.2

PLATIRUS

730224

Call: H2020-SC5-2016-OneStageB

Type of Action: RIA

Title: PLATInum group metals Recovery Using Secondary raw materials

Project total costs:	6,994,210 €	**Project EU contribution:**	6,994,210 €	**Duration (months):**	48

Abstract:

The PLATIRUS project aims at reducing the European deficit of Platinum Group Metals (PGMs), by upscaling to industrial relevant levels a novel cost-efficient and miniaturised PGMs recovery and raw material production process. The targeted secondary raw materials will be autocatalysts, electronic waste (WEEE) and tailings and slags from nickel and copper smelters, opening-up an important range of alternative sources of these critical raw materials, with the potential to substitute a large amount of primary raw materials which are becoming more and more scarce in Europe. For the first time five of the major research centres in Europe will collaborate in developing and fine tuning the most advanced recovery processes for PGMs. This joint effort will lead to a unique exchange of know-how and best practices between researchers all over Europe, aiming at the selection of the recycling process and the preparation of the Blueprint Process Design that will set the basis for a new PGM supply chain in the EU. Two primary and secondary material producers with a consolidated business model will carry out validation of the innovative recovery processes in an industrially relevant environment by installing and testing them in an industrially relevant environment and benchmarking with the currently adopted recovery processes. A recycling company will provide a link to market introduction by manufacturing autocatalysts with second-life PGMs obtained via the PLATIRUS technology. Two large automotive companies will validate the material produced through the new recovery process, and ensure end-user industry driven value chains for recovered PGM materials. LCA, economic and environment assessment of the whole process will be led by a specialized consultancy company. Finally, the PLATIRUS project will be linked to European and extra-European relevant stakeholders, research activities and industries, with a solid dissemination, communication and exploitation plan.

Partners:

Nr	Participant	Country
1	FUNDACION TECNALIA RESEARCH & INNOVATION	ES
2	MONOLITHOS KATALITES KE ANAKIKLOSI ETAIREIA PERIORISMENIS EVTHINIS	EL
3	KATHOLIEKE UNIVERSITEIT LEUVEN	BE
4	TECHNISCHE UNIVERSITAET WIEN	AT
5	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.	BE
6	STIFTELSEN SINTEF	NO
7	CENTRO RICERCHE FIAT SCPA	IT
8	FORD OTOMOTIV SANAYI ANONIM SIRKETI	TR
9	BOLIDEN HARJAVALTA OY	FI
10	JOHNSON MATTHEY PLC	UK
11	Env-Aqua Solutions Ltd	UK
12	PNO INNOVATION	BE

Call: H2020-SC5-2016-OneStageB **Type of Action:** RIA

Title: Production of Scandium compounds and Scandium Aluminum alloys from European metallurgical by- products

Project total costs: 7,706,625 € **Project EU contribution:** 7,000,000 € **Duration (months):** 48

Abstract:

Scandium (Sc) is one of the highest valued elements in the periodic table and an element which is usually grouped in REEs as it shares many characteristics with Yttrium. Scandium technological applications are unique, as it is a key component in producing Solid Oxide Fuel Cells (Scandia-Stabilized-Zirconia solid electrolyte layer) or high strength Aluminum alloys used in aerospace and 3D printing applications (SCALMALLOY®). Yet Scandium supply is limited due to its scarcity and the high cost of its production, which currently takes place in Asia and Russia. Europe has no production of Scandium, but is home to many Sc industrial end-users (Airbus, II-VI, KBM Affilips and others). In fact end-users like Airbus, are not deploying their Sc applications due to the lack of a secure Sc supply. The SCALE project sets about to develop and secure a European Sc supply chain through the development of technological innovations which will allow the extraction of Sc from European industrial residues.Bauxite Residues from alumina production (5 Million tons on dry basis per year in Europe) and acid wastes from TiO2 pigment production (1.4 Million tons on dry basis per year in Europe) have Sc concentrations which are considered exploitable, given a viable extraction technology. SCALE develops and demonstrates the value chain starting from residue and finishing to high tech end-product. In more detail:

• SCALE develops innovative technologies that can extract economically and sustainably Sc from dilute mediums (<100 mg/L) and upgrade them to pure oxides, metals and alloys at lower energy or material cost.• SCALE extracts along with Sc all other REEs found in the by-products (AoG's BR on an annual base contain 10% of the European REE raw material imports)The industrially driven SCALE consortium covers the entire Sc value chain with 7 major European industries and further features 8 academic and research institutes and 4 engineering companies with track records in RTD.

Partners:

Nr	Participant	Country
1	MYTILINEOS ANONIMI ETAIRIA - OMILOS EPICHEIRISEON	EL
2	II-VI DEUTSCHLAND GMBH	DE
3	NATIONAL TECHNICAL UNIVERSITY OF ATHENS - NTUA	EL
4	RHEINISCH-WESTFAELISCHE TECHNISCHE HOCHSCHULE AACHEN	DE
5	KUNGLIGA TEKNISKA HOEGSKOLAN	SE
6	BUDAPESTI MUSZAKI ES GAZDASAGTUDOMANYI EGYETEM	HU
7	BUNDESANSTALT FUER MATERIALFORSCHUNG UND -PRUEFUNG	DE
8	FACHHOCHSCHULE NORDWESTSCHWEIZ	CH
9	FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	DE
10	MEAB CHEMIE TECHNIK GMBH	DE
11	STIFTELSEN SINTEF	NO
12	IOLITEC IONIC LIQUIDS TECHNOLOGIES GMBH	DE
13	KBM MASTER ALLOYS BV	NL
15	LESS COMMON METALS LIMITED	UK
16	TRONOX PIGMENTS (HOLLAND) BV	NL
17	ALUMINIUM OXID STADE, GESELLSCHAFTMIT BESCHRANKTER HAFTUNG	DE
18	ITRB LTD	CY
19	WAVESTONE LUXEMBOURG S.A.	LU

Call: H2020-SC5-2015-one-stage **Type of Action:** RIA

Title: Robotic subsea exploration technologies

Project total costs:	5,986,723 €	**Project EU contribution:**	5,986,723 €	**Duration (months):**	50

Abstract:

There is a need to develop an autonomous, reliable, cost effective technology to map vast terrains, in terms of mineral and raw material contents which will aid in reducing the cost of mineral exploration, currently performed by ROVs and dedicated SSVs and crew. Furthermore there is a need to identify, in an efficient and non-intrusive manner (minimum impact to the environment), the most rich mineral sites. This technology will aid the seabed mining industry, reduce the cost of exploration and especially the detailed identification of the raw materials contained in a mining sites and enable targeted mining only of the richest resources existing. The ROBUST proposal aims to tackle the aforementioned issue by developing sea bed in situ material identification through the fusion of two technologies, namely laser-based in-situ element-analyzing capability merged with underwater AUV (Autonomous Underwater Vehicle) technologies for sea bed 3D mapping. This will enable resource identification done by robotic control enabled by the synergy between AUV hovering and manipulator capabilities. The underwater robotic laser process is the Laser Induced Breakdown Spectroscopy (LIBS), used for identification of materials on the sea bed. The AUV Robotic vehicle will dive, identify the resources that are targeted for LIBS scanning through 3D real time mapping of the terrain (hydro-acoustically, laser scanners, photogrammetry) and position the LIBS in the required locations of mineral deposits on the ocean floor to autonomously perform qualitative and quantitative analyses.

Partners:

Nr	Participant	Country
1	TWI LIMITED	UK
2	CGG SERVICES SA	FR
3	ALS MARINE CONSULTANTS LTD	CY
4	LZH LASER ZENTRUM HANNOVER E.V.	DE
5	HELMHOLTZ ZENTRUM FUR OZEANFORSCHUNG KIEL	DE
6	GRAAL TECH SRL	IT
7	NEOLASE GMBH	DE
8	UNIVERSITA DEGLI STUDI DI GENOVA	IT
9	CORONIS COMPUTING SL	ES

Sub-activity: 5.3.2

METGROW PLUS

690088

Call: H2020-SC5-2015-one-stage

Type of Action: RIA

Title: Metal Recovery from Low Grade Ores and Wastes Plus

Project total costs:	7,911,463 €	**Project EU contribution:**	7,911,463 €	**Duration (months):**	48

Abstract:

METGROW+ will address and solve bottlenecks in the European raw materials supply by developing innovative metallurgical technologies for unlocking the use of potential domestic raw materials. The METGROW+ consortium has received an EIP RM Commitment status. The consortium is supported by internationally respected research institutes and universities. Many of the partners (9) are members of EIT KIC Raw Materials consortium as well. The value chain and business models for metal recovery from low grade ores and wastes are carefully looked after. Within this project, both primary and secondary materials are studied as potential metal resources. Economically important nickel-cobalt deposits and low grade polymetallic wastes, iron containing sludges (goethite, jarosite etc.) which are currently not yet being exploited due to technical bottlenecks, are in focus. Concurrently, METGROW+ targets innovative hydrometallurgical processes to extract important metals including Ni, Cu, Zn, Co, In, Ga, Ge from low grade ores in a cost-effective way. In addition a toolbox for metallurgical system is created in the project using new methods and combinations.The unused potential of metal containing fine grained industrial residues are evaluated, while hybrid and flexible hydrometallurgical processes and treatment methods of fines are developed for both materials. Training and education of new professionals are facilitated within the METGROW+ project. The knowledge of raw materials and sustainable technologies will attract new talents in the field who can flexibly change fields from treatment of secondary to primary resources, which also smoothens the economic ups and downs in the primary sector.

Partners:

Nr	Participant	Country
1	Teknologian tutkimuskeskus VTT Oy	FI
2	ARCHE	BE
3	OPTIMIZACION ORIENTADA A LA SOSTENIBILIDAD SL	ES
4	IDP INGENIERIA Y ARQUITECTURA IBERIA SL	ES
5	INSTYTUT METALI NIEZELAZNYCH	PL
6	KATHOLIEKE UNIVERSITEIT LEUVEN	BE
7	JM RECYCLING NV	BE
8	OUTOTEC (FINLAND) OY	FI
9	RISE RESEARCH INSTITUTES OF SWEDEN AB	SE
10	FUNDACION TECNALIA RESEARCH & INNOVATION	ES
11	THE RESEARCH COMMITTEE OF THE TECHNICAL UNIVERSITY OF CRETE	EL
12	UNIVERSITEIT GENT	BE
13	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.	BE
14	HELLENIC COPPER MINES LTD	CY
15	URBASER S.A.	ES
16	PROFIMA SPOLKA Z OGRANICZONA ODPOWIEDZIALNOSCIA	PL
17	UMICORE	BE
18	RINA CONSULTING - D'APPOLONIA SPA	IT
19	KERNEOS SA	FR

Call: H2020-SC5-2015-one-stage **Type of Action:** RIA

Title: Autonomous Underwater Explorer for Flooded Mines

Project total costs:	4,862,865 €	**Project EU contribution:**	4,862,865 €	**Duration (months):**	45

Abstract:

This project will develop a novel robotic system for the autonomous exploration and mapping of Europe's flooded mines. The Robotic Explorer (UX-1) will use non-invasive methods for autonomous 3D mine mapping for gathering valuable geological and mineralogical information. This will open new exploration scenarios so that strategic decisions on the re-opening of Europe's abandoned mines could be supported by actualised data that can not be obtained by any other ways. The Multi-robot Platform will represent a new technology line that is made possible by recent developments in autonomy research that allows the development of a completely new class of mine explorer service robots, capable of operating without remote control. Such robots do not exist nowadays; UX-1 will be the first of its kind. Research challenges are related to miniaturisation and adaptation of deep sea robotic technology to this new application environment and to the interpretation of geoscientific data. Work will start with component validation and simulations to understand the behavior of technology components and instruments to the application environment. This will then be followed by the construction of the first Prototype. Post processing and data analysis tools will be developed in parallel, and pre-operational trials are launched in real life conditions. In the final stage of the project extensive pilots will take place during which UX-1 will be iteratively improved after each trial session, which will be increasingly demanding. The final, most ambitious demonstration will take place in the UK with the resurveying of the entire Ecton mine (UK) that nobody has seen for over 150 years. This final pilot will demonstrate the Platform's scalability from small missions to the largest ones by increasing the number of deployed autonomous drones, and supporting multi-robot cooperation in confined 3D spaces with realtime sensor and data fusion for reliable navigation and communications.

Partners:

Nr	Participant	Country
1	MISKOLCI EGYETEM	HU
2	GEOLOSKI ZAVOD SLOVENIJE	SI
3	TTY-SAATIO	FI
4	UNIVERSIDAD POLITECNICA DE MADRID	ES
5	LA PALMA RESEARCH CENTRE FOR FUTURE STUDIES SL	ES
6	INESC TEC - INSTITUTO DE ENGENHARIA DE SISTEMAS E COMPUTADORES, TECNOLOGIA E CIENCIA	PT
7	RESOURCES COMPUTING INTERNATIONAL LTD	UK
8	GEOPLANO CONSULTORES SA	PT
9	ECTON MINE EDUCATIONAL TRUST	UK
10	FEDERATION EUROPEENNE DES GEOLOGUES	FR
11	GEO-MONTAN GEOLOGUS, KORNYEZETVEDOMEGUJULO ENERGETIKAI TOLMACSFORDITOKFT	HU
12	EMPRESA DE DESENVOLVIMENTO MINEIRO	PT
13	CENTER ZA UPRAVLJANJE Z DEDISCINO ZIVEGA SREBRA IDRIJA	SI

Call: H2020-SC5-2015-one-stage **Type of Action:** RIA

Title: New geomodels to explore deeper for High-Technology critical raw materials in Alkaline rocks and Carbonatites

Project total costs:	5,395,296 €	**Project EU contribution:**	5,395,296 €	**Duration (months):**	48

Abstract:

Five of the 20 raw materials identified by the European Commission as critical are commonly found in association with alkaline rocks and carbonatites (heavy and light rare earth elements, niobium, fluorspar, and phosphate). Other elements increasingly important for 'hi-tech' applications, and found in these rocks include hafnium (Hf), tantalum (Ta), scandium (Sc) and zirconium (Zr). In fact, there is a greater chance of a carbonatite complex having resources economic to mine than any other rock type (about 20 active mines in ca. 500 known carbonatite complexes).Less than 3% of critical raw materials supply is indigenous to the EU. However, deposits are known and exploration is ongoing in parts of northern Europe. In central and southern Europe the presence of abundant alkaline volcanic rocks indicates the likelihood that deposits exist within about a km of the surface. This project will make a step-change in exploration models for alkaline and carbonatite provinces, using mineralogy, petrology, and geochemistry, and state-of-the-art interpretation of high resolution geophysics and downhole measurement tools, to make robust predictions about mineral prospectivity at depth. This will be achieved through studies at seven key natural laboratories, combined with Expert Council workshops. The results will be incorporated into new geomodels on multiple scales. In contrast to known deposits, Europe is well endowed with expertise. The project brings together industry partners involved in exploration, geophysics and environmental assessment with two geological surveys, a major museum and five universities. The results will make Europe the world leader in this specialist area. They will give the four SME industry partners world-leading expertise to develop and expand their businesses, transferring their business expertise from Africa to Europe. The project will help give European 'hi-tech' industry the confidence to innovate in manufacturing using critical raw materials.

Partners:

Nr	Participant	Country
1	THE UNIVERSITY OF EXETER	UK
2	GEO-AFRICA PROSPECTING SERVICES CC	NA
3	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
4	TERRATEC GEOPHYSICAL SERVICES GMBH & CO KG	DE
5	EBERHARD KARLS UNIVERSITAET TUEBINGEN	DE
6	MENDELOVA UNIVERZITA V BRNE	CZ
7	THE UNIVERSITY COURT OF THE UNIVERSITY OF ST ANDREWS	UK
8	UNIVERSITA DEGLI STUDI GABRIELE D'ANNUNZIO DI CHIETI-PESCARA	IT
9	LANCASTER EXPLORATION LIMITED	VG
10	NATURAL HISTORY MUSEUM	UK
11	A. SPEISER-ENVIRONMENTAL CONSULTANTS CC	NA
12	Geological Survey of Denmark and Greenland	DK

Sub-activity: 5.3.2

SOLSA

689868

Call: H2020-SC5-2015-one-stage

Type of Action: RIA

Title: Sonic Drilling coupled with Automated Mineralogy and chemistry On-Line-On-Mine-Real-Time

Project total costs:	9,775,488 €	**Project EU contribution:**	9,775,488 €	**Duration (months):**	48

Abstract:

SOLSA is the first automated expert system for on-site cores analysis. With access to data on-line, great savings are expected on the number of drill holes, the accuracy of geo-models and economic evaluation of ore reserves. SOLSA responds perfectly to the need for "New sustainable exploration technologies and geo-models" of SC5-11d-2015. The objective is to “develop new or improved highly efficient and cost-effective, sustainable exploration technologies”. It includes (1) integrated drilling optimized to operate in the difficult lateritic environment with the challenge of a mixture of hard and soft rocks, extensible also to other ore types, (2) fully automated scanner and phase identification software, usable as well in other sectors. SOLSA combines for the first time the non-destructive sensors X-ray fluorescence, X-ray diffraction, vibrational spectroscopies and 3D imaging along the drill core. For that purpose, SOLSA will develop innovative, user-friendly and intelligent software, at the TRL 4-6 levels. To minimize the risk and capitalize on the newest technologies, the subsystems for the hardware, will be selected on the market of miniaturized sensors. To align SOLSA to the industrial needs and to guarantee market uptake at the end of the project, the SOLSA multidisciplinary consortium includes an end-user (ERAMET) with mining and commercial activities in laterite ores, the case study selected for the project. Industrially driven, the consortium is composed of LE, SMEs and academic experts (ERAMET (PI), F; SSD, NL; BRGM, F; INEL, F; Univ. Vilnius, Lt; CNRS-CRISMAT, F; Univ. Trento, I; Univ. Verona, I; TU Delft, NL) covering exploration, database management, instrumentation and software development, drilling rigs, analytical prototypes and marketing strategies. SOLSA is expected to revolutionize exploration and push Europe in front, by reducing the exploration time at ≈ 50%, the analysis time from 3 - 6 months to real-time and thus the environmental footprint.

Partners:

Nr	Participant	Country
1	ERAMET SA	FR
2	EIJKELKAMP SONICSAMPDRILL BV	NL
3	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
4	INEL S.A.S	FR
5	VILNIAUS UNIVERSITETAS	LT
6	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
7	UNIVERSITA DEGLI STUDI DI TRENTO	IT
8	UNIVERSITA DEGLI STUDI DI VERONA	IT
9	TECHNISCHE UNIVERSITEIT DELFT	NL

Call: H2020-SC5-2015-one-stage **Type of Action:** RIA

Title: Integrated innovative metallurgical system to benefit efficiently polymetallic, complex and low grade ores and concentrates

Project total costs:	7,834,976 €	**Project EU contribution:**	7,834,976 €	**Duration (months):**	36

Abstract:

The INTMET approach represents a unique technological breakthrough to overcome the limitations related to difficult low grade and complex ores to achieve high efficient recovery of valuable metals (Cu, Zn, Pb, Ag) and CRM (Co, In, Sb). Main objective of INTMET is applying on-site mine-to-metal hydroprocessing of the produced concentrates enhancing substantially raw materials efficiency thanks to increase Cu+Zn+Pb recovery over 60% vs. existing selective flotation. 3 innovative hydrometallurgical processes (atmospheric, pressure and bioleaching), and novel more effective metals extraction techniques (e.g. Cu/Zn-SX-EW, chloride media, MSA, etc) will be developed and tested at relevant environment aiming to maximise metal recovery yield and minimising energy consumption and environmental footprint. Additionally secondary materials like tailings and metallurgical wastes will be tested as well for metals recovery and sulphur valorisation. The technical, environmental and economic feasibility of the entire approaches will be evaluated to ensure a real business solution of the integrated INTMET process.INTMET will be economically viable thanks to diversification of products (Cu, Zn, Pb), high-profitable solution (producing commodities not concentrates), with lower operation and environmental costs (on-site hydroprocessing will avoid transport to smelters) and allowing mine-life extension developing a new business-model concept based on high efficient recovery of complex ores that will ensure EU mining industry competitiveness and employment.INTMET is fully aligned with EIP-RM validated in the PolymetOre Commitment where most of INTMET partners take part on and the market up-take solutions are guaranteed by an exploitation from industrially-driven consortia composed by 3 Mines, 2 SMEs (AGQ -waste&water tech provider; MINPOL - policy & exploitation expert), 2 tech providers (OUTOTEC and TR) and 5 complementary RTD´s with expertise in leaching and recovery metals processing

Partners:

Nr	Participant	Country
1	COBRE LAS CRUCES SA	ES
2	KGHM POLSKA MIEDZ SA	PL
3	SOMINCOR - SOCIEDADE MINEIRA DE NEVES-CORVO SA	PT
4	OUTOTEC (FINLAND) OY	FI
5	TECNICAS REUNIDAS SA	ES
6	INSTYTUT METALI NIEZELAZNYCH	PL
7	MINTEK	ZA
8	MINING AND METALLURGY INSTITUTE BOR LTD	RS
9	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
10	AGQ MINING & BIOENERGY SL	ES
11	INSTITUTUL NATIONAL DE CERCETARE-DEZVOLTARE PENTRU METALE NEFEROASE SIRARE-IMNR	RO
13	MINPOL GMBH	AT

Blue Nodules

688975

Call: H2020-SC5-2015-one-stage **Type of Action:** RIA

Title: Breakthrough Solutions for the Sustainable Harvesting and Processing of Deep Sea Polymetallic Nodules

Project total costs:	7,991,138 €	**Project EU contribution:**	7,991,138 €	**Duration (months):**	48

Abstract:

A key EU policy aims to reduce the Union dependency on raw materials imports, in particular (candidate) Critical Raw Materials that are vital for the EU innovative technologies. Topic SC5-11c-2015 scope focuses on “developing new highly-automated technological sustainable solutions for deep mining … in the sea bed combined with in-situ processing of minerals”. An existing but challenging raw material resource concerns polymetallic nodules. These round to elongated concretions of 1–15 cm diameter form on sediment-covered deep-sea plains in all oceans between 4-6000m water depth. The challenge to harvest and transport the nodules to the EU shore is taken on by Blue Nodules. The governing project principle is: industrial viability within the context of a realistic and technical, economic and environmentally balanced business case for the complete Polymetallic Nodules value chain of mining, processing and valorisation. Blue Nodules will develop and test to TRL6 maturity a new highly-automated and technologically sustainable deep sea mining system. Key features are: an annual production capability of 2 Million Tons nodules in water depths up to 6000m, in-situ processing of the nodules and intrinsic safe working conditions. Technical WPs are dedicated to subsea harvesting equipment & control technology, in-situ seafloor processing of polymetallic nodules and sea surface, land operations & processes. A dedicated WP focuses on environmental issues and on an Environmental Impact Assessment (EIA). A WP setting requirements and assessing the developed technology controls the entire work plan structure. High credibility is obtained by linking the project work to a nodule field licence owned by a project partner and located in the most promising known nodule deposit: the Clarion Clipperton Zone. The project consortium contains 14 leading industry and research partners from 9 EU member states. The project duration is 48 months, the required funding amounts to 8 Million.

Partners:

Nr	Participant	Country
1	IHC MINING BV	NL
2	DREDGING INTERNATIONAL NV	BE
3	CONTITECH RUBBER INDUSTRIAL KORLATOLT FELELOSSEGU TARSASAG	HU
4	IHC MTI BV	NL
5	DE REGT MARINE CABLES BV	NL
6	UNIRESEARCH BV	NL
7	SEASCAPE CONSULTANTS LTD	UK
8	GLOBAL SEA MINERAL RESOURCES	BE
9	BUREAU VERITAS REGISTRE INTERNATIONAL DE CLASSIFICATION DE NAVIRES ETD'AERONEFS SA	FR
10	STICHTING NIOZ, KONINKLIJK NEDERLANDS INSTITUUT VOOR ONDERZOEK DER ZEE	NL
11	RHEINISCH-WESTFAELISCHE TECHNISCHE HOCHSCHULE AACHEN	DE
12	NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU	NO
13	AARHUS UNIVERSITET	DK
14	UNIVERSITAT POLITECNICA DE CATALUNYA	ES

Sub-activity: 5.3.2

VAMOS

642477

Call: H2020-SC5-2014-one-stage

Type of Action: RIA

Title: ¡Viable and Alternative Mine Operating System!

Project total costs:	9,200,000 €	**Project EU contribution:**	9,200,000 €	**Duration (months):**	42

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 equipment2.Enhance currently available underwater sensing, spatial awareness, navigational and positioning technology3.Provide an integrated solution for efficient Real-time Monitoring of Environmental Impact4.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 depths5.Evaluate the productivity and 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 LTD	UK
2	SOIL MACHINE DYNAMICS LIMITED	UK
3	DAMEN DREDGING EQUIPMENT BV	NL
4	INESC TEC - INSTITUTO DE ENGENHARIA DE SISTEMAS E COMPUTADORES, TECNOLOGIA E CIENCIA	PT
5	FUGRO EMU LIMITED	UK
6	Zentrum fuer Telematik e.V.	DE
7	MONTANUNIVERSITAT LEOBEN	AT
8	MINERALIA-MINAS, GEOTECNIA E CONSTRUCOES 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
16	FEDERALNI ZAVOD ZA GEOLOGIJU SARAJEVO	BA
17	FONDACIJA ZA OBNOVU I RAZVOJ REGIJE VARES	BA
18	TRELLEBORG RIDDERKERK BV	NL

Call: H2020-SC5-2014-one-stage **Type of Action:** RIA

Title: New Mining Concept for Extracting Metals from Deep Ore Deposits using Biotechnology

Project total costs:	8,564,962 €	**Project EU contribution:**	8,564,962 €	**Duration (months):**	36

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 hydro-fracturing 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 CNRS	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 Oy	FI
23	G.U.B. INGENIEUR AG	DE

Sub-activity: 5.3.2

OptimOre

642201

Call: H2020-SC5-2014-one-stage

Type of Action: RIA

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:	5,084,469 €	**Project EU contribution:**	5,084,469 €	**Duration (months):**	39

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

Call: H2020-WASTE-2014-one-stage **Type of Action:** RIA

Title: Holistic Innovative Solutions for an Efficient Recycling and Recovery of Valuable Raw Materials from Complex Construction and Demolition Waste

Project total costs:	7,665,263 €	**Project EU contribution:**	7,511,870 €	**Duration (months):**	48

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 CONSTRUCCION SA	ES
3	Groupe Archimen	FR
4	ASM CENTRUM BADANI I ANALIZ RYNKU SP ZOO	PL
5	Conenor Oy	FI
6	RINA CONSULTING - D'APPOLONIA SPA	IT
7	DUMOULIN BRICKS	BE
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 STEINERT GMBH	DE
15	STRUKTON CIVIEL BV	NL
16	TIIHONEN ISMO OLAVI	FI
17	CONFEDERATION NATIONALE DE LA CONSTRUCTION ASBL	BE
18	SOCIEDAD PUBLICA DE GESTION AMBIENTAL IHOBE SA	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 Oy	FI
25	SELFRAG AG	CH
26	ADR TECHNOLOGY BV	NL

Sub-activity: 5.3.2

Real-Time-Mining

641989

Call: H2020-SC5-2014-one-stage

Type of Action: RIA

Title: Real-time optimization of extraction and the logistic process in highly complex geological and selective mining settings

Project total costs:	6,566,703 €	**Project EU contribution:**	5,629,200 €	**Duration (months):**	48

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	EIJKELKAMP SONICSAMPDRILL BV	NL
11	TECHNISCHE UNIVERSITAET BERGAKADEMIE FREIBERG	DE
12	SPECTRAL INDUSTRIES BV	NL
13	IBEWA INGENIEURPARTNERSCHAFT FUR BERGBAU WASSER UND DEPONIETECHNIK WILSNACK & PARTNER	DE

Call: H2020-WASTE-2014-one-stage **Type of Action:** RIA

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: 5,919,278 € **Project EU contribution:** 5,890,660 € **Duration (months):** 48

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	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
13	PHILIPS CONSUMER LIFESTYLE B.V.	NL

Sub-activity: 5.3.2

FAME

641650

Call: H2020-SC5-2014-one-stage

Type of Action: RIA

Title: Flexible and Mobile Economic Processing Technologies

Project total costs:	7,466,073 €	**Project EU contribution:**	7,458,064 €	**Duration (months):**	48

Abstract:

FAME aims to increase the competiveness 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 17 partners from 8 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 UNIPESSOAL LDA	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
17	Asociación para la Investigación y Desarrollo Industrial de los Recursos Naturales	ES
18	SAXORE BERGBAU GMBH	DE

Call: H2020-SC5-2015-one-stage **Type of Action:** RIA

Title: A novel process for manufacturing complex shaped Fe-Al intermetallic parts resistant to extreme environments

Project total costs:	4,678,345 €	**Project EU contribution:**	4,678,345 €	**Duration (months):**	36

Abstract:

There is a need to find solutions to replace Critical Raw Materials (CRMs) such as Chromium, Nickel, Molybdenium and Vanadium in high volume end consumer products. Steels and superalloys with considerable amounts of these CRMs are widely used in many industrial applications, particularly under extreme conditions where corrosion and wear resistance are needed. It is generally accepted, that intermetallics in particular low cost FeAl offer outstanding material properties. Unfortunately it is difficult to translate their properties to real products, as intermetallics suffer from low ductility at ambient temperature and poor machinability. The impact of FeAl intermetallics as a low cost Cr-free alternative for stainless steel would therefore be much higher if a cost effective industrial process would be available, that allows to manufacture complex 3-D geometries of almost unlimited shapes from small grain size (0.1-5 µm) high ductility material. The main objective of EQUINOX is to develop a novel process that allows to substitute Cr/Ni based (stainless) steel parts used in high volume end consumer products such as in the lock industry, electronics, process industry and automotive industry with a novel near net shape production technology for a new class of highly advanced ductile Fe-Al based intermetallics. Ductility at low to medium temperatures, while maintaining good tensile strength and optimum level of residual stress will be based on a radical new production process that use abundant raw material Fe3O4 and Al2O3.

Partners:

Nr	Participant	Country
1	NATIONAL TECHNICAL UNIVERSITY OF ATHENS - NTUA	EL
2	Elastotec GmbH Elastomertechniken	DE
3	DR. KOCHANEK ENTWICKLUNGSGESELLSCHAFT	DE
4	FUNDACION IMDEA MATERIALES	ES
5	TECHNICKA UNIVERZITA V LIBERCI	CZ
6	ACCESS e.V.	DE
7	OPEN SOURCE MANAGEMENT LIMITED	UK
8	CES OPERATION AS	NO
9	FRENI BREMBO Spa	IT
10	YUZHNOYE DESIGN OFFICE NAMED AFTER MIKHAIL YANGEL	UA
11	INNOVATION IN RESEARCH & ENGINEERING SOLUTIONS	BE

Call: H2020-SC5-2015-one-stage **Type of Action:** RIA

Title: Next generation of superhard non-CRM materials and solutions in tooling

Project total costs:	4,996,180 €	**Project EU contribution:**	4,996,180 €	**Duration (months):**	48

Abstract:

Flintstone2020 aims to provide a perspective for the replacement of two important CRMs – tungsten (W) and cobalt (Co) – which are the main constituents for two important classes of hard materials (cemented carbides/WC-Co, and PCD/diamond-Co), by developing innovative alternative solutions for tooling operating under extreme conditions.

Fundamental knowledge on mechanical properties and wear of different tools, gained in machining tests and dedicated experiments from WP1 is passed onto the respective WPs. WP2 will experiment on small samples with 3-9 mm Ø for testing the fundamental behavior of new B-X phases and particularly as a feedback for binder matrix improvement. In WP3 samples (12 mm Ø) will be investigated from individual HPHT runs for characterization and testing to guide high pressure sintering process optimization. The HPHT process and the samples produced are then upscaled to the industrial mass production level in WP4. In WP5, demonstrator cutting tools from full size HPHT synthesis test runs will be prepared via laser cutting and consecutive macro- and microshaping of tool geometry within WP5. In WP6 aspects of environmental benefits in the total life cycle of the superhard materials will be investigated, including health and safety aspects. WP7 will focus on exploitation and dissemination.

Partners:

Nr	Participant	Country
1	LUNDS UNIVERSITET	SE
2	TECHNISCHE UNIVERSITAET BERGAKADEMIE FREIBERG	DE
3	V.N. BAKUL INSTITUTE FOR SUPERHARD MATERIALS OF THE NATIONAL ACADEMY OF SCIENCES	UA
4	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
5	BIFA UMWELTINSTITUT GMBH	DE
6	SECO TOOLS AB	SE
7	ELEMENT SIX (UK) LIMITED	UK
8	BOUKJE.COM CONSULTING BV	NL
9	SANDVIK MINING & CONSTRUCTION TOOLS AB	SE

Call: H2020-SC5-2014-one-stage **Type of Action:** RIA

Title: Indium-Free Transparent Conductive Oxides for Glass and Plastic Substrates

Project total costs:	4,003,243 €	**Project EU contribution:**	4,003,243 €	**Duration (months):**	38

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 ROYAL CHARTER	UK
6	TECNOLOGIA NAVARRA DE NANOPRODUCTOS SL	ES
7	BELECTRIC OPV GMBH	DE
8	FLEXENABLE LIMITED	UK
9	EPIVALENCE LTD	UK

Call: H2020-SC5-2014-one-stage **Type of Action:** RIA

Title: Towards Indium free TCOs

Project total costs:	6,197,150 €	**Project EU contribution:**	4,999,433 €	**Duration (months):**	36

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, throughcomponent 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 DEVELOPPEMENT	CH
3	TECHNISCHE UNIVERSITEIT EINDHOVEN	NL
4	Meyer Burger Research AG	CH
5	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK TNO	NL
7	PLESSEY SEMICONDUCTORS LIMITED	UK
8	INTERUNIVERSITAIR MICRO-ELECTRONICA CENTRUM	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
14	MEYER BURGER (NETHERLANDS) BV	NL

Sub-activity: 5.3.4 **intermin** **776642**

Call: H2020-SC5-2017-OneStageB **Type of Action:** CSA

Title: INTERNATIONAL NETWORK OF RAW MATERIALS TRAINING CENTRES

Project total costs: 1,266,021 € **Project EU contribution:** 1,266,021 € **Duration (months):** 36

Abstract:

iINTERMIN will create a self-sustainable long-term lasting international network of training centres for professionals. This project involves educational and research institutions in the EU and the leading counterparts in third countries, based on specific country expertise in the primary and secondary raw materials sectors. The network will map skills and knowledge in the EU and the third countries, identify key knowledge gaps and emerging needs, develop roadmap for improving skills and knowledge, as well as establish common training programmes in the raw materials sectors. In line with the EU's strategy for international co-operation in research and innovation (COM(2012)497), the consortium will seek international collaboration, fostering and exploring synergies with the relevant EU Member States initiatives

Partners:

Nr	Participant	Country
1	INSTITUTO GEOLÓGICO Y MINERO DE ESPAÑA	ES
2	EuroGeoSurveys - EGS	BE
3	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
4	Asociación de Servicios de Geología y Minería Iberoamericanos	ES
5	LA PALMA RESEARCH CENTRE FOR FUTURE STUDIES SL	ES
6	UNIVERSIDAD POLITECNICA DE MADRID	ES
7	FEDERATION EUROPEENNE DES GEOLOGUES	FR
8	MONTANUNIVERSITAT LEOBEN	AT
9	The Coordinating Committee for Geoscience Programmes in East and Southeast Asia	TH
10	AMERICAN GEOLOGICAL INSTITUTE	US
11	THE UNIVERSITY OF QUEENSLAND	AU
12	PANSTWOWY INSTYTUT GEOLOGICZNY - PANSTWOWY INSTYTUT BADAWCZY	PL
13	Young Earth Scientists Network	BE
14	SVERIGES GEOLOGISKA UNDERSOKNING	SE

Call: H2020-SC5-2016-OneStageB **Type of Action:** CSA

Title: Towards a World Forum on Raw Materials (FORAM)

Project total costs:	1,542,438 €	**Project EU contribution:**	1,136,813 €	**Duration (months):**	24

Abstract:

The project Towards a World Forum on Raw Materials (FORAM) will develop and set up an EU-based platform of international experts and stakeholders that will advance the idea of a World Forum on Raw Materials (WFRM) and enhance the international cooperation on raw material policies and investments.The global use of mineral resources has drastically increased and supply chains have become ever more complex. A number of global initiatives and organizations have been contributing to knowledge and information transfer, including the EC, UNEP International Resource Panel, the World Resources Forum, the World Material Forum, the OECD and others. It is widely felt that improved international resource transparency and governance would be beneficial for all, since it would lead to stability, predictability, resource-efficiency and hence a better foundation for competitiveness on a sustainable basis.The FORAM project will contribute to consolidate the efforts towards a more joint and coherent approach towards raw materials policies and investments worldwide, by closely working with the relevant stakeholders in industry, European and international organisations, governments, academia and civil society. Synergies with relevant EU Member States initiatives will be explored and fostered. The project will in particular seek to engage the participation of G20 Member countries and other countries active in the mining and other raw materials sectors, so that experiences will be shared and understanding of all aspects of trade in raw materials will be increased.By implementing this project an EU-based platform of international key experts and stakeholders is created, related to the entire raw materials value chain. This platform will work together on making the current complex maze of existing raw material related initiatives more effective. As such, the FORAM project will be the largest collaborative effort for raw materials strategy cooperation on a global level so far.

Partners:

Nr	Participant	Country
1	WORLD RESOURCES FORUM ASSOCIATION	CH
2	EuroGeoSurveys - EGS	BE
3	FEDERATION EUROPEENNE DES GEOLOGUES	FR
4	UNITED NATIONS UNIVERSITY	JP
5	UNIVERSITEIT LEIDEN	NL
6	HOFMANN-AMTENBRINK MARGARETHE	CH
7	TECHNISCHE UNIVERSITAT CLAUSTHAL	DE
8	UNIVERSITAET KASSEL	DE
9	GONDWANA EMPREENDIMENTOS E CONSULTORIAS LIMITADA	MZ
10	SERVICIO GEOLOGICO COLOMBIANO	CO
11	MINPOL GMBH	AT
12	LA PALMA RESEARCH CENTRE FOR FUTURE STUDIES SL	ES

Sub-activity: 5.3.4

VERAM

690388

Call: H2020-SC5-2015-one-stage

Type of Action: CSA

Title: Vision and Roadmap for European Raw Materials

Project total costs:	1,431,499 €	**Project EU contribution:**	1,431,499 €	**Duration (months):**	30

Abstract:

VERAM aims to provide an umbrella and coordination function for the raw materials related research and innovation activities across the relevant ETPs and their national technology platforms (while maintaining the flexibility and individual visions of each ETP network) as well as related other stakeholders across the raw materials value chain in order to increase synergies and facilitate uptake of research results and innovation across the sectors and their value chains.The project will encourage capacity building as well as transfer of knowledge and innovation capability. It will coordinate the network of people involved in the different Horizon 2020 and other projects and initiatives and will provide a platform for identifying gaps and complementarities and bridge these. We will also advise the European Commission and national governments of future research needs and tools to stimulate innovation and assist in overcoming the fragmentation in the implementation of the EIP on RM SIP. We will look for mutually beneficial information exchange, encourage cross-fertilization between actions undertaken by different raw material industries and will speed-up exploitation of breakthrough innovations. The final result of the activities will be a common long term 2050 vision and roadmap for the relevant raw materials, including metals, industrial minerals and aggregates and wood.The following main deliverables are foreseen as major project results:•Deliver a mapping of on-going initiatives in the field of raw materials at the EU and Member States level as well as regional and local levels, both from the R&I and policy side. The mapping will also consider other international initiatives. •Propose a 2050 roadmap/research agenda for raw materials in coordination and cooperation with all stakeholders across the value chain, based on a comprehensive gap analysis while paying close attention to the specificities of critical industrial sectors as well as possible synergies.

Partners:

Nr	Participant	Country
1	EUROPEAN TECHNOLOGY PLATFORM ON SUSTAINABLE MINERAL RESOURCES	BE
2	Forest-Based Sector Technology Platform	BE
3	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.	BE
4	Conseil Européen de l'Industrie Chimique	BE
5	UNIVERSITA POLITECNICA DELLE MARCHE	IT
6	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
7	Fachagentur Nachwachsende Rohstoffe e.V.	DE
8	RINA CONSULTING - D'APPOLONIA SPA	IT
9	FORSCHUNGSZENTRUM JULICH GMBH	DE
10	FUNDACION TECNALIA RESEARCH & INNOVATION	ES
11	Teknologian tutkimuskeskus VTT Oy	FI

Sub-activity: 5.3.4

IMPACTPapeRec

690182

Call: H2020-WASTE-2015-one-stage **Type of Action:** CSA

Title: Boosting the implementation of participatory strategies on separate paper collection for efficient recycling

Project total costs:	1,486,783 €	**Project EU contribution:**	1,486,783 €	**Duration (months):**	24

Abstract:

The European paper industry is at the core of the bioeconomy, using wood, a renewable material, and Paper for Recycling (PfR) as its main raw materials for producing paper products. This industry is a strategic sector in the EU economy, actively contributing to the re-industrialisation of Europe. Currently, the production of paper and board in the EU is 91 tonnes per year, while PfR represents 63%. The contribution of PfR has increased over the last few years (from 25 t to 40 t).This increase in the availability of PfR has not taken place in all EU states, and this is especially true in Eastern European countries. Besides, although high collection rates are achieved, the quality of this material does not always meet the requirements of paper recycling. Both facts make difficult to keep up with the increases in PfR collection rates observed over the last few years if specific actions are not taken.IMPACTPapeRec aims to put Europe at the forefront of PfR collection, ensuring raw material procurement from mainly European sources through an innovative approach based on the participation of the whole paper value chain including citizens and municipalities, which is also open to other sectors. Main objective is to provide an innovative and common knowledge platform, which will enable present and future cooperation. Analysis on best practices in PfR collection and assessment procedures are delivered, considering specific local conditions. They will encourage reliable decisions and make solutions available to decision-makers ensuring the procurement and supply of PfR in Europe through the improvement of municipal paper collection. Medium-long results are: increases in PfR collection (up to 75%); 1.57 Mt/year and raw material savings of €385 million.This proposal has positive support from the EU of the commitment approved within the EIP on raw materials “IMPACT - Introduction and Improvement of Separate Paper Collection to avoid landfilling and incineration”.

Partners:

Nr	Participant	Country
1	INSTITUTO TECNOLOGICO DEL EMBALAJE, TRANSPORTE Y LOGISTICA	ES
2	CONFEDERATION DES INDUSTRIES PAPETIERES EUROPEENNES CEPI AISBL	BE
3	ASSOCIATION DES VILLES ET REGIONS POUR LA GESTION DURABLE DES RESSOURCES	BE
4	SOCIEDAD ANONIMA INDUSTRIAS CELULOSA ARAGONESA	ES
5	HAMBURGER RECYCLING GROUP GMBH	AT
6	STORA ENSO NAREW SPOLKA Z OGRANICZONA ODPOWIEDZIALNO	PL
7	ECOFOLIO	FR
8	PAPIERTECHNISCHE STIFTUNG	DE
10	TEGA S.A.	RO
11	FENIX DUPNITSA LTD	BG
13	CENTROS COMERCIALES CARREFOUR SA	ES
14	DIN DEUTSCHES INSTITUT FUER NORMUNG E.V.	DE
15	BUREAU EUROPEEN DE L'ENVIRONNEMENT AISBL	BE
16	MUNICIPIUL SFANTU GHEORGHE	RO
17	COMUNA MIHAI VITEAZU	RO
18	DUPNITSA MUNICIPALITY	BG
19	OBSHTINA MEZDRA	BG
20	SYNDICAT MIXTE ETUDES POUR COORDINATION DEPARTEMENTALE DE TRAITEMENT DESCHETS MENAGERS DE VENDRE	FR
21	PROPAKMA GMBH	DE

Sub-activity: 5.3.4

STRADE

689364

Call: H2020-SC5-2015-one-stage

Type of Action: CSA

Title: Strategic Dialogue on Sustainable Raw Materials for Europe

Project total costs:	1,977,509 €	**Project EU contribution:**	1,977,509 €	**Duration (months):**	36

Abstract:

STRADE addresses the long-term security and sustainability of the European raw material supply from European and non-European countries. It will develop dialogue-based, innovative policy recommendations for a European strategy on future raw-material supplies.STRADE will initially concentrate on the industry perspective. Based on an analysis of the European mineral raw-material mining sector's competitiveness, the objective is to provide a strategy on how the EU can work to promote mining investment into and within the EU. Areas in which there is a need to revisit and improve present policies and conditions to advance European competitiveness for inward investments will be identified.STRADE also addresses equipment and service suppliers, exploration companies and investors. EU-level dialogues should be initiated with mineral-producing countries to support European businesses in these sectors within non-EU countries. These activities will also serve as a gateway to future cooperation between the EU and other raw-material-producing countries and will often address environmental challenges in the mining sector.Subsequently, STRADE will focus on government level and the EU's relation to mineral-producing countries. Based to the mapping of present EU and member-state engagements as well as those engagements of non-EU countries, it will provide analyses on how the EU can renew its engagement with mineral-producing countries aiming at a larger EU strategy to ensure fair and unrestricted access to mineral raw materials worldwide.A specific objective towards the goals of environmental and social sustainability is the development of new concepts for Europe's role in international action towards sustainable mining and processing. Stakeholder workshops on possible contributions of EU /member states to an international resource governance alliance and internationally accepted sustainability evaluation and certification schemes will be conducted.

Partners:

Nr	Participant	Country
1	OEKO-INSTITUT E.V. - INSTITUT FUER ANGEWANDTE OEKOLOGIE	DE
2	SNL FINANCIAL SWEDEN AB	SE
3	UNIVERSITY OF DUNDEE	UK
4	PROJEKT-CONSULT BERATUNG IN ENTWICKLUNGSLANDERN GMBH	DE
5	GEORANGE IDEELLA FORENING	SE
6	UNIVERSITY OF THE WITWATERSRAND JOHANNESBURG	ZA
7	DMT-KAI BATLA PTY LTD	ZA

Call: H2020-WASTE-2015-one-stage **Type of Action:** CSA

Title: Multi-Stakeholder Platform for a Secure Supply of Refractory Metals in Europe

Project total costs: 1,499,760 € **Project EU contribution:** 1,499,760 € **Duration (months):** 19

Abstract:

Refractory metals (tungsten, tantalum, rhenium, molybdenum and niobium) are highly strategic metals today mainly imported from a few countries. The European primary production remains below a few percentage. However, resources exist in Europe, as primary resources but mainly as secondary resources (industrial waste, urban mines). Valorizing these resources requires coordination and networking between researchers, entrepreneurs and public authorities to harmonise technologies, processes and services, develop standards, create new potential for export of eco-innovative solutions and for seizing new marketsMSP-REFRAM will address these challenges by creating of a common multi-stakeholder platform that will draw the current refractory metals value chains and identify its innovation potential in order to support the implementation of the EIP on Raw Materials. Coming from industry, research, public sectors and civil society, both Consortium Members and External Experts have joined forces with expertise covering the whole value chain including mining, processing, recycling, application.The outputs of MSP-REFRAM will help Europe improve the supply value chain of refractory metals in the coming years, optimising the use of external resources as energy and water and at the same time reducing the amount and the toxicity of waste.MSP-REFRAM will share its conclusions widely and efficiently, in a long lasting way thanks to the support of the PROMETIA association. To ensure the systemic change, the outcomes of the project will be made available to the stakeholders and to the public through different tools and reports.In the medium term, MSP-REFRAM will contribute to better-informed decision-making at EU and national level as well as industry by proposing innovative value chains that will boost the refractory metals sector. In the longer term, this should improve the availability of these refractory metals, while creating greater added value to the economy and more jobs.

Partners:

Nr	Participant	Country
1	COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	FR
2	AMPHOS 21 CONSULTING SL	ES
3	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
4	FUNDACION CARTIF	ES
5	CHALMERS TEKNISKA HOEGSKOLA AB	SE
6	E-MINES	FR
7	ERAMET RESEARCH	FR
8	GEOLOGIAN TUTKIMUSKESKUS	FI
9	UNIVERSIDAD DE BURGOS	ES
10	OPTIMIZACION ORIENTADA A LA SOSTENIBILIDAD SL	ES
11	INSTYTUT METALI NIEZELAZNYCH	PL
12	AGENCIA DE INNOVACION Y FINANCIACION EMPRESARIAL DE CASTILLA Y LEON	ES
13	TECHNISCHE UNIVERSITAET KAISERSLAUTERN	DE
14	LAPPEENRANNAN TEKNILLINEN YLIOPISTO	FI
15	INSTITUT NATIONAL POLYTECHNIQUE DE TOULOUSE	FR
16	SWEREA MEFOS AB	SE
17	NATIONAL TECHNICAL UNIVERSITY OF ATHENS - NTUA	EL
18	TECHNISCHE UNIVERSITEIT DELFT	NL
19	Teknologian tutkimuskeskus VTT Oy	FI
20	LGI CONSULTING SARL	FR
21	MINERAL PROCESSING AND EXTRACTIVEMETALLURGY FOR MINING AND RECYCLINGINNOVATION ASSOCIATION	BE

Call: H2020-WASTE-2014-one-stage **Type of Action:** CSA

Title: SMART data collection and inteGRation platform to enhance availability and accessibility of data and infOrmation in the EU territory on SecoNDary Raw Materials

Project total costs:	2,496,800 €	**Project EU contribution:**	2,496,800 €	**Duration (months):**	30

Abstract:

EU is dependent on the import of Raw Materials, if we consider that in Europe there are between 150K to 500K highly variable landfills, it is easy to understand that the SRM potential of various landfills is significant. Valuable Raw Materials disposed in landfills are mostly lost due to inefficient waste management practices. Existing knowledge, reporting standards and inventory on SRM seems to be inefficient. In this context, the SMART GROUND project intends to foster resource recovery in landfills by improving the availability and accessibility of data and information on Secondary Raw Materials (SRM) in the EU, while creating synergies among the different stakeholders involved in the SRM value chain.

SMART GROUND involves the 3 main players of the process: End-users (waste management companies),RTD institutions (Research centres, Universities, SMEs), and Technology Transfer providers (Networking, training organizations and public authorities). Thus, the consortium will integrate all the data from existing databases and new information retrieved in a single EU databank. SMART GROUND will respond to the needs of coordination, networking and cooperation between stakeholders, through the creation of a databank enabling the exchange of information among them. It will improve data gathering on SRM from different types of waste, by defining new and better data acquisition methods and standards; it will cooperate with other EU ongoing activities and support the implementation of the EIP on RM. The project also aims at improving the SRM economic and employment potential, by i) providing training on the assessment of landfill sites material recovery targeting end-users, ii) forming a dedicated network of academic, industrial and other stakeholders and regulators committed to cost-effective research, technology transfer and training; iii) developing and implementing a dissemination and exploitation plan to maximise the impacts and benefits of the SMART GROUND action

Partners:

Nr	Participant	Country
1	ENCO SRL	IT
2	KAAKKOIS-SUOMEN AMMATTIKORKEAKOULU OY	FI
3	GEOLOGIAN TUTKIMUSKESKUS	FI
4	METSASAIRILA OY	FI
6	PECSI TUDOMANYEGYETEM - UNIVERSITY OF PECS	HU
7	BAY ZOLTAN ALKALMAZOTT KUTATASI KOZHASZNU NONPROFIT KFT.	HU
8	MKM CONSULTING MERNOKI KORNYEZETVEDELMI ES MENDZSMENT TANACSADO KORLATOLT FELELOSSEGU TARSASAG	HU
9	UNIVERSITA DEGLI STUDI DI TORINO	IT
10	IMAGEO SRL	IT
11	ATOS SPAIN SA	ES
12	CRANFIELD UNIVERSITY	UK
13	REGIONE PIEMONTE	IT
14	BIOAZUL	ES
15	Teknologian tutkimuskeskus VTT Oy	FI

Call: H2020-SMEINST-2-2017 **Type of Action:** SME-2

Title: Nature, Technology and Design

Project total costs:	2,494,844 €	**Project EU contribution:**	1,746,391 €	**Duration (months):**	20

Abstract:

The NATEDE project is a breakthrough indoor air-cleaning technology targeting not just the elimination of indoor air pollution but also the creation of healthy new air thanks to a powerful combination of real plants with technology and design (Clairy solution). The novelty of the NATEDE project is based on the introduction of the forced-air system in the natural air purification arena. It is done through the introduction of a specially designed pot equipped with a fan forcing the air to move through the soil and the roots of the plant by stimulating faster and more effectively the process of elimination of pollution and the process of photosynthesis. Moreover, the NATEDE project introduces a mobile internet functionality (in line with the Internet of Things trend) combined with a set of advanced sensors to the equation, whereby users can operate the Clairysolution through their smartphones and tablets, set automatic start/stop time based on predefined parameters (time, level of air pollution, etc.) and monitor the actual indoor pollution. The proof of concept has already been achieved showing that the Clairy solution can reduce indoor pollution to safe levels already within hours of activity. Consequently, Clairy can be considered as one-of-a-kind solution that gives an “extra pair of lungs” to plants.

Partners:

Nr	Participant	Country
1	LABORATORI FABRICI SRLS	IT

Call: H2020-SMEINST-2-2017 **Type of Action:** SME-2

Title: Aquaporin-Inside™ Membranes for Brackish water Reverse Osmosis Application

Project total costs:	2,033,300 €	**Project EU contribution:**	1,423,310 €	**Duration (months):**	24

Abstract:

More than a billion people currently live in water-scarce regions, and as many as 3.5 billion could experience water scarcity by 2025. Forecasts estimate that water demand in 2040 will exceed supply by 50%. Seawater amounts to 97% of all water contained on Earth and can, fortunately, be converted into fresh water by desalination. Desalination processes are still expensive, energy intensive and commonly pose great negative impacts on ecosystems. Presently, no current state-of-the-art solutions suggest sustainable technologies to the Earth's ecosystem. The Reverse Osmosis (RO) membrane segment, which is the largest of the membrane market, was valuated at €1.1 billion in 2015 and is projected to grow by 43% over the 8-year period from 2014 to 2021, reaching a €2.5 billion revenue by 2021. Part of the RO market is dominated by brackish water reverse osmosis membranes (BWRO). Brackish water is water that has higher salinity than fresh water (more than 0.05%) and lower than seawater (less than 3%). Aquaporin A/S has acknowledged this huge business opportunity and has developed a ground-breaking biomimetic technology to separate and purify water from other compounds based on nature's own principles: Aquaporin water channel proteins. This technology will potentially disrupt the current RO technology, making it more energy and water efficient as well as more sustainable and cost-effective. Since we have a commercial Aquaporin Inside™ RO membrane already tested and validated at low pressure conditions (house hold, 7 bar), our main goal within this project will be to optimise and up-scale this to work at brackish water conditions (15 bar) in both flat sheet and spiral wound module formats. Aquaporin Inside™ Brackish Water RO membranes will boost our growth and consolidate a worldwide reference for us, thereby drastically differentiate us from competitors, and will open the possibility to also get into the seawater desalination market in the near future.

Partners:

Nr	Participant	Country
1	AQUAPORIN AS	DK

Call: H2020-SMEINST-2-2017 **Type of Action:** SME-2

Title: Soundproof window with ventilation function

Project total costs:	1,501,250 €	**Project EU contribution:**	1,050,875 €	**Duration (months):**	24

Abstract:

Noise is a big challenge in today´s modern society. Physical diseases (cardiovascular-diseases, ischemia cardiovasculardiseases), sleep disorders (lowered sleeping quality up to serious sleep disorders) and psychological disorders (depression, irritation, frustration) are drastic consequences for humans that are constantly exposed to high noise levels. Also the economic consequences of noise are huge. According to a EU position paper from 2011 the costs caused by noise amounting to €84.5 million/decibel [dB(A)] only in the healthcare sector.Within the SME II project, the Eilenburger Fenstertechnik GmbH & Co. KG (EFT) wants to introduce a inexpensive soundproof window on the basis of a completely new construction principle (TRL 7) to the European market. A lower noise level (not more than 30dB) and a high air flow (60-80m3/h) are achieved at the same time in interiors. During the project we will deal with technological and commercial targets. Production costs need to be reduced (process innovation), quality to be improved (product innovation) and the detected customer needs to be met in order to prepare the successful entry into the market. The share of sound insulating windows on the EU window market, related to sales, amounts to ≈ 4 %, with a market turnover of 4,0 billion €. Additional features of the windows are: excellent thermal insulation, easy handling, design elementin existing buildings.The project soundproof4win is a major part of the company´s strategy of EFT and will lead to significant increase in turnover and in the long-term to a healthier and efficient society in Europe and all over the world.

Partners:

Nr	Participant	Country
1	EILENBURGER FENSTERTECHNIK GMBH & CO. KG	DE

Call: H2020-SMEINST-2-2017 **Type of Action:** SME-2

Title: Industrial manufacturing of eco-innovative, safe, sustainable functionalised microencapsulated fragrances for fabric softeners

Project total costs:	2,285,834 €	**Project EU contribution:**	1,600,084 €	**Duration (months):**	24

Abstract:

Fabric softeners are the most popular laundry care products after detergents. They keep clothes soft, enhance nice smells while preventing musty odours, extend the life of clothes, reduce the formation of wrinkles and improve endurance ability of clothes against stains. However, existing fabric softeners are usually inefficient and contain harmful toxic ingredients that are bad for environment and human health. In a laundry cycle, 95% of softeners are lost in water during the draining process, generating excessive impact on the environment. The remaining 5% of softener remains on clothes for only a short time, before slowly releasing the chemical substances on to skin and the environment. CARINSA has developed an eco-friendly polymeric coating that microencapsulates fragrances and drastically improves fabric softener efficiency. The fabric softeners produced with our technology do not contain toxic materials, increase the adherence to fabric in the washing process by up to 10 times and will improve softener duration on clothes by up to 330%. ECO-SOFT project represents a huge opportunity for our company (CARINSA) to commercialise an innovative solution that will benefit the whole fabric softener value chain. Our solution, CARINCAP, allows fabric softener manufacturers to increase their gross margin by 30% while final consumers will benefit from an eco-efficient, safe laundry care product that has reduces cost per wash by 61%. CARINSA has 24 years of experience in the market and is already present in more than 50 countries. We plan to commercialise the technology among fabric softener manufacturers by exploiting our experience in the sector and by using our present channels, which make this project strategically important for the company. Initial market projections suggest that CARINSA will gain about €6M of net profit in 2024 while directly creating 30 new jobs.

Partners:

Nr	Participant	Country
1	CREACIONES AROMATICAS INDUSTRIALES S.A.	ES

Call: H2020-SMEINST-2-2017 **Type of Action:** SME-2

Title: Sustainable cleaning agent and organic fertilizer recovery from sewage sludge

Project total costs:	1,980,614 €	**Project EU contribution:**	1,386,429 €	**Duration (months):**	24

Abstract:

UTB Envirotec Zrt, is one of the Central European market leaders in engineering services for wastewater and organic waste treatment. In the past few years, we have developed a technology for sustainable valorisation of sewage sludge. The treatment of this sludge represents one of the biggest problems for small and medium sized wastewater treatment plants (WWTP) in Europe. In our process, called reNEW, the sewage sludge is biologically transformed into volatile fatty acids (VFA) and valuable nutrients (NPK), which are recovered. These products represent important market value: VFA as raw material for eco labelled cleaning agents, and NPK as fertilizer. With the aim of exploitation of the reNEW technology, we formed a spin-off company, Renew Technologies Ltd (RNT) in the UK. Our final aim is to roll-out the technology and widely implement it all over Europe, enabling the growth of our companies. We aim to realise the reNEW project in cooperation of the two companies: RNT being the technology owner and responsible for commercial exploitation, while UTB being the technology provider (design, building and implementation of plants). This initiative has received funding in the Horizon 2020 SME Instrument Phase 1, project number: 728932, duration: 01/07/2016-31/12/2016. We have successfully completed the feasibility study. We verified the technological feasibility as well as the economic viability of the project and further improved our business concept. We demonstrated the efficiency and economic value of the two products, VFA and NPK, respectively and made a scale-up design of our pilot operating currently at our premises (TRL=6). We have improved the proposal and discussed it with our clients, technical partners, and the Enterprise Europe Network (EEN). These discussions and the results of the feasibility assessment have reassured us regarding its merit.

Partners:

Nr	Participant	Country
1	Renew Technologies Ltd	UK
2	UTB ENVIROTEC KORNYEZETTECHNOLOGIAIZARTKORUEN MUKODO RT	HU

Sub-activity: 5.4.1

Propelair

778742

Call: H2020-SMEINST-2-2017

Type of Action: SME-2

Title: The refinement, miniaturisation and demonstration of an ultra low flush toilet capable of saving 2.8 billion litres of clean, potable water being unnecessarily wasted in Europe every day.

Project total costs:	1,271,787 €	**Project EU contribution:**	890,250 €	**Duration (months):**	18

Abstract:

As reported by the European Environment Agency, 70million people in Europe are living in water stressed areas. In the Mediterranean region that figure rises to 53%. Water shortages affect almost every country in Europe and the problem is getting worse. Water consumption per person is increasing significantly; by 55% in the last 25 years. European flushing toilets (WCs) waste valuable, potable water on an unprecedented scale. The 392m installed base of toilets across the EU currently 'flush' away 102bn litres of clean water every day. That is enough to drain Lake Geneva every 20 hours. There is clearly a pressing need for a novel technology to reduce the volume of water used in flushing toilets.Existing toilets including the latest ultra low, dual flush units, do not offer the level of water reduction required. Since water volume is integral to their operational mode, they are compromised and all require significant flush volumes to clean effectively.This project will demonstrate and bring to market readiness a 1.5L ultralow flush toilet that will reduce average toilet water consumption by 75% and directly save 2.8bn litres of water being unnecessarily wasted per day.Propelair also provides attractive economic benefits and rapid payback to customers. It reduces water bills on average by 60%, (typically €344 per unit p.a.) delivering a payback within just 1.2 years.This Dedicated SME Instrument project is essential for us to refine, miniaturise, demonstrate and cost reduce our prototype to overcome current barriers to market, including purchase price and lack of a proven long term demonstration. A successful project delivery will allow us to achieve cumulative sales of €80.7m and an EBITDA of €31.5m by 2023. At a modest 0.5% market penetration, we will our save customers 2.8bn litres of water day or 1.04bn m3 p.a. worth over €1.98bn.This proposal builds upon a previous proposal 755830 which scored 13.66 and received a Seal of Excellence.

Partners:

Nr	Participant	Country
1	PHOENIX PRODUCT DEVELOPMENT LIMITED	UK

Call: H2020-SMEINST-2-2017 **Type of Action:** SME-2

Title: Mushroom and biogas production in a circular economy

Project total costs:	4,373,951 €	**Project EU contribution:**	2,499,999 €	**Duration (months):**	24

Abstract:

The problems: Biogas is important for the European renewable energy transition as it turns waste streams such as manure and sewage into biogas, and provides CO2-neutral energy. But the efficiency is low because the methane producing bacteria in the biogas digester have trouble accessing the energy locked in fibrous materials such as cellulose and lignin. This fraction passes through the biogas plant unused and is incinerated or spread on agricultural land. At the same time, mushroom producers must buy substrate to grow mushrooms and pay to discard it after use.The solution: The AST technology creates a resource cycle between biogas production and mushroom production, reducing costs of mushroom production by up to 50% and utilizing also the fibrous fraction in biogas plants. The innovation is a technology where the fibrous fraction from biogas is used for growing mushrooms, and then returned to the biogas plant, offering improved economy as well as significant environmental benefits to both the mushroom and biogas industry. The project: The AST concept has already been proven in pilot scale, and the next step is a full scale demonstration plant. In this project two AST plants are scaled up and integrated with mushroom production facilities and a biogas plant, respectively. It is essential for the market introduction and thus the commercial success to demonstrate such commercial operation for customers to invest in such plants.Impact: The project will increase the competitiveness of the European mushroom industry currently under strong pressure from China, as well as the biogas industry, suffering from high operational costs. The market: Biogas plants are rapidly being established to support the renewable energy transition with more than 15,000 plants currently in operation in Europe. The European mushroom industry uses about 3 m tons of substrate annually and grows with 10%. The market for the innovation is large, has a growing trend and strong drivers.

Partners:

Nr	Participant	Country
1	ADVANCED SUBSTRATE TECHNOLOGIES AS	DK
2	PANBO SYSTEMS BV	NL

Call: H2020-SMEINST-2-2017 **Type of Action:** SME-2

Title: A unique Lead Acid Battery (LAB) recycling technology to reduce CO2 emissions by 89%, reduce waste by 81%, and transform the battery recycling industry

Project total costs:	1,863,000 €	**Project EU contribution:**	1,304,100 €	**Duration (months):**	18

Abstract:

Lead Acid Batteries (LABs) are a vital and widely-used technology. The global LAB market is expected to grow by 59% to €71.6 billion by 2022 with Europe accounting for the second largest market share.Waste LAB recycling rates are as high as 95% in Europe, but the current recycling process – smelting waste LABs in a furnace – consumes vast quantities of energy, is highly polluting, wasteful, large scale and expensive. Furthermore, smelted lead must be further processed to produce the essential LAB ingredient: the active lead oxide paste.A new lead recycling process is needed that is energy efficient, non-polluting, low cost, scalable and produces LAB-ready lead products. Such process would meet EC priorities by addressing resource efficiency, the sustainable supply of raw materials and drive the circular economy.AEL has developed a novel hydrometallurgical process technology to recycle waste LABs in a highly energy efficient, non-polluting and cost effective way. NUOVOpb's commercial appeal lies in its low cost and scalability, and our ground-breaking ability to produce LAB-ready products that exceed the performance of current products on the market. Our LAB-ready paste can create new LABs with 22% greater energy capacity and 50% longer life. The technology has the potential to transform the global battery recycling industry, which has an expected value of €9.5 billion in 2024. 5 years post project, we expect to be operating 18 NUOVOpb facilities across the world. These will be processing 490,000tonnes of waste LABs (6% of the global waste LAB market) and avoiding 196,000 tonnes CO2 emissions every year. In doing so, AEL will secure annual revenues of €206 million, profits of €54 million, and will have created 200 jobs within AEL. NUOVOpb is the most complete closed-loop recycling system in the world, providing significant commercial opportunities for businesses in both the LAB recycling and LAB manufacturing supply chain, globally.

Partners:

Nr	Participant	Country
1	AURELIUS ENVIRONMENTAL LTD	UK

Call: H2020-SMEINST-2-2017 **Type of Action:** SME-2

Title: Turning food industry's organic wastw into value

Project total costs:	2,292,500 €	**Project EU contribution:**	1,604,750 €	**Duration (months):**	24

Abstract:

HOMEBIOGAS LTD develops and markets advanced biogas systems that reduce our clients' waste management fees, energy expenses and environmental footprint by converting organic waste into biogas, a clean energy source. Since 2016, we commercialise HOMEBIOGAS TG1, an advanced, cost-effective household biogas system. So far we have sold more than 540 units in 46 countries, generating over €400,000 in revenues. We have been financed by private investors (€2.5 million) and government funding (€700,000) while a successful crowdfunding campaign has demonstrated an ample public interest in our products by collecting 219% of the targeted funding. We participate as editors of the ISO TC255/WG3 Domestic Biogas International Standard. There are more than 2.32 million food service and retail businesses in the EU, which annually generate over 15 million tonnes of food and kitchen waste . Waste management carries significant costs for them while public concern on the environmental impact generated by unsustainable waste management practices is growing. We aim to leverage the success of our household systems by offering these companies an affordable (€10,000), high performance biogas solution to fulfil their specific necessities: HOMEBIOGAS TG6 will convert their organic waste (100 kg per day) into free clean energy (120 kWh per day), generating important savings (over €5,000 per year) and improving their environmental footprint and corporate image. HOMEBIOGAS TG6 has been demonstrated at TRL6 through the successful development and commercialisation of our TG1 system and the development and trial of two different large (200-250 kg per day) business-to-business pilots. Thanks to HOMEBIOGAS TG6, we will increase our profit by €31.7 million and hire 36 new employees by 2023.

Partners:

Nr	Participant	Country
1	HOMEBIOGAS LTD	IL

Sub-activity: 5.4.1

POSIDON

776838

Call: H2020-SC5-2017-OneStageB

Type of Action: PCP

Title: POlluted SIte DecontaminatiON - PCP

Project total costs:	6,189,075 €	**Project EU contribution:**	5,000,000 €	**Duration (months):**	50

Abstract:

POSIDON gathers 5 European procurers facing similar problems in the sites they manage, affected by analogous pollutants (2 front-runners-Trieste, IT and Bilbao, ES-and 3 observers - Spaque, BE; Vitoria Gasteiz, ES; Baja do Tejo, PT), leveraging public demand to identify fit-for-purpose and cost-effective innovative and sustainable solutions to soil contamination.The common challenge faced by the buyers' group is identifying a new, life-cycle cost-effective technology for soil and groundwater remediation, capable of decontaminating heterogeneous anthropic soils in brownfields with a mixture of industrial waste (blast furnace slags, construction & demolition waste, filling soils polluted by petroleum hydrocarbons) and soils consisting of clays and sands of marine origin, highly polluted by petroleum hydrocarbons (TPHs and PAHs) and heavy metals (arsenic and lead). Studies on the state of the art, patent analysis, foresight scanning and early market engagement meetings, show that no available technology can meet all identified needs, thus appropriate remediation technologies cannot be acquired through traditional off-the-shelf procurement.With PCP, procurers aim to achieve ambitious improvements in terms of quality and effectiveness, efficiency and sustainability of new technology to bring to the market. R&D will be split into three phases: solution design, prototyping, original development and testing of 2 prototypes. Evaluations after each phase progressively identify solutions offering the best value for money. This phased approach allows successful contractors to improve their offers for the next phase based on feedback from procurers.POSIDON intends to create a critical mass through the consolidation of a pan-European network of procurers who, sharing their needs and efforts, can enable the development - through PCP - and subsequent deployment - through a PPI - of novel technologies aimed to cover bigger market challenges in areas of common European interest

Partners:

Nr	Participant	Country
1	CONSORZIO PER L AREA DI RICERCA SCI ENTIFICA E TECNOLOGICA DI TRIESTE CONSORZIO AREA	IT
2	BEDIN SARA	IT
3	AUTORITA PORTUALE DI TRIESTE	IT
4	AYUNTAMIENTO DE BILBAO	ES
5	Société publique d'aide à la qualité de l'Environnement, "S.P.A.Q.U.E"	BE
6	FUNDACION TECNALIA RESEARCH & INNOVATION	ES
7	MORAGUES AND SCADE ABOGADOS SA	ES
8	CENTRO DE ESTUDIOS AMBIENTALES	ES
9	BAIA DO TEJO, SA	PT
10	SOCIEDAD PUBLICA GESTION AMBIENTAL IHOBE S.A.	ES

Home of Cool

768397

Call: H2020-SMEINST-2-2017 **Type of Action:** SME-2

Title: A novel environment-friendly limited space cooler for high volume food and beverage vending industries.

Project total costs:	1,610,000 €	**Project EU contribution:**	1,127,000 €	**Duration (months):**	24

Abstract:

Home of Cool™ is a novel electronic and environment-friendly limited space cooler that does not use a compressor or a chemical refrigerant. Its target markets are POS (Point of Sales) and (Point of Purchase) vending cooler suppliers for big brands of food and beverage industries. Nordic 24/7 Services have passed Feasibility Study and Customer Development, and believe that Home of Cool™ will raise the Company's profitability and grow its workforce. The project is feasible, viable, profitable and sustainable. Nordic 24/7 Services is seeking financing through SME Instrument to fund the transition of the TRL6 prototype into commercialisation.

Partners:

Nr	Participant	Country
1	NORDIC 24/7 SERVICES OY	FI

Sub-activity: 5.4.1

BIOO Panel

767678

Call: H2020-SMEINST-2-2017

Type of Action: SME-2

Title: Green Electricity from plants' photosynthesis

Project total costs:	1,817,826 €	**Project EU contribution:**	1,272,478 €	**Duration (months):**	24

Abstract:

Climate change is a threat to Earth's health: higher temperatures, rising sea levels and more frequent weather extremes have already been observed in the EU and globally. Because most of GHG emissions result primarily come from the combustion of fossil fuels, during the last years there has been an incredibly increase within the renewable energy market presenting exponential trends still for the years to come. In Arkyne Technologies S.L we defend that the climate change imperative dictates that we begin the transformation of our energy system right now just within our homes and businesses! We base our disruptive product within one of the latterly alternative energy sources proposed, Microbial Fuel Cells (MFC), which use special microorganisms' properties in an anaerobic anode compartment for production of bio-electricity. With BIOO we are exploiting the Plant-Microbial Fuel Cell (PMFC), which is characterised by the fact that the generation of such electricity is done by means of anaerobic bacteriological synthesis of the organic matter produced during plants' photosynthesis. The introduction of BIOO panel into the market will have a positive impact on: i) the environment, by means of creating the greenest electricity ever, ii) the economy of our customers, by allowing them to obtain enough electricity for residential use at lower pay-backs than competitors and finally, iii) Arkyne Technologies' economic growth, assuring an accumulated turnover during 4 year period around 13.2M€. We are applying to the SME Instrument in order to obtain funding to carry out the technical and commercial activities required to obtain a marketable and ready to certify BIOO Panel system, as well as to create a demonstrative platform useful to act as a show-room for our clients. Market share for BIOO Panels within residential electricity self-production market is expected to range from 0.20% the first year of commercialization to 1.96% after 4 years of internationalization.

Partners:

Nr	Participant	Country
1	ARKYNE TECHNOLOGIES SL	ES

Call: H2020-SMEINST-2-2017 **Type of Action:** SME-2

Title: Using microalgae bioreactor technology to deliver the world's most cost-effective, energy-efficient and adaptable system for the treatment of toxic industrial and landfill wastewater

Project total costs:	2,906,000 €	**Project EU contribution:**	2,034,200 €	**Duration (months):**	24

Abstract:

Bluemater CEO Nuno Gomes conceived this project inspired by the words of the inventor and author Buckminster Fuller: "Nature has no pollution. This is a word coined in human ignorance regarding the presence of the right chemicals being released in the wrong places…" While high concentrations of compounds such as ammonium, phosphates and sulphates can be deadly for aquatic ecosystems and their inhabitants, they are nutrients for algae and plants. This project harnesses components found in highly concentrated wastewaters to feed microalgae, which grow especially quickly by transforming ammonium and phosphates into proteins and other organic matter. Since 2008 we have been developing this challenging concept into a viable commercial system for wastewater treatment at landfills and in industry. Following extensive testing at diverse wastewater treatment plants (WWTPs), and guided by feedback from target clients, our breakthrough microalgae technology – the first of its kind - was integrated with Bluemater's next-generation wastewater management systems in its current configuration. In these pilot tests, Algamater demonstrated decreased energy costs in wastewater treatment by more than 60% and lowered operational costs by more than 40% compared to traditional wastewater treatment plants. We are proud to introduce the Algamater Wastewater Treatment Plant: the world's most robust, flexible, cost-effective, and eco-friendly wastewater treatment system. Algamater is currently at a prototype stage (TRL7). In this project we will upgrade, scale up and integrate the Algamater components into a full-scale wastewater treatment plant capable of demonstrating our game-changing technology at an industrial level.With the commercialization of Algamater we forecast strong, consistent growth for Bluemater, notable employment creation both inside our company and out, and significantly reduced environmental hazards in the wastewater treatment sector.

Partners:

Nr	Participant	Country
1	BLUEMATER SA	PT

Sub-activity: 5.4.1

ECOSHEET-PRO

766649

Call: H2020-SMEINST-2-2017

Type of Action: SME-2

Title: An Eco-Innovative Alternative to Plywood

Project total costs:	3,183,978 €	**Project EU contribution:**	2,228,784 €	**Duration (months):**	22

Abstract:

ECOSHEET-PRO is an eco-innovative and cost effective alternative to plywood made from mixed plastic waste, suitable for high strength applications in the construction industry. This project will tackle two significant environmental challenges facing Europe, whilst also offering added value to the construction industry.The first issue addressed is that of mixed plastic waste. In Europe, in 2014, 18 million tonnes of post-consumer waste plastics were landfilled or incinerated, as they could not be easily separated and recycled. Alternative uses for such waste must be found.The second issue is the growth in the use of plywood, typically manufactured from slow-growing, tropical hardwoods. This material is a key, high volume commodity in construction industry formworks and an area the size of Madrid is deforested each year to meet Europe's demand.ECOSHEET-PRO transforms mixed plastic that would otherwise be wasted into a competitive, reusable, plywood replacement. Previous attempts to create such boards have failed to deliver the required strength or cost effectiveness required by industry. We have overcome these barriers through an innovative manufacturing process, which will be scaled up and refined during this project.ECOSHEET-PRO has the potential to re-define the €1.8 billion European plywood industry and help Europe meet its demanding plastic recycling targets, contributing to the circular economy. Our success stems from bringing together the complementary expertise of two eco-innovative SMEs from Italy and the UK, both with a strong ambition to grow and internationalise.Across a network of 13 facilities in 2023, ECOSHEET-PRO will create 77 jobs, generate annual revenues of over €76.5 million, annual profits of €26.8 million, and transform >221,000 tonnes of waste into valuable products.

Partners:

Nr	Participant	Country
1	I.C.M.A. SAN GIORGIO INDUSTRIA COSTRUZIONI MACCHINE E AFFINI SPA	IT
2	ENVIRONMENTAL TECHNOLOGY EVOLUTION LTD	UK

Sub-activity: 5.4.1

CLEANTECHBLOCK2

766614

Call: H2020-SMEINST-2-2017

Type of Action: SME-2

Title: Market maturation of CleanTechBlock technology

Project total costs:	1,572,500 €	**Project EU contribution:**	1,100,750 €	**Duration (months):**	24

Abstract:

Clay bricks are one of the preferred building materials in Europe, but they are facing numerous threats due tightened regulations on buildings' energy and raw material consumption levels and CO2 emissions. These threats together with market trends such as increasing environmental onscience, preference for green materials and an excellent clay bricks' public image creates a major market opportunity that Gråsten Brickworks (GB) aims to pursuit through the development of an innovative building component which will enable a paradigm change within the construction market and recycling in Europe.GB vision is to take the final steps of commercial and technical development and product maturation towards the commercialization of CleanTechBlock (CTB) – a patented multifunctional sandwich-block based on the combination of two clay brick shells and foamed recycled glass. CTB's advantages over bricks are compelling as the insulation, strength properties and construction price are similar and it offers: an overall increase in the living area (3-5%), a reduction in the overall house wall construction time (5x faster), while reducing maintenance requirements and transportation costs. It also contributes to the mitigation of environmental problems due to an increase of glass waste recycling, decrease of raw material (clay) and energy consumption and CO2 emissions.CLEANTECHBLOCK2 project is expected to significantly enhance the profitability and competitiveness of GB, with an expected sales turnover of €67M and profits of €15M, 6 years after commercialization in the environmentally conscious construction segment (both residential and non-residential) of primary targeted markets – Denmark, Sweden and Germany. Besides giving to GB a technological leap with the consequent competitive advantage and export potential, CLEANTECHBLOCK2 will assist Europe in achieving objectives for environmental and energy policy.

Partners:

Nr	Participant	Country
1	GRAASTEN TEGLVAERK A/S	DK

Call: H2020-SMEINST-2-2016 **Type of Action:** SME-2

Title: Real time, automatic and remote-activated sampling system for industrial odour emissions compliant with the European Standard EN 13725

Project total costs:	1,425,125 €	**Project EU contribution:**	997,588 €	**Duration (months):**	24

Abstract:

With 25 employees, LabSevice Analytica was created 22 years ago to commercialise certified reference material and dedicated instruments for the analysis of environmental and food samples. Since 2012, LabService has been developing ODORPREP. Once fully in the market in 2019, ODORPREP will be the first Real Time, Automatic and Remote Sampling System for Odour Emissions designed in response to the Quality Air Standard for "Determination of odour concentration by dynamic olfactometry" (10/2004). The 2 main targeted groups of ODORPREP will be industrial companies (oil refining, chemistry industry and livestock), responsible for controlling its odour emissions, and the competent authorities in charge of enforcing the odour legislation. OdorPrep is composed by 3 components-steps integrated into the network: 1) A trigger system (protected under the trademark OdourTel®) which consists of a telephonic network that registers systematically the population complaints allowing for real-time detection. 2) An automatic sampling system which collects air samples at the moment of a significant odour event. Being a real-time solution, it enables end-users (industries) to rapid response to any security issue that may arise due to uncontrolled emissions. 3) A network of accredited laboratories which analyse the samples according to European standards (EN13725). OdorPrep selling price is €10,000/unit, more affordable compared to current field olfatometers (€50,000). Monitoring costs are lower, as there is no on site surveillance. For the sampling system we will use sample bags of Nalophan™ for 10€/bag (1,000€ per 100m tube), five times cheaper than Teflon bags. OdorPrep will contribute to prevent and control odour pollutant emissions, allowing to perform a high number of samples at a competitive cost (in the lower market ranges 150-200€/sample), with the added value of quality representativeness measurements (EN13725).

Partners:

Nr	Participant	Country
1	LAB SERVICE ANALYTICA SRL	IT

Call: H2020-SMEINST-2-2016 **Type of Action:** SME-2

Title: Sustainable nanoHVOF and nanoaxialPlasma coating solutions against wear problems of extrusion machines allowing an eco-efficient use of materials and the increase of recycling in the plastics industry

Project total costs:	2,773,695 €	**Project EU contribution:**	1,941,586 €	**Duration (months):**	24

Abstract:

Company Thermico has developed the first technology that enables to highly increase the share of recycling in the EU plastics industry. This cost-effective coating technology – called nanoHPcs – solves wear and corrosion problems in critical components of plastics extrusion machines. Today, plastics and fibre-reinforced plastics have become the first material of use in many sectors (construction, automotive, aviation, etc.), being in many cases lighter, cheaper, more resistant and recyclable than metal. This highly affects the production equipment, as for plastics extrusion, machines must cope with increasing production amounts and requirements. Even more challenging is the extrusion of waste materials and of plastics aggregates with abrasive metal, ceramic, glass and wooden particles. The challenge in this industry is to make recycled plastics as pricely attractive as raw plastics material. Since recycled plastic is much more abrasive, extrusion machines must not lose any performance through incorporating the recycled material. Compared to conventional coating methods, nanoHPcs can enhance the share of plastics recycling in the industry by at least 10%, displaying a fantastic price-performance ratio, a reduction of more than 50% of production costs of critical components and of up to 70% of coating manufacturing and finish processing costs. With help of the SME-Instrument, Thermico expects by 2023 a turnover increase from currently €5.3 million to €40.2 million, a staff increase of 132 employees and a market share in its calculated addressable market of 15%. To guarantee a successful market introduction, Thermico will build strong references through numerous field tests at customers. Thermico could therefore acquire 4 launching customers: 1 OEM, 2 repairers and retailers of extruder components and 1 plastics producer. Introduction of the solution in the plastics extrusion market will occur in several steps: DACH countries, the EU and, later, North America and Asia.

Partners:

Nr	Participant	Country
1	Thermico GmbH & Co.KG	DE

Sub-activity: 5.4.1

SMAV

756083

Call: H2020-SMEINST-2-2016

Type of Action: SME-2

Title: SMAV: Best for the Environment Soda Fountain Smart Valves

Project total costs:	2,171,125 €	**Project EU contribution:**	1,519,788 €	**Duration (months):**	24

Abstract:

Tap distribution offers huge advantages for soft drinks manufacturers because it only involves dispensing the syrup which, mixed with water sourced from the place of consumption, will generate the original drink. If we consider that over 80% of a beverage consists of water, the possibility of dispensing just the syrup entails enormous cost savings for manufacturers as it requires less equipment and less storage space, and reduces bottling and transport costs.The largest soft drinks manufacturers thus have a strong need to expand this form of (tap) distribution on the market, but in order to achieve this, the technological hurdle associated with the current high maintenance cost of “fountain” dispensers, which limits its use to establishments with high beverage consumption, needs to be overcome. A direct consequence of the above situation is the great environmental cost that results from the production and distribution of soft drinks in aluminium cans and plastic bottles, with the consequent waste of resources required for producing, disposing of and especially transporting these products, which consist of more than 80% water.The goal of our project is to introduce a revolutionary innovation in the fluid management systems currently used in soft drink dispensing "fountains" by replacing the solenoid-based valves that are commonly used with new volumetric valves, which take advantage of the properties of shape memory alloys (SMA) and use new ICT technologies. The new idea introduced by our project with the new valve aims to drastically lower the minimum number of litres required for ensuring the economic sustainability of on-tap drink dispensers, thus broadening the field of users and reducing the production and transport of bottles and cans, with resulting - and significant- recovery of environmental integrity.

Partners:

Nr	Participant	Country
1	DOLPHIN FLUIDICS SRL	IT

Call: H2020-SMEINST-2-2016 **Type of Action:** SME-2

Title: Sustainable Desalination System

Project total costs:	1,891,933 €	**Project EU contribution:**	1,324,353 €	**Duration (months):**	24

Abstract:

Our Earth is drying-up. Water is an over-used vital resource worldwide and more than 1billion people still live in water-scarce regions and around 3,5 billion could experience water scarcity by 2025. Fortunately, 97% of all water contained on the Earth is in liquid phase & just few steps from the coast: Seawater. Within this scenario, global desalination capacity in 2015 reached 95 million m3 water per day, distributed among 18,700 plants worldwide. These incredible figures are translated into a global water desalination market already representing over €12 billion/year and CAGR of total cumulative contracted capacity over 9.5% per year. AQUA.abib S.L was founded in Barcelona (Spain) 2 years ago as a spin-off of BarcelonaTech after having completed the feasibility assessment of the invention. The introduction of SunAqua into the market will have a positive impact on: i) the economy of our customers, by allowing them to desalinate saline water at lower costs ii) the environment, and iii) AQUA.Abib's economic growth. SunAqua18 consists of a pyramid-shaped structure with an octagonal base, measuring 18m in height (15m of column + 3m of human-beings), covering an area of 2.500m2. The structure is covered by an outer transparent plastic layer and an inner dark-coloured layer which is considered to efficiently harvest sunlight from sun. The system was validated by the end of 2013 with a SunAqua pilot-scale, which was running during 4 months. Moved by real market demand and several expressions of interest, we are committed to quickly moving towards our final commercial product, with overall dimensions assuring the best cost/efficiency ratio: SunAqua18. Thanks to the promising performance of the fully-operational prototype we estimate yearly revenues up to 19M€ by the end of the 5th year and cumulated benefits reaching 16.6€. These figures would allow us to assure a Payback period of our project lower than 3 years.

Partners:

Nr	Participant	Country
1	AQUA. ABIB WATER SOLUTIONS SOCIEDAD LIMITADA	ES

Call: H2020-SMEINST-2-2016 **Type of Action:** SME-2

Title: PAPTIC – The Good Conscience Alternative

Project total costs:	3,136,875 €	**Project EU contribution:**	2,195,812 €	**Duration (months):**	24

Abstract:

Non-degradable, poorly recyclable, easily littered and long-lasting plastic products cause extensive accumulation of problems and endanger complete ecosystems. About 1 trillion plastic bags are used every year, with 89% of them only once. Despite the urgency of the problem, no viable alternative has been found up to now.Paptic addresses this global challenge and satisfies the needs of consumers, retailers and brand owners for sustainable carrier bags. The company has developed the novel wood fibre based material PAPTIC® that combines the renewability of paper with the resource efficiency and functionality of plastics. Once fully developed, PAPTIC bags will be 100% biodegradable and recyclable, with at least 85% renewable content.The patented PAPTIC® bags are the World's first economically sound and environment-friendly alternative to plastics bags. Although market entry is achieved through carrier bags, PAPTIC® will revolutionise the whole flexible packaging market expected to be worth > €200 billion by 2018. The production logistics of Paptic is based on utilising existing paper mills, enabling rapid scale-up with low CAPEX investments.Paptic has already built a sales pipeline worth more than €150 million, representing some of the best-known brands and retailers in the World. With some of them, Paptic is conducting tests with extremely favourable feedback from brand owners, and has launched its first marketing campaigns. Also feedback from consumers has been thoroughly positive.The PAPTIC project is the next logical step in the company's strategy. The focus is on scaling up production capacity from the already operational pilot line to a commercial prototype production line, and improving the performance of the PAPTIC@ material. As a result of the PAPTIC project, the company will grow to annual revenues of €90 million within a few years.

Partners:

Nr	Participant	Country
1	PAPTIC OY	FI

Call: H2020-SMEINST-2-2016 **Type of Action:** SME-2

Title: Transforming fly ash waste from coal-fired power plants into lightweight engineered sand formultiple applications

Project total costs:	1,445,014 €	**Project EU contribution:**	1,011,510 €	**Duration (months):**	24

Abstract:

Established in 2012, ZaaK Technologies GmbH is an eco-innovative SME, dedicated to the development and exploitation of technologies which recycle industrial wastes into value added products. Over the past 3 years, we have developed and demonstrated a multiple award winning patent-pending technology which transforms fly ash, a waste product from coal-fired power plants, into value-added lightweight engineered sand, called ZaaK™Sand, which is in accordance with harmonized technical specifications DIN EN 4226-3, DIN EN 13139, and DIN EN 15033-1/2.ZaaK™Sand is a superior and cost-effective alternative to natural sand, crushed stones, and lightweight fine aggregates, for use in the manufacture of advanced building and construction materials, and in certain niche applications like horticulture and hydroponic applications. Replacing normal sand with ZaaK™Sand in buildings leads to: (a)improving thermal efficiency by up to 500%(b)reducing dead-load by up to 12% resulting in savings of energy intensive materials such as cement and steel(c)increase life of buildings by up to 2 times due to a phenomenon called, internal curingZaaK™Sand aim is to arrest the depletion of dwindling natural sources of sand and thereby reduce destruction of precious ecosystem impacted by sand mining. It also addresses the economic and socio-environmental problems associated with the disposal of fly ash.Our key objectives within the project timeframe are:•To build an Integrated Pilot Plant (IPP) to produce ZaaK™Sand for customers in our introductory markets.•To use the IPP to further optimise the manufacturing process.•To use the IPP as a demonstration showcase, to disseminate and communicate the project results, and to attract new customers and investors.Our objective is to enter the market in 2019, through a build, own and operate model, contract manufacturing and joint ventures with power plants and construction material companies.

Partners:

Nr	Participant	Country
1	ZAAK TECHNOLOGIES GMBH	DE

Call: H2020-SMEINST-2-2016 **Type of Action:** SME-2

Title: INNOVATIVE FUNCTIONAL PAINT FOR AIR PURIFICATION

Project total costs:	1,707,729 €	**Project EU contribution:**	1,195,410 €	**Duration (months):**	24

Abstract:

AM Technology Ltd is an SME founded with the objective of successfully developing and commercialising innovative functional paints based on AIRLITETM technology, an air purification technology based on the photocatalytic oxidation effect of Titanium dioxide (TiO2). The paints based on AIRLITE are capable of transforming any architectural surface into a natural air purifier, using only the energy of light, making no noise and requiring no maintenance. AIRLITETM can be used for both indoor and outdoor environments, making it a real and effective solution for effectively solving poor air quality issues at a reasonable cost. AIRLITE is a unique technology in the sense that it brings together an exceptional performance in terms of air purification (well above any other photocatalytic paint) and some other additional characteristics and advantages:AIRLITE reflects the hot component of sunlight, preventing the passage of excessive heat, which remarkably reduces the energy consumption needed to cool indoor environments.AIRLITE eliminates mould, bacteria and bad smells, and repels dirt. AIRLITE generates a high concentration of natural disinfectants which kill more than 99.99% of bacteria in the treated environment.Other advantages: Safety (is completely free of Volatile Organic Compounds (VOCs)), high durability (lifetime extended by twice that of normal paint resulting in less repainting costs), and a very low price (6 times less than existing photocatalytic paints).On their way to the market, AM Technology have developed some preliminary AIRLITE based products, and conducted an early stage commercial validation phase with them. This validation demonstrated the business viability of the project and identified the tasks and activities that need to be undertaken (from a technical and business/exploitation point of view) to successfully introduce AIRLITE into the market. Those tasks and activities are presented in this proposal.

Partners:

Nr	Participant	Country
1	AM TECHNOLOGY LIMITED	UK

Call: H2020-SMEINST-2-2016 **Type of Action:** SME-2

Title: Pilot scale demonstration of novel CO2 co-polymerisation catalysts in the PU polyol market

Project total costs:	3,558,239 €	**Project EU contribution:**	2,490,767 €	**Duration (months):**	24

Abstract:

The European polymer industry is under increasing pressure to produce innovative products at lower cost to compete with overseas imports. Econic Technologies has invented a catalyst that enables replacing up to 40% of petrochemical feedstock in the production of polyurethane polyols, an important polymer segment, with low cost waste CO2, resulting in high performance product. Econic Technologies is spun out of Imperial College London, where the technology was invented, now grown to a family of patent-protected catalysts whose unique characteristic is high reactive activity and selectivity for polymers under low pressures. The catalysts enable the maximum theoretical uptake of CO2 with far superior reaction rates than their competitors under industry relevant conditions.The Econic catalyst creates novel value-add polyol building blocks for polyurethanes whilst offering significant feedstock savings: CO2 costs $100/Tonne whereas PO costs $1900/tonne. When competitive technologies require expensive new plant facilities to meet stringent process conditions Econic's catalyst can be deployed by a low cost retrofit. The technology is proven in the lab (TRL6) and client-site demonstration (TRL7) has commenced on small scale. The Phase I feasibility study has established that early adopting market leading polyol producers are keen to deploy the technology but they still need to persuade their downstream customers, the polyurethane producers. This will crucially be assisted by demonstrator applications which Phase II will now develop. Over the first five years after Phase II completion, Econic generates EUR180m catalyst sale revenues. Polyol producers will benefit by increased profit margins to the tune of EUR380m over the same period. Catalyst toll manufacturers will generate turnover of EUR30m+ and carbon capture plants will be able to sell EUR18m worth of CO2. Total expected qualified job creation from the project exceeds 100 over the first five commercial years.

Partners:

Nr	Participant	Country
1	ECONIC TECHNOLOGIES LTD	UK

Call: H2020-SMEINST-2-2016 **Type of Action:** SME-2

Title: Innovative and compact process for recycling rubber suitable to improve the environmental footprint of the tyre industry over the life-cycle

Project total costs:	3,542,500 €	**Project EU contribution:**	2,479,750 €	**Duration (months):**	36

Abstract:

The project aims at developing and bringing to market an innovative process for recycling rubber in the tyre industry. The process is a sequence of mechanical operations implemented by a compact dedicated line and is foreseen in two versions that apply to different phases of tyres lifecycle:REWORK: main version that applies to tyre production to rework all scraps and non-compliant components and produce rubber 100% reusable in the main production;RECYCLE: a variant of process that applies to recovering rubber from end-of-life tyres (ELT) to produce sheeted rubber usable for moulded applications. Variants include pre-conditioning phases to clear rubber from textile cords.The two versions are conceived to serve different customer segments, REWORK for tyre manufacturers to improve eco-efficiency and reduce production costs, RECYCLE for recyclers of ELT to produce cleaner, more usable forms of recycled rubber suitable to open new high-value application opportunities and increase ELT management profit.In both segments business models and value chains are consolidated and needs to be served are explicit, thus creating a very favourable context for the exploitation.The project builds on a solid technological and business background. ELSY is the global leader of specialised machines and control systems for tyre and plastic industries. The process was conceived to respond to needs that came out from the day-by-day relationship with all the main manufacturers worldwideProjects aims at 1) developing enabling subsystems for REWORK and RECYCLE lines, 2) building prototype versions of the two lines, 3) carrying out validation tests, 4) carrying out industrialisation including design and suppliers engagement, 5) organising exploitation including engagement of key partners and definition of common business casesFor ELSY the project is crucial in the strategy to expand vertically the offer in markets we already lead and enter in new market segments with excellent potential

Partners:

Nr	Participant	Country
1	ELECTRONIC SYSTEMS SPA	IT

Call: H2020-SMEINST-2-2016 **Type of Action:** SME-2

Title: INTERnational COmmercialization of innovative products based on MicroalgaE

Project total costs:	2,426,438 €	**Project EU contribution:**	1,698,506 €	**Duration (months):**	24

Abstract:

Microalgae are an inexhaustible source of proteins, lipids, pigments, vitamins or carbohydrates, among others. Therefore,they find potential commercial applications in several sectors of economic activity. Some of them are already commerciallyviable, i.e. in aquaculture, agriculture, human nutrition or cosmetics, while some others still need R&D to be furtherdeveloped, i.e. in bioenergy or pharma. In addition, bearing in mind that microalgae are the most efficient natural CO2capturing system, are very productive and do not compete with fertile lands, they have potential to simultaneously contributeto palliate the big crisis humankind is facing: environmental sustainability, energetic efficiency, and food security.AlgaEnergy, a solid Spanish biotechnology based SME, did identify this potential. Since its establishment, it has served as avehicle to consolidate the existing knowledge within the scientific field of microalgae in Spain -a recognized international hubin the matter-, which was dispersed across universities. Using it as a stepping stone, it has been investing in generatingfurther R&D in order to scale-up the processes and develop ready to market products, so that the achievements in the labphase reach also the society. Within this task, AlgaEnergy has recently been able to reach a semi-industrial scale (TRL 7)with the start of the first phase operations of its semi-industrial plant in South of Spain, which captures real flue gasemissions directly from the second biggest combined cycle plant in Europe, being a worldwide premiere. Therefore,AlgaEnergy is now ready to orientate its technology towards the commercialization of its already commercially viableproducts. INTERnational COmmercialization of innovative products based on MicroalgaE (INTERCOME– the second phase of the SME Instrument projectALGAEPRINT) is based on the commercial orientation that is needed to make AlgaEnergy financially autonomous, aftermillionaire resources and 8 years of efforts invested in applied R&D.

Partners:

Nr	Participant	Country
1	ALGAENERGY SA	ES

Call: H2020-CIRC-2016TwoStage **Type of Action:** IA

Title: Circular Process for Eco-Designed Bulky Products and Internal Car Parts

Project total costs: 12,230,394 € **Project EU contribution:** 9,665,563 € **Duration (months):** 48

Abstract:

ECOBULK through a large scale demonstration effort will contribute to “closing the loop” of composite products in the automotive, furniture and building sectors by promoting greater re-use, upgrade, refurbishment and recycle of products, parts, and materials. It will bring opportunities for both the environment and the economy by offering business opportunities along the entire new defined supply and value chains. ECOBULK approach will be based on identifying and promoting commonalities in processes, technologies, products and services ensuring replicability and transferability to other industrial sectors. The ambitious application of the circular economy model in the three selected sectors is justified by the high numbers of synergies, in terms of the design (design for modularity, design for disassembly/dismantling), materials (fibre and particle reinforced plastic composites), manufacturing technology (moulding, extrusion, hot pressing, thermobonding) and business models (leasing, renting, PSS, fix-it shops, etc.). The methodology will embrace and focus on large scale demonstration activities in 7 countries and more than 15 demonstrators to address the key components of the circular economy solutions; rethinking product design to shift towards a Design Circular Framework, validation of material and product manufacturing technologies to ensure technical and economic feasibility, new reverse logistics for the recovery of products and parts from consumers or users and into the supply chain, implementation of Innovative business models exploring C2C, B2C and B2B opportunities, and dissemination to raise awareness and knowledge sharing activities on circular economy solutions. Finally, an end-user and Stakeholder platform linking end users with relevant actors from the early design stages will foster second life, reuse and recycle of product and parts as well as material recovery for reintroduction into a circular production chain.

Partners:

Nr	Participant	Country
1	EXERGY LTD	UK
2	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
3	CRANFIELD UNIVERSITY	UK
4	CENTRO RICERCHE FIAT SCPA	IT
5	INSTITUT TECHNOLOGIQUE FCBA (FORETCELLULOSE BOIS-CONSTRUCTION AMEUBLEMENT)	FR
6	INSTITUTO TECNOLOGICO DEL EMBALAJE, TRANSPORTE Y LOGISTICA	ES
7	Next Technology Tecnotessile Società Nazionale di Ricerca r.l.	IT
8	TECHNISCHE UNIVERSITEIT DELFT	NL
9	UNIVERSITAT POLITECNICA DE CATALUNYA	ES
10	AKZO NOBEL INDUSTRIAL COATINGS AB	SE
11	ARN HOLDING BV	NL
12	FORMITALIA GROUP SPA	IT
13	KASTAMONU ENTEGRE AGAC SANAYI VE TICARET ANONIM SIRKETI	TR
14	MAIER SCOOP	ES
15	TECHNOPLANTS SRL	IT
16	TOMRA Sorting GMBH	DE
17	Conenor Oy	FI
18	GRANTA DESIGN LTD	UK
19	INNOVACIO I RECERCA INDUSTRIAL I SOSTENIBLE SL	ES
20	KNEIA SL	ES
21	MICROCAB INDUSTRIES LTD	UK
22	NETCOMPOSITES LIMITED	UK
23	OAKDENE HOLLINS LIMITED	UK
24	TECNARO GESELLSCHAFT ZUR INDUSTRIELLEN ANWENDUNG NACHWACHSENDER ROHSTOFFE MBH	DE
25	VERTECH GROUP	FR
26	INTERNATIONAL SOLID WASTE ASSOCIATION	AT
27	ASOCIACION ESPANOLA DE NORMALIZACION	ES
28	SERVICO INTERMUNICIPALIZADO DE GESTAO DE RESIDUOS DO GRANDE PORTO	PT

Call: H2020-CIRC-2016TwoStage **Type of Action:** IA

Title: Towards circular economy in the plastic packaging value chain

Project total costs:	9,252,466 €	**Project EU contribution:**	7,308,180 €	**Duration (months):**	36

Abstract:

CIRC-PACK project aims at more sustainable, efficient, competitive, less fossil fuel dependence, integrated and interconnected plastic packaging value chain. To this end, three case studies will work in developing, testing and validating better system-wide economic and environmental outcomes by i) decoupling the chain from fossil feedstocks, (ii) reducing the negative environmental impact of plastic packaging; and (iii) creating an effective after-use plastics economy. All in all, the work will be supported by non-technological analysis and advanced methodological analysis (including circular economy and industrial symbiosis principles) which will trigger a broadly deployment of the tested solutions. CIRC-PACK project will provide breakthrough biodegradable plastics using alternative biobased raw materials, which will have an instrumental role to play in the subsequence steps of the plastic value chain. In addition, eco-design packaging for improving and end-of-like multilayer and multicomponent packaging will be technologically advanced and adapted also to the new materials produced. Thus these developments will also contribute with a great impact in the packaging footprint, and increasing the biobased content and using compostable materials. Lastly, a multi-sectorial cascaded approach along plastic packaging value chain will be applied with critical impacts in other value chains beyond the targeted plastic packaging value chain. The overall outcome of the project will facilitate the transition from the current linear plastic packaging value chain to circular economy principles.

Partners:

Nr	Participant	Country
1	FUNDACION CIRCE CENTRO DE INVESTIGACION DE RECURSOS Y CONSUMOS ENERGETICOS	ES
2	FUNDACION AITIIP	ES
3	NOVAMONT SPA	IT
4	MATER-BIOTECH SPA	IT
5	MATER-BIOPOLYMER SRL	IT
6	BUMAGA BV	NL
7	NUEVAS TECNOLOGIAS PARA EL DESARROLLO DE PACKAGING Y PRODUCTOS AGROALIMENTARIOS CON COMPONENTE PLASTICA SL	ES
8	MI-PLAST DOO ZA PROIZVODNJU TRGOVINU I PRUZANJE USLUGA - MI-PLAST LLC MANUFACTURING, TRADING AND SERVICES MIPLAST	HR
9	GRUPO SADA P A SA	ES
10	SAPONIA KEMIJSKA, PREHRAMBENA I FARMACEUTSKA INDUSTRIA D.D.	HR
11	Fater S.p.A.	IT
12	CENTRO RICERCHE FIAT SCPA	IT
13	ASOCIACION ESPANOLA DE NORMALIZACION	ES
14	RINA CONSULTING - D'APPOLONIA SPA	IT
15	EKODENGE MUHENDISLIK MIMARLIK DANISMANLIK TICARET ANONIM SIRKETI	TR
16	ECOEMBALAJES ESPANA, S.A.	ES
17	GRAD RIJEKA-GRADSKO VIJECE	HR
18	KARTAL BELEDIYE BASKANLIGI	TR
19	CALAF TECNIQUES INDUSTRIALS SL	ES
20	OCU EDICIONES SA	ES
21	ICLEI EUROPEAN SECRETARIAT GMBH (ICLEI EUROPASEKRETARIAT GMBH)*	DE
22	PLASTIPOLIS	FR

Sub-activity: 5.4.1

SYSTEMIC

730400

Call: H2020-CIRC-2016TwoStage

Type of Action: IA

Title: Systemic large scale eco-innovation to advance circular economy and mineral recovery from organic waste in Europe

Project total costs:	9,723,586 €	**Project EU contribution:**	7,859,829 €	**Duration (months):**	48

Abstract:

SYSTEMIC will reach a break-through to re-enter recovered nutrients from organic waste into the production cycle. Consequently, this will offer solutions for pressing environmental issues and to reduce the import of P as finite irreplaceable resource in mines.The SYSTEMIC project aims to shift the European Biomass treatment practice to the next level. Departing from existing business cases and a new ground-breaking large scale demonstration plant, the future of anaerobic digestion (AD) value chains will be investigated and demonstrated. The result will help existing and future AD-operators to maximise their performance: produce and sell more quality products, generate more energy and be independent on subsidies. By the market driven leadership, the SYSTEMIC-project will finally turn biomass waste into valuable products while reducing water pollution, greenhouse gas emission and creating quality jobs in rural areas.The planned demonstration plant will allow innovative combinations of modules to elaborate possible optimizations for increasing the production quantity and quality of new mineral products, and the integration of these products into a circular economy. Reflecting the experiences from the demonstration plant with a set of 4 mirror cases in different members states allow systemic innovation including end-user driven (a) specific technical development and (b) the cost efficient investigation of real world circular economy business cases and (c) operational, regulatory, institutional and contextual barriers to overcome.Using partial funding from the EC, the SYSTEMIC industry-driven consortium will validate for the first time the technical and economic viability of a fully integrated, multistep approach in an operational environment. The successful practical demonstration will put the European sector in a leading position to offer efficient mineral recovery technologies.

Partners:

Nr	Participant	Country
1	STICHTING WAGENINGEN RESEARCH	NL
2	AMPOWER	BE
3	GROOT ZEVERT VERGISTING BV	NL
4	ACQUA & SOLE SRL	IT
5	RIKA BIOFUEL DEVELOPMENTS LTD	UK
6	GNS GESELLSCHAFT FUR NACHHALTIGE STOFFNUTZUNG MBH	DE
7	A-TUOTTAJAT OY	FI
8	ICL FERTILIZERS EUROPE CV	NL
9	NIJHUIS WATER TECHNOLOGY BV	NL
10	PROMAN MANAGEMENT GMBH	AT
11	UNIVERSITEIT GENT	BE
12	UNIVERSITA DEGLI STUDI DI MILANO	IT
13	VLAAMS COORDINATIECENTRUM MESTVERWERKING	BE
14	EUROPEAN BIOGAS ASSOCIATION	BE
15	THE RURAL INVESTMENT SUPPORT FOR EUROPE FOUNDATION	BE

Call: H2020-CIRC-2016TwoStage **Type of Action:** IA

Title: REcovery and REcycling of nutrients TURNing wasteWATER into added-value products for a circular economy in agriculture

Project total costs:	7,129,323 €	**Project EU contribution:**	5,871,896 €	**Duration (months):**	42

Abstract:

Water2REturn proposes a full-scale demonstration process for integrated nutrients recovery from wastewater from the slaughterhouse industry using biochemical and physical technologies and a positive balance in energy footprint. The project will not only produce a nitrates and phosphate concentrate available for use as organic fertiliser in agriculture, but its novelty rests on the use of an innovative fermentative process designed for sludge valorisation which results in a hydrolysed sludge (with a multiplied Biomethane Potential) and biostimultants products, with low development costs and high added value in plant nutrition and agriculture.This process is complemented by proven technologies such as biological aeration systems, membrane technologies, anaerobic processes for bio-methane production and algal technologies, all combined in a zero-waste-emission and an integrated monitoring control tool that will improve the quality of data on nutrient flows. The project will close the loop by demonstrating the benefits associated with nutrients recycling through the implementation of different business models for each final product. This will be done with a systemic and replicable approach that considers economic, governance and social acceptance aspects through the whole chain of water and targets essentially two market demands: 1) Demand for more efficient and sustainable production methods in the meat industry; and 2) Demand for new recycled products as a nutrient source for agriculture.As a summary, Water2REturn project adopts a Circular Economy approach where nutrients present in wastewaters from the meat industry can be recycled and injected back into the agricultural system as new raw materials. The project foster synergies between the food and sustainable agriculture industries and propose innovative business models for the resulting products that will open new market opportunities for the European industries and SMEs in two key economic sectors.

Partners:

Nr	Participant	Country
1	BIOAZUL	ES
2	UNIVERSIDAD DE SEVILLA	ES
3	UNIVERSIDAD DE CADIZ	ES
4	FUNDACION CENTRO DE LAS NUEVAS TECNOLOGIAS DEL AGUA	ES
5	AGROINDUSTRIAL KIMITEC SL	ES
6	ADVENTECH - ADVANCED ENVIRONMENTAL TECHNOLOGIES LDA	PT
7	ALGEN, CENTER ZA ALGNE TEHNOLOGIJE, DOO	SI
8	UNIVERZA V LJUBLJANI	SI
9	SLOROM SRL	RO
10	ENCO SRL	IT
11	2B Srl	IT
12	UNION EUROPEENNE DU COMMERCE DU BETAIL ET DE LA VIANDE	BE
13	ISITEC GMBH	DE
14	EXERGY LTD	UK
15	EUROPEAN LANDOWNERS ORGANIZATION	BE

Sub-activity: 5.4.1

ZERO BRINE

730390

Call: H2020-CIRC-2016TwoStage

Type of Action: IA

Title: Re-designing the value and supply chain of water and minerals: a circular economy approach for the recovery of resources from saline impaired effluent (brine) generated by process industries

Project total costs: 11,081,973 €

Project EU contribution: 9,992,209 €

Duration (months): 48

Abstract:

This project aims to facilitate the implementation of the Circular Economy package and the SPIRE Roadmap in various process industries by developing the necessary concepts, technological solutions and business models to re-design the value and supply chains of minerals (including magnesium) and water, while dealing with present organic compounds in a way that allows their subsequent recovery. This is achieved by demonstrating new configurations to recover these resources from saline impaired effluents (brines) generated by process industry, while eliminating wastewater discharge and minimising environmental impact of industrial operations through brines (ZERO BRINE). The project will bring together and integrate several existing and innovative technologies aiming to recover end-products of high quality and sufficient purity with good market value. It will be carried out by large Process Industries, SMEs with disruptive technologies and a Brine Consortium of technology suppliers across EU, while world-class research centres ensure strong scientific capacity and inter-disciplinary coordination to account for social, economic and environmental considerations, including LCA. A large scale demonstration will be developed in the Energy Port and Petrochemical cluster of Rotterdam Port, involving local large industries. Two demo plants will be able to treat part of the brine effluents generated by one process industry (EVIDES), while the waste heat will be sourced by neighbouring factories. The quality of the recovered end-products will be aimed to meet local market specifications. The involvement of representatives covering the whole supply chain will provide an excellent opportunity to showcase Circular Economy in Rotterdam Port, at large scale. Finally, three large-scale pilot plants will be developed in other process industries, providing the potential for immediate replication and uptake of the project results after its successful completion.

Partners:

Nr	Participant	Country
1	TECHNISCHE UNIVERSITEIT DELFT	NL
2	NATIONAL TECHNICAL UNIVERSITY OF ATHENS - NTUA	EL
3	FUNDACIO CTM CENTRE TECNOLOGIC	ES
4	WITTEVEEN+BOS RAADGEVENDE INGENIEURS BV	NL
5	UNIVERSITA DEGLI STUDI DI PALERMO	IT
6	POLITECHNIKA SLASKA	PL
7	SOCIEDAD DE FOMENTO AGRICOLA CASTELLONENSE, S.A.	ES
8	SEALEAU BV	NL
9	EUROPEAN WATER SUPPLY AND SANITATION TECHNOLOGY PLATFORM	BE
10	REVOLVE MEDIA	BE
11	THE UNIVERSITY COURT OF THE UNIVERSITY OF ABERDEEN	UK
12	LENNTECH BV	NL
13	IVL SVENSKA MILJOEINSTITUTET AB	SE
14	TECNICA Y PROYECTOS SA	ES
15	INDUSTRIAS QUIMICAS DEL EBRO SA	ES
16	EVIDES INDUSTRIEWATER BV	NL
17	TURKIYE BILIMSEL VE TEKNOLOJIK ARASTIRMA KURUMU	TR
18	HUNTSMAN (EUROPE) BVBA	BE
19	DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV	DE
20	EUROPIREN BV	NL
21	ARVIA TECHNOLOGY LIMITED	UK
22	STICHTING S-ISPT	NL

Call: H2020-CIRC-2016TwoStage **Type of Action:** IA

Title: Large scale demonstration of new circular economy value-chains based on the reuse of end-of-life fiber reinforced composites.

Project total costs: 11,943,964 € **Project EU contribution:** 9,793,549 € **Duration (months):** 48

Abstract:

Glass and carbon fiber reinforced polymer composites (GFRP and CFRP) are increasingly used as structural materials in many manufacturing sectors like transport, constructions and energy due to their better lightweight and corrosion resistance compared to metals. Composite recycling is a challenging task. Although mechanical grinding and pyrolysis reached a quite high TRL, landfilling of EoL composites is still widespread since no significant added value in the re-use and remanufacturing of composites is demonstrated.The FiberEUse project aims at integrating in a holistic approach different innovation actions aimed at enhancing the profitability of composite recycling and reuse in value-added products.The project is based on the realization of three macro use-cases, further detailed in eight demonstrators:Use-case 1: Mechanical recycling of short GFRP and re-use in added-value customized applications, including furniture, sport and creative products. Emerging manufacturing technologies like UV-assisted 3D-printing and metallization by Physical Vapor Deposition will be used.Use-case 2: Thermal recycling of long fibers (glass and carbon) and re-use in high-tech, high-resistance applications. The input product will be EoL wind turbine and aerospace components. The re-use of composites in automotive (aesthetical and structural components) and building will be demonstrated by applying controlled pyrolysis and custom remanufacturing. Use-case 3: Inspection, repair and remanufacturing for EoL CFRP products in high-tech applications. Adaptive design and manufacturing criteria will be implemented to allow for a complete circular economy demonstration in the automotive sector.Through new cloud-based ICT solutions for value-chain integration, scouting of new markets, analysis of legislation barriers, life cycle assessment for different reverse logistic options, FiberEUse will support industry in the transition to a circular economy model for composites.

Partners:

Nr	Participant	Country
1	POLITECNICO DI MILANO	IT
2	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
3	RIVIERASCA SPA	IT
4	NOVELLINI FRANCE	FR
5	HOLONIX SRL-SPIN OFF DEL POLITECNICO DI MILANO	IT
6	FUNDACION TECNALIA RESEARCH & INNOVATION	ES
7	GAMESA INNOVATION AND TECHNOLOGY S.L.	ES
8	BATZ SOCIEDAD COOPERATIVA	ES
9	MAIER SCOOP	ES
10	AERNNOVA ENGINEERING DIVISION SAU	ES
11	TTY-SAATIO	FI
12	FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	DE
13	UNIVERSITY OF STRATHCLYDE	UK
14	EDAG ENGINEERING GMBH	DE
15	INVENT INNOVATIVE VERBUNDWERKSTOFFEREALISATION UND VERMARKTUNG NEUERTECHNOLOGIEN GMBH*	DE
16	GREEN COAT SRL	IT
17	HEAD SPORT GMBH	AT
18	HAMBLESIDE DANELAW LIMITED	UK
19	SAUBERMACHER DIENSTLEISTUNGS AG	AT
20	DESIGNAUSTRIA (DA)	AT
21	AVK-INDUSTRIEVEREINIGUNG VERSTARKTEKUNSTSTOFFE EV	DE

Sub-activity: 5.4.1

PolyCE

730308

Call: H2020-CIRC-2016TwoStage

Type of Action: IA

Title: Post-Consumer High-tech Recycled Polymers for a Circular Economy – PolyCE

Project total costs:	9,452,965 €	**Project EU contribution:**	8,321,996 €	**Duration (months):**	48

Abstract:

Various activities address the WEEE value chain in order to reduce waste generation and enhance the sustainable resource management through use of recycled materials instead of their virgin counterparts. While the system for metals recycling is already well established, the rising volumes of waste plastics point to stalemates in the current plastics economy, which hamper its shift to a more circular model. Although there are individual efforts to improve the collection and recycling of WEEE plastics, the plastics value chain is still too fragmented and WEEE recycled plastics seem unattractive material for the end-user. To shift towards circular economy a systematic transformation is required, involving all actors in the value chain and encompassing the entire lifecycle of plastic materials. While substantially reducing the WEEE plastics generation and enhancing the use of recycled plastics in new applications, PolyCE will demonstrate the feasibility of circular plastics supply and value chain. In particular, PolyCE will elaborate harmonized set of technical requirements addressing the entire value chain and develop grade system for recycled plastics according to their material properties and final application suitability. Accordingly, PolyCE will strengthen the market for recycled plastics through an online platform integrating the different plastic grades. In parallel, the technical and economic feasibility as well as environmental benefits of using recycled plastics will be validated in several electronics demonstrators. In addition, PolyCE will provide Guidelines for designing new electronics products with recycled plastics. The project's impact will be scaled up by involving target cities and their green public procurement initiatives; by EU-wide information and awareness raising campaigns. PolyCE will establish a feedback loop from the research activities, provide policy input regarding technical feasibilities and policy conflicts from technical perspective

Partners:

Nr	Participant	Country
1	FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	DE
2	UNITED NATIONS UNIVERSITY	JP
3	THE UNIVERSITY OF NORTHAMPTON HIGHER EDUCATION CORPORATION	UK
4	MBA POLYMERS AUSTRIA KUNSTSTOFFVERARBEITUNGS GMBH	AT
5	SITRAPLAS GMBH	DE
6	FUNDACION TECNALIA RESEARCH & INNOVATION	ES
7	UNIVERSITEIT GENT	BE
8	KATHOLIEKE UNIVERSITEIT LEUVEN	BE
9	ONA PRODUCT SL	ES
10	CIRCULAR DEVICES OY	FI
11	ECODOM-CONSORZIO ITALIANO PER IL RECUPERO E RICICLAGGIO ELETTROD	IT
12	KUNSTSTOFFWEB GMBH	DE
13	PEZY GROUP BV	NL
14	UL INTERNATIONAL FRANCE SA	FR
15	BUREAU EUROPEEN DE L'ENVIRONNEMENT AISBL	BE
16	TECHNISCHE UNIVERSITAET BERLIN	DE
17	PHILIPS CONSUMER LIFESTYLE B.V.	NL
18	WHIRLPOOL EMEA SPA	IT
19	PROLABIN & TEFARM SRL	IT
20	THE IMAGINATION FACTORY LIMITED	UK

Sub-activity: 5.4.1

PAPERCHAIN

730305

Call: H2020-CIRC-2016TwoStage **Type of Action:** IA

Title: New market niches for the Pulp and Paper Industry waste based on circular economy approaches

Project total costs:	9,217,196 €	**Project EU contribution:**	7,826,081 €	**Duration (months):**	48

Abstract:

Europe is the second world producer of pulp and paper, manufacturing 130 million tonnes in 2014 and representing 23% of world production. The EU pulp and paper manufacturing and converting industries generate an annual turnover of €180 billion, representing 1,26% of the European GDP. In particular, the Pulp and Paper industry (PPI) has a turnover of €75 billion, comprises 920 plants and provides 180,000 jobs in Europe directly, and 1.5 million in the value chain. This sector is resource intensive and produces 11 million tonnes of waste yearly . It has been found that 25-40% of municipal solid waste generated each year worldwide is paper-related. Furthermore, Europe is nowadays facing the challenge of resource scarcity and more efficient use. If managed in a sustainable manner, PPI waste can become a valuable raw material for other resource intensive industries such as the construction (i.e 5,4 billion tonnes of raw material consumption) or the chemical industry (1 billion tonnes). Mining industry waste generation is estimated at up to 20.000 million tons of solid waste yearly, and relevant part of this waste needs to be kept in environmental safety conditions, which in turn implies additional use of resources (e.g borrow materials). New widespread markets are needed to extend the valorisation operations, reduce the landfilling rates and increase the competitiveness of the PPIs creating new added value markets for their inorganic waste. The overall objective of PAPERCHAIN is to deploy five novel circular economy models centred in the valorisation of the waste streams generated by the PPI as secondary raw material for a number of resource intensive sectors: construction sector, mining sector and chemical industry. PAPERCHAIN aims to unlock the potential of a resource efficient model based on industrial symbiosis which will demonstrate the potential of the major non-hazardous waste streams generated by the PPI as valuable secondary raw material.

Partners:

Nr	Participant	Country
1	ACCIONA CONSTRUCCION SA	ES
2	AKZO NOBEL FUNCIONAL CHEMICALS AB	SE
3	BOLIDEN MINERAL AB	SE
4	DOMSJO FABRIKER AB	SE
5	DUSAN HOLESEK	SI
6	FUNDACION GAIKER	ES
7	GREENIZE PROJECTS SL	ES
8	LGI CONSULTING SARL	FR
9	LULEA TEKNISKA UNIVERSITET	SE
10	MEGAVIA - CONSTRUCOES E OBRAS PUBLICAS SA	PT
11	THE NAVIGATOR COMPANY SA	PT
12	SEKAB BIOFUELS & CHEMICALS AB	SE
13	SLOVENSKE ZELEZNICE INFRASTRUKTURA DRUZBA ZA UPRAVLJANJE IN VZDRZEVANJE ZELEZNISKE INFRASTRUKTURE TER VODENJE ZELEZNISKEGA PROMETA DOO	SI
14	RISE PROCESSUM AB	SE
15	SPRAL - SOCIEDADE DE PRE-ESFORCADOS DE AVEIRO, LDA	PT
16	FUNDACION TECNALIA RESEARCH & INNOVATION	ES
17	UNIVERSITAT POLITECNICA DE CATALUNYA	ES
18	UNIVERSIDADE DE AVEIRO	PT
19	VIPAP VIDEM KRSKO PROIZVODNJA PAPIRJA IN VLAKNIN D.D.	SI
20	ZAVOD ZA GRADBENISTVO SLOVENIJE	SI

Call: H2020-CIRC-2016TwoStage **Type of Action:** IA

Title: Improvement of the plastic packaging waste chain from a circular economy approach

Project total costs:	8,674,541 €	**Project EU contribution:**	7,774,017 €	**Duration (months):**	48

Abstract:

The European plastic market is not currently aligned with the circular economy. More than 25.8 million tonnes of plastic waste are produced per year in the EU28 being recycled only 29.7%. This represents a clear loose in the plastic market loop (losses of €10.56bn). Moreover, this goes against the EU legislation on waste (high environmental impact; 23.8 Mt of CO2). Low recycling rates of plastic are mainly due to the situation of packaging waste (i.e. main plastic waste fraction), since it is mainly domestic residue and consequently the quality of the material collected depends on the system of segregation available and the environmental awareness of citizens.PlastiCircle aims to develop and implement a holistic process to increase recycling rates of packaging waste in Europe. This will allow to reprocess again plastic waste in the same value chain (i.e. Circular economy; closure of plastic loop). This process is based on four axes: collection (to increase quantity of packaging collected), transport (to reduce costs of recovered plastic), sorting (to increase quality of recovered plastic), and valorization in value-added products (i.e. foam boards, automotive parts like engine covers/bumpers/dashboards, bituminous roofing membranes, garbage bags, asphalt sheets/roofing felts and urban furniture like fences/benches/protection walls). The target is to increase collection from 81.7% to 87% and valorization in a 9.8%. The implementation of PlastiCircle approach in Europe have the potential to increase collected plastic in 861,250t (reaching 14.14 Mt) and valorization in 1.59Mt. The valorization of this new material, represents a market value of €2.86bn-€7.95bn. Taking into account current figures of the plastic sector (turnover €350bn, 62,000 companies, 1.45M employees), this could imply creation of 500-1400 new companies and the generation of 11,900-33,000 new jobs in the medium to long term if PlastiCircle approach is extended in a EU level.

Partners:

Nr	Participant	Country
1	INSTITUTO TECNOLOGICO DEL EMBALAJE, TRANSPORTE Y LOGISTICA	ES
2	STIFTELSEN SINTEF	NO
3	RTT STEINERT GMBH	DE
4	AXION RECYCLING LTD	UK
5	CENTRO RICERCHE FIAT SCPA	IT
6	GEMEENTE UTRECHT	NL
7	FUNDACION DE LA COMUNITAT VALENCIANA PARA LA PROMOCION ESTRATEGICA EL DESARROLLO Y LA INNOVACION URBANA	ES
8	MUNICIPALITY OF ALBA IULIA	RO
9	MESTNA OBCINA VELENJE	SI
10	SOCIEDAD ANONIMA AGRICULTORES DE LAVEGA DE VALENCIA	ES
11	POLARIS M HOLDING SRL	RO
12	INDUSTRIAS TERMOPLASTICAS VALENCIANAS, S.A.	ES
13	Armacell Benelux S.A.	BE
14	Imperbel N.V.	BE
15	CONSORZIO PER LA PROMOZIONE DELLA CULTURA PLASTICA PROPLAST	IT
16	HAHN PLASTICS LTD	UK
17	ECOEMBALAJES ESPANA, S.A.	ES
18	Fundacio Knowledge Innovation Market Barcelona	ES
19	PLASTICSEUROPE	BE
20	ICLEI EUROPEAN SECRETARIAT GMBH (ICLEI EUROPASEKRETARIAT GMBH)*	DE

Call: H2020-CIRC-2016TwoStage **Type of Action:** IA

Title: RECOVERY AND UTILIZATION OF NUTRIENTS 4 LOW IMPACT FERTILIZER

Project total costs:	7,720,901 €	**Project EU contribution:**	6,239,341 €	**Duration (months):**	48

Abstract:

Domestic wastewater (WW) is an important carrier of nutrients usually wasted away by current decentralised WW treatments (WWT). Run4Life proposes an alternative strategy for improving nutrient recovery rates and material qualities, based on a decentralised treatment of segregated black water (BW), kitchen waste and grey water combining existing WWT with innovative ultra-low water flushing vacuum toilets for concentrating BW, hyper-thermophilic anaerobic digestion as one-step process for fertilisers production and bio-electrochemical systems for nitrogen recovery. It is foreseen up to 100% nutrient (NPK) recovery (2 and >15 times current P and N recovery rates) and >90% water reuse.Obtained products will be >90% reused thanks to prospective end-users in the consortium and a new Business model based on a cooperative financial scheme. Run4Life impacts will be evaluated on safety and security (Risk Assessment), from an environmental point of view (Life Cycle Assessment and Environmental Technical Verification), on the economy (Benefit Cost Analysis) and considering Social Risk Perception. Active measures will be developed with the support of a Stakeholders and Exploitation Panel for achieving institutional, legal and social acceptance. Different parts of Run4Life will be large scale demonstrated at 4 demo-sites in Belgium, Spain, Netherlands and Sweden, adapting the concept to different scenarios (market, society, legislation). Performance tests will be carried out with obtained products (compared to commercial fertilisers) with close collaboration with fertiliser companies. Process will be optimised by on-line monitoring key performance indicators (nutrient concentration, pathogens, micropollutants). The information obtained in the 4 demo-sites will be used for process simulation to conceive a unified Run4Life model which will be applied in a fifth demo-site in Czech Republic, allowing new business opportunities and providing data for critical raw material policies.

Partners:

Nr	Participant	Country
1	FCC AQUALIA SA	ES
2	DESAH BV	NL
3	SVERIGES LANTBRUKSUNIVERSITET	SE
4	LEAF BV	NL
5	ACONDICIONAMIENTO TARRASENSE ASSOCIACION	ES
6	NORDVASTRA SKANES VATTEN OCH AVLOPP AB	SE
7	UNIVERSIDAD DE SANTIAGO DE COMPOSTELA	ES
8	WATER, ENVIRONMENT AND BUSINESS FORDEVELOPMENT SL	ES
9	WAGENINGEN UNIVERSITY	NL
10	CONSORCIO DE LA ZONA FRANCA DE VIGO	ES
11	ECOMOTIVE AS	NO
12	ISLE UTILITIES LIMITED	UK
13	CLEAN ENERGY INNOVATIVE PROJECTS	BE
14	FORFARMERS CORPORATE SERVICES BV	NL
15	ASB GRUNLAND HELMUT AURENZ GMBH	DE

Call: H2020-SMEINST-2-2016 **Type of Action:** SME-2

Title: The first on-site mobile solution for complete synthetic grass recycling and materials reuse

Project total costs:	2,314,125 €	**Project EU contribution:**	1,619,888 €	**Duration (months):**	24

Abstract:

Boom in synthetic grass sporting fields in EU and USA in the last 15-years has led to huge environmental problem. 600 000 tonnes of rubber, sand and plastics mixed wastes are generated from used fields each year in EU alone. Based on the current market trends, the total wastes will increase by 5-times by 2030, leading to over 3 million tonnes of mixed wastes annually.Despite the growing popularity of synthetic grass both in major football leagues and school grounds, there are no unified regulations or effective technologies for its sustainable EOL management. Current solutions enable only limited used grass recycling and materials reclaim and thus field owners currently landfill 90% of the used grass without any recycling.ASIE, company with over 20-years of experience in synthetic grass fields, has developed the first on-site recycling solution that enables complete used synthetic grass recycling and materials reuse for environmental and economic sustainability. Compared to alternatives, we ensure:• Used grass and infill high-quality re-installation • 100% infill reclaim, separation, cleaning and sanitary treatment• 4x faster old turf removal and 2x faster full field renewal• 50% cost reduction of old field utilization and 50% savings from new installationWe aim to achieve a zero-waste concept and improve the environmental sustainability of synthetic grass installations. Our unique ARENA concept enables to eliminate current landfilling and reuse 100% of the materials in new fields or as recycled raw materials in other industries. As a result, we:• Prevent 1 million tonnes of mixed wastes from landfilling annually• Reduce field renewal transportation need by 10-times, leading to 95% less CO2 emissionsOur total targeted market in Europe is €350m annually, with very high growth potential in the next years. As a result of the innovation project, we will generate €125m total sales revenue and create 350 new jobs by 2023.

Partners:

Nr	Participant	Country
1	ADVANCED SPORTS INSTALLATIONS EUROPE AS	EE

Call: H2020-SMEINST-2-2016 **Type of Action:** SME-2

Title: Innovative solution for phosphate recovery from exhausted extinguishing powders

Project total costs:	2,733,768 €	**Project EU contribution:**	1,913,637 €	**Duration (months):**	24

Abstract:

The aim of the PHOSave project is the recovery of exhausted extinguishing powder (polyvalent powder) via an eco-innovative, chemical/physical, solubilisation process. In particular, PHOSave aims at developing a system for the recovering of phosphate contained in exhausted extinguishing powder, in order to develop new products to use in fields such as the agriculture and wood sector.The PHOSave specific objectives are:1) Developing an innovative eco-compatible method for removing the powders' oil component that is nowadays an unsolved industrial and environmental problem;2) Implementing a pilot plant for the treatment of the exhausted extinguishing powder recovering phosphate included in them;3) Contributing to the implementation of new eco-sustainable waste management methods, recovering a high added-value non-renewable raw material (phosphate) and being the first industrial level plant constructed in the world;4) Obtaining fundamental raw materials for the formulation of specialty fertilizers for agricultural use achieving further environmental benefits in term of reduced greenhouse gas emissions;5) The recovery of raw material will fit also into an already mature market: flame retardant chemicals and chipboard panel.The widespread use of PHOSave technology will maximize profits and environmental aspects. The following goals will be achieved: a solution to the problem of exhausted extinguishing powder (which is a special waste); the reduction of CO2 in the industrial chain and the recovery of raw materials in an almost pure form (phosphorus obtained at 95% at lab scale).The project has already received several expressions of interest, also for the plant replication, from relevant international organizations in the field of fertilizers, agrochemicals and flame retardants for the wood panelling sector. The PHOSave strategic business plan will have a strong impact on the SMEs competitiveness and job growth in the market of waste management and disposal.

Partners:

Nr	Participant	Country
1	PROPHOS CHEMICALS SOCIETA A RESPONSABILITA LIMITATA	IT

Call: H2020-SMEINST-2-2015 **Type of Action:** SME-2

Title: Global business challenge: Breaking the oilgas water dependency with a cost-effective no-waste nanomembrane technology for water reuse

Project total costs:	1,387,708 €	**Project EU contribution:**	971,395 €	**Duration (months):**	24

Abstract:

CleanOil consists on the introduction into the market of an innovative filtration solution to treat and reuse the produced water (PW), a highly polluted oily wastewater which is the largest volume byproduct associated to oil and gas production. The solution will allow achieving up to 80% reduction of water demand for oil extraction through the reuse of up to 99% of the PW, and will be based on a proprietary product - ceramic nanomembranes with an innovative production process - installed in a fully integrated solution with the equipment, instrumentation and advanced fouling monitoring and control tools and software. The project aims to achieve three objectives: (1) reducing the target membrane price up to 4 times, thanks to the upscaling of the nanomembrane production process, (2) launching worldwide highly competitive and cost-effective filtration solutions for the treatment and reuse of PW and (3) international consolidation through the new subsidiaries and strategic partners in high potential markets, aiming for a 3% share of the Likuid's target industrial filtration market, doubling the existing actual staff and achieving a tenfold increase in EBITDA profit by 2020. Likuid has identified two market segments targeted by its innovative solution: onshore, with 680 Mill.€ target market (USA, Canada, Colombia, Mexico) and offshore, with 490 Mill.€ target market (North Europe and LATAM). Potential customers for Likuid's solution are (a) the intermediary EPC, OEM and OFS companies and (b) oil producers, as end-users of the technology. In the project, onshore segment will be addressed with a Canadian demonstration for SAGD and tailing ponds and offshore segment is related to a demo study with Petrobras, who has already tested Likuid's membranes. Successfull demonstration will boost the market uptake of the new highly-efficient and cost-effective Likuid's solution, thus helping European cutting-edge technologies to position in the lead of sustainable O&G production.

Partners:

Nr	Participant	Country
1	LIKUID NANOTEK SL	ES

Call: H2020-SMEINST-2-2015 **Type of Action:** SME-2

Title: Glass Recovering Revolution: High performance Optical Sorter for glass collection from Waste

Project total costs:	1,718,978 €	**Project EU contribution:**	1,203,284 €	**Duration (months):**	20

Abstract:

The amount of Municipal Solid Waste (MSW) in the EU28 reached 245 million tons in 2012. Nowadays, Europe directives forwaste management are more restrictive each year (e.g Landfill Directive 1999/31/EC), but unfortunately, landfill disposal stillrepresents 34% of total MSW generated. On the other hand, citizen awareness as well as the high fees operators pay forlandfill disposal, have helped to greatly increase the percentage for recycling from 18% in 1995, to 42% in 2012.However, 40% of all the glass waste ends up in mixed MSW plants (which typically contain 7% of glass). Instead of beingdisposed of in selective-waste collection, it ends up in landfills or is composted/incinerated with the remnant waste.We have developed SEEGLASS, a high performance optical sorter based on computer vision and a pneumatic rejectionsystem. Our aim is to solve this non-environmentally friendly problem, while also offering our end-users additional revenueswith this recovered material, which is not being exploited now (49€/tn glass). In addition, extracting this glass, will allow thetreatment plants to significantly reduce costs from waste disposal fees (50€/Tonne EU average and rising). Payback forcustomers is estimated in only 19 months.With this project we will (i) construct pre-conditioning process line, (ii) optimise our current SEEGLASS computer visionsystem as well as its mechanical and pneumatic design, to reach 80% glass recovery, with 99% purity, (iii) integrate both,the process line and the glass sorter solution into a demonstrator system, and (iv) validate its feasibility in-house with realMSW coming from different countries, as well as carry-out an 24/7 end-user validation.We, PICVISA, will be the first company to recover the glass fraction in refined MSW worldwide (the niche market existsworldwide) selling Turn-key installations or only SEEGLASS units, contributing to a disruptive change in the sector.

Partners:

Nr	Participant	Country
1	PICVISA MACHINE VISION SYSTEMS SL	ES

Sub-activity: 5.4.1

Lt-AD

718212

Call: H2020-SMEINST-2-2015 **Type of Action:** SME-2

Title: Low-temperature Anaerobic Digestion treatment of low-strength wastewaters

Project total costs:	2,418,815 €	**Project EU contribution:**	1,693,171 €	**Duration (months):**	24

Abstract:

No need for heat! NVP Energy presents the first to market, high-rate AD technology that successfully treats low strength wastewater (WW) at ambient temperatures (4 - 20°C). The low-temperature anaerobic digestion (Lt-AD) process provides a novel solution to Food and Drinks industrial sectors which produce large volumes of WW. The European milk treatment and processing sector alone generates over 367 billion litres annually which is typically treated using conventional aerobic processes. The latter treatment process is unsustainable. It results in high sludge yields, requires a large footprint on-site and is hugely reliant on fossil fuels for aeration. The Lt-AD technology produces negligible sludge volumes, presents a compact design, requires no heat input or biogas recirculation, and produces effluent of urban wastewater directive (UWWD) standard (< 125 mg/L COD) without post-aeration. Comparing Lt-AD to conventional aerobic treatment of WW from a typical dairy processing plant producing 2,000 m3 WW per day, Lt-AD can provide annual OPEX savings of €1,662,106 p.a over a payback period of 2.49 years that includes RHI revenue of €374,176. The low temperature operation of Lt-AD allows for 100% of the biogas produced being available for reuse or resale. Lt-AD also has a high impact on environmental savings through reduced greenhouse gas (GHG) emissions and lowered thermal energy and fossil fuels requirements. This Phase 2 project will allow NVP Energy install and commission a demonstrator plant and gain 8-12 months operational data. The results obtained, in conjunction with ETV assessment, will build the business case for each targeted market channel ahead of commercialisation. Other key project objectives include: commercialisation partner relationship development; promotional materials development; exploitation planned; assessment and protection of IP assets and project risk management.

Partners:

Nr	Participant	Country
1	NVP ENERGY LIMITED	IE
2	J.K. FABRICATIONS LIMITED	UK
3	HYDRO INTERNATIONAL LIMITED	IE

Call: H2020-SMEINST-2-2015 **Type of Action:** SME-2

Title: Self-supporting biofuel sludge pellet producing system for small and medium sized sewage plants

Project total costs:	2,158,500 €	**Project EU contribution:**	1,510,950 €	**Duration (months):**	24

Abstract:

There is a huge number of small and medium sized sewage plants in and out of the European Union that cannot pass over urban sewage sludge for agricultural use in sufficient proportion (less than 50% in the EU), therefore the management of these sewage plants usually ask and receive permissions from environmental authorities for disposing the communal sludge in disused mines or dumps. Instead of disposal/landfilling – that regularly causes pollution of natural water resources – it would be more beneficial to produce sludge pellets. Such experiences drove us to create the InnoPellet technology, a self-supporting biofuel pellet producing system for treating communal sewage sludge that is economical in case of small scale production too. Five years of research and development led to the successful completion of a prototype machine that received regulatory approval and third-party testing/validation. After finalising the InnoPellet technology, our primary goal is to commercialise the units and relating pelleting services to wastewater companies primarily in Europe and later on the world market as well.The InnoPellet system offers an economical solution of sewage sludge treatment for wastewater companies. Our technology is a self-supporting machinery for drying and pelleting sewage sludge without external need of fossil fuel or any other additional material. Our technology fits into the ‘energy from waste’ policy of the European Union. It will enables wastewater plants to meet the strict EU environmental regulations and at the same time, reduce their sewage sludge treatment costs with 50-75%.

Partners:

Nr	Participant	Country
1	INNOWASTE KORLATOLT FELELOSSEGU TARSASAG	HU

Call: H2020-SMEINST-2-2015 **Type of Action:** SME-2

Title: Up-scaling, demonstration and first market application of Hydrokemos' patented technology as the most eco-efficient and cost-effective solution for nitrate polluted water treatment

Project total costs:	1,318,660 €	**Project EU contribution:**	923,062 €	**Duration (months):**	24

Abstract:

Hydrokemos, a high tech Spanish SME, aims to demonstrate and commercialise the first fully clean equipment to purify nitrate polluted water.In the EU +20% of groundwater is contaminated by nitrates due to the use of fertilizers that have been and still are extensively applied in agriculture. On the other hand, demand for freshwater is increasing by 64 billion cubic meters every year. Groundwater is essential for meeting this increasing demand and existing solutions to purify it are highly inefficient and/or produce dangerous residues.Electrodenitrification (technology developed and patented by Hydrokemos) is the first fully clean technology that destroys nitrates dissolved in water transforming them into air (no waste is produced) and generates energy that is re-inserted into the system making it extremely energy-efficient.The objective of this project is to demonstrate – at full scale and in real market applications – the technical and commercial excellence of Hydrokemos' unique technology. During the project, Hydrokemos will up-scale the existing prototypes building 4 full-scale prototypes to demonstrate its economic and technological performance across a range of typical industrial applications. These applications are:- Freshwater supply to food or metal industries;- Water purification for re-injection to public network;- Remediation of high nitrate waste-waters (metal industry and similar);- Prevent eutrophication;Hydrokemos will then operate these full-scale prototypes in real operational conditions demonstrating that electrodenitrification achieves much better performance than any other available solution (at least -50% reduction in investment and +20% in performance). Finally, business success means €38m incomes in year 5 with IRR 93% and NPV 7.523.711 € for Hydrokemos and generating also a very profitable business for its commercial stakeholders (NPV 16.415.453 € in 2022 for commercial distributors).

Partners:

Nr	Participant	Country
1	HYDROKEMOS SL	ES

Sub-activity: 5.4.1

WATLY

698688

Call: H2020-SMEINST-2-2015

Type of Action: SME-2

Title: An autonomous and mobile water treatment plant powered by solar energy

Project total costs:	2,025,500 €	**Project EU contribution:**	1,417,850 €	**Duration (months):**	24

Abstract:

Water and energy are highly interdependent and are both crucial to human well-being and sustainable socio-economic development. 1.1 billion people worldwide do not have access to a safe source of drinking water; 1.3 billion people lack access to electricity; 5 billion people worldwide still have no access to internet.Our innovative solution Watly addresses the increasing global demand for safe sources of drinking water and green off-grid electricity, by combining highly efficient photovoltaic panels with thermal energy production, used to desalinate and purify water in-situ. Watly also provides internet connectivity and mobile chargers in remote areas. Our customers are: Governments and public institutions, NGOs, mobile hospitals, military organizations, hotels/resorts/businesses in remote destinations, oil platforms, etc. WATLY's success depends on the fulfilment of the following objectives:- Scale-up Watly 2.0 to Watly 3.0 able to treat up to 4,500l of water and produce 70 kWh of electricity per day, boosting its readiness level from TRL7 to TRL9- Certification and live Demonstration of Watly 3.0- Succesfull final Business Innovation Plan and commercialization activities for Watly 3.0The investment cost of Watly 3.0 could be a strong barrier for the public sector and NGOs. To overcome this barrier Watly will include additional features and 2 kinds of revenues channels for the Watly operator:• Vending Machine: It is a model created for the public sector of remote areas, with medium-low purchasing power. Watly will include specific hardware to act as a vending machine, which will give a certain amount of water/energy/connectivity in exchange of a small economic input• Lively Donors: It is a model strictly created for NGOs. Watly will integrate a web platform and a mobile App which will allow external donors, i.e. philanthropists from rich countries, to remotely donate money giving a certain amount of water/energy/connectivity to the needy person

Partners:

Nr	Participant	Country
1	ENRY'S PLEX SL	ES

Call: H2020-SMEINST-2-2015 **Type of Action:** SME-2

Title: Whey2Value: Valorising waste whey into high-value products

Project total costs:	2,545,625 €	**Project EU contribution:**	1,781,938 €	**Duration (months):**	24

Abstract:

ACIES BIO, a SME with a decade of profound experience and market understanding, has developed an innovative and disruptive technology already recognized within SME INST Phase 1 to address a major unsolved high-cost environmental challenge for the world's dairy industry: acid waste whey. Around 200 million tons of waste whey is produced annually, of which nearly 50% goes unprocessed and ends up clogging the wastewater treatment stations or, in less regulated environments, is released into streams thus heavily polluting the environment. The W2V project aims to bring to market a unique patent-pending eco-innovation bioprocess to utilize acid waste whey as a primary ingredient for microbial fermentation to produce sustainable high value product. Its key objective is to launch production of organic vitamin B12 on the market through eco-innovative technology, which uses waste whey as input substrate and produces as a result high value product vitamin B12 and purified water. It is solving the unmet challenge of sustainable milk processing with Make-Use-Reuse principle: from milk industries (cheese production) through waste whey management to vitamin B12 production used for the animal feed additives industry and cleaned water reused in the dairy industry again. The implementation of W2V technology will greatly reduce the environmental footprint, lower the production costs and increase competitiveness of dairy companies. Particularly, W2V technology will be highly relevant for European dairy industry, where most companies consist of small-medium sized dairy factories, which cannot afford costly processing facilities for disposal of acid whey. W2V will generate an entirely new type of product for the EU and global markets: an organic vitamin B12-enriched microbial biomass, which can be used as very high quality animal feed, creating a perfect example of sustainable and economical circular zero-waste economy and bringing production of vitamin B12 back to Europe.

Partners:

Nr	Participant	Country
1	ACIES BIO BIOTEHNOLOSKE RAZISKAVE IN RAZVOJ DOO	SI

Call: H2020-SMEINST-2-2015 **Type of Action:** SME-2

Title: Lead free automotive SLI power

Project total costs:	3,646,000 €	**Project EU contribution:**	2,552,200 €	**Duration (months):**	24

Abstract:

This project contributes to the call's overall objective, which is to stimulate the competitiveness of eco-innovative SMEsseeking to launch their products on world markets. This project introduces an eco-innovative product, a car-starting battery,which contains no hazardous materials, extends battery life at least six times longer (in start-stop life) compared to lead-acidbatteries, and produces significant CO2 savings.Olife has developed a new car battery that is a milestone in the evolution of the automotive industry. It is the first fullsubstitute for lead-acid batteries and offers many advantages, such as: superb performance, light weight, high range ofoperating temperatures, ideally suited to start-stop systems, superior reliability and durability, resistance to extremevibration, starting ability up to 90% DOD (depth of discharge), lead and acid free, non-hazardous and eco-friendly.The business innovation project aims to complete the development and to demonstrate industrial readiness and maturity forprimary market introduction (the new vehicle market), to build brand awareness, develop communication and disseminationactivities for both the primary market and the aftermarket. This objective will be accomplished via three key steps:1) Testing, modification and finalisation of product development for OEM market2) Communication and dissemination activities3) Protection of intellectual propertyThe current battery market, due to LAB (lead-acid battery) technology limitations, offers a wide variety of batteries of differentcapacities. Olife's offering (L2 and L5) successfully meets major market requirements.• The L2 Olife battery is equivalent to a 55Ah LAB battery.• The L5 Olife battery is equivalent to a 110Ah LAB battery.Patent applications have been already submitted in the 120 countries. In Mexico and South Africa, a patent has alreadybeen obtained. In other countries, patents are pending.

Partners:

Nr	Participant	Country
1	OLIFE CORPORATION AS	CZ

Call: H2020-WASTE-2015-two-stage **Type of Action:** IA

Title: New approaches for the valorisation of URBAN bulky waste into high added value RECycled products

Project total costs: 9,978,984 € **Project EU contribution:** 8,618,970 € **Duration (months):** 42

Abstract:

URBANREC project aims to develop and implement an eco-innovative and integral bulky waste management system (enhancing prevention, improving logistics and allowing new waste treatments to obtain high added value recycled products) and demonstrate its effectiveness in different regions. In URBANREC project, Northern, Mediterranean, Eastern and South-eastern areas in Europe are represented by Belgium, Spain, Poland and Turkey, which have very different urban waste recycling rates, from around a 60% in Belgium, 25-30% in Spain, or 20% in Poland, to less than 5% in Turkey.URBANREC project aims to improve the separation and disassembling of bulky waste - implementing advanced fragmentation techniques to obtain high quality raw materials, promoting innovative valorisation routes for those considered more problematic (PUR foam, mixed hard plastics and mixed textiles), not recycled due to lack of eco-innovative cost-effective solutions. The waste treatments considered in the project include i) rebonding and chemical glycolisis for the PUR materials, to prepare renewable adhesives, ii) needle felt to obtain isolation panels from textiles, iii) fibre reinforced composites from textiles, iv) wood Plastic composites (WPC) and v) catalytic hydro-gasification with plasma for mixed hard plastics to obtain chemicals or fuel. These treatments will be optimized and implemented at industrial level thanks to the collaboration of the URBANREC partners: top Research Institutes at EU level, and companies interested in obtaining novel eco-friendly products from waste, under a circular economy approach. All relevant actors in the waste management chain in every country have been also involved as project partners (local authorities and city amenity sites in Belgium, Spain, Poland and Turkey) guaranteeing the implementation of the proposed solutions at local level, adapting them to suit the particular characteristics of each area, ensuring the replication at EU level

Partners:

Nr	Participant	Country
1	AIMPLAS - ASOCIACION DE INVESTIGACION DE MATERIALES PLASTICOS Y CONEXAS	ES
2	FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	DE
3	CENTRE SCIENTIFIQUE & TECHNIQUE DE L'INDUSTRIE TEXTILE BELGE	BE
4	INSTYTUT OCHRONY SRODOWISKA - PANSTWOWY INSTYTUT BADAWCZY	PL
5	IZMIR INSTITUTE OF TECHNOLOGY	TR
6	ASSOCIATION DES VILLES ET REGIONS POUR LA GESTION DURABLE DES RESSOURCES	BE
7	IZNAB SPOLKA Z OGRANICZONA ODPOWIEDZIALNOSCIA	PL
8	ECOFRAG-MENTATION EUROPE SL	ES
9	BLUEPLASMA POWER SL	ES
10	RAMPF ECO SOLUTIONS GMBH & CO. KG	DE
11	RESCOLL	FR
12	EUROSPUMA SOCIEDADE INDUSTRIAL DE ESPUMAS SINTETICAS SA	PT
13	COLCHONES DELAX SL	ES
14	PROCOTEX CORPORATION SA	BE
15	VANHEEDE ENVIRONMENT GROUP	BE
16	INTERGEMEENTELIJKE MAATSCHAPPIJ VOOR OPENBARE GEZONDHEID IN ZUID-WEST-VLAANDEREN	BE
17	CONSORCIO VALENCIA INTERIOR V3	ES
18	OPENBARE VLAAMSE AFVALSTOFFENMAATSCHAPPIJ	BE
19	DIPUTACION DE VALENCIA	ES
20	MIASTO STOLECZNE WARSZAWA	PL
21	BORNOVA BELEDIYESI	TR

Call: H2020-WATER-2015-two-stage **Type of Action:** RIA

Title: Self-Sustaining Cleaning Technology for Safe Water Supply and Management in Rural African Areas

Project total costs:	2,989,998 €	**Project EU contribution:**	2,989,998 €	**Duration (months):**	42

Abstract:

This project focuses on a major challenge in African countries: In the 15 sub-Saharan African countries 108 million people have limited or even no access to clean water. The SafeWaterAfrica project will research and develop an autonomous and decentralized water treatment system for rural and peri-urban areas which is highly efficient in the degradation of harmful pollutants and at the same time very effective in killing microbiological contaminants. The system will be designed to provide 300 people in rural areas. With a market penetration of 3000 systems the project has the potential to supply 900,000 people within app. four years after the end of the project. The project includes capacity building and business development so that system ownership and responsibility are in the hands of the local rural communities.The joint European-African development will result in a low-cost solution easy to handle and operate. It will take into account the specific cultural aspects of the region and will be designed for operation with local staff and in the responsibility of local communities or local water service providers, respectively. These “Made in Africa” systems will therefore have a high level of acceptance in the rural areas which promotes the implementation of the technology.Ten transdisciplinary partners from Europe and Africa, assisted by eight enterprises and organisations in the Advisory Board, will work jointly over a project duration of 42 months to adapt a specific European water treatment technology into an African water treatment system solution. Besides, SafeWaterAfrica will generate the technological basis for innovative business models related to the development of water treatment products, which are produced, installed, operated and maintained in Africa. The resulting creation of new jobs will contribute to the social well-being and will promote economic growth in the rural and peri-urban areas of the southern African countries.

Partners:

Nr	Participant	Country
1	FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	DE
2	CONDIAS GMBH	DE
3	UNIVERSITA DEGLI STUDI DI FERRARA	IT
4	UNIVERSIDAD DE CASTILLA - LA MANCHA	ES
5	ADVANCE CALL PTY LTD	ZA
6	VIRTUAL CONSULTING ENGINEERS VCE	ZA
7	TSHWANE UNIVERSITY OF TECHNOLOGY	ZA
8	STELLENBOSCH UNIVERSITY	ZA
9	COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH	ZA
10	SALOMON LDA	MZ

Sub-activity: 5.4.1 **SALTGAE** **689785**

Call: H2020-WATER-2015-two-stage **Type of Action:** IA

Title: Demonstration project to prove the techno-economic feasibility of using algae to treat saline wastewater from the food industry.

Project total costs: 9,904,938 € **Project EU contribution:** 8,294,319 € **Duration (months):** 36

Abstract:

The aim of the project is to implement and demonstrate at large scale the long-term technological and economic feasibility of an innovative, sustainable and efficient solution for the treatment of high salinity wastewater from the F&D industry. Conventional wastewater treatments have proven ineffective for this kind of wastewater, as the bacterial processes typically used for the elimination of organic matter and nutrients are inhibited under high salinity contents. Therefore, generally combinations of biological and physicochemical methods are used which greatly increase the costs of the treatment, making it unaffordable for SMEs, who voluntarily decide not to comply with EU directives and discharge without prior treatment, causing severe damage to the environment.The solution of SALTGAE to this issue consists in the implementation of innovative technologies for each step of the wastewater treatment that will promote energy and resource efficiency, and reduce costs. Amongst these, the use of halotolerant algae/bacteria consortiums in HRAPs for the elimination of organic matter and nutrients stands out for its high added value: not only will it provide an effective and ecological solution for wastewater treatment, but also it will represent an innovative way of producing algal biomass, that will subsequently be valorized into different by-products, reducing the economic and environmental impact of the treatment.Moreover, the project will also address cross-cutting barriers to innovation related to wastewater by developing a platform for the mobilization and networking of stakeholders from all the different sectors related to wastewater, and for the dissemination of results, enabling the development of a common roadmap for the alignment of legislation, regulation and pricing methodologies and promoting financial investment and paradigm shift in perception from ‘wastewater treatment’ to ‘resource valorisation’.

Partners:

Nr	Participant	Country
1	TECNOLOGIAS AVANZADAS INSPIRALIA SL	ES
2	BIBOAQUA SL	ES
3	ARCHIMEDE RICERCHE SRL	IT
4	ALGEN, CENTER ZA ALGNE TEHNOLOGIJE, DOO	SI
5	KOTO PROIZVODNO IN TRGOVSKO PODJETJE DOO	SI
6	ARAVA BUILDING AND DEVELOPMENT LTD	IL
7	DUBLIN CITY UNIVERSITY	IE
8	Fondazione Parco Tecnologico Padano	IT
9	OXIDINE WATER TECHNOLOGY SL	ES
10	NOVA ID FCT - ASSOCIACAO PARA A INOVACAO E DESENVOLVIMENTO DA FCT	PT
11	PRODUMIX SA	ES
12	CENTRE DE VALORISATION DES GLUCIDES ET PRODUITS NATURELS	FR
13	CONSORZIO INTERUNIVERSITARIO NAZIONALE PER LA SCIENZA E TECNOLOGIA DEI MATERIALI	IT
14	INSTITUTO DE BIOLOGIA EXPERIMENTAL E TECNOLOGICA	PT
15	EUROPEAN BIOMASS INDUSTRY ASSOCIATION	BE
16	ENCO SRL	IT
17	ASOCIACION CLUSTER FOOD+I	ES
18	EUROPEAN DESALINATION SOCIETY	IT
19	RISE RESEARCH INSTITUTES OF SWEDEN AB	SE
20	OFFICINE MECCANICHE SANFILIPPO SRL	IT

Call: H2020-WATER-2015-two-stage **Type of Action:** RIA

Title: Integrated aquaculture based on sustainable water recirculating system for the Victoria Lake Basin (VicInAqua)

Project total costs:	2,997,710 €	**Project EU contribution:**	2,997,710 €	**Duration (months):**	36

Abstract:

VicInAqua will follow an integrated approach in order to develop a sustainable combined sanitation and recirculating aquaculture system (RAS) for wastewater treatment and reuse in agriculture in the Victoria Lake Basin area. In this decentralized integrated treatment system wastewater from households and fish processing industry as well as RAS production water will radically reduce stress on the sensitive ecosystems of the Lake Victoria and will contribute to food and health security. It will be operated fully autonomous powered by renewable energies (PV, biogas). The RAS will particularly produce high quality fingerlings of the local fish species to supply the pond aquaculture of the area with stocking material. The innovative core idea of the project is to develop and test new technologies which enable the integration of sanitation with the aquaculture in a sustainable manner. The core of the project concept is to develop and test a novel self-cleaning water filters which consist of a highly efficient particle filter as well as a membrane bioreactor (MBR) as principal treatment unit within a combined treatment system where the nutrient rich effluent water will be used for agricultural irrigation. the surplus sludge from both filter systems will be co-digested with agricultural waste and local water hyacinth to produce biogas. The overall concept will promote sound approaches to water management for agriculture, taking into consideration broader socio-economic factors and also fomenting job creation and greater gender balance in decision-making. The pursued approach will be perfectly in line with the strategic guidelines of the Rio+20 and the post-2015 development framework.

Partners:

Nr	Participant	Country
1	HOCHSCHULE KARLSRUHE-TECHNIK UND WIRTSCHAFT	DE
3	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
4	UNIVERSITA DELLA CALABRIA	IT
5	JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY	KE
6	AQUABIOTECH LIMITED	MT
7	OXYGUARD INTERNATIONAL AS	DK
8	BPE INTERNATIONAL DR HORNIG GMBH	DE
9	MINISTRY OF AGRICULTURE LIVESTOCK AND FISHERIES	KE
10	NATIONAL AGRICULTURAL RESEARCH ORGANISATION	UG
11	SCIENCE, TECHNOLOGY AND INNOVATION POLICY RESEARCH ORGANISATION	TZ
12	STEINBEIS 2I GMBH	DE

Call: H2020-WATER-2015-two-stage **Type of Action:** IA

Title: WADI

Project total costs:	4,724,144 €	**Project EU contribution:**	3,826,956 €	**Duration (months):**	42

Abstract:

The overall objective of WADI project is to contribute to the reduction of losses in water transmission systems and decrease the related energy consumption required for the process. WADI aims to develop an airborne water leak detection surveillance service to provide water utilities with adequate information on leaks in water infrastructure outside urban areas, thus enabling the utility to promptly repair them. The project idea relies on innovative concept of coupling optical remote sensing and their application on two complementary aerial platforms, i.e. manned and unmanned, typically used for distinctive purposes in infrastructure performance observation. The former is being used in long-distance monitoring whereas the latter in 'particular' areas observation, i.e. those with a limited/difficult physical access or requiring closer monitoring upon earlier detection of some anomalies in aircraft missions. Following the determination of cameras' optimized wavelengths (suitable particularly for water leaks detection), the WADI technology will be applied in an operational environment represented by two pilot sites, i.e. in France (Provence region, case of water supply mains) and Portugal (Alqueva, case of multi-purpose mains serving irrigation, water supply, and hydro power). The WADI proposal addresses the challenge of building a water (and energy) efficient and climate change resilient society by integrating the concept of ecosystem services through the recovery of up to 50% of the water lost at a cost which is lower by an order of magnitude than the cost of terrestrial techniques – e.g. 50-200 EUR/km for airborne technology vs. 1,000-5,000 EUR/km for ground techniques.The project includes legal aspects assessment (related to data protection and regulatory standards for use of UAV), market analysis and strategy along with the corresponding business plan and a dissemination plan that addresses key stakeholders.

Partners:

Nr	Participant	Country
1	YOURIS.COM	BE
2	OFFICE NATIONAL D'ETUDES ET DE RECHERCHES AEROSPATIALES	FR
3	AIR MARINE SARL	FR
4	LABORATORIO NACIONAL DE ENGENHARIA CIVIL	PT
5	EDIA-EMPRESA DE DESENVOLVIMIENTO E INTRA-ESTRUTURAS DO ALQUEVA S.A.	PT
6	SOCIETE DU CANAL DE PROVENCE ET D'AMENAGEMENT DE LA REGION PROVENCALE SA	FR
7	NEW TECHNOLOGIES GLOBAL SYSTEMS SL	ES
8	FUNDACION CIRCE CENTRO DE INVESTIGACION DE RECURSOS Y CONSUMOS ENERGETICOS	ES
9	TIME.LEX	BE
10	SST-CONSULT ADAM STACHEL, RAFAL STANEK, DAVID ANDREW TOFT	PL
11	GALILEO GEOSYSTEMS SL	ES
12	SGI STUDIO GALLI INGEGNERIA SRL	IT

Sub-activity: 5.4.1

DECISIVE

689229

Call: H2020-WASTE-2015-two-stage

Type of Action: IA

Title: A DECentralIzed management Scheme for Innovative Valorization of urban biowastE

Project total costs:	8,751,156 €	**Project EU contribution:**	7,755,102 €	**Duration (months):**	48

Abstract:

The growing attractiveness of cities leads to increasing population, thus rising energetic and food demands in urban areas. This makes urban waste management increasingly challenging, both in terms of logistics and environmental or health impacts. To decrease the cities' environmental impacts and to contribute to a better resilience of urban areas towards energy or food supply crisis, waste management systems have to be improved to increase recycling of resources and local valorization. In this context, the DECISIVE project proposes to change the present urban metabolism for organic matter (foods, plants, etc.), energy and biowaste to a more circular economy and to assess the impacts of these changes on the whole waste management cycle. Thus, the challenge will be to shift from a urban "grey box", implying mainly goods importation and extra-urban waste management, to a cooperative organization of intra- and peri-urban networks enabling circular local and decentralised valorization of biowaste, through energy and bioproducts production. Such a new waste management paradigm is expected to increase the sustainability of urban development by: (1) promoting citizens awareness about waste costs and values; (2) promoting renewable energy production and use in the city; (3) developing an industrial ecology approach that can promote the integration between urban and peri-urban areas, by providing valuable agronomic by-products for urban agriculture development and so improving the balance of organic products and waste in the city; (4) developing new business opportunities and jobs. In order to achieve these objectives, the project DECISIVE will develop and demonstrate eco-innovative solutions, addressed to waste operators and public services, consisting in: (1) a decision support tool to plan, design and assess efficient decentralised management networks for biowaste in urban areas; (2) eco-designed micro-scale anaerobic digestion and solid-state fermentation processes.

Partners:

Nr	Participant	Country
1	INSTITUT NATIONAL DE RECHERCHE EN SCIENCES ET TECHNOLOGIES POUR L'ENVIRONNEMENT ET L'AGRICULTURE	FR
2	UNIVERSITAT AUTONOMA DE BARCELONA	ES
3	AARHUS UNIVERSITET	DK
4	TECHNISCHE UNIVERSITAT HAMBURG-HARBURG	DE
5	FUNDACIO ENT	ES
6	INNOVATIVE TECHNOLOGICAL SYSTEMS SRL	IT
7	AERIS TECNOLOGÍAS AMBIENTALES S.L.	ES
8	ASSOCIATION DES VILLES ET REGIONS POUR LA GESTION DURABLE DES RESSOURCES	BE
9	AGENCIA DE RESIDUS DE CATALUNYA	ES
10	PSUTEC SPRL	BE
11	SUEZ GROUPE	FR
12	HELMHOLTZ ZENTRUM FUR OZEANFORSCHUNG KIEL	DE
13	REFARMERS	FR

Sub-activity: 5.4.1

FORCE

689157

Call: H2020-WASTE-2015-two-stage

Type of Action: IA

Title: Cities Cooperating for Circular Economy

Project total costs:	11,308,118 €	**Project EU contribution:**	9,724,969 €	**Duration (months):**	48

Abstract:

The overall objective is to minimise the leakage of materials from the linear economy and work towards a circular economy. Specific objectives are to: • Engage cities, enterprises, citizens and academia in 16 participatory value chain based partnerships to create and develop eco-innovative solutions together.• Develop 10 viable end-markets by demonstrating new applications for plastic waste, metals (EEE devices), biowaste and wood waste.• Develop a governance model for cities based on value chain based partnerships.• Develop decision support tools and assess the actual impact by use of Big Data.• Ensure replication through the FORCE Academy aiming at enterprises, citizens and policy makers.The eco-innovative solutions will be demonstrated across four cities (Copenhagen, Hamburg, Lisbon and Genoa) and using the four materials: Flexible plastics: Recycling and upgrade of 5,000 tonnes of flexible plastic from enterprises and private households will enable virgin material substitution, corresponding to preventing emissions of 12,500 tonnes of CO2. Metals: Citizens will be mobilised to reclaim an additional 2 kg/capita of WEEE (app. 3,600 tonnes). A communication campaign will reach 100,000 citizens and support at least five SME's that repair damaged EEE devices so that 10-20% of the collected WEEE can be redistributed. Wood waste: additional 12,000 tonnes wood waste from urban and mountain areas will be collected. 8-10,000 tonnes of brushwood will be used for compost production, and 14-16,000 tonnes will be processed into wood particles.Biowaste: around 7,000 tonnes of biowaste from the municipal mixed waste stream will be recovered: 3,000 tonnes coming from restaurants and hotels, and 4,000 tonnes coming from households.The partnerships will result in the creation of viable eco-innovative market solutions, exploited by the partners. Replication in other cities will be incentivised thus ensuring competitiveness of European Circular Economy and green growth.

Partners:

Nr	Participant	Country
1	KOBENHAVNS KOMMUNE	DK
2	FREIE UND HANSESTADT HAMBURG	DE
3	CAMARA MUNICIPAL DE LISBOA	PT
4	COMUNE DI GENOVA	IT
5	AAGE VESTERGAARD LARSEN A/S	DK
6	TEKNOLOGISK INSTITUT	DK
7	LETBAEK PLAST AS	DK
8	DANSK ROTATIONS PLASTIC APS	DK
9	STADTREINIGUNG HAMBURG AOR	DE
10	HAFENCITY UNIVERSITAT HAMBURG	DE
11	HOCHSCHULE FUER ANGEWANDTE WISSENSCHAFTEN	DE
12	CONSIST ITU ENVIRONMENTAL SOFTWARE GMBH	DE
13	AURUBIS AG	DE
14	VALORSUL - VALORIZACAO E TRATAMENTO DE RESIDUOS SOLIDOS DAS REGIOES DE LISSBOA E DO OESTE S.A.	PT
15	DARIACORDAR ASSOCIACAO PARA A RECUPERACAO DE DESPERDICIO	PT
16	Quercus - Associação nacional de Conservação da natureza	PT
17	ASSOCIACAO DA HOTELARIA RESTAURACAO E SIMILARES DE PORTUGAL	PT
18	AMIU GENOVA SPA	IT
19	ECOLEGNO GENOVA SRL	IT
20	TECNOLOGIE INNOVATIVE PER IL CONTROLLO AMBIENTALE E LO SVILUPPO SOSTENIBILE SCRL	IT
21	ACTIVE CELLS SRL	IT
22	ADDAPTCREATIVE LDA	PT

Call: H2020-WASTE-2015-two-stage **Type of Action:** IA

Title: Moving towards Life Cycle Thinking by integrating Advanced Waste Management Systems

Project total costs:	10,521,412 €	**Project EU contribution:**	8,818,556 €	**Duration (months):**	42

Abstract:

The main objective of this project is to move forward the current waste management practices into a circular economy motto, demonstrating the value of integrating and validating a set of 20 eco-innovative solutions that cover all the waste value chain. The benefits of these solutions will be enhanced by a holistic waste data management methodology, and will be demonstrated in 4 complementary urban areas in Europe. The eco-innovative solutions include technological and non-technological tools such as: a) IT tools to support the daily operation and long-term planning, b) Apps for citizens empowerment and engagement, c) Educational materials based on innovative teaching units and serious games, d) Tools for citizen science for the co-creation of novel solutions, e) Mechanisms to boost behavioral changes based on economic instruments and social actions, and f) Decentralized solutions for valorization and reuse of high value resources.The different solutions will be implemented in 4 complementary European areas: a) Zamudio (ES) is a highly industrialized area with a spread population that uses a separated kerbside collection; b) Halandri (GR) is a large suburban city with a wide range of business that has a very basic waste management system; c) Seveso (IT) is a residential town that uses a door-to-door system; d) and Cascais (PT) is an extensive and high touristic coastal town that implements an advanced collection system. The project includes a consortium of 19 partners with 4 public agencies and administrations, 3 research centers and universities, 8 SMEs, 2 LEs, 1 cluster and 1 NGO, that will work together during 36 months with an overall contribution from the EC of €9M.The most relevant expected impacts are: a 20% increase in waste sorting, 10% saving of management costs, and 10% reduction of GHG emissions. The experience gained, and the synergies among the partners describe the best possible scenario to launch new governance and business models.

Partners:

Nr	Participant	Country
1	FUNDACION DEUSTO	ES
2	ZABALA INNOVATION CONSULTING, S.A.	ES
3	AYUNTAMIENTO DE ZAMUDIO	ES
4	ASOCIACION CLUSTER DE INDUSTRIAS DEMEDIO AMBIENTE DE EUSKADI	ES
5	GREEN TECHNOLOGIES MELETES KAI ERGA GIA TO PERIVALLON ETAIRIA PERIORISMENIS EYTHINIS	EL
6	ENBIO EPE	EL
7	NATIONAL TECHNICAL UNIVERSITY OF ATHENS - NTUA	EL
8	PANEPISTIMIO PATRON	EL
9	DIMOS CHALANDRIOU	EL
10	SERIOUS GAMES INTERACTIVE APS	DK
11	ARS AMBIENTE SRL	IT
12	COMUNE DI SEVESO	IT
13	LEGAMBIENTE LOMBARDIA ONLUS	IT
14	SOFTLINE SRL	IT
15	MOBA MOBILE AUTOMATION AG	DE
17	EMAC EMPRESA MUNICIPAL DE AMBIENTEDE CASCAIS EM SA	PT
18	AGENCIA DE ECOLOGIA URBANA DE BARCELONA CONSORCIO	ES
20	ENGINEERING - INGEGNERIA INFORMATICA SPA	IT
21	VIRTUALWARE 2007 SA	ES

Sub-activity: 5.4.1

WATERSPOUTT

688928

Call: H2020-WATER-2015-two-stage

Type of Action: RIA

Title: Water - Sustainable Point-Of-Use Treatment Technologies

Project total costs:	3,571,946 €	**Project EU contribution:**	3,084,351 €	**Duration (months):**	48

Abstract:

The WHO estimates that in 2015 in Africa ~156 million people relied on untreated sources for their drinking water. WATERSPOUTT will design, develop, pilot and field-test a range of, sustainable point-of-use solar disinfection (SODIS) technologies that will provide affordable access to safe water to remote and vulnerable communities in Africa and elsewhere. These novel large-volume water treatment SODIS technologies will be developed in collaboration and consultation with the end-users, and include:1. HARVESTED RAINWATER SODIS SYSTEMS for domestic and community use. (South Africa, Uganda). 2. TRANSPARENT 20L SODIS JERRYCANS. (Ethiopia)3. COMBINED 20L SODIS/CERAMIC POT FILTRATION SYSTEMS. (Malawi)These are novel technologies that will create employment and economic benefits for citizens in both the EU and resource-poor nations. WATERSPOUTT will use social science strategies to: a. Build integrated understanding of the social, political & economic context of water use & needs of specific communities.b. Examine the effect of gender relations on uptake of SODIS technologies.c. Explore the relevant governance practices and decision-making capacity at local, national and international level that impact upon the use of integrated solar technologies for point-of-use drinking water treatment.d. Determine the feasibility & challenges faced at household, community, regional and national level for the adoption of integrated solar technologies for point-of-use drinking water treatment.WATERSPOUTT will transform access to safe drinking water through integrated social sciences, education & solar technologies, thus improving health, survival, societal well-being & economic growth in African developing countries. These goals will be achieved by completing health impact studies of these technologies among end-user communities in Africa. Many of the consortium team have worked for more than 15 years on SODIS research in collaboration with African partners.

Partners:

Nr	Participant	Country
1	ROYAL COLLEGE OF SURGEONS IN IRELAND	IE
2	CENTRO DE INVESTIGACIONES ENERGETICAS, MEDIOAMBIENTALES Y TECNOLOGICAS-CIEMAT	ES
3	UNIVERSIDAD REY JUAN CARLOS	ES
4	UNIVERSITY OF STRATHCLYDE	UK
5	UNIVERSITY OF MALAWI	MW
6	ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE	CH
7	NATIONAL UNIVERSITY OF IRELAND MAYNOOTH	IE
8	INNOVA SRL	IT
9	MAKERERE UNIVERSITY	UG
10	STELLENBOSCH UNIVERSITY	ZA
11	ECOSYSTEM ENVIRONMENTAL SERVICES S.A.	ES
12	MEKELLE UNIVERSITY	ET
13	BUCKINGHAMSHIRE NEW UNIVERSITY	UK
14	BOGAZICI UNIVERSITESI	TR
15	HELIOZ GMBH	AT
16	DUBLIN CITY UNIVERSITY	IE
17	STICHTING IHE DELFT	NL
18	UNIVERSIDAD DE SANTIAGO DE COMPOSTELA	ES

Call: H2020-SMEINST-2-2015 **Type of Action:** SME-2

Title: High sensitivity multi-gas handheld gas analysis technology

Project total costs:	3,351,725 €	**Project EU contribution:**	2,346,208 €	**Duration (months):**	24

Abstract:

GASERA, a high tech Finnish SME, aims to develop and commercialise the IRON handheld device for sub-parts per billion (ppb) gas detection based on proprietary mid-infrared laser spectroscopy combined with novel patented photoacoustic technology. The transitioning of its technology from fixed mount analysers to portable and handheld instruments, motivated by the strong need for portable analysers for toxic gases and air pollutants in several application fields with laboratory grade performance, will enable access to new markets. Existing technologies have limitations in terms of size, performance, versatility and/or usability. A miniaturized detector that offers both sensitivity and selectivity would enable a plethora of new applications (cargo container safety, indoor air quality monitoring, hidden person detection, explosives and narcotics detection, occupational safety, odour analysis, unknown chemicals identification, etc.) unlocking the floodgates to a multimillion euro business opportunity in the growing green economy, whereby there is increasing concern over the impacts of air pollution and air quality in the EU. Our first target application of fumigants and toxic industrial chemical measurement in cargo containers will generate ~ € 42.3 M in sales by 2023 and will enable ~38 high-end jobs to be created in Gasera. IRON will respond to growing demand for affordable, rapid, sensitive and selective instruments to enable on-site detection of hazardous chemicals in cargo containers and prevent worker exposure to the harmful volatile chemicals caused by fumigants and off-gassing of freight. The current lack of technology places dockworkers, container unloaders and consumers at risk of carcinogenic or toxic gases, many of which elude subjective detection. IRON will have the required sensitivity, selectivity and speed for providing quick, accurate and reliable readings of the type and quantity of chemicals inside to enable safe handling of contaminated containers.

Partners:

Nr	Participant	Country
1	GASERA OY	FI

Call: H2020-SMEINST-2-2015 **Type of Action:** SME-2

Title: Cost-effective Combined Heat and Power generator for camping vans

Project total costs:	752,463 €	**Project EU contribution:**	526,724 €	**Duration (months):**	24

Abstract:

Camper vans allow being autonomous as regards all services and comforts needed, however, the power supply is often a limitation: to overcome this problem camper vans generally dispose of supplementary batteries for services, mainly necessary when the vehicle is stationary and the engine is switched off, which unfortunately become exhausted after only a few hours of use. The present project aims at developing (and then commercializing) a new electricity generator for camping vans, which compensates for the drawbacks and overcomes the limitations of the state of the art solutions currently on the market, through proposing a completely silent system (19Db at 1mt) with limited CO2 emissions (30% less than gasoline generators). The CHeaP generator will be a green, silent, reliable, cost-effective and versatile solution for the camping vans.With the CHeaP project activities, Mobil Tech (an IT SME) aims at optimizing and industrializing the generator prototype they have already developed in the few last years, opening a new big opportunity to expand the company business in central and northern Europe (with the support of Vadac, a well-known SME from The Netherlands).The CHeaP proposers have the ambition of i) launching the product in the market in 24 months (at the end of the project) and ii) widening their business to geographical markets where, at the moment, they are not present, such as North and Central Europe.The SME-Instrument will be extremely important to help MTech and Vadac to expand their business to the gensets market. The SME-instrument funding will reduce the investment that the two companies have forecasted to carry out all the activities for the implementation, the validation and the demonstration of the prototype before launching the CHeaP generator on the market. The covering of 70% of investment by the SME-instrument funding will decrease the initial economic effort from ca € 752,500 to € 225,750 completely affordable by the

Partners:

Nr	Participant	Country
1	MOBIL TECH DI BARIN LUCA AND C. SAS	IT
2	VADAC BV	NL

Sub-activity: 5.4.1

HTC4WASTE

684143

Call: H2020-SMEINST-2-2015

Type of Action: SME-2

Title: Up-scaling, demonstration and first market application of Loritus' patented hydrothermal carbonisation as an eco-efficient and cost-effective organic waste processing technology

Project total costs:	3,523,733 €	**Project EU contribution:**	2,466,613 €	**Duration (months):**	24

Abstract:

The objective of HTC4WASTE is to demonstrate – at full scale and in a real market application – the technical and commercial excellence of Loritus' unique, patented Hydrothermal Carbonisation (HTC) technology as a flexible organic waste recovery technology, suitable for converting organic waste streams into carbon neutral biocoal, carbon sequestering biochar, fertility products, water, and local thermal energy.During the project, Loritus will build a full-scale HTC installation to demonstrate its economic and technological performance across a range of commonly occurring waste streams sharing characteristics that make them costly to treat with established technologies. The demonstration will target at least three market applications (sewage sludge, food waste and animal by-products, and spent mushroom compost) on a commercial scale (10.000 tonnes/year).Loritus will then operate the full-scale HTC system on a specific organic waste stream, spent mushroom compost, at a mushroom farm in Ireland to finalise the business case for HTC in a real life, industrial scale application. Such a success will induce a multiplication effect across the associated multi-national farming cooperative, and provide evidence that clients in other market segments can gain the same HTC cost and environmental advantages. Loritus will prioritise and pursue these segments aggressively.Ultimately, Loritus will jumpstart its operational capabilities, and build a dominant reputation in the HTC field with this project as the catalyst. Loritus will crystallise its targeted markets and demonstrate where HTC can outperform established technologies with a no subsidies business case. Potential clients will be invited to see the full-scale plant in operation, and the project data used to identify economic criteria and boundaries for other clients across multiple sectors.Business success means €4,5m EBITDA in year 2, being worth over €100m in 3 years, and building more than 200 systems by year 5.

Partners:

Nr	Participant	Country
1	LORITUS INTERNATIONAL LIMITED	UK

Call: H2020-SMEINST-2-2014 **Type of Action:** SME-2

Title: Efficient Aluminium Salt cake Recycling Technology

Project total costs:	3,509,357 €	**Project EU contribution:**	2,456,550 €	**Duration (months):**	24

Abstract:

Aluminium is the world's second most used metal. During aluminium extraction and recycling, salt slag is generated in vast volume and is a growing environmental problem. In Europe there are >270 known aluminium processing plants and only nine salt slag recycling facilities, this number is restricted due to economic viability of operation; there are very high initial capital cost and high operating costs. These costs create a high entry barrier for any new company to enter into the salt recycling business. EU countries such as Scandinavia and Eastern Europe transport many thousands of tonnes of salt slag p.a. thousands of kilometres for processing at the few locations available at enormous financial and environmental cost.This is a threat to the aluminium production industry as costs to process salt slag are becoming extremely high. Due to the monopolisation of re-processing options, it is a financial security issue for the aluminium recyclers as they are in the hands of the nine salt slag recyclers in operation. This highlights an industry need for aluminium recycling companies to manage in house all of their by-products and waste materials economically.ALTEK is a technology-based company with specialist expertise and experience in aluminium technology. With EC FP7 funding support, ALTEK have developed to TRL 6, ALUSALT, an in-house salt slag processing unit that offers aluminium recycling plants an economic solution to salt slag processing, reducing energy process requirements, transport costs and CO2 emissions. ALUSALT offers the industry a solution that complies with EU legislation, reduces environmental impact and can achieve cost savings of €1.95m p.a. (based on a 10,000 tonnes p.a salt slag producer). It is envisaged ALUSALT will revolutionise the industry saving €33.15m and 19,550 tonnes of CO2 p.a. based on 6.23% EU market penetration. With EU funding support ALTEK will embark on a significant new growth strategy aligned to the company's mission.

Partners:

Nr	Participant	Country
1	ALTEK EUROPE LIMITED	UK

Call: H2020-SMEINST-2-2014 **Type of Action:** SME-2

Title: Swine-farm revolution

Project total costs:	2,702,033 €	**Project EU contribution:**	1,890,110 €	**Duration (months):**	25

Abstract:

During recent decades, the negative environmental impacts of livestock production and manure handling have been controlled by stricter regulations for manure storage and spreading. However, the intensification of livestock production has led to larger herds on fewer farms and industrial scale operations that produce large quantities of manure at centralised locations. As intensive livestock farming is being placed under increasing pressure to minimise the environmental impact of its operations several number of processes have been assessed as Best Available Technologies (BAT) for manure treatment while at the same time improving utilisation of the nutrient resources.However, most of the state-of-the-art solutions (SoA) are neither technologically, nor economically viable nowadays, and the most important fact, they are usually subjected to national subsidies to be profitable.EUROGAN is based in Spain (one of the largest pig producer and exporter countries worldwide) and have been active in the livestock sector since 1964. Our company, moved by real customer demand and aiming to exploit pig slurry business potential, has recently patented an innovative manure treatment process that accomplishes:1. The concentration of contaminants in the manure (nitrogen, phosphorous, metals, bacteria, virus…) is minimized.2. Treating the pig slurry at its origin3. Its technical and economic viable for the farmer, being independent from national subsidies.4. valorizes the manure (energy recovery and fertilizer)The DEPURGAN project aims to bring to the market an efficient pig manure treatment process, with an initial investment 4 times lower compared to other solutions and operation costs being also very competitive. It base its innovative character in the use of an optimized electrocoagulation reactor, that allows nitrogen abatement, while producing as residues a solid fraction that poses great calorific potential as biomass, and a NPK liquid effluent ready to be used as

Partners:

Nr	Participant	Country
1	EUROGAN SL	ES

Call: H2020-SMEINST-2-2014 **Type of Action:** SME-2

Title: Robotic Recycling Revolution

Project total costs:	2,023,750 €	**Project EU contribution:**	1,416,625 €	**Duration (months):**	18

Abstract:

The increasing scarcity for raw materials, growingly strict regulations (European Waste Directive & Landfill tax escalation) and social pressure have turned waste into a resource, making recycling highly attractive. This has created a major market opportunity for new technologies that achieve high purity of sorted materials at a low cost.ZenRobotics Oy has developed a robotic waste sorting system ZenRobotics Recycler (ZRR) that has the potential to revolutionise waste sorting, replacing low-performing hazardous manual jobs with highly efficient and fast autonomous robotic pickers. The key innovation of ZRR is a unique machine-learning based system, which gathers gigabytes of data of its environment, makes smart decisions and moves a robot arm in an unpredictable environment. Given the novelty of the technology, a paradigm shift is necessary in waste management for wide uptake of ZRR.The Robolution project develops the prototype ZRR into a reliable and commercially attractive system for sorting Commercial and Industrial waste that forms more that 25% of total waste stream. The project focuses on:• Robot motion control to be able sort faster smaller objects and pick larger and heavier objects.• Recognition to detect new fractions (plastics, ferrous/non-ferrous metals) with 95% purity and recovery.• Development of the reporting tool enabling optimization within a waste sorting plant.• Optimization of the ZRR commissioning and service to shorten time-to-market time.• Testing and demonstration of the new functionality in real life conditions.ZenRobotics targets the global waste sorting equipment market currently worth about €1.5-3 billion annually, but thanks to technological advances, the market is likely to explode. The expected annual turnover of the Commercial and Industrial waste ZRR reaches €150 million by 2021.

Partners:

Nr	Participant	Country
1	ZenRobotics Ltd.	FI

Call: H2020-SMEINST-2-2014 **Type of Action:** SME-2

Title: Manufacture and commercialization of high quality recycled polyolefin films using an innovative continuous extrusion recycling process assisted by sc-CO2 for printed plastic waste

Project total costs:	760,988 €	**Project EU contribution:**	532,691 €	**Duration (months):**	30

Abstract:

Every year at EU level more than 240 kt of waste printed or laminated films are generated by converting industry. Mechanical recycling of this waste is challenging due to the presence of inks and adhesives so that this recycled material is only suitable for manufacture low value products (rubbish bags, irrigation pipes and pots) when not diverted to energy recovery and landfill which has a negative environmental and societal impact. CLIPP + aims to introduce into the market a cost-competitive environmentally friendly recycled PE film to be reused in the original or other high added value applications (such as packaging films) through a innovative technology based on a previous EU project (CLIPP) which demonstrated the effectiveness of supercritical CO2 technology to remove the contaminants associated to this type of printed/laminated plastic packaging. Turning waste into a valuable resource is a goal for SKYMARK in order to contribute to raw material savings and more sustainable development. CLIPP+ project is fully aligned with Directives 94/62/EC and 2008/98/EC encouraging the reuse of materials obtained from recycled packaging waste for the manufacturing of packages improving market conditions and reaching zero plastic waste to landfill by 2020 in Europe.SKYMARK (UK) is one of the leading independent manufacturers of flexible packaging solutions in Europe. The company has an excellent reputaton in the converting industry for the quality fo its products for packaging sector including films for fresh produce, flowers, labels, stationery, textile, tissue, food & drink, wipes, hygiene & medical and other industrial & technical goods. SKYMARK emphasis is on developing innovative, technologically advanced and environmental aware products. SKYMARK cares for the environment and offers a range of sustainable packaging solutions. SKYMARK is an accredited re-processor of plastic waste materials by UK Department for Environment, Food & Rural Affairs (DEFRA) for t

Partners:

Nr	Participant	Country
1	SKYMARK PACKAGING INTERNATIONAL LIMITED	UK

Call: H2020-SMEINST-2-2014 **Type of Action:** SME-2

Title: INTEGRAL WATER SANITATION SYSTEM

Project total costs:	810,181 €	**Project EU contribution:**	567,127 €	**Duration (months):**	27

Abstract:

Waterborne bacteria are an extremely dangerous source of infection. Water of poor quality can cause disease outbreaks (80% of gastrointestinal infectious and parasitic diseases and a third of the deaths caused by those infections, are due to the use and consumption of contaminated water) and affects human health in two ways:• Direct consumption (drinking and inhaling)• Indirect, by contaminating production, industrial and public service sectorsWater is used in many different facilities (cattle trough, refrigeration towers, food industry…) and different treatments (physical, chemical and biological) are used to remove bacteria and clean the water. However, there is a lack in the performance of these methods, because controlling of bacteria is not enough. Studies have demonstrated that amoebae can also be found in water, a protozoa that can be host of bacteria and capable of colonising water networks, which represents a terrible health risk, causing important economic losses to companies and administrations, and even human deaths.The general objective of the project is to commercialise a water sanitation system (OX-SIHA) that guarantees the total disinfection of water. The system will be comprised of:• In-situ sampling system to detect amoebae in water environments by the polymerase chain reaction (PCR) method.• A biocidal formulate, capable of eliminating all pathogenic microorganisms in any kind of waters.• A joint biocidal-catalyst system, permitting a total absence of toxic by-products, making the formula environmentally friendly.• An automatic remote water management system, a software that will manage data processing, statistics analysis, product dosage and alerts.• An accurate biocidal dosage system.OX-SIHA offers the possibility of being commercialised by modules that will ease its uptake by the end users, as the system is designed to be adapted to the needs and business size of any client.

Partners:

Nr	Participant	Country
1	OX-COMPAÑIA DE TRATAMIENTO DE AGUAS SL.	ES

Call: H2020-SMEINST-2-2014 **Type of Action:** SME-2

Title: Innovative biopesticides production: valorisation of endemic plants and green industrial residues

Project total costs:	1,850,594 €	**Project EU contribution:**	1,277,916 €	**Duration (months):**	30

Abstract:

In recent years, a growing concern has been expressed throughout EU regarding the use of phytosanitary products in agricultural activities and the significant impacts this practice may have on the environment and on users and consumers' health. Conventional pesticides are synthetic materials that directly kill or inactivate the pest mainly produced from non-renewable resources. There is an increasing demand for residue-free crop protection products, which lesser or none negative impact on environment and better safety features such as biopesticides which are naturally occurring substances that control pests by non-toxic mechanisms, more efficient and formulated to specifically affect a concrete target pest, in contrast to the broad spectrum of conventional pesticides that may affect many other organisms as birds, insects and mammals through the food chain. When used as a component of the Integrated Pest Management (IPM) and Integrated Crop Management (ICM) programs, biopesticides can greatly decrease the use of conventional ones, while not affecting the crop yields. Biopesticides are also suitable for Organic Agriculture. The BLOSTER project aims to produce different kinds of biopesticides, showing clearly economic (competitiveness in price, creation of market opportunities for the proposer company KIMITEC and other European plant growers and green residues' suppliers, encouragement of farmers' competitiveness at global level), quality (R&D based solutions tested and validated following a pharmacological approach, controlled high quality raw material), safety (less use of chemical products, benefiting EU consumers and farmers at international level) and environmental (better use of natural resources with regards to the raw material used (W2R), less impact on the biodiversity, soil, water and air, less ecological footprint by avoiding raw material transport from third countries, is it will be produced in EU) advantages against the current conventional pesticides.

Partners:

Nr	Participant	Country
1	AGROINDUSTRIAL KIMITEC SL	ES

Call: H2020-SMEINST-2-2014 **Type of Action:** SME-2

Title: iPURXL: Scale-Up of Liquid Nano-reactor for the Destruction of Contaminants in Turbid Fluids

Project total costs:	1,880,198 €	**Project EU contribution:**	1,316,137 €	**Duration (months):**	24

Abstract:

The iPURtech Nanoreactor effluent fluid treatment system recycles metal working fluids in an almost closed loop. iPURXL builds on 2 years successful sales and a growing list of enquiries to transfer the technology to other sectors, particularly for the treatment of water and other aqueous liquids. This will required scale up from our current >20-50 Litres per hour systems to those capable of processing >1000 in line with customer demand. This will enable us to sell into both single line and full site effluent treatment, ranging from small meat rendering plants up to full scale municipal waste water treatment.The original system treats fluid in quartz tubes supplied with sufficient UV-C light to operate. A TiO2 photo-catalyst coated auger causes oscillation and scrubs tube walls clean. Conventional systems immerse single lamps in fluid; we use multiple high powered UV-C lamps around tubes to achieve higher volume kill ratios making iPURtech uniquely suitable for scale up.TiO2 reactors are well researched yet little large scale commercial delivery has resulted. To succeed commercially this must be practical. Direct linear scale up is not possible, issues such as coating light weight auger materials over greater surface areas, UV dose, system size and weight and must be addressed. Over summer of 2014, testing was carried out with a range of meat renderers and with the input of a range of technical and commercial specialists. This has resulted in the development of a very strong research, development, supply and sales team and we are confident of our combined abilities to deliver at commercial scale immediately post this demonstration.

Partners:

Nr	Participant	Country
1	IPURTECH LIMITED	UK
3	PLASBRUN PLASTICS ENGINEERING LIMITED	UK
4	JOHN POINTON & SONS LIMITED	UK

Sub-activity: 5.4.1

ULTRAWINE

672309

Call: H2020-SMEINST-2-2014

Type of Action: SME-2

Title: Eco-innovative maceration system based on LFHP ULTRAsound technology for WINEmaking

Project total costs:	1,131,263 €	**Project EU contribution:**	791,359 €	**Duration (months):**	24

Abstract:

AGROVIN will put in the market ULTRAWINE, a low frequency high power (LFHP) ultrasound equipment designed for optimizing the extraction of phenolic compounds from grape skins during the first stages of winemaking. Our proposed innovation allows completing the grape maceration process in 6 hours while current systems take approximately 4 days, with 30 times less energy and the ability to process triple amount of grape. ULTRAWINE renders a high quality must with an intense colour and aroma, setting the adequate basis for an excellent wine.The general objective of ULTRAWINE is to put into the market a high performance equipment to assist the extraction of phenolic compounds in the grape peels based on low frequency high power (LFHP) ultrasound technology, in a period of 24 months, with the aim of selling an accumulated amount of 130 units by 2021.

Partners:

Nr	Participant	Country
1	PRODUCTOS AGROVIN SA	ES

Call: H2020-SMEINST-2-2014 **Type of Action:** SME-2

Title: Innovative solutions to scale-up urban green surfaces across Europe

Project total costs:	1,057,473 €	**Project EU contribution:**	733,231 €	**Duration (months):**	26

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 orer 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	FR

Call: H2020-SMEINST-2-2014 **Type of Action:** SME-2

Title: A demonstration plant of enhanced biogas production with Add-On technology

Project total costs:	2,021,078 €	**Project EU contribution:**	1,414,754 €	**Duration (months):**	34

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

Call: H2020-SMEINST-2-2014 **Type of Action:** SME-2

Title: Cost competitive eco-friendly and acoustic wooden doors for indoor applications

Project total costs:	1,881,187 €	**Project EU contribution:**	1,316,830 €	**Duration (months):**	24

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 wil launch a a product that ensures 37 dBA for doors, with a maximum thickness of 45 mm and maximum wight 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 nice: 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 a15% cost reduction with respect to the SILENTWOOD proposed solution (actual prices is around 800 to 900 € per door).

Partners:

Nr	Participant	Country
1	LUALDI SPA	IT
2	MELU, mizarstvo, d.o.o.	SI
3	PADO-ELEMENTEBAU HOLZ- UND KUNSTSTOFF GMBH	DE

Call: H2020-SMEINST-2-2014 **Type of Action:** SME-2

Title: WINdow based on THERmally modified wood with high performance WAX coating

Project total costs:	1,850,115 €	**Project EU contribution:**	1,295,080 €	**Duration (months):**	22

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 DD	SI
2	SILVAPRODUKT PODJETJE ZA PROIZVODNJO IN PRODAJO SREDSTEV ZA ZASCITO MATERIALOV	SI

Sub-activity: 5.4.1

ECWRTI

642494

Call: H2020-WATER-2014-two-stage

Type of Action: IA

Title: ECOLORO: Reuse of Waste Water from the Textile Industry

Project total costs:	4,821,393 €	**Project EU contribution:**	3,748,968 €	**Duration (months):**	42

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 processesEC 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 6 partners from 3 EU member states with key know-how on waste water purification (VITO, EColoRO), 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	STICHTING S-ISPT	NL
2	ECOLORO BV	NL
3	UTEXBEL NV	BE
4	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.	BE
5	INOTEX SPOL SRO	CZ
6	MORSELT BORNE BV	NL
7	EUROPEAN APPAREL AND TEXTILE CONFEDERATION	BE

Call: H2020-WASTE-2014-two-stage **Type of Action:** IA

Title: Buildings as Material Banks: Integrating Materials Passports with Reversible Building Design to Optimise Circular Industrial Value Chains

Project total costs: 9,933,112 € **Project EU contribution:** 8,858,763 € **Duration (months):** 42

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	INSTITUT BRUXELLOIS POUR LA GESTION DE L ENVIRONNEMENT-BRUSSELS INSTITUUT VOOR MILIEUBEHEER	BE
2	EPEA NEDERLAND BV	NL
3	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.	BE
4	BUILDING RESEARCH ESTABLISHMENT LTD	UK
5	STICHTING ZUYD HOGESCHOOL	NL
6	IBM NEDERLAND BV	NL
7	VRIJE UNIVERSITEIT BRUSSEL	BE
8	RONNEBY KOMMUN	SE
9	SUNDAHUS I LINKOEPING AB	SE
10	TECHNISCHE UNIVERSITAET MUENCHEN	DE
11	UNIVERSITEIT TWENTE	NL
12	UNIVERSIDADE DO MINHO	PT
13	FONDACIJA ZA RAZVOJ ODRZIVOG DIZAJNA SARAJEVO	BA
14	DREES & SOMMER ADVANCED BUILDING TECHNOLOGIES GMBH	DE
15	BAM Construct UK Limited	UK

Sub-activity: 5.4.1

CYTO-WATER

642356

Call: H2020-WATER-2014-two-stage

Type of Action: IA

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 €	**Project EU contribution:**	1,896,625 €	**Duration (months):**	36

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 TECNOLOGICO DEL AGUA, FUNDACION PRIVADA	ES
6	FUNDACIO INSTITUT DE CIENCIES FOTONIQUES	ES

Call: H2020-WASTE-2014-one-stage **Type of Action:** CSA

Title: NEW_InnoNet: The Near-zero European Waste Innovation Network

Project total costs:	1,493,211 €	**Project EU contribution:**	1,493,211 €	**Duration (months):**	30

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 platform2. Analyse selected waste streams and develop innovation roadmaps per waste stream 3. Develop an integrated near zero waste strategic research and innovation agenda4. 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 Oy	FI
5	STIFTELSEN SINTEF	NO
6	IVL SVENSKA MILJOEINSTITUTET AB	SE
7	INSTYTUT EKOLOGII TERENOW UPRZEMYSLOWIONYCH	PL
8	ARN HOLDING BV	NL
9	ASSOCIATION EUROPEENNE DES RECYCLEURS DE PLASTIQUES	BE
10	EUROPEAN PLASTICS CONVERTERS	BE
11	SOCIEDAD PUBLICA DE GESTION AMBIENTAL IHOBE SA	ES
12	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.	BE

Call: H2020-WATER-2014-two-stage **Type of Action:** IA

Title: iMETland: A new generation of Microbial Electrochemical Wetland for effective decentralized wastewater treatment

Project total costs:	3,461,623 €	**Project EU contribution:**	2,924,810 €	**Duration (months):**	36

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 achive 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 DENEGOCIOS SL	ES
7	INSTITUTO DE INVESTIGACIONES EN CIENCIA Y TECNOLOGIA DE MATERIALES	AR
8	YOURIS.COM	BE
9	INSTITUTO MEXICANO DE TECNOLOGIA DEL AGUA	MX
10	AARHUS UNIVERSITET	DK
11	PIROECO BIOENERGY SL	ES

Call: H2020-WASTE-2014-two-stage **Type of Action:** IA

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

Project total costs: 11,523,405 € **Project EU contribution:** 9,108,594 € **Duration (months):** 54

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 CONSTRUCCION SA	ES
2	ASSOCIATION DES VILLES ET REGIONS POUR LA GESTION DURABLE DES RESSOURCES	BE
3	ASOCIACION ESPANOLA DE NORMALIZACION	ES
4	AGENCIA ESTATAL CONSEJO SUPERIOR DEINVESTIGACIONES CIENTIFICAS	ES
5	AKG GAZBETON ISLETMELERI SANAYI VETICARETCARET AS	TR
6	BEFESA SALZCHALACKE GMBH	DE
7	BRITISH GLASS MANUFACTURERS CONFEDERATION LIMITED	UK
8	RISE CBI BETONGINSTITUTET AB	SE
9	RINA CONSULTING - CENTRO SVILUPPO MATERIALI SPA	IT
10	RINA CONSULTING - D'APPOLONIA SPA	IT
11	EKODENGE MUHENDISLIK MIMARLIK DANISMANLIK TICARET ANONIM SIRKETI	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	HIFAB AB	SE
19	KERABEN GRUPO SA	ES
20	OPENBARE VLAAMSE AFVALSTOFFENMAATSCHAPPIJ	BE
21	RINA SERVICES SPA	IT
22	RISE RESEARCH INSTITUTES OF SWEDEN AB	SE
23	SIMBIOSY SIMBIOSI INDUSTRIAL SL	ES
24	TURKIYE CIMENTO MUSTAHSILLERI BIRLIGI	TR
25	FUNDACION TECNALIA RESEARCH & INNOVATION	ES
26	VANNPLASTIC LTD	UK
27	SPECIALIST BUILDING PRODUCTS LIMITED	UK

Sub-activity: 5.4.1

RESLAG

642067

Call: H2020-WASTE-2014-two-stage **Type of Action:** IA

Title: Turning waste from steel industry into a valuable low cost feedstock for energy intensive industry

Project total costs:	9,657,038 €	**Project EU contribution:**	8,022,007 €	**Duration (months):**	42

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 prof, 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 COOPERATIVADE ENERGIAS ALTERNATIVAS FUNDACION	ES
2	ARCELORMITTAL SESTAO SL	ES
3	DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV	DE
4	CASA MARISTAS AZTERLAN	ES
5	EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH	CH
6	IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY AND MEDICINE	UK
7	FRIEDRICH-ALEXANDER-UNIVERSITAET ERLANGEN NUERNBERG	DE
8	COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	FR
9	HLG MANAGEMENT	FR
10	AGENZIA NAZIONALE PER LE NUOVE TECNOLOGIE, L'ENERGIA E LO SVILUPPO ECONOMICO SOSTENIBILE	IT
11	Teknologian tutkimuskeskus VTT Oy	FI
13	ALSTOM POWER SYSTEMS	FR
14	FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	DE
15	LIFE CYCLE ENGINEERING SRL	IT
16	MOROCCAN AGENCY FOR SOLAR ENERGY SA	MA
18	NOVARGI INDUSTRIES SL	ES
19	GENERAL ELECTRIC (SWITZERLAND) GMBH	CH
20	HASTEN VENTURES AIE	ES
21	RENOTECH OY	FI

Call: H2020-WATER-2014-two-stage **Type of Action:** IA

Title: ECO-FRIENDLY CERAMIC MEMBRANE BIOREACTOR (MBR) BASED ON RECYCLED AGRICULTURAL AND INDUSTRIAL WASTES FOR WASTE WATER REUSE

Project total costs: 2,361,623 € **Project EU contribution:** 1,869,854 € **Duration (months):** 36

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 AGRICOLA CASTELLONENSE, S.A.	ES
2	ATLANTIS SYMVOULEYTIKI KYPROU LTD	CY
3	UNIVERSITAT JAUME I DE CASTELLON	ES
4	SERAMIK ARASTIRMA MERKEZI AS	TR
5	INVESTIGACION Y PROYECTOS MEDIO AMBIENTE SL	ES
6	BIOWATER TECHNOLOGY AS	NO
8	UNIVERSIDAD ANTONIO NARINO	CO
9	ENTIDAD REGIONAL DE SANEAMIENTO Y DEPURACION DE AGUAS RESIDUALES DE LA REGION DE MURCIA	ES
10	CONSORZIO UNIVERSITARIO PER LA GESTIONE DEL CENTRO DI RICERCA E SPERIMENTAZIONE PER L'INDUSTRIA CERAMICA - CENTRO CERAMICO	IT
11	IMECA PROCESS	FR
12	CONSEJO DE CAMARAS OFICIALES DE COMERCIO, INDUSTRIA Y NAVIGACION DE LA COMUNIDAD VALENCIANA	ES

Call: H2020-WASTE-2014-two-stage **Type of Action:** IA

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:	9,281,683 €	**Project EU contribution:**	7,844,565 €	**Duration (months):**	36

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	BE
4	LOSER CHEMIE GMBH	DE
5	FERROATLANTICA I & D SL	ES
6	UAB SOLI TEK R&D	LT
7	PYROGENESIS SA	EL
8	RHP TECHNOLOGY GMBH	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	FR
15	INKRON OY	FI
16	ECM GREENTECH	FR

Sub-activity: 5.4.1

RESYNTEX

641942

Call: H2020-WASTE-2014-two-stage **Type of Action:** IA

Title: A new circular economy concept: from textile waste towards chemical and textile industries feedstock

Project total costs: 11,432,356 € **Project EU contribution:** 8,787,749 € **Duration (months):** 42

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 MBH	DE
2	IOS, INSTITUT ZA OKOLJEVARSTVO IN SENZORJE, DOO	SI
3	ARKEMA FRANCE	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 SPA	IT
9	QUANTIS	CH
10	NATIONAL TECHNICAL UNIVERSITY OF ATHENS - NTUA	EL
11	VALAGRO CARBONE RENOUVELABLE POITOU-CHARENTES	FR
12	INTERUNIVERSITAIR MICRO-ELECTRONICA CENTRUM	BE
13	SEPAREX SAS	FR
14	CHIMAR HELLAS AE	EL
15	THE MANCHESTER METROPOLITAN UNIVERSITY	UK
16	ABOUTGOODS COOMPANY	FR
17	SUSTAINABILITY CONSULT	BE
18	BIOCHEMTEX SPA	IT
19	PROSPEX INSTITUTE VZW	BE
20	EUROPEAN APPAREL AND TEXTILE CONFEDERATION	BE

Eco-UV

641702

Call: H2020-WATER-2014-two-stage

Type of Action: IA

Title: Low carbon footprint and eco-innovative UV water disinfection

Project total costs:	4,494,949 €	**Project EU contribution:**	3,949,129 €	**Duration (months):**	36

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 LIMITED	UK
2	KARLSRUHER INSTITUT FUER TECHNOLOGIE	DE
3	DVGW DEUTSCHER VEREIN DES GAS- UND WASSERFACHES - TECHNISCH-WISSENSCHAFTLICHER VEREIN EV	DE
4	IVL SVENSKA MILJOEINSTITUTET AB	SE

Call: H2020-WATER-2014-two-stage **Type of Action:** IA

Title: Full scale demonstration of energy positive sewage treatment plant concepts towards market penetration

Project total costs:	5,173,855 €	**Project EU contribution:**	3,997,126 €	**Duration (months):**	36

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 (nitritation, 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 KOMPENTENTZZENTRUM WASSER BERLIN GEMEINNUTZIGE GMBH	DE
2	TECHNISCHE UNIVERSITAET WIEN	AT
3	EIDGENOESSISCHE ANSTALT FUER WASSERVERSORGUNG ABWASSERREINIGUNG UND GEWAESSERSCHUTZ	CH
4	FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	DE
5	VEOLIA DEUTSCHLAND GMBH	DE
6	VEOLIA WATER TECHNOLOGIES AB	SE
7	NEAS ENERGY AS	DK
8	BIOFOS AS	DK
9	BERLINER WASSERBETRIEBE	DE
10	UMWELTBUNDESAMT	DE
11	ELECTROCHAEA DK APS	DK
12	APS AQUA PLANT SOLUTIONS GMBH	DE
13	SUSTEC CONSULTING & CONTRACTING BV	NL
14	Atemis GmbH ingenieurburo fur abwassertechnik energiemanagement und innovative systementwicklung	DE
15	ARCTIK SPRL	BE

Sub-activity: 5.4.2 **R2PI** **730378**

Call: H2020-CIRC-2016OneStage **Type of Action:** RIA

Title: TRANSITION FROM LINEAR 2 CIRCULAR: POLICY AND INNOVATION

Project total costs:	3,013,475 €	**Project EU contribution:**	3,013,475 €	**Duration (months):**	36

Abstract:

R2π examines the shift from the broad concept of a Circular Economy (CE) to one of a Circular Economy Business Models (CEBM), by tackling both market failure (business, consumers) and policy failure (conflicts, assumptions, unintended consequence). Its innovation lies in having a strong business-focus, examining stimuli beyond environmental goals (including ICT and eco-innovation), and in examining the role of policy innovation (including the use of policy nudges and of "Policy Packages"). R2π unfolds in diverse contexts with a strong emphasis on involvement and exchange. The research design employs mixed-methods, with a strong emphasis on case studies but also including desktop research, feasibility assessments (including surveys where applicable), policy formulation & stakeholder involvement. The ultimate goal of the project is to see the widespread implementation of the CE based on successful Business Models to ensure sustained economic development, to minimize environmental impact and to maximize social welfare. The goal of the R²π project is therefore to develop sustainable business models that would facilitate the circular economy and to propose "Policy Package" that will support these business models. The R2Pi Consortium consists of 14 partners from 9 Member states and associated countries. The wide range of expertise, knowledge, tools and connections existing among the consortium members will be leveraged to develop innovative practical tools and procedural guidelines that may be widely and systematically applied across many different business sectors in diverse regions and countries, across the spectrum from large established EU countries to newer and smaller member states.. Through these innovative business models and "Policy Packages", the European economy will move into a more sustainable, resource efficient and resilient economic track.R²π will position Europe as a world leader in advancing the circular economy model.

Partners:

Nr	Participant	Country
1	COLLABORATING CENTRE ON SUBSTAINABLE CONSUMPTION AND PRODUCTION GGMBH	DE
2	LANDBELL AKTIENGESELLSCHAFT FUR RUCKHOL-SYSTEME	DE
3	THE CARBON TRUST	UK
4	CRADLE TO CRADLE BV	NL
5	CHAMBRE DE COMMERCE ET D'INDUSTRIE DE REGION PARIS ILE-DE-FRANCE	FR
6	UNIVERSIDAD DE SANTIAGO DE COMPOSTELA	ES
7	UNIVERSITA TA MALTA	MT
8	FUNDACJA INSTYTUT INNOWACYJNA GOSPODARKA	PL
9	MINISTERSTWO ROZWOJU	PL
10	CSR EUROPE THE BUSINESS NETWORK FOR CORPORATE SOCIAL RESPONSIBILITY	BE
11	UNION EUROPEENNE DE L ARTISANAT ETDES PETITES ET MOYENNES ENTREPRISESAISBL	BE
12	JERUSALEM INSTITUTE FOR ISRAELI STUDIES	IL
13	BEN-GURION UNIVERSITY OF THE NEGEV	IL
14	BUSINESS MODELS INC BV	NL
15	SAPIR ACADEMIC COLLEGE	IL

Sub-activity: 5.4.2

SCREEN

730313

Call: H2020-CIRC-2016OneStage

Type of Action: CSA

Title: Synergic Circular Economy across European Regions

Project total costs:	1,771,865 €	**Project EU contribution:**	1,742,748 €	**Duration (months):**	24

Abstract:

SCREEN aims at the definition of a replicable systemic approach towards a transition to Circular Economy in EU regions within the context of the Smart Specialization Strategy, through the identification and implementation of operational synergies between R&I investments from H2020 and the European Structural and Investment Funds, thus contributing to novel future eco-innovative and horizontal business models across different value chains. The concept of the action is to develop a EU reference framework for establish operational synergies between Horizon 2020 and the European Structural and Investment Funds related to Circular Economy by:a) Sustaining the regional actors' participation at H2020 The mechanism of the "vouchers", already adopted in the past, will be reinforced an harmonized, in order to ensure common rules in EU regions and therefore encouraging to composition of international Consortia applying for circular economy projects related to the regional Smart Specialisation.b) Encouraging the entrepreneurial initiatives based on H2020 project's results The participating Regions will agree about a specific rule in their Structural Funds giving an advantage for those initiatives targeted to the exploitation of the H2020 project results with a circular economy approach.c) Investigating the possibility of maximizing the H2020 investment through a "recovery"(fully or partial) of well ranked unfinanced proposals dealing with circular economyEven if there is a clear presence of several bureaucratic and operational barriers, a possible solution could have an impressive multiplier effect on the H2020 results.The approach of the action is to leverage on growing industry sectors in EU regions to act as a driver also for the less performing ones, through a circular economy approach, and to support the emergence of new actors in the regional economies leading to new or redesigned value chains.

Partners:

Nr	Participant	Country
1	REGIONE LAZIO	IT
2	UNIVERSITA DEGLI STUDI DELLA TUSCIA	IT
3	REGIONE LOMBARDIA	IT
4	COMUNIDAD FORAL DE NAVARRA - GOBIERNO DE NAVARRA	ES
5	COMISSAO DE COORDENACAO E DESENVOLVIMENTO REGIONAL DO CENTRO	PT
6	WOJEWODZTWO LODZKIE	PL
7	KRITI	EL
8	NEXA - AGENCE REGIONALE DE DEVELOPPEMENT D'INVESTISSEMENT ET D'INNOVATION	FR
9	KNOWLEDGE TRANSFER NETWORK LIMITED	UK
10	Provincie Limburg	NL
11	PROVINCIE FRYSLAN	NL
12	PIRKANMAAN LIITTO	FI

Sub-activity: 5.4.2

UrBAN-WASTE

690452

Call: H2020-WASTE-2015-two-stage

Type of Action: RIA

Title: Urban strategies for Waste Management in Tourist Cities

Project total costs:	4,248,783 €	**Project EU contribution:**	4,248,783 €	**Duration (months):**	36

Abstract:

Europe's cities are some of the world's greatest tourism destinations. The socio-economic impact of tourism is extraordinary and urban tourism, but it brings at the same time a range of negative externalities, including high levels of unsustainable resource consumption and waste production. In comparison with other cities, tourist cities have to face additional challenges related to waste prevention and management due to their geographical and climatic conditions, the seasonality of tourism flow and the specificity of tourism industry and of tourists as waste producers. UrBAN-WASTE will support policy makers in answering these challenges and in developing strategies that aim at reducing the amount of municipal waste production and at further support the re-use, recycle, collection and disposal of waste in tourist cities. In doing so UrBAN-WASTE will adopt and apply the urban metabolism approach to support the switch to a circular model where waste is considered as resource and reintegrated in the urban flow. UrBAN-WASTE will perform a metabolic analysis of the state of art of urban metabolism in 11 pilot cities. In parallel a participatory process involving all the relevant stakeholders will be set up through a mobilization and mutual learning action plan. These inputs will be integrated in the strategies along with a review of the most innovative existing technologies and practices in the field of waste management and prevention. The strategies will then be implemented in the 11 cities and the results will be monitored and disseminated facilitating the transfer and adaptation of the project outcomes in other cases.

Partners:

Nr	Participant	Country
1	GOBIERNO DE CANARIAS	ES
2	TECHNISCHE UNIVERSITEIT DELFT	NL
3	ASSOCIATION DES VILLES ET REGIONS POUR LA GESTION DURABLE DES RESSOURCES	BE
4	AARHUS UNIVERSITET	DK
5	AYUNTAMIENTO DE SANTANDER	ES
6	UNIVERSITAET FUER BODENKULTUR WIEN	AT
7	KOBENHAVNS KOMMUNE	DK
8	CABILDO INSULAR DE TENERIFE	ES
9	ANAPTIXIAKI ANONIMI ETAIRIA DIACHIRISIS APORRIMATON ANOTILIKIS MAKEDONIAS-THRAKIS AE - DIAAMATH	EL
10	KOBENHAVNS UNIVERSITET	DK
11	COMUNE DI SIRACUSA	IT
12	OBSERVATOIRE REGIONAL DES DECHETS D'ILE DE FRANCE	FR
13	BIOAZUL	ES
14	SVERIGES LANTBRUKSUNIVERSITET	SE
15	DUNEA DOO ZA REGIONALNI RAZVOJ I POSLOVNE USLUGE	HR
16	CONSULTA EUROPA PROJECTS AND INNOVATION SL	ES
17	AGENCE OBSERVAT AMENAGE HABITAT REUNION	FR
18	CAMARA MUNICIPAL DE LISBOA	PT
19	UNIVERSIDAD DE LAS PALMAS DE GRAN CANARIA	ES
20	Ambiente Italia s.r.l.	IT
21	ASOCIACION HOTELERA Y EXTRAHOTELERA DE TENERIFE LA PALMA LA GOMERA Y EL HIERRO	ES
22	METROPOLE NICE COTE D'AZUR	FR
23	PERIFEREIA IPEIROY	EL
24	FUNDO REGIONAL PARA A CIENCIA E TECNOLOGIA	PT
25	LINNEUNIVERSITETET	SE
26	LEFKOSIA MUNICIPALITY	CY
27	REGIONE TOSCANA	IT

Sub-activity: 5.4.2

Urban_Wins

690047

Call: H2020-WASTE-2015-two-stage **Type of Action:** RIA

Title: Urban metabolism accounts for building Waste management Innovative Networks and Strategies

Project total costs:	4,966,516 €	**Project EU contribution:**	4,966,516 €	**Duration (months):**	36

Abstract:

The scope of the project is to develop and test methods for designing and implementing innovative and sustainable Strategic Plans for Waste Prevention and Management in various urban contexts that will enhance urban environmental resilience and guarantee progress towards more sustainable production and consumption patterns together with improvements waste recovery and recovered materials use. Urban_Wins will define a data set, based on material flow indicators, capable of supporting and orienting decision making processes for urban waste prevention and management. Knowledge of the factors that influence the metabolism of cities will be improved together with the understanding of how those factors can be transformed in positive drivers of technological, non-technological and governance changes. The information set produced by the consortium will also focus on how a more efficient use of resources and a better management of waste can improve urban quality and citizens' welfare, key points for urban stakeholders involvement, both in the planning and implementation of actions. The proposal reunites diverse actors such as cities, research institutes and universities, environmental NGOs, IT&C, technological innovation and waste management companies, professional associations that represent EU regions, sectors and levels of governance. The complex partnership guarantees that advancement in EU research in the field of urban metabolism and waste management strategies is directly linked to stakeholder engagement and mutual learning and contributes to the achievement of resource efficiency and waste management objectives. Urban_Wins analytical tools will be built on the base of datasets and experiences of 24 EU cities from 6 European countries and the Strategic Plans will be tested by 8 EU cities and will encompass regulatory measures, educational initiatives and sector specific actions.

Partners:

Nr	Participant	Country
1	COMUNE DI CREMONA	IT
2	FONDAZIONE ECOSISTEMI-ONLUS	IT
3	UNIVERSITA IUAV DI VENEZIA	IT
4	ASOCIATIA ECOTECA	RO
5	ASOCIATIA ROMANIA GREEN BUILDING COUNCIL	RO
6	ASOCIATIA ECOTIC	RO
7	FUNDACIO CTM CENTRE TECNOLOGIC	ES
8	ICLEI EUROPEAN SECRETARIAT GMBH (ICLEI EUROPASEKRETARIAT GMBH)*	DE
9	UNIVERSIDADE DE COIMBRA	PT
10	CHALMERS TEKNISKA HOEGSKOLA AB	SE
11	NOVA ID FCT - ASSOCIACAO PARA A INOVACAO E DESENVOLVIMENTO DA FCT	PT
12	GLOBAL INNOVATION SOLUTION SRL	RO
13	MARRAIAFURA COMUNICAZIONE SRLS	IT
14	CITTA METROPOLITANA DI ROMA CAPITALE	IT
15	CEIFACOOP-COOPERATIVA DE ESTUDOS INVESTIGACAO E FORMACAO AMBIENTAL CRL	PT
16	MUNICIPIUL BUCURESTI	RO
17	ASOCIATIA ENVIRON	RO
18	CAMERA DI COMMERCIO INDUSTRIA ARTIGIANATO AGRICOLTURA DI CREMONA	IT
19	AJUNTAMENT DE SABADELL	ES
20	ISTITUTO NAZIONALE DI STATISTICA	IT
21	AJUNTAMENT DE MANRESA	ES
22	MUNICIPIO DE LEIRA	PT
23	CONSORCI DEL BAGES PER A LA GESTIÓ DE RESIDUS	ES
24	SERI NACHHALTIGKEITSFORSCHUNGS UND-KOMMUNIKATIONS GMBH	AT
25	CREE GMBH	AT
26	COMUNE DI TORINO	IT
27	LINEA GESTIONI SRL	IT

Call: H2020-WASTE-2015-two-stage **Type of Action:** RIA

Title: REPAiR - REsource Management in Peri-urban AReas: Going Beyond Urban Metabolism

Project total costs:	5,089,636 €	**Project EU contribution:**	5,089,636 €	**Duration (months):**	48

Abstract:

A shift towards a more circular economy is crucial to achieve more sustainable and inclusive growth. Our objective is to provide local and regional authorities with an innovative transdisciplinary open source geodesign decision support environment (GDSE) developed and implemented in living labs in six metropolitan areas. The GDSE allows creating integrated, place-based eco-innovative spatial development strategies aiming at a quantitative reduction of waste flows in the strategic interface of peri-urban areas. These strategies will promote the use of waste as a resource, thus support the on-going initiatives of the EC towards establishing a strong circular economy. The identification of such eco-innovative strategies will be based on the integration of life cycle thinking and geodesign to operationalise urban metabolism. Our approach differs from previous UM as we introduce a reversed material flow accounting to collect data accurate and detailed enough for the design of a variety of solutions to place-based challenges. The developed impact and decision models allow quantification and validation of alternative solution paths and therefore promote sustainable urban development built on near-field synergies between the built and natural environments. This will be achieved by quantifying and tracking essential resource flows, mapping and quantification of negative and positive effects of present and future resource flows, and the determination of a set of indicators to inform decision makers concerning the optimization of (re-)use of resources. The GDSE will be open source. With a budget of €5 million, REPAiR funds a consortium rich in experience in waste and resource management, spatial decision support, territorial governance, spatial planning and urban design, and has deep knowledge of the 6 case study areas. REPAiR is supported by a user board, of key stakeholders for the development of CE as well as local authorities, who are heavily involved in the GDSE testing.

Partners:

Nr	Participant	Country
1	TECHNISCHE UNIVERSITEIT DELFT	NL
2	UNIVERSITEIT GENT	BE
3	UNIVERSITA DEGLI STUDI DI NAPOLI FEDERICO II.	IT
4	HAFENCITY UNIVERSITAT HAMBURG	DE
5	MAGYAR TUDOMANYOS AKADEMIA KOZGAZDASAG- ES REGIONALIS TUDOMANYI KUTATOKOZPONT	HU
6	INSTYTUT GEOGRAFII I PRZESTRZENNEGO ZAGOSPODAROWANIA IM STANISLAWA LESZCZYCKIEGO POLSKIEJ AKADEMII NAUK	PL
7	JRC -JOINT RESEARCH CENTRE- EUROPEAN COMMISSION	BE
8	ARCINIEGAS LOPEZ GUSTAVO	NL
9	DELTA PROJECTONTWIKKELING BV	NL
10	BIOKOM Pecsi Varosuzemeltetesi es Kornyezetgazdalkodasi Nonprofit Korlatolt Felelossegu Tarsasag	HU
11	Gertz Gutsche Rümenapp - Stadtentwicklung und Mobilität GbR	DE
12	OPENBARE VLAAMSE AFVALSTOFFENMAATSCHAPPIJ	BE
13	GEMEENTE HAARLEMMERMEER	NL
14	REGIONE CAMPANIA	IT
15	OLP SPOLKA Z OGRANICZONA ODPOWIEDZILNOSCIA	PL
16	BAUER RESOURCES GMBH	DE
17	INTERGEMEENTELIJKE VERENIGING VOORAFVALBEHEER IN GENT EN OMSTREKEN	BE
18	STADTREINIGUNG HAMBURG AOR	DE

Sub-activity: 5.4.2

PPI4Waste

642451

Call: H2020-WASTE-2014-one-stage

Type of Action: CSA

Title: Promotion of Public Procurement of Innovation for Resource Efficiency and Waste Treatment

Project total costs:	1,003,688 €	**Project EU contribution:**	998,813 €	**Duration (months):**	33

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	ASSOCIATION DES VILLES ET REGIONS POUR LA GESTION DURABLE DES RESSOURCES	BE
2	ICLEI EUROPEAN SECRETARIAT GMBH (ICLEI EUROPASEKRETARIAT GMBH)*	DE
3	ZAGREBACKI HOLDING DOO	HR
4	UNIVERSIDAD DE ZARAGOZA	ES
5	INSTITUTO ANDALUZ DE TECNOLOGIA.	ES
6	MANCOMUNIDAD DEL SUR	ES
7	RISE RESEARCH INSTITUTES OF SWEDEN AB	SE
8	MINISTERIE VAN INFRASTRUCTUUR EN MILIEU	NL

Sub-activity: 5.4.3

CIRCULAR IMPACTS

730316

Call: H2020-SC5-2016-OneStageB

Type of Action: CSA

Title: Measuring the IMPACTS of the transition to the CIRCULAR economy

Project total costs:	501,280 €	**Project EU contribution:**	501,280 €	**Duration (months):**	24

Abstract:

The EU 2020 targets of the European Union and international commitments of the EU make it mandatory for the EU to reduce its environmental impact while at the same time to make its economy more productive and more competitive. One important pathway to achieve both objectives is making the European economy more circular, meaning that the use of non renewable material resources is reduced, while at the same time the European economy is further developed and more jobs are created. CIRCULAR IMPACTS aims to provide European policy makers with the knowledge to guide and foster the transition to a more circular economy by developing an overarching impact assessment of that transition and at the same time make the evidence base available for policy makers to develop impact assessment for their own specific policy proposals. As the circular economy is an ambition with a very wide and not precisely defined application area, CIRCULAR IMPACTS will start by defining the circular economy, identifying the most important application areas, understanding the policy needs of the area and developing a methodology for assessing the macroeconomic and societal impacts. It will then focus on assembling the available evidence for impact assessments and make this evidence base available for policy makers and the project itself with a web based search tool. This search tool will also help to make several relevant information collections funded by past EU research framework programs visible again, by connecting their evidence base to the circular economy agenda. The project will then collect missing information in case studies in order to understand the processes of the circular economy and the processes it might replace in more detail. To achieve that CIRCULAR IMPACTS has already assembled a Steering group of industry experts which will be able to provide the connections and the industry knowledge to the impact assessment.

Partners:

Nr	Participant	Country
1	ECOLOGIC INSTITUT gemeinnützige GmbH	DE
2	CENTRE FOR EUROPEAN POLICY STUDIES	BE
3	STICHTING WAGENINGEN RESEARCH	NL

Sub-activity: 5.4.3

green.eu

641974

Call: H2020-SC5-2014-one-stage **Type of Action:** CSA

Title: European Global Transition Network on Eco-Innovation, Green Economy and Sustainable Development

Project total costs:	2,994,179 €	**Project EU contribution:**	2,994,179 €	**Duration (months):**	48

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

Call: H2020-SMEINST-2-2017 **Type of Action:** SME-2

Title: AN INTELLIGENT PREDICTION SYSTEM FOR THE SMART EFFICIENT USE OF RESOURCES IN CITIES

Project total costs:	1,858,875 €	**Project EU contribution:**	1,301,213 €	**Duration (months):**	24

Abstract:

Datapole is a French company with over 6 years experience delivering solutions of Big Data Analytics to customers in the markets of Facility Management (FM), energy and resources management. Our new PrediSmart software platform is our response to market demands of Analytics tools for energy, operations and resource efficiency. PrediSmart is an integrated turn-key solution that brings potential results in terms of energy efficiency (10%), and resource efficiency (30%) to buildings owners, facility managers, utilities and smart cities. Additional benefits are its ease of use, an automatic set-up, and the use of standardized IoT data input protocols. PrediSmart outputs support the user on the decision making towards resource efficiency. As a secondary benefit, they provide data to document the company LCA and environmental impact assessment in conformity with its CSR politics. PrediSmart is an integrated scalable solution suitable for a broad range of end users such as Building Owners, FM companies, ESPCs & ESCOs, IoT platform suppliers and Utilities delivering Energy, Water and Waste collection services. The size of the EU potential market for PrediSmart is estimated at 146 B€. PrediSmart value proposition to end customers is a customer ROI up to 400% in terms of energy, O&M and other environmental savings; a solution that pays back in the first year of implementation.After a successful field test of the separated software product modules, we now aim to complete the development of some missing components, integrate them and launch to the European market the PrediSmart platform reaching 13 M€ accumulated sales over the period 2019-2021. We will do so by expanding our customer base and our partner network across existing and new countries in Europe. We will demonstrate the product technical upgrades by deploying a demonstration program across several major European cities with the participation of reference partners such as Vinci-Facilities and Thales.

Partners:

Nr	Participant	Country
1	DATAPOLE	FR

Plume Air Cloud

778501

Call: H2020-SMEINST-2-2017 **Type of Action:** SME-2

Title: Plume Air Cloud – Air Quality Data Crowdsourcing Platform for Environmentally-friendly Cities

Project total costs:	2,025,464 €	**Project EU contribution:**	1,417,824 €	**Duration (months):**	24

Abstract:

Air pollution is the leading avoidable cause of death according to the WHO and a major mobility and smart cities challenge for Europe, causing 600,000 premature deaths in the EU every year. The magnitude of this challenge is exacerbated by the dearth of reliable and readily available data on exposure to pollution: Member States' air pollution monitoring infrastructures, comprising of networks of sparse stations who fail to adequately cover the continent, "often render the data inaccurate and could thus create a public health risk" according to the European Parliament.The Plume Air Cloud is an Internet of Things and data platform for live air pollution exposure forecast which aims at helping consumers track and reduce the impact of air quality on their health and well-being, and supporting policymakers in promoting smarter mobility choices to build cleaner cities. The Plume Air Cloud leverages the latest advances in open data and predictive technologies, atmospheric sciences research, Internet of Things air pollution sensors, and collective awareness platforms to sense, track, map and predict air pollutants across urban areas. It builds upon Plume Labs's revolutionary environmental health sensors for consumers and its successful API (supported by the H2020 Open Data Incubator in Europe programme) to build an open environmental data platform for smart cities.Plume Labs empowers citizens to improve their environmental health. Its connected devices for everyday urban life help consumers track their personal exposure to pollution; its data platform maps live air quality levels and forecasts around the world. Plume has received numerous awards, was featured in major international media, and has helped foster climate action by shining a light on the global air pollution crisis.

Partners:

Nr	Participant	Country
1	PLUME LABS	FR

Call: H2020-SMEINST-2-2016 **Type of Action:** SME-2

Title: Extending artificial intelligence revolution in the waste field beyond sorting

Project total costs:	1,800,177 €	**Project EU contribution:**	1,260,124 €	**Duration (months):**	24

Abstract:

Current WTPs (Waste Treatment Plants) aren't able to recover all the valuable waste they process, indeed more valuable materials are lost and landfilled or incinerated. The reason of this wasteful spending is clear: current methods do not allow an increase in material recuperation in a cost-effective way: the incremental cost of recovering more materials is bigger than the market value of the additional materials recovered. Losses can reach 2,5M€/yr of high-value waste PET/HDPE plastics, cans, cartons). Current technologies aren't enough to meet EU regulations like directive 2008/98/EC, which requires that 50% of household waste is recovered by 2020.Based in our 1st product (Wall-B), SADAKO has developed RUBSEE, a disruptive real-time monitoring system (using Computer vision+Artificial intelligence) of waste flows in a WTP in order to optimize the performance/operation thereof and the recovery of different materials. RUBSEE will allow waste industry improve its economic, regulatory compliance and environmental performance with a solution that is cost efficient and complementary to actual solutions. In order to address present industry need, our goal is to scale from detecting just PET to HDPE, Cans and Bricks, increase/reach detection levels for each material up to >95%, and boost its TRL from 6 to 9.An average WTP plant, processes 7tn/h of urban waste with 39% content of PET, HDPE and Cans and recovers 6000 tn/year of PET, HDPE & Cans. Thanks to RUBSEE data, current equipment performance can be improved up to 20% by adapting their parameters to the variability of the waste flow on real time. This means 1200 Tn/year, increasing revenues up to 421,200€/yr for an average customer. Assuming that the complete RUBSEE installation cost amounts 142,000 € (10 RUBSEE units + 6000 €/yr Maintenance costs), the investment payback will be 4.2 months for our clients.Thanks to this RUBSEE project, we expect a boost of the incomes (NET profit associated to RUBSEE: 2,3M€ in 2022)

Partners:

Nr	Participant	Country
1	SADAKO TECHNOLOGIES SL	ES

Call: H2020-SMEINST-2-2014 **Type of Action:** SME-2

Title: Swap.com On-line department store for Massive Amount of Pre-owned Items

Project total costs:	1,836,931 €	**Project EU contribution:**	1,285,852 €	**Duration (months):**	27

Abstract:

A part of developing more sustainable lifestyles is to extend the life time of items and foster re-use of the items. The first preference would be to acquire a pre-owned item and only if that is not feasible, purchasing a newly manufactured item produced in a sustainable way. Currently, the challenge in acquiring pre-owned items through peer-to-peer internet sites is that people need to see effort to photograph and list their items and then if someone buys their item, they need to pack and ship the items. Swap.com provides an on-line consignment department store for pre-owned items in a cost-efficient and easy-to-use way. Items that are no longer needed are sent to Swap.com's fulfillment center where they are sorted, photographed, packed and stored. Swap.com solves customer issues regarding the selling effort by so that customer can pack the items into a box and send the items to Swap.com's fulfillment center. This project targets to develop an industrial scale capability for selling and trading relatively inexpensive pre-owned (i.e. second-hand) items on-line in massive scale. This means that items with values as low as 2 EUR can be processed so that customers selling their items through Swap.com can get their share and Swap.com can make profitable business. The approach is to scale-up the fulfillment center operations to a more efficient multi-processing flow where key parts are optimized and automatized further. The project also develops recommendations and search mechanisms in the customer front side (Swap.com service) so that customers find specifically what they are looking for. Swap.com’s concept will encourage re-use of items instead of dumping them into landfills, and will therefore help to enable the transition towards a circular economy. Swap.com’s goal is to be the world’s leading on-line department store for pre-owned items.

Partners:

Nr	Participant	Country
1	NETCYCLER OY	FI

Sub-activity: 5.4.4

WIDEST

642423

Call: H2020-WATER-2014-one-stage

Type of Action: CSA

Title: Water Innovation through Dissemination Exploitation of Smart Technologies

Project total costs:	1,022,030 €	**Project EU contribution:**	1,022,030 €	**Duration (months):**	24

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 EURECAT	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	BE
6	UNIVERSITE DE NICE SOPHIA ANTIPOLIS	FR

Sub-activity: 5.4.4

BlueSCities

642354

Call: H2020-WATER-2014-one-stage

Type of Action: CSA

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:	995,919 €	**Project EU contribution:**	995,919 €	**Duration (months):**	24

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 Oy	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
13	IREN SPA	IT

Sub-activity: 5.4.4 **WATERINNEU** **641821**

Call: H2020-WATER-2014-one-stage **Type of Action:** CSA

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 €	**Project EU contribution:**	914,991 €	**Duration (months):**	24

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 YAPLICACIONES FORESTALES CONSORCIO	ES
2	TECHNISCHE UNIVERSITEIT DELFT	NL
3	52°North Initiative for Geospatial Open Source Software GmbH	DE
5	ADELPHI RESEARCH GEMEINNUTZIGE GMBH	DE
6	ANTEA BELGIUM	BE
7	GLOBAL WATER PARTNERSHIP CENTRAL AND EASTERN EUROPE	SK
8	Orion Innovations (UK) Ltd	UK
9	RANDBEE CONSULTANTS SL	ES

Sub-activity: 5.4.4

EWIT

641660

Call: H2020-WASTE-2014-one-stage

Type of Action: CSA

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 €	**Project EU contribution:**	1,641,750 €	**Duration (months):**	24

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	SELLGELE 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

Sub-activity: 5.5.0

MELOA

776825

Call: H2020-SC5-2017-OneStageB

Type of Action: RIA

Title: Multi-purpose/Multi-sensor Extra Light Oceanography Apparatus

Project total costs:	4,694,845 €	**Project EU contribution:**	4,694,845 €	**Duration (months):**	39

Abstract:

The MELOA project proposes to develop a low-cost, easy-to-handle, wave resilient, multi-purpose, multi-sensor, extra light surface drifter for use in all water environments, ranging from deep-sea to inland waters, including coastal areas, river plumes and surf zones. The device will be developed as an upgrade to the WAVY drifter conceived by the Faculty of Engineering of the University of Porto, which was used to measure the surface circulation forced by wave breaking, including detailed structure of rifts and the littoral drift current (Jorge da Silva et al, 2016).The philosophy of the WAVY drifter will essentially be respected:a small-size sphere with just enough room to accommodate power source, GPS-receiver, communications modules, antennae, sensors and data processor;optimised buoyancy to prevent the drifter trajectory responding to the wind instead of the current, while providing just enough exposure of the antennae to ensure acquisition of the GPS signal at the required rate and reliable near real-time communications.Given the low influence of wind upon the drifters' displacements, MELOA will provide a cheap effective way to monitor surface currents and surface dynamic features anywhere in the World Ocean. Through equipping the drifters with thermistors at two different levels, the possibility is open for monitoring "near-skin temperature" and near-surface vertical temperature gradients, which will be invaluable for calibration/validation of satellite derived SST fields.

Partners:

Nr	Participant	Country
1	DEIMOS ENGENHARIA S.A.	PT
2	UNIVERSITAT POLITECNICA DE CATALUNYA	ES
3	INSTITUTO HIDROGRAFICO	PT
4	SMARTBAY IRELAND	IE
5	OCEANSCAN - MARINE SYSTEMS & TECHNOLOGY LDA	PT
6	COLLECTE LOCALISATION SATELLITES SA	FR
7	DEIMOS SPACE SOCIEDAD LIMITADA UNIPERSONAL	ES
8	INESC TEC - INSTITUTO DE ENGENHARIA DE SISTEMAS E COMPUTADORES, TECNOLOGIA E CIENCIA	PT
9	INSTITUTO DE SISTEMAS E ROBOTICA-ASSOCIACAO	PT
10	COMPOSITE SOLUTIONS LDA	PT

Call: H2020-SC5-2017-OneStageB **Type of Action:** CSA

Title: An Ecosystem of Citizen Observatories for Environmental Monitoring

Project total costs:	1,069,508 €	**Project EU contribution:**	1,069,508 €	**Duration (months):**	36

Abstract:

The rising trend in citizen science has led to the development of Citizen Observatories (COs) for environmental monitoring, which have been supported in FP7 and H2020. To improve the coordination between existing COs and related regional, European and international activities, the WeObserve Coordination and Support Action will tackle three key challenges that face COs: awareness, acceptability and sustainability. The WeObserve mission is to create a sustainable ecosystem of COs that can systematically address these identified challenges and help move citizen science into the mainstream. The WeObserve approach will apply several key instruments to target, connect and coordinate relevant stakeholders. The first is to develop and foster five communities of practice to strengthen the current knowledge base surrounding COs. Topics will include citizen engagement, the value of COs for governance and CO data interoperability. In co-creating this knowledge base, CO practitioners will have a platform to effectively share best practices and avoid duplication. The second will expand the geographical reach of the knowledge base to different target groups via toolkits, a Massive Open Online Course, capacity development roadshows and an Open Data Exploitation Challenge, to strengthen the uptake of CO-powered science by public authorities and SMEs. A third mechanism will forge links with GEOSS and Copernicus to demonstrate how COs can complement the EU's Earth Observation monitoring framework. The WeObserve consortium brings together the current H2020 COs (Ground Truth 2.0, GROW, LandSense, Scent) who will actively open up the CO landscape through wide ranging networks, users and stakeholders, including ECSA, GEOSS and Copernicus to foster social innovation opportunities. The WeObserve approach and outcomes have the potential to create a step-change in EO innovation and make COs a valuable component of managing environmental challenges and empowering resilient communities.

Partners:

Nr	Participant	Country
1	INTERNATIONALES INSTITUT FUER ANGEWANDTE SYSTEMANALYSE	AT
2	STICHTING IHE DELFT	NL
3	UNIVERSITY OF DUNDEE	UK
4	CENTRO DE INVESTIGACION ECOLOGICA YAPLICACIONES FORESTALES CONSORCIO	ES
5	INSTITUTE OF COMMUNICATION AND COMPUTER SYSTEMS	EL
6	VEREIN DER EUROPAISCHEN BURGEWISSENSCHAFTEN - ECSA E.V.	DE
7	AUTORITA DI BACINO DEI FIUMI ISONZO TAGLIAMENTO LIVENZA PIAVE BRENTA BACCHIGLIONE	IT

Sub-activity: 5.5.0 **TWIGA** **776691**

Call: H2020-SC5-2017-OneStageB **Type of Action:** RIA

Title: Transforming Weather Water data into value-added Information services for sustainable Growth in Africa

Project total costs: 4,979,623 € **Project EU contribution:** 4,979,623 € **Duration (months):** 48

Abstract:

Objectives: Provide currently unavailable geo-information on weather, water and climate for sub-Saharan Africa by enhancing satellite-based geo-data with innovative in situ sensors and developing related information services that answer needs of African stakeholders and the GEOSS community.Concept: A systematic feedback loop to reciprocally validate in situ measurements and satellite data in one integrated model. Over 500 in situ measurement stations using citizen science. State of the art advancement & Innovation potential: Building on and pushing further recent advances in sensor and communication technology to provide cheaper and more robust in situ measurements covering a wider area at a higher resolution in sub-Saharan Africa.Working with tech-hubs in Europe and Africa to feed creation and growth of European and African start-ups that develop sensors and geo-services, delivering complete value chains from sensor to customer-ready information delivery.Impact on call expectations: -Integration of in situ components into models based on GEOSS and Copernicus data-OGC compliant science-grade geo-data (atmosphere, hydrosphere, biosphere) delivered to GEOSS, incl. near-real time statistically characterized soil moisture data from Africa that can be used operationally (not currently available) and radar derived soil moisture measurements also available under cloudy conditions, or vegetation overgrowth-at least 20 new products for use in food, water, energy security, climate change and resilience to natural hazards validated and ready for large-scale implementation by consortium partners and external stakeholders-based on at least 10 innovative, cost efficient, robust, sensors, including fast neutron coun-ter, track¬ing of convective storms with consumer lightning sensors and accelerometer for tree-crown weighing-(Bio-degradable) sensors reduced to one tenth to one hundredth of their current price, extremely low-maintenance, use of Unmanned Aerial Vehicles.

Partners:

Nr	Participant	Country
1	TECHNISCHE UNIVERSITEIT DELFT	NL
2	IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY AND MEDICINE	UK
3	HELMHOLTZ-ZENTRUM FUER UMWELTFORSCHUNG GMBH - UFZ	DE
4	POLITECNICO DI MILANO	IT
5	UGANDA NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY	UG
6	Kwame Nkrumah University of Science and Technology Kumasi	GH
7	STRATHMORE UNIVERSITY	KE
8	Kenya Meteorological Department	KE
9	South African Weather Service	ZA
10	TRANS-AFRICAN HYDRO-METEOROLOGICAL OBSERVATORY	KE
11	Farmerline Ltd	GH
12	Ghana Agricultural Insurance Pool	GH
13	HYDROLOGIC RESEARCH BV	NL
14	GEOMATICS RESEARCH & DEVELOPMENT SRL	IT
15	NOORT HARMANNUS CONRADUS PIETER	NL
16	FUTUREWATER SL	ES
17	STARLAB BARCELONA SL	ES
18	MICROSTEP-MIS SPOL SRO	SK

Sub-activity: 5.5.0

MONOCLE

776480

Call: H2020-SC5-2017-OneStageB **Type of Action:** RIA

Title: Multiscale Observation Networks for Optical monitoring of Coastal waters, Lakes and Estuaries

Project total costs:	4,999,863 €	**Project EU contribution:**	4,999,863 €	**Duration (months):**	48

Abstract:

MONOCLE innovates and develops sensor, platform, and data handling technologies to increase coverage and lower the cost of in situ sensors in inland and coastal water bodies. These ecosystems are particularly vulnerable to direct anthropogenic impacts but of high economic importance and crucial to sustainable food, energy, and clean water supply. At the same time, these water bodies represent areas of the weakest performance in present EO capability to date.

The MONOCLE system will reduce uncertainties in Earth Observation (EO) by characterising atmospheric and water optical properties. MONOCLE will deploy new and improved sensors on autonomous platforms (buoys, ships, drones), and further fill information gaps by developing low-cost complementary solutions for citizen scientists. This will provide essential reference observations needed to further improve and grow EO-based water quality services. MONOCLE will be requirement-driven and implemented by sensor and platform developers, sensor-data infrastructure experts, and EO scientists. A service-oriented data storage, processing, and visualisation infrastructure based on open data standards will integrate MONOCLE seamlessly with existing platforms. This also allows MONOCLE to build sensor performance traceability into its core to support synergistic sensor use and data inspection to identify sensor drift and episodic events.MONOCLE will demonstrate the added value of EO and water quality oriented sensor network to Copernicus EO services, GEOSS data brokering and GEO capacity building initiatives through a number of validation campaigns and use cases, including data-poor regions where no similar infrastructure yet exists. It is expected that the evolution of system standards, new sensors and innovative use of observation platforms of MONOCLE will foster innovation and commercial opportunities for the EO commercial sector and its downstream users in domains ranging from public health to energy and food security.

Partners:

Nr	Participant	Country
1	PLYMOUTH MARINE LABORATORY	UK
2	UNIVERSITEIT LEIDEN	NL
3	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.	BE
4	THE UNIVERSITY OF STIRLING	UK
5	AGENCIA ESTATAL CONSEJO SUPERIOR DEINVESTIGACIONES CIENTIFICAS	ES
6	CONSERVATION EDUCATION AND RESEARCH TRUST	UK
7	TANZANIA FISHERIES RESEARCH INSTITUTE	TZ
8	INSTITUTUL NATIONAL DE CERCETARE-DEZVOLTARE PENTRU GEOLOGIE SI GEOECOLOGIE MARINA-GEOECOMAR	RO
9	WATER INSIGHT BV	NL
10	DroneGrid bvba	BE
11	DDQ	NL
12	PEAK DESIGN LIMITED	UK

Sub-activity: 5.5.0

HYPERNETS

775983

Call: H2020-SC5-2017-OneStageB **Type of Action:** RIA

Title: A new hyperspectral radiometer integrated in automated networks of water and land bidirectional reflectance measurements for satellite validation

Project total costs:	4,999,234 €	**Project EU contribution:**	4,999,234 €	**Duration (months):**	48

Abstract:

Networking of automated instruments on unmanned platforms, e.g. AERONET-OC and RADCALNET, has proved to be the most effective way to provide validation data for Copernicus optical missions. The re-use of data from each site for many optical missions (S2, S3, PROBA-V,MODIS,VIIRS,L8,Pléiades,ENMAP,PRISMA,SABIAMAR,etc.) gives a huge economy of scale. The existing AERONET-OC and RADCALNET networks are based on multispectral instruments, which are expensive to acquire and require modelling associated uncertainties to cover all spectral bands of all sensors. Recent advances in opto-electronics facilitate the use of miniaturized hyperspectral spectrometers, with reduced price. Industrial production of video surveillance cameras greatly reduces the price of pointing systems for scientific instruments. Improved LEDs can provide a stable light source for relative calibration and continuous autonomous monitoring of radiometers. Webcams (for remote inspection of instruments and maintenance support) and data transmission have become cheaper allowing reducing the running costs and improving the reliability of autonomous instrument systems. The objective of the HYPERNETS project is to develop a new lower cost hyperspectral radiometer and associated pointing system and embedded calibration device for automated measurement of water and land bidirectional reflectance. The instrument will be tested in a prototype network covering a wide range of water and land types and operating conditions. Quality controlled data with associated uncertainty estimates will be provided automatically for the validation of all optical satellite missions. Preparations will be made a) for the new instrument design (and associated calibration service) to be commercialized with an expected lifetime of at least 10 years and b) for the networks to be further expanded to become the main source of surface reflectance validation data for all spectral bands of all optical missions for at least the next 10 years.

Partners:

Nr	Participant	Country
1	INSTITUT ROYAL DES SCIENCES NATURELLES DE BELGIQUE	BE
2	TARTU OBSERVATORY - ESTONIAN MINISTRY OF EDUCATION AND RESEARCH	EE
3	UNIVERSITE PIERRE ET MARIE CURIE - PARIS 6	FR
4	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
5	NPL MANAGEMENT LIMITED	UK
6	HELMHOLTZ ZENTRUM POTSDAM DEUTSCHESGEOFORSCHUNGSZENTRUM GFZ	DE
7	CONSEJO NACIONAL DE INVESTIGACIONES CIENTIFICAS Y TECNICAS (CONICET)	AR

Call: H2020-SFS-2017-1 **Type of Action:** RIA

Title: Enhancing Food Security in AFRIcan AgriCULTUral Systems with the Support of REmote Sensing

Project total costs:	8,534,033 €	**Project EU contribution:**	8,534,033 €	**Duration (months):**	48

Abstract:

AfriCultuReS – Enhancing Food Security in AFRIcan AgriCULTUral Systems with the Support of REmote Sensing - aims to design, implement and demonstrate an integrated agricultural monitoring and early warning system that will support decision making in the field of food security. AfriCultuReS will deliver a broad range of climatic, production, biophysical and economic information, for various regions in Africa. AfriCultuReS will apply geospatial science to sustainable agricultural development, natural resource management, biodiversity conservation, and poverty alleviation in Africa.AfriCultuReS, supported by the GEO Secretariat, will involve all key players of AfriGEOSS, GEOGLAM, SIGMA, ARTEMIS, African Drought Observatory and other initiatives as well as partners representing the diversity of African agricultural systems, in an effort to push forward the services provided by current systems, with innovative fusion of data from multiple sources (EO, in-situ, citizen-based crowdsourcing, climate services and weather, crop models) in a vertical manner. Crop yield and biomass prediction models will be enhanced through the fusion of EO data and climate models, emphasizing the use of the complementary sensors of the EU Sentinels constellation. Geospatial products will be combined in a spatial Decision Support System (DSS) to enrich decision making and risk assessment. The geo component of the DSS will be compliant with the GEO's interoperability standards, allowing its integration with the current services of the GEOSS Common Infrastructure. The African partners and collaborating networks will be essential for local training and promoting further use of the project tools. Social innovation will be used to increase the number of involved stakeholders and to boost the flow of information in a user-friendly manner. The final target will be to produce a web tool that will support early decision making for the stakeholders of African food production.

Partners:

Nr	Participant	Country
1	GMV AEROSPACE AND DEFENCE SA	ES
2	ARISTOTELIO PANEPISTIMIO THESSALONIKIS	EL
3	CENTRE FOR REMOTE SENSING AND GEOGRAPHIC INFORMATION SERVICES LBG	GH
4	CENTRE REGIONAL AGRHYMET	NE
5	DRAXIS ENVIRONMENTAL S.A.	EL
6	UNIVERSIDADE EDUARDO MONDLANE	MZ
7	GEOSAS CONSULTING SERVICE PLC	ET
8	NOORT HARMANNUS, CONRADUS PIETER	NL
9	LOCATE IT LIMITED	KE
10	OBSERVATOIRE DU SAHARA ET DU SAHEL	TN
11	UNIVERSITA DEGLI STUDI DI ROMA LA SAPIENZA	IT
12	SOUTH AFRICA NATIONAL SPACE AGENCY	ZA
13	SVERIGES METEOROLOGISKA OCH HYDROLOGISKA INSTITUT	SE
14	UNIVERSIDAD DE CANTABRIA	ES
15	UNIVERSITY OF LEEDS	UK
16	THE UNIVERSITY OF SHEFFIELD	UK
17	UNIVERSITY OF RWANDA	RW

Call: H2020-SC5-2016-OneStageB **Type of Action:** RIA

Title: Next Generation GEOSS for Innovation Business

Project total costs: 10,242,999 € **Project EU contribution:** 9,999,999 € **Duration (months):** 42

Abstract:

The NextGEOSS project will implement a federated data hub for access and exploitation of Earth Observation data, including user-friendly tools for data mining, discovery, access and exploitation. This data hub will be supported by a strong commitment to the engagement of Earth Observation and related communities, with the view of supporting the creation of innovative and business oriented applications. The main general objectives for NextGEOSS are to 1) Deliver the next generation data hub and Earth Observation exploitation for innovation and business; 2) Engage communities, promoting innovative GEOSS powered applications from Europe; and 3) Advocate GEOSS as a sustainable European approach for Earth Observation data distribution and exploitation. NextGEOSS engages main providers of Earth Observation data, including Copernicus Collaborative Ground Segments and Core Services. While continuing to support the GEO-DAB and OpenSearch as the middleware components in charge of interconnecting the heterogeneous and distributed capacities contributing to GEOSS, NextGEOSS focuses on a fundamental change to facilitate the connectivity to the European and global data centres with new discovery and processing methods. It will leverage Web and Cloud technologies, offering seamless and user-friendly access to all the relevant data repositories, as well as providing efficient operations for search, retrieval, processing/re-processing, visualization, analysis and combination of products from federated sources. NextGEOSS includes a set of demonstrative pilot activities, which will showcase the system's capabilities, and a number of initiatives devoted to engagement of GEO and other EO-related communities.

Partners:

Nr	Participant	Country
1	DEIMOS ENGENHARIA S.A.	PT
2	DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV	DE
3	NATIONAL OBSERVATORY OF ATHENS	EL
4	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.	BE
5	EIDGENOESSISCHES DEPARTEMENT DES INNERN	CH
6	ORGANISATION METEOROLOGIQUE MONDIALE	CH
7	OPEN KNOWLEDGE FOUNDATION LBG	UK
8	EUROPEAN UNION SATELLITE CENTRE	ES
9	TERRADUE SRL	IT
10	THE UNIVERSITY OF READING	UK
11	EUROCONSULT SA	FR
12	COLLECTE LOCALISATION SATELLITES SA	FR
13	STIFTELSEN NANSEN SENTER FOR MILJOOG FJERNMALING	NO
14	OPEN GEOSPATIAL CONSORTIUM (EUROPE) LIMITED LBG	UK
15	BENTE LILJA BYE	NO
16	DEIMOS SPACE SOCIEDAD LIMITADA UNIPERSONAL	ES
17	STICHTING WAGENINGEN RESEARCH	NL
18	UNIVERSITEIT TWENTE	NL
19	NORSK INSTITUTT FOR LUFTFORSKNING STIFTELSE	NO
20	ASSOCIATION POUR LA RECHERCHE ET LE DEVELOPPEMENT DES METHODES ET PROCESSUS INDUSTRIELS	FR
21	UNIVERSITAT AUTONOMA DE BARCELONA	ES
22	EUROPEAN ASSOCIATION OF REMOTE SENSING COMPANIES	BE
23	HELP SERVICE REMOTE SENSING SRO	CZ
24	STICHTING EGI	NL
25	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
26	DEIMOS IMAGING SLU	ES
27	EUROPEAN DYNAMICS LUXEMBOURG SA	LU

Sub-activity: 5.5.0

INTAROS

727890

Call: H2020-BG-2016-1

Type of Action: RIA

Title: Integrated Arctic observation system

Project total costs:	15,490,067 €	**Project EU contribution:**	15,490,067 €	**Duration (months):**	60

Abstract:

The overall objective of INTAROS is to develop an integrated Arctic Observation System (iAOS) by extending, improving and unifying existing systems in the different regions of the Arctic. INTAROS will have a strong multidisciplinary focus, with tools for integration of data from atmosphere, ocean, cryosphere and terrestrial sciences, provided by institutions in Europe, North America and Asia. Satellite earth observation data plays an increasingly important role in such observing systems, because the amount of EO data for observing the global climate and environment grows year by year. In situ observing systems are much more limited due to logistical constraints and cost limitations. The sparseness of in situ data is therefore the largest gap in the overall observing system. INTAROS will assess strengths and weaknesses of existing observing systems and contribute with innovative solutions to fill some of the critical gaps in the in situ observing network. INTAROS will develop a platform, iAOS, to search for and access data from distributed databases. The evolution into a sustainable Arctic observing system requires coordination, mobilization and cooperation between the existing European and international infrastructures (in-situ and remote including space-based), the modeling communities and relevant stakeholder groups. INTAROS will include development of community-based observing systems, where local knowledge is merged with scientific data. An integrated Arctic Observation System will enable better-informed decisions and better-documented processes within key sectors (e.g. local communities, shipping, tourism, fisheries), in order to strengthen the societal and economic role of the Arctic region and support the EU strategy for the Arctic and related maritime and environmental policies.

Partners:

Nr	Participant	Country
1	STIFTELSEN NANSEN SENTER FOR MILJOOG FJERNMALING	NO
2	UNIVERSITETET I BERGEN	NO
3	HAVFORSKNINGSINSTITUTTET	NO
4	STOCKHOLMS UNIVERSITET	SE
5	ALFRED-WEGENER-INSTITUT HELMHOLTZ-ZENTRUM FUR POALR- UND MEERESFORSCHUNG	DE
6	INSTYTUT OCEANOLOGII POLSKIEJ AKADEMII NAUK	PL
7	DANMARKS TEKNISKE UNIVERSITET	DK
8	AARHUS UNIVERSITET	DK
9	Geological Survey of Denmark and Greenland	DK
10	ILMATIETEEN LAITOS	FI
11	University Centre in Svalbard	NO
12	NORDISK FOND FOR MILJØ OG UDVIKLING	DK
13	SVERIGES METEOROLOGISKA OCH HYDROLOGISKA INSTITUT	SE
14	THE UNIVERSITY OF SHEFFIELD	UK
15	NATIONAL UNIVERSITY OF IRELAND MAYNOOTH	IE
16	INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER	FR
17	MAX-PLANCK-GESELLSCHAFT ZUR FORDERUNG DER WISSENSCHAFTEN EV	DE
18	EUROGOOS	BE
19	FUNDACAO EUROCEAN	PT
20	UNIVERSIDAD POLITECNICA DE MADRID	ES
21	UNIVERSITAET BREMEN	DE
22	UNIVERSITAET HAMBURG	DE
23	NORUT NORTHERN RESEARCH INSTITUTE AS	NO
24	TERRADUE SRL	IT
25	GRONLANDS NATURINSTITUT	GL
26	THE OPEN UNIVERSITY	UK
27	NORSK INSTITUTT FOR VANNFORSKNING	NO
28	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
29	HELSINGIN YLIOPISTO	FI
30	HELMHOLTZ ZENTRUM POTSDAM DEUTSCHESGEOFORSCHUNGSZENTRUM GFZ	DE
31	ASSOCIATION POUR LA RECHERCHE ET LE DEVELOPPEMENT DES METHODES ET PROCESSUS INDUSTRIELS	FR
32	Instytut Geofizyki Polskiej Akademii Nauk	PL

33	UNIWERSYTET SLASKI	PL
34	BARCELONA SUPERCOMPUTING CENTER - CENTRO NACIONAL DE SUPERCOMPUTACION	ES
35	DNV GL AS	NO
36	ALL-RUSSIAN RESEARCH INSTITUTE OF HYDROMETEOROLOGICAL INFORMATION-WORLD DATA CENTRE	RU
37	Scientific foundation Nansen International Environmental and Remote Sensing Centre	RU
38	WOODS HOLE OCEANOGRAPHIC INSTITUTION	US
39	THE REGENTS OF THE UNIVERSITY OF CALIFORNIA	US
40	UNIVERSITE LAVAL	CA
41	INSTITUTE OF REMOTE SENSING AND DIGITAL EARTH - CHINESE ACADEMY OF SCIENCE	CN

Sub-activity: 5.5.0 **GROW** **690199**

Call: H2020-SC5-2015-two-stage **Type of Action:** IA

Title: GROW Observatory

Project total costs:	5,585,005 €	**Project EU contribution:**	5,096,920 €	**Duration (months):**	36

Abstract:

The GROW Observatory (GROW) will create a sustainable citizen platform and community to generate, share and utilise information on land, soil and water resource at a resolution hitherto not previously considered. The vision is to underpin smart and sustainable custodianship of land and soil, whilst meeting the demands of food production, and to answer a long-standing challenge for space science, namely the validation of soil moisture detection from satellites. GROW is highly innovative project leveraging and combining low cost consumer sensing technology, a simple soil test and a large user base of growers and plant enthusiasts to contribute individual soil and land data. It is designed to engage primarily individual growers and small-scale farmers across Europe, and to enable them to develop new wisdom and innovative practices through the collective power of shared and open data and knowledge. Citizens contributing data will gain access to the first single-source comprehensive crop and watering advice service for individual and small-scale growers incorporating scientific and crowdsourced information. Moreover, they will develop ‘campaigns’ (coordinated sampling operations) around local needs and issues, to underpin smarter decision-making and implementation of policy objectives. GROW will actively identify and enable new and credible social and business innovation processes, creating potential new services, applications and markets. The outcome will be a central hub of open knowledge and data created and maintained by growers that will be of value to the citizens themselves as well as specialist communities in science, policy and industry. The GROW partnership will connect and scale to globally dispersed communities linked through digital and social platforms, and a wide range of additional citizen associations and NGOs in sustainable agriculture, gardening, food democracy and land management.

Partners:

Nr	Participant	Country
1	UNIVERSITY OF DUNDEE	UK
2	INTERNATIONALES INSTITUT FUER ANGEWANDTE SYSTEMANALYSE	AT
3	FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS FAO	IT
4	MET OFFICE	UK
5	HYDROLOGIC RESEARCH BV	NL
6	STARLAB BARCELONA SL	ES
7	FUTURE EVERYTHING CIC	UK
8	RESEAU EUROPEEN POUR DES INITIATIVES COMMUNAUTAIRES SUR LES CHANGEMENTS CLIMATIQUES ET LE DEVELOPPEMENT DURABLE	BE
9	SUSTAINABLE IRELAND CO-OPERATIVE SOCIETY LTD	IE
10	CULTUREPOLIS	EL
11	PARROT SA	FR
12	THE JAMES HUTTON INSTITUTE	UK
13	TECHNISCHE UNIVERSITAET WIEN	AT
14	THINGFUL LIMITED	UK
15	INSTITUT D'ARQUITECTURA AVANCADA DE CATALUNYA	ES
16	STORYTHINGS LTD	UK
17	MISKOLCI EGYETEM	HU
18	THE FOREST TRUST LBG	UK
19	PERMACULTURE ASSOCIATION (BRITAIN)LBG	UK

Sub-activity: 5.5.0

GEO-CRADLE

690133

Call: H2020-SC5-2015-one-stage

Type of Action: CSA

Title: Coordinating and integRating state-of-the-art Earth Observation Activities in the regions of North Africa, Middle East, and Balkans and Developing Links with GEO related initiatives towards GEOSS

Project total costs:	3,030,800 €	**Project EU contribution:**	2,910,800 €	**Duration (months):**	30

Abstract:

GEO-CRADLE brings together key players representing the whole (Balkans, N. Africa and M. East) region and the complete EO value chain with the overarching objective of establishing a multi-regional coordination network that will (i) support the effective integration of existing EO capacities (space/air-borne/in-situ monitoring networks, modelling and data exploitation skills, and past project experience), (ii) provide the interface for the engagement of the complete ecosystem of EO stakeholders (scientists, service/data providers, end-users, governmental orgs, and decision makers), (iii) promote the concrete uptake of EO services and data in response to regional needs, relevant to the thematic priorities of the Call (adaptation to climate change, improved food security, access to raw materials and energy), and (iv) contribute to the improved implementation of and participation in GEO, GEOSS, and Copernicus in the region. In this context, GEO-CRADLE lays out an action plan that starts by inventorying the regional EO capacities and user needs, which in turn leads to a gap analysis, the definition of region specific (G)EO Maturity Indicators and common priority needs. Through showcasing pilots, it demonstrates how the priorities can be tackled by the GEO-CRADLE Network, and provides the roadmap for the future implementation of GEOSS and Copernicus in the region, building on the GEO-CRADLE Regional Data Hub, which abides by the GEOSS Data Sharing Principles. To maximise the impact of GEO-CRADLE activities, well-defined Communication, Dissemination and Stakeholder Engagement strategies are proposed. Key Performance Indicators (KPIs) will be used for the quantified assessment of the impact, identifying potential enabling or constraining factors, while pursuing realistic but also ambitious exploitation scenarios. For efficient project coordination, the project management is assisted by a regional coordination structure, and active liaison with EC, GEO and UN initiatives.

Partners:

Nr	Participant	Country
1	NATIONAL OBSERVATORY OF ATHENS	EL
2	DIABALKANIKO KENTRO PERIBALLONTOS	EL
3	CENTRE FOR ENVIRONMENT AND DEVELOPMENT FOR THE ARAB REGION AND EUROPE	EG
4	CENTRE D'ETUDES ET DE RECHERCHES DETELECOMMUNICATIONS	TN
5	TEL AVIV UNIVERSITY	IL
6	TECHNOLOGIKO PANEPISTIMIO KYPROU	CY
7	TURKIYE BILIMSEL VE TEKNOLOJIK ARASTIRMA KURUMU	TR
8	SPACE RESEARCH AND TECHNOLOGY INSTITUTE	BG
9	NATIONAL INSTITUTE OF RESEARCH AND DEVELOPMENT FOR OPTOELECTRONICS	RO
10	Ss. CYRIL AND METHODIUS UNIVERSITY IN SKOPJE	MK
11	INSTITUTI PER RUAJTJEN E NATYRES SHQIPTARE SHOQATA	AL
12	INSTITUT ZA FIZIKU	RS
13	Centro Internazionale in Monitoraggio Ambientale - Fondazione CIMA	IT
14	IDRYMA IATROVIOLOGIKON EREUNON AKADEMIAS ATHINON	EL
15	INOSENS DOO NOVI SAD	RS
16	EUROPEAN ASSOCIATION OF REMOTE SENSING COMPANIES	BE
17	EURISY	FR
18	EuroGeoSurveys - EGS	BE
19	SCHWEIZERISCHES FORSCHUNGSINSTITUT FUER HOCHGEBIRGSKLIMA UND MEDIZIN IN DAVOS	CH

Sub-activity: 5.5.0

LANDSENSE

689812

Call: H2020-SC5-2015-two-stage

Type of Action: IA

Title: A Citizen Observatory and Innovation Marketplace for Land Use and Land Cover Monitoring

Project total costs:	5,729,056 €	**Project EU contribution:**	5,088,292 €	**Duration (months):**	48

Abstract:

Currently within the EU's Earth Observation (EO) monitoring framework, there is a need for low-cost methods for acquiring high quality in-situ data to create accurate and well-validated environmental monitoring products. The aim of the LandSense project is to build a far reaching citizen observatory for Land Use and Land Cover (LULC) monitoring that will also function as a technology innovation marketplace. LandSense will deploy advanced tools, services and resources to mobilize and engage citizens to collect in-situ observations (i.e. ground-based data and visual interpretations of EO imagery). Integrating these citizen-driven in-situ data collections with established authoritative and open access data sources will help reduce costs, extend GEOSS and Copernicus capacities, and support comprehensive environmental monitoring systems. New LandSense services (LandSense Campaigner, FarmLand Support, Change Detector and Quality Assurance & Control) will be deployed in three demonstration cases that will address critical LULC issues in the areas of urbanization, agricultural land use and forest/habitat monitoring. Policy-relevant campaigns will be implemented in close collaboration with multiple stakeholders to ensure that citizen observations contribute to EU-wide environmental governance and decision-making. There will be numerous pathways to citizen empowerment via the LandSense Engagement Platform, i.e. tools for discussion, online voting collaborative mapping, as well as events linked to various campaigns involving public consultation. Simultaneously, to improve Europe's role in the business of in-situ monitoring, LandSense will create sustainable business models to support market uptake and innovation of its novel added-value products and services.

Partners:

Nr	Participant	Country
1	INTERNATIONALES INSTITUT FUER ANGEWANDTE SYSTEMANALYSE	AT
2	BIRDLIFE INTERNATIONAL	UK
3	SINERGISE LABORATORIJ ZA GEOGRAFSKE INFORMACIJSKE SISTEME DOO	SI
4	THE UNIVERSITY OF NOTTINGHAM	UK
5	INOSENS DOO NOVI SAD	RS
6	GEOVILLE INFORMATIONSSYSTEME UND DATENVERARBEITUNG GMBH	AT
7	UMWELTBUNDESAMT GESELLSCHAFT MIT BESCHRANKER HAFTHUNG (UBA GMBH)	AT
8	INSTITUT NATIONAL DE L'INFORMATION GEOGRAPHIQUE ET FORESTIERE	FR
9	VEREIN DER EUROPAISCHEN BURGEWISSENSCHAFTEN - ECSA E.V.	DE
10	STEINBEIS TRANSFER GMBH	DE
11	RUPRECHT-KARLS-UNIVERSITAET HEIDELBERG	DE
12	WAGENINGEN UNIVERSITY	NL
13	STICHTING VU	NL
14	JRC -JOINT RESEARCH CENTRE- EUROPEAN COMMISSION	BE
15	SECURE DIMENSIONS GMBH	DE
16	GLOBAL 2000 UMWELTSCHUTZORGANISATION	AT
17	EUROPEAN CROWDFUNDING NETWORK	BE

Ground Truth 2.0

689744

Call: H2020-SC5-2015-two-stage **Type of Action:** IA

Title: Ground Truth 2.0 - Environmental knowledge discovery of human sensed data

Project total costs:	5,740,631 €	**Project EU contribution:**	4,975,094 €	**Duration (months):**	36

Abstract:

Ground Truth 2.0 delivers the demonstration and validation of six scaled up citizen observatories in real operational conditions both in the EU and in Africa. It will strengthen the full feedback-loop in the information chain from citizen-based data collection to knowledge sharing for joint decision-making and cooperative planning. The project focuses on environmental indicators in urban and rural areas related to spatial planning issues, with a specific focus on flora and fauna as well as water availability and water quality for land and natural resources management. This is supported by an innovative web-based service for worldwide mapping and updating of land use. The overall objectives of Ground Truth 2.0 are to implement sustainable citizen observatories for the demonstration of their societal and economic benefits, and the global market uptake of the Ground Truth 2.0 concept and enabling technologies. The trans-disciplinary Ground Truth 2.0 approach consists of a multi-actor innovation process to combine the social dimensions of citizen observatories with enabling technologies so that their customisation and deployment is tailored to the envisaged societal and economic impacts of the observatories. The demonstration cases (4 EU and 2 African) cover the full 'spectrum' of citizen-sensed data usage and citizen engagement, and therefore allow testing and validating of the concept and technologies, and evaluation of their impacts under a range of conditions. The Ground Truth 2.0 consortium presents a good mix of industry, SME, NGO, government, research and academia to ensure the roll out and uptake of the observatories. Ground Truth 2.0 is coordinating and interacting with other relevant initiatives, such as GEOSS, INSPIRE as well as the sister projects funded under the same call (namely GROW, SCENT and LANDSENSE) to create mutual synergies.

Partners:

Nr	Participant	Country
1	STICHTING IHE DELFT	NL
2	HYDROLOGIC RESEARCH BV	NL
3	STICHTING AKVO	NL
4	TYGRON SERIOUS GAMING BV	NL
5	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.	BE
6	STARLAB BARCELONA SL	ES
7	ALTRAN INNOVACION SL	ES
8	CENTRO DE INVESTIGACION ECOLOGICA YAPLICACIONES FORESTALES CONSORCIO	ES
9	STOCKHOLMS UNIVERSITET	SE
10	GAVAGAI AB	SE
11	CONSERVATION EDUCATION AND RESEARCH TRUST	UK
12	TRANS-AFRICAN HYDRO-METEOROLOGICAL OBSERVATORY	KE
13	UPANDE LIMITED	KE
14	WORLD WIDE FUND FOR NATURE (WWF) ZAMBIA	ZM

Call: H2020-SC5-2015-one-stage **Type of Action:** ERA-NET-Cofund

Title: The European network for observing our changing planet

Project total costs: 52,361,416 € **Project EU contribution:** 11,000,000 € **Duration (months):** 60

Abstract:

In the last decade a significant number of projects and programmes in different domains of environmental monitoring and Earth observation have generated a substantial amount of data and knowledge on different aspects related to environmental quality and sustainability. Big data generated by in-situ or satellite platforms are being collected and archived with a plethora of systems and instruments making difficult the sharing of data and knowledge to stakeholders and policy makers for supporting key economic and societal sectors. The overarching goal of ERA-PLANET is to strengthen the European Research Area in the domain of Earth Observation in coherence with the European participation to Group on Earth Observation (GEO) and the Copernicus. The expected impact is to strengthen the European leadership within the forthcoming GEO 2015-2025 Work Plan. ERA-PLANET will reinforce the interface with user communities, whose needs the Global Earth Observation System of Systems (GEOSS) intends to address. It will provide more accurate, comprehensive and authoritative information to policy and decision-makers in key societal benefit areas, such as Smart cities and Resilient societies; Resource efficiency and Environmental management; Global changes and Environmental treaties; Polar areas and Natural resources. ERA-PLANET will provide advanced decision support tools and technologies aimed to better monitor our global environment and share the information and knowledge in different domain of Earth Observation.

Partners:

Nr	Participant	Country
1	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
2	AARHUS UNIVERSITET	DK
3	IDRYMA IATROVIOLOGIKON EREUNON AKADEMIAS ATHINON	EL
4	ARISTOTELIO PANEPISTIMIO THESSALONIKIS	EL
5	ALFRED-WEGENER-INSTITUT HELMHOLTZ-ZENTRUM FUR POALR- UND MEERESFORSCHUNG	DE
6	CENTRO NACIONAL DE INFORMACION GEOGRAFICA	ES
7	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
8	CENTRO DE INVESTIGACION ECOLOGICA YAPLICACIONES FORESTALES CONSORCIO	ES
9	CHALMERS TEKNISKA HOEGSKOLA AB	SE
11	EESTI MAAULIKOOL	EE
12	FRIEDRICH-ALEXANDER-UNIVERSITAET ERLANGEN NUERNBERG	DE
14	ILMATIETEEN LAITOS	FI
15	FORSCHUNGSVERBUND BERLIN EV	DE
16	FORSCHUNGSZENTRUM JULICH GMBH	DE
17	HELMHOLTZ ZENTRUM POTSDAM DEUTSCHESGEOFORSCHUNGSZENTRUM GFZ	DE
18	HELMHOLTZ-ZENTRUM GEESTHACHT ZENTRUM FUR MATERIAL- UND KUSTENFORSCHUNG GMBH	DE
19	INTERNATIONALES INSTITUT FUER ANGEWANDTE SYSTEMANALYSE	AT
20	Istituto Superiore per la Protezione e la Ricerca Ambientale	IT
21	IVL SVENSKA MILJOEINSTITUTET AB	SE
22	INSTITUT JOZEF STEFAN	SI
23	MUSEUM FUR NATURKUNDE - LEIBNIZ-INSTITUT FUR EVOLUTIONS- UND BIODIVERSITATSFORSCHUNG AN DER HUMBOLDT-UNIVERSITAT ZU BERLIN	DE
24	Masarykova univerzita	CZ
25	NATIONAL CENTER FOR SCIENTIFIC RESEARCH "DEMOKRITOS"	EL
26	NATIONAL OBSERVATORY OF ATHENS	EL
27	PAUL SCHERRER INSTITUT	CH
28	SENCKENBERG GESELLSCHAFT FUR NATURFORSCHUNG	DE
29	SPACE RESEARCH INSTITUTE OF THE NATIONAL ACADEMY OF SCIENCES OF UKRAINE AND THE NATIONAL SPACE AGENCY OF UKRAINE	UA
30	LEIBNIZ INSTITUT FUER TROPOSPHAERENFORSCHUNG e.V.	DE
31	HELMHOLTZ-ZENTRUM FUER UMWELTFORSCHUNG GMBH - UFZ	DE
32	UNIVERSITA DELLA CALABRIA	IT
33	UNIVERSITE DE GENEVE	CH
34	UNIVERSITA DEGLI STUDI DI PADOVA	IT
35	ROMANIAN SPACE AGENCY	RO

36	STOCKHOLMS UNIVERSITET	SE
37	HELSINGIN YLIOPISTO	FI
38	USTAV VYZKUMU GLOBALNI ZMENY AV CR VVI	CZ

Sub-activity: 5.5.0 **SCENT** **688930**

Call: H2020-SC5-2015-two-stage **Type of Action:** IA

Title: Smart Toolbox for Engaging Citizens into a People-Centric Observation Web

Project total costs:	3,882,488 €	**Project EU contribution:**	3,264,675 €	**Duration (months):**	36

Abstract:

Whilst citizen participation in environmental policy making is still in its infancy, there are signs of a growing level of interest. The majority of citizens, though, both as individuals and as groups often feel disengaged from influencing environmental policies. They also remain unaware of publicly available information, such as the GEOSS or Copernicus initiatives. The SCENT project will alleviate this barrier. It will enable citizens to become the 'eyes' of the policy makers by monitoring land-cover/use changes in their everyday activities. This is done through a constellation of smart collaborative technologies delivered by the SCENT toolbox in TRLs 6-8: i) low-cost and portable data collection tools, ii) an innovative crowd-sourcing platform, iii) serious gaming applications for a large-scale image collection and semantic annotation, iv) a powerful machine-learning based intelligence engine for image and text classification, v) an authoring tool for an easy customization by policy makers, vi) numerical models for mapping land-cover changes to quantifiable impact on flood risks and vii) a harmonization platform, consolidating data and adding it to GEOSS and national repositories as OGC-based observations. SCENT will be evaluated in two large scale demonstrations in Kifisos Attica and Danube Delta. Our consortium covers the complete stakeholder chain: industries in machine learning (IBM), SMEs in crowd-sourcing (U-Hopper), gaming (Xteam) and awareness raising (Carr), leading research institutes with expertise in hydrodynamic modelling (UNESCO-IHE), data harmonization and authoring tools (ICCS) and environmental monitoring (DDNI), NGOs at the pilot sites (HRTA, SOR) and policy makers/public bodies (Region of Attica). The SCENT initiative will go beyond the current project and form a European-wide citizen movement, created and fostered by the SCENT stakeholders, that will ensure its sustainability and its complementarity with existing citizen partnerships.

Partners:

Nr	Participant	Country
1	INSTITUTE OF COMMUNICATION AND COMPUTER SYSTEMS	EL
2	IBM ISRAEL - SCIENCE AND TECHNOLOGY LTD	IL
3	STICHTING IHE DELFT	NL
4	INSTITUTUL NATIONAL DE CERCETARE-DEZVOLTARE DELTA DUNARII	RO
5	U-HOPPER SRL	IT
6	C.C.I.C.C. LIMITED	IE
7	XTEAM SOFTWARE SOLUTIONS SOCIETA A RESPONSABILITA LIMITATA SEMPLIFICATA	IT
8	ELLINIKI OMADA DIASOSIS ATTIKIS	EL
9	SOCIETATEA ORNITOLOGICA ROMANA	RO
10	PERIFEREIA ATTIKIS	EL

Sub-activity: 5.5.0 **SWOS** **642088**

Call: H2020-SC5-2014-two-stage **Type of Action:** RIA

Title: Satellite-based Wetland Observation Service

Project total costs:	4,979,189 €	**Project EU contribution:**	4,979,189 €	**Duration (months):**	36

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 BV	NL
3	REMOTE SENSING SOLUTIONS GMBH	DE
4	BROCKMANN GEOMATICS SWEDEN AB	SE
5	FRIEDRICH-SCHILLER-UNIVERSITAT JENA	DE
6	UNIVERSIDAD DE MALAGA	ES
7	RHEINISCHE FRIEDRICH-WILHELMS-UNIVERSITAT 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
13	WCMC LBG	UK

Call: H2020-SC5-2014-two-stage **Type of Action:** RIA

Title: ECOPOTENTIAL: IMPROVING FUTURE ECOSYSTEM BENEFITS THROUGH EARTH OBSERVATIONS

Project total costs: 15,993,931 € **Project EU contribution:** 14,874,340 € **Duration (months):** 48

Abstract:

Terrestrial and marine ecosystems provide essential services to human societies. Anthropogenic pressures, however, cause serious threat to ecosystems, leading to habitat degradation, increased risk of collapse and loss of ecosystem services. Knowledge-based conservation, management and restoration policies are needed to improve ecosystem benefits in face of increasing pressures. ECOPOTENTIAL makes significant progress beyond the state-of-the-art and creates a unified framework for ecosystem studies and management of protected areas (PA). ECOPOTENTIAL focuses on internationally recognized PAs in Europe and beyond in a wide range of biogeographic regions, and it includes UNESCO, Natura2000 and LTER sites and Large Marine Ecosystems. Best use of Earth Observation (EO) and monitoring data is enabled by new EO open-access ecosystem data services (ECOPERNICUS). Modelling approaches including information from EO data are devised, ecosystem services in current and future conditions are assessed and the requirements of future protected areas are defined. Conceptual approaches based on Essential Variables, Macrosystem Ecology and cross-scale interactions allow for a deeper understanding of the Earth's Critical Zone. Open and interoperable access to data and knowledge is 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, is developed. Knowledge gained in the PAs is 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 is pursued at all levels. SMEs are involved to create expertise leading to new job opportunities, ensuring long-term continuation of services. In summary, ECOPOTENTIAL uses 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 DI BOLZANO	IT
4	AGENCIA ESTATAL CONSEJO SUPERIOR DEINVESTIGACIONES 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	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
10	UNIVERSITY OF LEEDS	UK
11	ENVIRONMENT SYSTEMS LIMITED	UK
12	UNIVERSITATEA DIN BUCURESTI	RO
13	ICETA INSTITUTO DE CIENCIAS, TECNOLOGIAS E AGROAMBIENTE DA UNIVERSIDADE DO PORTO	PT
14	INSTITUTO SUPERIOR TECNICO	PT
15	ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS	EL
16	FOUNDATION FOR RESEARCH AND TECHNOLOGY HELLAS	EL
17	ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE	CH
18	BEN-GURION UNIVERSITY OF THE NEGEV	IL
19	ISRAEL NATURE AND NATIONAL PARKS PROTECTION AUTHORITY	IL
20	PSI HYDROBIOLOGICAL INSTITUTE OHRID	MK
21	COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH	ZA
22	Istituto Superiore per la Protezione e la Ricerca Ambientale	IT
23	POLITECNICO DI MILANO	IT
24	CENTRO DE INVESTIGACION ECOLOGICA YAPLICACIONES FORESTALES CONSORCIO	ES
25	UNIVERSITAT AUTONOMA DE BARCELONA	ES
26	UNIVERSIDAD DE GRANADA	ES
27	UMWELTBUNDESAMT GESELLSCHAFT MIT BESCHRANKER HAFTHUNG (UBA GMBH)	AT
28	UNIVERSITAET POTSDAM	DE
29	MUSEUM FUR NATURKUNDE - LEIBNIZ-INSTITUT FUR EVOLUTIONS- UND BIODIVERSITATSFORSCHUNG AN DER HUMBOLDT-UNIVERSITAT ZU BERLIN	DE
30	FONDATION TOUR DU VALAT	FR
31	STICHTING DELTARES	NL

32	ARATOS ANONYMOS ETERIA ANAPTYXIS, PARAGOGIS & EMPORIAS PROIONTON PLIROFORIKIS & IPSILIS TECHNOLOGIAS (Aratos Technologies S.A.)	EL
33	STARLAB BARCELONA SL	ES
34	MARTIN-LUTHER-UNIVERSITAET HALLE-WITTENBERG	DE
35	STICHTING NIOZ, KONINKLIJK NEDERLANDS INSTITUUT VOOR ONDERZOEK DER ZEE	NL
36	KLAIPEDOS UNIVERSITETAS	LT
37	UNIVERSITE PAUL SABATIER TOULOUSE III	FR
38	UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION -UNESCO	FR
39	LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE	UK
40	UNIVERSITETET I BERGEN	NO
41	TERRADUE UK LTD	UK
42	UNITED NATIONS ENVIRONMENT PROGRAMME	KE
43	UNIVERSITY OF NEW SOUTH WALES	AU
44	EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH	CH
45	AGENCIA DE MEDIO AMBIENTE Y AGUA DE ANDALUCIA	ES
46	UNIVERSITE DE BRETAGNE OCCIDENTALE	FR
47	UNIVERSITE DE GENEVE	CH

Call: H2020-SC5-2014-one-stage **Type of Action:** CSA

Title: Coordinating an Observation Network of Networks EnCompassing saTellite and IN-situ to fill the Gaps in European Observations

Project total costs:	999,996 €	**Project EU contribution:**	999,996 €	**Duration (months):**	24

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 YAPLICACIONES FORESTALES CONSORCIO	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	FONDAZIONE CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI	IT
7	SCIENCE AND TECHNOLOGY BV	NL
8	AGENCIA ESTATAL CONSEJO SUPERIOR DEINVESTIGACIONES CIENTIFICAS	ES
9	INSTITUT ROYAL D'AERONOMIE SPATIALE DE BELGIQUE	BE
10	ASSOCIATION POUR LA RECHERCHE ET LE DEVELOPPEMENT DES METHODES ET PROCESSUS INDUSTRIELS	FR
11	NORSK INSTITUTT FOR LUFTFORSKNING STIFTELSE	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

Call: H2020-BG-2014-2 **Type of Action:** RIA

Title: Optimizing and Enhancing the Integrated Atlantic Ocean Observing System

Project total costs: 20,652,921 € **Project EU contribution:** 20,652,921 € **Duration (months):** 51

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 FUR OZEANFORSCHUNG KIEL	DE
2	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
3	MARINE INSTITUTE	IE
4	UNIVERSITAET BREMEN	DE
5	DANMARKS METEOROLOGISKE INSTITUT	DK
6	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR
7	UNIVERSITE 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 DEINVESTIGACIONES CIENTIFICAS	ES
14	NORSK INSTITUTT FOR VANNFORSKNING	NO
15	CONSORCIO PARA EL DISENO, CONSTRUCCION, EQUIPAMIENTO Y EXPLOTACION DE LA PLATAFORMA OCEANICA DE CANARIAS	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 FUR POALR- UND MEERESFORSCHUNG	DE
23	HAVSTOVAN	FO
24	THE UNIVERSITY OF EXETER	UK
25	INSTITUT DE RECHERCHE POUR LE DEVELOPPEMENT	FR
26	EUMETNET GROUPEMENT D INTERET ECONOMIQUE	BE
27	COLLECTE LOCALISATION SATELLITES SA	FR
28	FONDAZIONE CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI	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	BE
42	EUROPEAN CENTRE FOR MEDIUM-RANGE WEATHER FORECASTS	UK
43	PLYMOUTH MARINE LABORATORY	UK
44	BANTRY MARINE RESEARCH STATION LIMITED	IE
45	SEASCAPE CONSULTANTS LTD	UK
46	BRUNCIN D.O.O. ZA USLUGE	HR
47	Ribocon GmbH	DE
48	DEVELOGIC GMBH	DE
49	NKE INSTRUMENTATION SARL	FR
50	KONGSBERG MARITIME CONTROS 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 FORDERUNG DER WISSENSCHAFTEN EV	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

Sub-activity: 5.6.1 **CLIC** **776758**

Call: H2020-SC5-2017-OneStageB **Type of Action:** RIA

Title: CLIC - Circular models Leveraging Investments in Cultural heritage adaptive reuse

Project total costs: 4,957,033 € **Project EU contribution:** 4,957,033 € **Duration (months):** 36

Abstract:

The characteristics of cultural heritage and landscape pose significant challenges for its governance. Long since cultural heritage is considered as a resource for local development strategies. But there are some contradictions. The sites recognized as cultural heritage are increasing; the costs for functional reuse are growing, while public resources available are becoming scarcer, and private actors are increasingly focused on the short time for payback. The consequence is that there is a growing risk that the decay of heritage will increase year by year because of lack of financial support. Cultural heritage is a non-renewable capital and it is linked to the economy because economics refers to the management of scarce and non-renewable resources; for these reasons, heritage conservation is also an economic choice. The CLIC project addresses significant challenges of cultural heritage and landscape adaptive reuse. It progresses the agenda on heritage-led local sustainable development by developing flexible, transparent, integrated and inclusive tools to manage the change of cultural landscape, which are required to leverage the potential of cultural heritage for Europe. The investment gap in cultural heritage and landscape regeneration will be addressed by CLIC through careful evaluation of all costs, of "complex values" and impacts of adaptive reuse, selecting function(s) not only linked to tourism attractiveness, but also for the well-being improvement, providing critical evidence of wealth, jobs, social, cultural, environmental and economic returns on the investment.The overarching goal of the CLIC trans-disciplinary research project is to identify evaluation tools to test, implement, validate and share innovative "circular" financing, business and governance models for systemic adaptive reuse of cultural heritage and landscape, demonstrating the economic, social, environmental convenience, in terms of long lasting economic, cultural and environmental wealth.

Partners:

Nr	Participant	Country
1	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
2	UPPSALA UNIVERSITET	SE
3	Haute Ecole Groupe ICHEC - ISC Saint Louis - ISFSC	BE
4	UNIVERSITY COLLEGE LONDON	UK
5	TECHNISCHE UNIVERSITEIT EINDHOVEN	NL
6	UNIVERSITY OF PORTSMOUTH HIGHER EDUCATION CORPORATION	UK
7	UNIVERZA V NOVI GORICI	SI
8	WIRTSCHAFTSUNIVERSITAT WIEN	AT
9	UNIWERSYTET WARSZAWSKI	PL
10	ICLEI EUROPEAN SECRETARIAT GMBH (ICLEI EUROPASEKRETARIAT GMBH)*	DE
11	FACILITYLIVE OPCO SRL	IT
12	VASTRA GOTALANDS LANS LANDSTING	SE
13	CITY OF RIJEKA	HR
14	Comune di Salerno	IT
15	Stichting Pakhuis de Zwijger	NL

Sub-activity: 5.6.1

HERACLES

700395

Call: H2020-DRS-2015

Type of Action: RIA

Title: HEritage Resilience Against CLimate Events on Site

Project total costs:	6,564,314 €	**Project EU contribution:**	6,564,314 €	**Duration (months):**	36

Abstract:

HERACLES main objective is to design, validate and promote responsive systems/solutions for effective resilience of CH against climate change effects, considering as a mandatory premise an holistic, multidisciplinary approach through the involvement of different expertise (end-users, industry/SMEs, scientists, conservators/restorators and social experts, decision, and policy makers). This will be operationally pursued with the development of a system exploiting an ICT platform able to collect and integrate multisource information in order to effectively provide complete and updated situational awareness and support decision for innovative measurements improving CH resilience, including new solutions for maintenance and conservation. The HERACLES effectiveness will be ensured by the design and validation of manageable methodologies also for the definition of operational procedures and guidelines for risk mitigation and management. It will be validated in two challenging test beds, key study cases for the climate change impact on European CH assets. The strength of HERACLES solutions is their flexibility in evaluating a big quantity of different information that can be changed and tailored to the specific CH assets needs, guaranteeing in that way a general applicability. In this context, a fundamental role will be played by end-users, which will be active part in the project activities. HERACLES system will be designed and developed by accounting for the economic sustainability and future acceptance by the market and for the social and economic impact for public and local communities while respecting the integrity of CH and the value it hold for communities. Effective technological transfer of HERACLES outcomes to large companies, SMEs and end users, suitable dissemination, communication, education and training activities are also organized to disseminate vision and progresses obtained to different communities, in a vision of wide audiences awareness.

Partners:

Nr	Participant	Country
1	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
2	E-GEOS SPA	IT
3	LEONARDO - SOCIETA PER AZIONI	IT
4	THALES SA	FR
5	FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	DE
6	ARIA TECHNOLOGIES SA	FR
7	SISTEMA GMBH	AT
8	CVR S.R.L.	IT
9	UNINOVA-INSTITUTO DE DESENVOLVIMENTO DE NOVAS TECNOLOGIAS-ASSOCIACAO	PT
10	THE INTERNATIONAL EMERGENCY MANAGEMENT SOCIETY AISBL	BE
11	EUROPEAN MATERIALS RESEARCH SOCIETY	FR
12	FOUNDATION FOR RESEARCH AND TECHNOLOGY HELLAS	EL
13	PANEPISTIMIO KRITIS	EL
14	EPHORATE OF ANTIQUITIES OF HERAKLION	EL
15	COMUNE DI GUBBIO	IT
16	UNIVERSITA DEGLI STUDI DI PERUGIA	IT

Sub-activity: 5.6.1

STORM

700191

Call: H2020-DRS-2015 **Type of Action:** RIA

Title: Safeguarding Cultural Heritage through Technical and Organisational Resources Management

Project total costs:	7,297,875 €	**Project EU contribution:**	7,297,875 €	**Duration (months):**	36

Abstract:

Starting from previous research experiences and tangible outcomes, STORM proposes a set of novel predictive models and improved non-invasive and non-destructive methods of survey and diagnosis, for effective prediction of environmental changes and for revealing threats and conditions that could damage cultural heritage sites. Moreover, STORM will determine how different vulnerable materials, structures and buildings are affected by different extreme weather events together with risks associated to climatic conditions or natural hazards, offering improved, effective adaptation and mitigation strategies, systems and technologies. An integrated system featuring novel sensors (intra fluorescent and wireless acoustic sensors), legacy systems, state of the art platforms (including LiDAR and UAVs), as well as crowdsourcing techniques will be implemented, offering applications and services over an open cloud infrastructure. An important result of STORM will be a cooperation platform for collaboratively collecting and enhancing knowledge, processes and methodologies on sustainable and effective safeguarding and management of European Cultural Heritage. The system will be capable of performing risk assessment on natural hazards taking into account environmental and anthropogenic risks, and of using Complex Events processing. Results will be tested in relevant case studies in five different countries: Italy, Greece, UK, Portugal and Turkey. The sites and consortium have been carefully selected so as to adequately represent the rich European Cultural Heritage, while associate partners that can assist with liaisons and links to other stakeholders and European sites are also included.The project will be carried out by a multidisciplinary team providing all competences needed to assure the implementation of a functional and effective solution to support all the actors involved in the management and preservation of Cultural Heritage sites.

Partners:

Nr	Participant	Country
1	ENGINEERING - INGEGNERIA INFORMATICA SPA	IT
2	INOV INESC INOVACAO - INSTITUTO DE NOVAS TECNOLOGIAS	PT
3	FOUNDATION FOR RESEARCH AND TECHNOLOGY HELLAS	EL
4	Technological Educational Institute of Piraeus	EL
5	RESILTECH SRL	IT
6	SOPRINTENDENZA SPECIALE PER IL COLOSSEO IL MUSEO NAZIONALE ROMANO E L'AREA ARCHEOLOGICA DI ROMA	IT
7	UNIVERSITA DEGLI STUDI DELLA TUSCIA	IT
8	KPEOPLE LTD	UK
9	UNIVERSITAET STUTTGART	DE
10	MINISTERO DELL'INTERNO	IT
11	MELLOR ARCHAEOLOGICAL TRUST	UK
12	SPARTA TECHNOLOGIES LTD	UK
13	THE UNIVERSITY OF SALFORD	UK
14	NOVA CONSERVACAO - RESTAURO E CONSERVACAO DO PATRIMONIO ARTISTICO-CULTURAL LDA	PT
15	TROIARESORT - INVESTIMENTOS TURÍSTICOS, S.A.	PT
16	DIRECAO GERAL DO PATRIMONIO CULTURAL	PT
17	MUNICIPIO DE GRANDOLA	PT
18	ZENTRALANSTALT FUR METEOROLOGIE UNDGEODYNAMIK	AT
19	EPHORATE OF ANTIQUITIES OF RETHYMNO	EL
20	BOGAZICI UNIVERSITESI	TR

Call: H2020-EE-2014-1-PPP **Type of Action:** RIA

Title: Robust Internal Thermal Insulation of Historic Buildings

Project total costs:	5,331,375 €	**Project EU contribution:**	4,962,375 €	**Duration (months):**	60

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	RISE RESEARCH INSTITUTES OF SWEDEN AB	SE
8	HAUTE ECOLE SPECIALISEE DE SUISSE OCCIDENTALE	CH
9	INTRO FLEX APS	DK
10	ERIK MOLLER ARKITEKTER AS	DK

Sub-activity: 5.6.2 **ROCK** **730280**

Call: H2020-SC5-2016-TwoStage **Type of Action:** IA

Title: Regeneration and Optimisation of Cultural heritage in creative and Knowledge cities

Project total costs: 10,586,949 € **Project EU contribution:** 9,873,586 € **Duration (months):** 36

Abstract:

ROCK aims to develop an innovative, collaborative and circular systemic approach for regeneration and adaptive reuse of historic city centres. Implementing a repertoire of successful heritage-led regeneration initiatives, it will test the replicability of the spatial approach and of successful models addressing the specific needs of historic city centres.ROCK will transfer the Role Models blueprint to the Replicators, adopting a cross-disciplinary mentoring process and defining common protocols and implementation guidelines. ROCK will deliver new ways to access and experience Cultural Heritage [CH] ensuring environmental sound solutions, city branding, bottom-up participation via living labs, while increasing liveability and safety in the involved areas. ICT sensors and tools will support the concrete application of the ROCK principles and the interoperable platform will enable new ways to collect and exchange data to facilitate networking and synergies. The added value is the combination of sustainable models, integrated management plans and associated funding mechanisms based on successful financial schemes and promoting the creation of industry-driven stakeholders' ecosystems. A monitoring tool is set up from the beginning, running during two additional years after the project lifetime. Main expected impacts deal with the achievement of effective and shared policies able to: accelerate heritage led regeneration, improve accessibility and social cohesion, increase awareness and participation in local decision making process and wider civic engagement, foster businesses and new employment opportunities. Involving 10 cities, 7 Universities, 3 networks of enterprises, 2 networks of cities and several companies and development agencies, a foundation and a charity, ROCK is able to catalyse challenges and innovative pathways across EU and beyond, addressing CH as a production and competitiveness factor and a driver for sustainable growth.

Partners:

Nr	Participant	Country
1	COMUNE DI BOLOGNA	IT
2	ALMA MATER STUDIORUM - UNIVERSITA DI BOLOGNA	IT
3	CAMARA MUNICIPAL DE LISBOA	PT
4	COMUNE DI TORINO	IT
5	COMMUNE DE LYON	FR
6	MUNICIPUL CLUJ-NAPOCA	RO
7	FILIALA TRANSILVANIA A ASOCIATIEI ROMANE PENTRU INDUSTRIA ELECTRONICA SI DE SOFTWARE	RO
8	UNIVERSITY OF YORK	UK
9	EUROCITIES ASBL	BE
10	ICLEI EUROPEAN SECRETARIAT GMBH (ICLEI EUROPASEKRETARIAT GMBH)*	DE
11	NOWHERE SRL	IT
12	TASO DESARROLLOS SL	ES
13	CITY OF SKOPJE	MK
14	CORVALLIS S.P.A.	IT
15	URBASOFIA SRL	RO
16	DFRC AG	CH
17	ACCIONA CONSTRUCCION SA	ES
18	ETAIREIA ANAPTYXIS KAI TOURISTIKIS PROVOLIS ATHINON - ANAPTYXIAKI ANONYMOS ETAIREIA ORGANISMOU TOPIKIS AFTODIOIKISIS	EL
19	JULIES BICYCLE	UK
20	VIRTUALWARE 2007 SA	ES
21	FONDAZIONE FITZCARRALDO	IT
22	ASOCIATION ECOPRENEURS FOR THE CLIMATE	ES
23	VILNIAUS MIESTO SAVIVALDYBES ADMINISTRACIJA	LT
24	VILNIAUS GEDIMINO TECHNIKOS UNIVERSITETAS VIESOJI ISTAIGA	LT
25	ANOTATI SCHOLI KALON TECHNON	EL
26	INSTITUTO DE CIENCIAS SOCIAIS DA UNIVERSIDADE DE LISBOA	PT
27	LIVERPOOL CITY COUNCIL	UK
28	GEMEENTE EINDHOVEN	NL
29	CONFINDUSTRIA SERVIZI INNOVATIVI E TECNOLOGICI	IT
30	TECHNISCHE UNIVERSITEIT EINDHOVEN	NL
31	Ss. CYRIL AND METHODIUS UNIVERSITY IN SKOPJE	MK

32 VIABIZZUNO SRL IT

Call: H2020-SC5-2017-OneStageA **Type of Action:** CSA

Title: Nature-based Solutions: From Innovation to Common-use

Project total costs:	274,517 €	**Project EU contribution:**	274,517 €	**Duration (months):**	9

Abstract:

The Estonian Presidency Conference “Nature-based Solutions: From Innovation to Common-use” (NBS2017) will involve original knowledge on Nature-based Solutions (NBS) policy, multi-functionality and effectiveness and management options. Presented research and applied results will contribute to improved use and implementation of NBS. The conference aims to strengthen synergy among various recent initiatives and programs launched by the European Commission and the Member States and develop recommendations for future practical solutions and actions. This benefits the overall coherence and helps to improve policies and implementation of NBS in the European Union (EU).

The conference is planned for 500 participants and will be held 24 - 26 October 2017 in Tallinn, Estonia. The first day of the conference will be planned for side events (including special working meeting with invitations) and field trips related to the theme of the conference; the second day will concentrate on the EU level and strategic steps related to NBS concept and policy; the third day will concentrate on applied projects and case studies of NBS (EU including Estonian cases, Eastern Partnership countries).The knowledge and experiences of the invited guests, politicians and representatives of international organizations and countries will provide an input for drafting recommendations related to necessary political and societal processes that can facilitate the process towards NBS at national and EU level. In line with the objectives of 7th Environment Action Programme, the Council conclusions on the EU action plan for the circular economy and the European Commission Research & Innovation agenda “Nature-Based Solutions and Re-Naturing Cities” on new and innovative NBS to societal challenges, the conference will contribute to the protection of our natural capital, stimulate resource-efficiency and innovation, and safeguard people’s health and wellbeing, while respecting the Earth’s natural limit.

Partners:

Nr	Participant	Country
1	KESKKONNAMINISTEERIUM	EE
2	TALLINN UNIVERSITY	EE

Call: H2020-LCE-2016-ERA **Type of Action:** ERA-NET-Cofund

Title: Establishing the European Geological Surveys Research Area to deliver a Geological Service for Europe

Project total costs: 31,303,030 € **Project EU contribution:** 10,000,000 € **Duration (months):** 60

Abstract:

The GeoERA proposal is put forward by the national and regional Geological Survey Organisations (GSO) of Europe. Its overall goal is to integrate the GSO's information and knowledge on subsurface energy, water and raw material resources, to support sustainable use of the subsurface in addressing Europe's grand challenges. The GeoERA consortium will organise and co-fund together with the EC a joint call for transnational research projects that address the development of 1) interoperable, pan-European data and information services on the distribution of geo-energy, groundwater and raw material resources; 2) common assessment frameworks and methodologies supporting better understanding and management of the water-energy-raw materials nexus and potential impacts and risks of subsurface use; 3) knowledge and services aimed at European, national and regional policy makers, industry and other stakeholders to support a more integrated and efficient management and more responsible and publicly accepted exploitation and use of the subsurface. The transnational projects selected in the call will be implemented by the consortium partners themselves, who provide their co-funding in-kind. GeoERA will contribute to the overall EU objective of building the ERA through enhanced cooperation and coordination of national and regional Geological Survey research programmes. GeoERA will also include forward looking activities, including the creation of opportunities for future collaborative research, and the feasibility assessment of an Article 185 initiative in Applied Geoscience as follow-up to the GeoERA ERA-NET towards the development of the ultimate goal of delivering a Geological Service for Europe.

Partners:

Nr	Participant	Country
1	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK TNO	NL
2	PER SHERBIMIN GJEOLOGJIK SHQIPTAR	AL
3	GEOLOGISCHE BUNDESANSTALT	AT
4	INSTITUT ROYAL DES SCIENCES NATURELLES DE BELGIQUE	BE
5	VLAAMS GEWEST	BE
6	VLAAMSE MILIEUMAATSCHAPPIJ	BE
7	FEDERALNI ZAVOD ZA GEOLOGIJU SARAJEVO	BA
8	HRVATSKI GEOLOSKI INSTITUT	HR
9	MINISTRY OF AGRICULTURE, RURAL DEVELOPMENT AND ENVIRONMENT OF CYPRUS	CY
10	CESKA GEOLOGICKA SLUZBA	CZ
11	Geological Survey of Denmark and Greenland	DK
12	GEOLOGIAN TUTKIMUSKESKUS	FI
13	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	FR
14	BUNDESANSTALT FUER GEOWISSENSCHAFTEN UND ROHSTOFFE	DE
15	REGIERUNGSPRASIDIUM FREIBURG	DE
16	BAYERISCHES LANDESAMT FUR UMWELT	DE
17	LANDESAMT FUER BERGBAU, GEOLOGIE UND ROHSTOFFE BRANDENBURG	DE
18	Landesamt für Bergbau, Energie und Geologie	DE
19	LANDESAMT FUR GEOLOGIE UND BERGWESEN SACHSEN-ANHALT	DE
20	INSTITOUTO GEOLOGIKON KAI METALLEFTIKON EREVNON	EL
21	HUNGARIAN OFFICE FOR MINING AND GEOLOGY	HU
22	ISLENSKAR ORKURANNSOKNIR	IS
23	COMMUNICATIONS, CLIMATE ACTION AND ENVIRONMENTS	IE
24	Istituto Superiore per la Protezione e la Ricerca Ambientale	IT
25	REGIONE EMILIA ROMAGNA	IT
26	REGIONE MARCHE	IT
27	AGENZIA REGIONALE PER LA PROTEZIONE AMBIENTALE DEL PIEMONTE	IT
28	REGIONE TOSCANA	IT
29	Regione Umbria	IT
30	REGIONE AUTONOMA VALLE D'AOSTA	IT
31	LATVIJAS VIDES, GEOLOGIJAS UN METEOROLOGIJAS CENTRS SIA	LV
32	Lietuvos geologijos tarnyba prie Aplinkos ministerijos	LT
33	ADMINISTRATION DES PONTS ET CHAUSSEES DIRECTION	LU

34	MINISTRY FOR TRANSPORT AND INFRASTRUCTURE	MT
35	NORGES GEOLOGISKE UNDERSOKELSE	NO
36	PANSTWOWY INSTYTUT GEOLOGICZNY - PANSTWOWY INSTYTUT BADAWCZY	PL
37	Laboratorio Nacional de Energia e Geologia I.P.	PT
38	INSTITUTUL GEOLOGIC AL ROMANIEI	RO
39	STATNY GEOLOGICKY USTAV DIONYZA STURA	SK
40	GEOLOSKI ZAVOD SLOVENIJE	SI
41	INSTITUTO GEOLÓGICO Y MINERO DE ESPAÑA	ES
42	INSTITUT CARTOGRAFIC I GEOLOGIC DE CATALUNYA	ES
43	SVERIGES GEOLOGISKA UNDERSOKNING	SE
44	STATE RESEARCH AND DEVELOPMENT ENTERPRISE STATE INFORMATION GEOLOGICAL FUND OF UKRAINE	UA
45	NATURAL ENVIRONMENT RESEARCH COUNCIL	UK
46	LANDESAMT FUER UMWELT, NATURSCHUTZ UND GEOLOGIE MECKLENBURG-VORPOMMERN	DE
47	GEOLOGICAL SURVEY OF THE REPUBLIC OF MACEDONIA	MK
48	GEOLOGICAL SURVEY OF SERBIA	RS

Sub-activity: 5.7.0

T2S

730211

Call: H2020-SC5-2016-OneStageB

Type of Action: ERA-NET-Cofund

Title: Transformations to Sustainability

Project total costs:	11,044,776 €	**Project EU contribution:**	3,585,672 €	**Duration (months):**	60

Abstract:

The Transformations to Sustainability (T2S) ERA-NET Cofund programme will be implemented in the context of a Belmont Forum Collaborative Research Action in cooperation with the NORFACE (New Opportunities for Research Funding Agency Cooperation in Europe) network and the International Social Science Council (ISSC). A comprehensive and concerted research initiative is needed that can boost research on transformations to sustainability, that can catalyse new kinds of solutions to environmental and social challenges. This T2S programme therefore seeks to bring into being and nurture integrated teams of scientists from relevant academic disciplines including, as appropriate, social, natural, human, natural, engineering, agricultural and health/medical sciences disciplines and societal stakeholders to produce new knowledge and perspectives that can contribute to finding equitable and durable solutions to the challenges of sustainability in specific contexts, in support of the Sustainable Development Goals. This programme will contribute to re-structuring the broad field of sustainability research to place social science at the heart of interdisciplinary efforts and will contribute to a step change in scale and scope for research programming on this topic. This future-oriented call will be jointly undertaken by major funding agencies in Europa, the United States, Brazil, Taiwan and Japan. The T2S programme will coordinate the research efforts of the participating Member States and international partners by implementing a joint trans-national call with European Commission co-funding to fund innovative comparative, transnational and interdisciplinary research initiatives within this thematic field. The T2S partners will pursue the expansion of their present effective collaboration and actively strive at widening the consortium.

Partners:

Nr	Participant	Country
1	NEDERLANDSE ORGANISATIE VOOR WETENSCHAPPELIJK ONDERZOEK	NL
2	SUOMEN AKATEMIA	FI
3	AGENCE NATIONALE DE LA RECHERCHE	FR
4	DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV	DE
5	NORGES FORSKNINGSRAD	NO
6	VETENSKAPSRADET - SWEDISH RESEARCH COUNCIL	SE
7	ECONOMIC AND SOCIAL RESEARCH COUNCIL	UK
8	AN TUDARAS UM ARD OIDEACHAS	IE
10	FONDS VOOR WETENSCHAPPELIJK ONDERZOEK-VLAANDEREN	BE
11	FONDS NATIONAL DE LA RECHERCHE SCIENTIFIQUE	BE
12	JAVNA AGENCIJA ZA RAZISKOVALNO DEJAVNOST REPUBLIKE SLOVENIJE	SI
13	FONDS NATIONAL DE LA RECHERCHE	LU
14	VALSTS IZGLITIBAS ATTISTIBAS AGENTURA	LV

Sub-activity: 5.7.0

T2gE

724052

Call: H2020-SC5-2016-OneStageA

Type of Action: CSA

Title: Transition to the Green Economy

Project total costs:	317,144 €	**Project EU contribution:**	285,689 €	**Duration (months):**	9

Abstract:

The main objective of the project is to contribute to a transition towards a green economy in Europe through organization of the international conference “Transition to a green economy” (T2gE). This international conference will be an event of major strategic nature during the Slovak Presidency of the European Council. Conference will bring together a broad spectrum of stakeholders. Its ambition is to improve understanding of the green economy concept, identify conclusions and pathways for transition as well as to involve and mobilise various actors and stakeholders in the discussions of possible future actions. The conference also aims to strengthen synergy among various recent initiatives and programmes launched by the European Commission (i.e 7EAP, Circular economy package, Energy Union, Juncker Commission’s priorities etc) and by the Member States, to the benefit of the overall coherence.The conference will aim to bring together policymakers from various EU countries, as well as a range of stakeholders from international organizations, academia, business, and civil society and encourage an open debate around key green economy issues. At the end of the conference, draft conclusions, for both the national and the European level, will be approved which will be useful tool for implementation of policy in the field of green economy. Parallel breakout sessions will be devoted to various relevant subjects with the involvement of representatives from civil society, policymakers, business, science and innovations, and regional and local authorities. The participants will present examples of the green economy approaches from successful countries, which will be discussed and reflected in the conclusions to ensure that green economy policy conclusions are relevant to countries’ needs. Part of the conference will be oriented on practical demonstration of Slovak examples of green/circular economy – field trip.

Partners:

Nr	Participant	Country
1	SLOVENSKA AGENTURA ZIVOTNEHO PROSTREDIA	SK
2	MINISTRY OF ENVIRONMENT	SK
3	PEDAL CONSULTING SRO	SK
4	MOTION ZONE SRO	SK

Sub-activity: 5.7.0

NCPs CaRE

642025

Call: H2020-SC5-2014-one-stage

Type of Action: CSA

Title: National Contact Points for Climate action, Raw materials, Environment and Resource Efficiency

Project total costs:	2,092,684 €	**Project EU contribution:**	1,999,932 €	**Duration (months):**	48

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 JULICH GMBH	DE
2	IDRYMA PROOTHISIS EREVNAS	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
10	CENTRUM VEDECKO TECHNICKYCH INFORMACII SLOVENSKEJ REPUBLIKY	SK
11	DIENST VOOR WETENSCHAPPELIJKE EN TECHNISCHE INFORMATIE- SERVICE D'INFORMATION SCIENTIFIQUE ET TECHNIQUE	BE
12	SIHTASUTUS EESTI TEADUSAGENTUUR	EE
13	VEREIN EURESEARCH	CH
14	MINISTERIE VAN ECONOMISCHE ZAKEN	NL
15	FUNDACAO PARA A CIENCIA 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 izobrazevanje, 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
24	INSTITUTIA DE CERCETARE SI DEZVOLTARE DIN REPUBLICA MOLDOVA	MD
25	INSTITUT ZA NUKLEARNE NAUKE VINCA	RS