

20th WG F meeting - Berlin 5-6 October 2016

**“Update on research activities:  
Water JPI and related ERAnets”**

**Giuseppina Monacelli** – ISPRA Italian National Institute for  
Environmental Research and Protection



**ISPRA**

Istituto Superiore per la Protezione  
e la Ricerca Ambientale

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## “Water challenges in a Changing World”



The Water JPI is one of the ten Joint Programming Initiatives (JPIs) identified on relevant societal challenges.

The aim is to **strengthen coordination and cooperation** among EU Member States and Associated Countries about themes representing urgent and far-reaching problems, which could be better solved by joining efforts at European and international level.

The Water JPI is **harmonizing national Research, Development and Innovation (RDI) agendas and developing joint actions (projects, mobility and infrastructure) in the water sector.**

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## 5 themes (SRIA 2.0)

“Water challenges in a Changing World”

Maintaining ecosystem sustainability



Developing safe water systems for the citizens



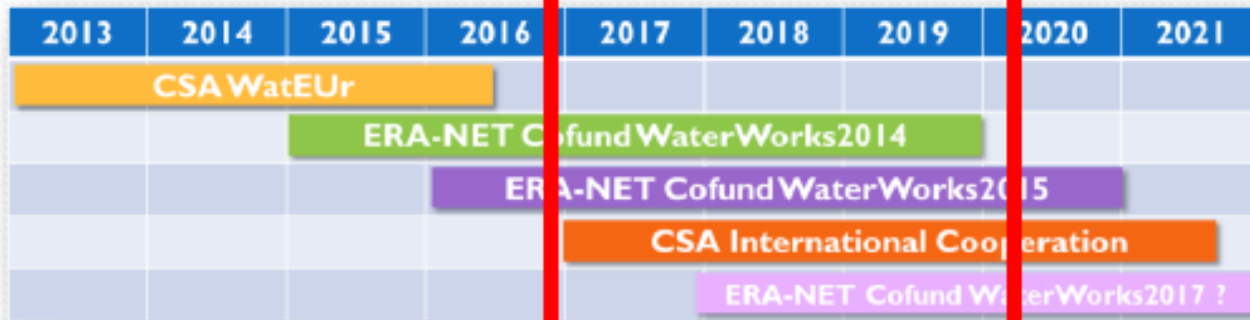
Promoting competitiveness in the water industry



Implementing a water-wise bioeconomy



Closing the water cycle gap



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ERA-NET Cofund	Timeframe	SRIA Theme	Scope	Synergy with	Comments
H2020 SC5 WP 2018 – TBC?	2019-2023 – TBC?	Theme 1	<p><b>1.1.1.</b> Developing approaches for assessing the ecological functioning of ecosystems</p> <p><b>1.2.3.</b> Understanding and managing ecological flows</p> <p><b>1.2.4.</b> Integrated eco-technological solutions for the remediation and mitigation of degraded water bodies and aquatic ecosystems</p>	BIODIVERSA	
H2020 SC5 WP 2019 – TBC?	2020-2024 – TBC?	Theme 2	<p><b>2.1.2.</b> Understanding and predicting the environmental behaviour and effects of by-products, pollutants and pathogens, including their environmental effects</p>	JPI AMR	The proposed timing would correspond with the completion of the 2013 Pilot Call Projects
H2020 SC5 WP 2020 – TBC?	2021-2025 – TBC?	Theme 1	<p><b>1.3.1.</b> Understanding the causes of drought/scarcity, predicting drought events and water scarcity and developing adaptation measures</p> <p><b>1.3.2.</b> Developing innovative (or improved) tools for adaptation to hydro-climatic extreme events, especially floods</p>	JPI Climate and/or JPI Urban Europe	The timing of this Joint call would allow to review the topics/scope covered by the foreseen Joint Call between Urban Europe & the Belmont Forum

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## JOINT CALLS



**Pilot Call** – Emerging Contaminants

MS 9 M€ - 7 funded projects / Kick-off meeting 11 March 2015

**WaterWorks2014** – Research and Innovation for Developing Technological Solutions and Services:

1. for Water Treatment, Reuse, Recycling and Desalination;
2. for Water Resources Management;
3. to Mitigate Impacts of Extreme Events (Floods and Droughts) at Catchment Scale.

MS : 12,3 M€ + EC: 6,06 M€ = 18,37 M€

16 funded projects

**WaterWorks2015** – Water and Agriculture – in cooperation with FACCE JPI

MS: 17 M€ + EC: 8,5 M€ = 25,5 M€

Launch of the call: beginning of 2016 – II stage ongoing

**IC4WATER Call** – topic in relation with UN SDGs

**WaterWorks2017** – Closing the Water Cycle Gap – Sustainable management of water resources (WP 2017- EC funds 10M€)

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Training Webinar for Researchers in September 2016

The EIP Water and the Water JPI are offering a half-day webinars for researchers in the water area to help them engage more effectively with stakeholders and end-users. [To know more](#)



## The Water JPI 2016 Joint Call STEP 2

The Water and FACCE JPIs have launched a call for international and transnational collaborative research projects on "Sustainable management of water resources in agriculture, forestry and freshwater aquaculture sectors".

**Deadline for Submission of full proposals: 28 September 2016, 13h00 (CEST).**

For detailed information please consult the [2016 Joint Call Official Webpage](#).

To facilitate networking & collaboration between applicants, the Water JPI has set up a Discussion Forum on LinkedIn: "[Water JPI - Researchers Forum](#)"



<http://www.waterjpi.eu>

## WATERWORKS2014 ERA-NET COFUNDED CALL



A total of 16 transnational collaborative research projects presented on the call theme "Research and Innovation for Developing Technological Solutions and Services for Water".

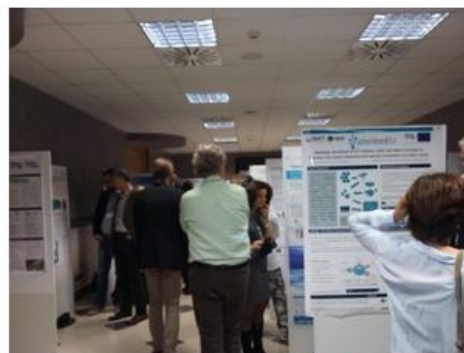
Committee: ACWAPUR, Biorg4WasteWaterVal+, DESER MUFFIN, Pioneer\_STP, PROGNOSE, SIM, STEEP STREAM. The [Kick-off meeting](#) of the projects was held in Rome on [Funded projects](#)

Those projects were presented at the poster session of the Water JPI Conference.

### The seven Pi

The projects [FRAME](#), [MOTREM](#), [PROMOTE](#), [METAV](#) contaminants – anthropogenic pollutants and pathogens" researchers involved, their societal impact.

[More information](#)



ACWAPUR

PROJECT ABSTRACT

BIORG4

PROJECT ABSTRACT

DESERT

PROJECT ABSTRACT

**WaterWorks2014 funded projects - kick-off Rome 18 May 2016 - all the presentations on-line**

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The [Kick-off meeting](#) of the projects was held in Rome on 18 May 2016.

[Results of the evaluation procedure](#).

## Funded projects under the 2015 Water JPI Joint Call

Acronym	Title	Coordinator	Countries
<b>Watinctech</b>	Smart decentralized water management through a dynamic integration of technologies	Ignasi Rodriguez-Roda Layret (Spain)	Spain, Italy, Denmark, Portugal
<b>Pioneer_STP</b>	The Potential of Innovative Technologies to Improve Sustainability of Sewage Treatment Plants	Juan M. Lema (Spain)	Spain, Italy, Denmark, Sweden, Spain
<b>Biorg4Waste-WaterVAI+</b>	Bioorganic novel approaches for food processing waste water treatment and valorisation: Lupanine case study	Carlos Alberto Afonso (Portugal)	Portugal, Italy, Spain, Cyprus
<b>ACWAPUR</b>	Accelerated water purification during artificial recharge of aquifers - a tool to restore drinking water resources	Jens Aamand (Denmark)	Denmark, Spain, Sweden, Italy
<b>TH.E.R.BIO.R</b>	Thermal energy recovery from a novel sequencing batch biofilter granular reactor	Franciso Javier Batlles Garrido (Spain)	Spain, Italy, Denmark
<b>DESERT</b>	Low-cost water DEsalination and SEnsoR Technology compact module	Pietro Rubio (Italy)	Italy, Spain, Belgium

<b>MEPROWARE</b>	Novel methodology for the promotion of treated wastewater reuse for Mediterranean crops improvement	Alfieri Pollice (Italy)	Italy, Portugal, Spain
<b>PROGNOS</b>	Predicting in-lake responses to change using near real time models	Donal Pierson (Sweden)	Sweden, Ireland, Denmark, Norway, Israel
<b>WE-NEED</b>	WatEr NEEDs, availability, quality and sustainability Consortium Composition	Monica Riva (Italy)	Italy, Israel, Portugal, Spain
<b>IRIDA</b>	Innovative remote and ground sensors, data and tools into a decision support system for agriculture water management	Diego S. Intrigliolo (Spain)	Spain, Italy, Romania, Norway
<b>DOMINO</b>	Dikes and Debris Flows Monitoring by Novel Optical Fiber Sensors	Luca Palmieri (Italy)	Italy, The Netherlands, Spain
<b>INXCES</b>	INnovations for eXtreme Climatic EventS	Tone Merete Muthanna (Norway)	Sweden, Norway, Netherlands, Romania
<b>SIM</b>	Smart irrigation from soil moisture forecast using satellite and hydro-meteorological modelling	Marco Mancini (Italy)	Italy, The Netherlands, Spain, China
<b>MUFFIN</b>	Multi-scale urban flood forecasting: from local tailored systems to a pan-European service	Jonas Olsson (Sweden)	Sweden, Denmark; The Netherlands, Finland
<b>IMDRO-FLOOD</b>	Improving Drought and Flood Early Warning, Forecasting and Mitigation using real-time hydroclimatic indicators	Sergio Vicente-Serrano (Spain)	Spain, Portugal, Romania, Estonia, Rep. of Moldova, South Africa
<b>STEEP STREAMS</b>	Solid Transport Evaluation and Efficiency in Prevention: Sustainable Techniques of Rational Engineering and Advanced Methods	Aronne A. Armanini (Italy)	Italy, Sweden, Portugal



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You are here: [Home](#) ▶ [Joint Calls](#) ▶ Joint Call 2015



## Stepping up EU research and innovation cooperation in the water area

### WATERWORKS 2014

The ERA-NET Cofund Water Works 2014 was launched in 2014 in support of the [Water JPI](#). It is funded by the EC under Horizon 2020.

WaterWorks2014 aims at tackling 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 Organisations.

WaterWorks2014 will benefit researchers, policy-makers, water authorities, utility operators, industry, farmers, and citizens by developing new solutions in the water domain.

[A joint call was launched on March 2, 2015](#) in order to address Europe's water challenges through the development of research and innovation in a transnational and multidisciplinary perspective.

A total of 16 transnational collaborative research projects presented on the call theme "Research and Innovation for Developing Technological Solutions and Services for Water Systems" were selected for funding by the Call Steering Committee: ACWAPUR, Biog4WasteWaterVal+, DESERT, DOMINO, [IMDROFLOOD](#), INXCES, [IRIDA](#), [MEPROWARE](#), [MUFFIN](#), Pioneer, STP, PROGNOSE, SIM, STEEP STREAMS, [THERBIO.R](#), watintech, [WE-NEED](#). These

are funded by the European Commission. Grants are distributed according to national rules and

[imdroflood.csic.es](#)

Project presentation  
[IMDROFLOOD](#)



Coordinator

[Sergio M. Vicente Serrano](#)

Projects Partner and Institution:

Sergio M. Vicente-Serrano ([Spanish National Research Council](#))

Ricardo Trigo ([Universidade de Lisboa](#))

Chris Reason ([University of Cape Town](#))

Roxana Bojaru ([National Meteorological Administration](#))

Jaak Jaagus ([University of Tartu](#))

Boris Boincean ([Research Institute of Field Crops "Selectia"](#))

Jaime Ribalagua ([MeteoGRID](#))

Luis Gimeno ([University of Vigo](#))

Key words: flood; drought; meteorological prediction; hydrological modelling; drought indices; remote sensing; atmospheric mechanisms; natural hazards

Abstract:

Strengthen drought and flood forecasting and early warning is essential to improve adaptation to climate change. IMDROFLOOD plans different actions to improve the mitigation of the impact of droughts and floods at the

MULTI-SCALE URBAN FLOOD FORECASTING (MUFFIN): FROM LOCAL TAILORED SYSTEMS TO A PAN-EUROPEAN SERVICE

Interactive WEB site of the Project Under construction

Project presentation  
[MUFFIN](#)



Coordinator:

[Jonas Olsson](#)

Projects Partner and Institution:

[Aalborg University](#), Denmark

[Delft University of Technology](#), the Netherlands

[Aalto University](#), Finland

Key words:

Abstract:

Urban flood forecasting and warning is increasingly important in light of both ongoing urbanization, generating larger and denser cities, and climate change, generating higher rainfall intensities. In this project, improved forecasting systems will be developed to support decision makers at levels from local to Pan-European.

Project structure:

WP1 - Management, WP2 - End-user Value, WP3 - Hydro-meteorological Data, WP4 - Urban Flood Forecasting, WP5 - Exploitation and Dissemination

Implementation:

The development will be performed by coordinated forecast experiments in several European cities, where different meteorological and hydrological/hydraulic model systems will be set up and run in parallel. The experiments will be discussed in end-user workshops, to ensure practical relevance.

Outcome/deliverables: The project is expected to generate innovative tools for generation and communication of urban flood forecasts in different spatial contexts, based on new technology as well as an improved understanding of end-user's needs and limitations.

References coordinator and leaders of each WP:

Leader WP1 - [Jonas Olsson](#)

WP2 - [Lisa van Well](#)

WP3 - [Herman Russchenberg](#)

WP4 - [Soren Thordahl](#)

WP5 - [Jonas Olsson](#)

Contact Point for Communication/Dissemination activities:

[Lorna Little](#)

Contact Point for Open Data/Open Access activities:

[Lorna Little](#)

## PROJECTS ON-LINE BOOKLET



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Welcome to the website of the JPI on “Water challenges for a changing world” aiming to tackle the ambitious grand challenge of “Achieving sustainable water systems for a sustainable economy in Europe and abroad”. Water is vital and essential for a smart, sustainable and inclusive growth. Better results and optimization of public funds are obtained through the alignment of water research agendas and programmes at European and international level.



## The Strategic Research and Innovation Agenda 2.0

The WATER JPI SRIA version 2.0 lays out research, innovation and development needs in the water sector grouped by thematic areas and priorities selected after a stakeholders' consultation for their scientific and societal importance and structured around these five core themes: *Improving Ecosystem Sustainability and Human Well-being; Developing Safe Water Systems for the Citizens; Promoting Competitiveness in the Water Industry; Implementing a Water-Wise Bio-Based Economy; Closing the Water Cycle Gap Improving Sustainable Water Resources Management.* It will be implemented during the period 2016-2019.

Download the short version: [Introduction to the SRIA](#).

The SRIA was presented during the Water JPI conference held in Rome on 19 th May 2016. The event video is available [here](#).



## Water JPI key achievements 2011-2016



This publication presents the ten main goals achieved by the initiative till now.

[Read more](#)

## Project database & Open Data JPI Interface



[Project database](#)  
[Open Data JPI Interface](#)

## The WATER JPI is a relevant structure for Horizon 2020

External advice to the development and the implementation of Horizon 2020 is provided according to the [EC COM 494 2013](#)  
[Task Force on Interactions with Horizon 2020](#)



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Welcome to the Open Water JPI!

From here you can access the project database by filtering for Funder, Organisation, Country, Project Coordinator, Publication Year, Resource Type or searching by Title, Subject or Keyword.

Funder:

Organisation:

Project Coordinator:

Publication Year:

Title\Subject\Keywords:



10 Showing 1 to 10 of 2271 Entries

	Country	Start Date	Acronym
	IRELAND	01/06/2016	Lt-AD
	IRELAND	01/11/2014	Lt-AD

You are here: [Home](#) ▶ Water Projects Database

Water Projects Database

Country

Research Institution

Principal Researcher

Keyword

- "BEFORE THE FLOOD": INTERWEAVING SITUATED PERFORMANCE AND FLOOD NARRATIVES FOR RESILIENCE BUILDING IN HARD-TO-REACH URBAN FLOOD RISK COMMUNITIES
- A NEXT GENERATION NATIONAL FLOOD FREQUENCY ASSESSMENT UNDER CLIMATE CHANGE SCENARIOS
- A POLLUTION ASSESSMENT OF THE TOLKA RIVER ESTUARY
- ADAPTARIA: CLIMATE CHANGE MODELLING ON RIA DE AVEIRO LITTORAL - ADAPTATION STRATEGY FOR COASTAL AND FLUVIAL FLOODING
- ADAPTARIA: CLIMATE CHANGE MODELLING ON RIA DE AVEIRO LITTORAL - ADAPTATION STRATEGY FOR COASTAL AND FLUVIAL FLOODING
- ADAPTFLOOD
- ADAPTIVE MESH SIMULATION OF DIFFERENT SCALE FLOOD INUNDATION
- ADVANCED METHODOLOGIES FOR THE DENDROGEOMORPHOLOGICAL ANALYSIS OF FLASH FLOODS AND ITS RELATED RISKS
- AGUAFLASH
- ANALYSIS AND DESIGN OF DISTRIBUTED OPTIMAL CONTROL STRATEGIES APPLIED ON LARGE-SCALE WATER SYSTEMS MANAGEMENT



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## NEWSLETTER

WATER JPI NEWS 01 | 2016

### PROGRESS ON WATER JPI

A NEW STRUCTURE FOR THE WATER JPI NEWSLETTER

The new version of the newsletter of the "JOINT PROGRAMMING INITIATIVE ON WATER CHALLENGES FOR A CHANGING WORLD" ([news.waterjpi.eu](http://news.waterjpi.eu)) is the continuation of the dissemination activity started when the Programming Initiative was launched.

[READ MORE](#)



### DROPLETS

PRIMA INITIATIVE

The European Commission, on the basis of the Impact Assessment results, expressed in early August its favourable opinion on the Initiative PRIMA (Partnership for Research and Innovation in the Mediterranean Area) to be developed according to Article 185 of the Treaty of the Functioning of the European Union. The proposal was submitted to the Commission on 22 December 2014 during the Italian presidency after a long period of consultations started after the EuroMediterranean conference on R&I held in April 2012 in Barcelona. The initiative is currently being examined by the European Parliament and the Council. The aim of the initiative is to establish a long-term structured partnership in research and innovation in the Mediterranean



### OPPORTUNITIES

H2020 WP 2016-17

The European Commission calls and the other actions for the Work Programme 2016-2017 on Climate action, environment, resource efficiency and raw materials updating topics, dates and budget related to 2017 (working version on European Commission Decision C(2016)4614 of 25 July 2016).

### OPPORTUNITIES

#### H2020 WP 2016-17

The European Commission confirmed the calls and the other actions for the Work Programme 2016-2017 on Climate action, environment, resource efficiency and raw materials updating topics, dates and budget related to 2017 (working version on European Commission Decision C(2016)4614 of 25 July 2016).

The topic "Closing the water gap", among others, was included (SC5-33-2017) under the call "Greening the economy": growing water demands, mismanagement of water use and climate change are increasing the stress on water supply, water bodies, and associated ecosystems and existing infrastructures, and emphasise the need to close the water cycle gap, by reconciling water supply and demand in both quantitative and qualitative terms. Research needs to be deployed in a number of scientific fields to improve the knowledge base on water resources availability and use and must be systematically combined with a socio-economic approach investigating the questions of adaptation strategies, participation, behaviour and commitment of stakeholders. The envisaged ERA-NET Co-funded launched for implementing the Water JPI activities, with an EC budget of 10ME, will support delivering on priorities identified in the Strategic Research and Innovation Agenda,

### PROGRESS ON WATER JPI

ERANET CO-FUND WATERWORKS 2014 FUNDED PROJECTS



The kick-off meeting of 16 research projects, already approved for funding and selected among those submitted to Water Works2014

Call "Stepping up EU research and innovation cooperation in the water area", was held on May 18th 2016. This Call, the second under the umbrella of the Water JPI, was done under the Horizon2020 ERANET Co-fund Instrument among those promoted under Horizon 2020 in support of the Water JPI. The ERANET Co-fund WaterWorks2014, which started on March 2nd

### CSA IC4WATER



The Coordinating and Supporting Action on "Thickening Water Challenges in the International Context" - CSA IC4WATER - was awarded by the European Commission in June 2016 and will start its activities in January 2017.

CSA IC4WATER will aim to further enhance the openness of the Water JPI and thus contribute to creating a coherent European Research Area (ERA) that is open to international cooperation in the area of water - a global research and innovation challenge par excellence. This would result in 1) better addressing global challenges, such as water supply security or sanitation; 2) promoting and better implementing the corresponding water policy objectives and global sustainable deve-



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CEEP has published an opinion for a strategic approach to water pollution, calling for it to become a guiding priority for all EU water policies. In its input to the current discussions, CEEP highlights a number of crucial issues that need to be addressed during the evaluation exercise and possible revision of the directives, in particular regarding the ongoing review of the Drinking Water Directive (DWD) as well as the upcoming evaluation of the Water Framework Directive (WFD).

### EU MUST DO MORE TO SAFEGUARD SURFACE WATER

is the title of a paper on [EURACTIV](http://euractiv.com) about Surface Water Policy in the EU asking to enhance the legislation to protect surface water sources from contamination. This is vital for ensuring a supply of clean and safe drinking water for us now and in the future.



Chair of the EurActiv Joint Water Framework Directive.

### EVENTS

#### LIFE ADNATUR 7



The Demonstration of natural coagulant use advantages in physical & chemical treatments in industry and urban waste water

The main results achieved and the promoted activities have been reported and discussed during the final event held on 15 September 2016 at ENEA - EU Liaison Office - Rue de Namur, 72-74 - 1000 Brussels.

#### FLOODRISK2016



The FLOODRISK2016 will explore research advances in flood risk analysis and innovations in flood risk management practice. The conference will consider all aspects of flood risk and will cover the causes of floods, their impacts on people, property and the environment, and portfolios of risk management measures. Programme and special events

are available at the [Conference website](#)

#### WATERPIPP PROJECT FINAL CONFERENCE

9th and 10th November - 2016. Zaragoza has been chosen to host the WaterPIPP project final conference "Empowering public procurement for innovation in the EU water sector".

#### NET-SCARCE INTERNATIONAL CONFERENCE

RIVERS UNDER WATER SCARCITY: Threats and Challenges 15th - 16th November 2016. The deadline for abstract submission has been extended to 30th of September 2016. Online registration is open at [www.scarceconsolidates.eu](http://www.scarceconsolidates.eu) until 15th of October 2016.

#### R3WATER

Workshop: Innovations for water reuse, resources recovery and resource efficiency - 16th November 2016 - Barcelona, Spain

#### FUTURE EARTH DAYS

First International Symposium in France - 30th November - 1st December 2016 - 25 rue de la Montagne-Sainte-Genievre 75005 Paris

#### WATERIDEAS2016 INTELLIGENT DISTRIBUTION FOR EFFICIENT AND AFFORDABLE SUPPLIES

This event is organized by IWA in conjunction with the H2O Water Fair that will be held in Bologna on 20-21 October 2016. The Conference programme includes sessions on Smart water projects, ICT, modelling and smart water technologies, Water loss reduction projects in Europe, Regulation for efficiency in water loss management, Sustainable water management, Energy Efficiency, Leakage management, AMR and Pressure Management, etc. as well as some important associated Workshops



### EVENTS

LIFE ADNATUR

Demonstration of natural coagulant use advantages in physical & chemical treatments in industry and urban waste water



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THANK YOU FOR  
YOUR KIND ATTENTION

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