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**Smartwater4Europe**

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**WP10 Dissemination Task 10.10 Mobilizing financial and other forms of support**

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**Dissemination Level**

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

## Document History

| Issue Date | Version | Changes Made / Reason for this Issue        |
|------------|---------|---|
| 14-12-2015 | 1       | Draft version after receiving all the input |
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The use and release of this document is subject to the conditions of the contract within the 7<sup>th</sup> Framework Programme, grant agreement no. 619024.

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| <b>List of recipients</b> | EC, lead partners |
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| <b>Purpose</b> | This document is a deliverable. |
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## WP10 Dissemination

### Task 10.10 Mobilizing financial and other forms of support

The consortium will explore opportunities for mobilizing financial and other forms of support offered by national/regional authorities, private investments and by other EU programs (e.g. structural funds) for follow up innovation and demonstration activities beyond the project.

This includes meeting the relevant management authorities for the structural funds in the concerned region(s) at an early stage of the project and ensuring the appropriate follow up.

## VITENS

### Contribution Dutch water companies

The water companies PWN, WBG, WMD and WLN have made a financial contribution to the Vitens Innovation Playground projects to also learn in exchange for the results and knowledge acquired in the projects.

### Serious Game

In 2015 Vitens has received a financial support of 200k€ from the Province of Friesland for the development of a serious, educational game that is related to WP8 Customer Interaction. The aim of the game is to make children aware of their water use and to get a feel for the possibilities to flatten peak demands by asking customers to spread their water usage over the day.

For more information see (in Dutch): <http://www.wijkenwaterbattle.nl/>

### Friesland live

Vitens will invest over 3M€ in 2016 for the expansion of the smart grid area with 4 times; i.e. from the Vitens demo site to the whole of the province of Friesland. In Q4 2015 discussions were started with national subsidy agents whether these investments can be supported by R&D subsidies (WBSO, RDA).

Vitens press release (in Dutch):

<https://www.vitens.nl/overvitens/media/persberichten/Paginas/Vitens-legt-eerste-grootschalige-intelligente-drinkwaterleidingnet-ter-wereld-aan.aspx>

### Big Data

Vitens and KWR have received financial support from the TKI program for a Big Data project that looks into dealing with large amounts of data streams being generated by a smart grid and how to process that data.

For more information see: <http://www.kwrwater.nl/TKI/BWD2SWG/>

## Acciona

ACCIONA Agua is currently seeking European Structural funds connected to the RIS3 in Catalonia. Specifically, the company is part of the so-called Catalan Water Community, a tool designed by the Catalan Government and made up by entities from the whole water value chain in order to implement the RIS3 strategy in Catalonia.

<http://catalunya2020.gencat.cat/ca/ris3cat>

In order to arrange the Catalan Water Community, representatives from ACCIONA attended several meetings. Some of them, organized by the coordinating entity (CTM-EUreCAT) were aimed at establishing the priority activities for the water sector in Catalonia and the subsequent implementation plans. Another meeting was organized by ACCIÓ (the Catalan agency for industrial competitiveness) in order to explain the objectives pursued for the establishment of the Communities and the funding options available.

In September 2015 the Catalan Water Partnership officially submitted the information to be identified as an official tool for implementing the RIS3 strategy in Catalonia. The first activities' plan developed up to now is not fully aligned with the SmartWater4Europe project but nevertheless ACCIONA is trying to mobilize Structural Funds for demonstration activities within the water sector.

## Thames Water

### 1. Telemetry & remote SCADA systems for smarter operational management of water supply networks

Held at Imperial College in London in October 2014, this SWIG workshop presented and discussed to what extent existing telemetry and SCADA systems support the implementation of these novel applications, reviewed current state of art, and discussed emerging trends and the barriers for their adoption in AMP6.

The presentation described Smart Water 4 Europe and how the project is helping to create the Business Case for Smart Water Networks.

### 2. SmartH2O annual meeting in September 2014

Thames Water presented SW4E to the EU SmartH2O ([www.smarth2o-fp7.eu](http://www.smarth2o-fp7.eu)) project partners and elaborated on the synergies between the two initiatives. Smart H2O is developing an ICT platform for improving the management of urban and peri-urban water demand thanks to the integrated use of smart meters, social computation, and dynamic water pricing, based on advanced models of consumer behaviour.

It aims to provide water utilities, municipalities and citizens with an ICT-enabled platform to design, develop and implement better water management practices and policies, leading to a reduction in water consumption, without compromising the quality of life, and to increase in resource security.

### 3. Global Leakage Summit on March 2015

With its presentation “How the biggest UK water utility is encouraging innovation”, Thames Water presented an overview of the Innovation programme, highlighting the role of Smart Water 4 Europe contributing to innovation in the water sector. The 7th Global Leakage Summit has held in London in March 2015. It is the world's premier global summit, to help water utilities develop faster and more efficient leakage management systems, integrated with whole network management and optimisation, smart asset management, and integrated sensor management, that take into account economic levels of leakage, but also reflect the true value of water and supply delivery targets.

### 4. Workshop SW4EU Sites' Partners meeting with US- WRF member utilities in April 2015

The workshop brought together the WRF-US/NA Utilities and the SW4EU Site Owners and provided an experience - sharing forum on the rationale for the SICT demonstration sites, demo-site planning and preparation challenges for the identified solutions, discussed early results, expected outcomes and their anticipated deployment in building business cases for industry investments in smart water networks applications.

Thames Water provided a description of the status of its demonstration site including planning stage, construction, challenges and early results.

### 5. Big Data & Analytics for Utilities in October 2015

Thames Water presented its insights on smart water meters and Big Data in relation with Smart Water 4 Europe at this event, which aimed to create the networks and strategies needed to handle the tsunami of smart meter data, and transform insight into value across the organisation and the consumer.

### 6. Amsterdam International Water Week in November 2015

A group of SW4EU partners, from Vitens, Quasset, S::can, Thames Water and Optiqua Technology, delivered the workshop “Overcoming the obstacles for smart water networks” at the Amsterdam International Water Week 2015.

Over 1100 delegates took part the Amsterdam International Water Week conference. Organised by IWA, the Amsterdam International Water Week Conference is the world's most cross-cutting conference for integrated water solutions. The programme consisted of inspiring keynotes, workshops and sessions, Leaders fora, debate and networking opportunities.

Smart Water for Europe's workshop discussed the obstacles to the adoption of Smart Water Technologies including how water distribution networks works are managed at the present and the changes being taken towards a less reactive, more proactive management strategy, the new solutions that are being implemented to create Smart Water Networks, how to overcome the obstacles to their adoption and views on how the new solutions will change the future of water distribution networks.

## 7. WWT Water Industry Technology Innovation Conference in Birmingham in December 2015

Thames Water and the University of Sheffield represented Smart Water 4 Europe at the WWT Water Industry Technology Innovation Conference last December the 1st, 2015.

Smart Water for Europe's presentation discussed the start of the journey to smart water companies by starting with water networks, why the future in the water sector isn't engineers but data scientists, why the word algorithm shouldn't cause people's eyes to roll, how real time big data analytics are transformational and available.

It then built on tentative moves towards smart water networks and the next steps.

WWT's 4th Annual Water Industry Technology Innovation Conference brought together speakers who offered insights on innovation from a wide range of perspectives. There were contributions from individual water utilities, organisations with both a British and international perspective, innovators operating in the UK, internationally and from various industrial sectors with innovation relevant to water.

## 8. Water Eco-Security 2015 on December 2015

Thames Water discussed the challenge of data at its TWIST. The presentation described how the sensors generate a huge amount of data, how this is hugely informative, providing invaluable information for network operations and investment planning. It then elaborated on how great volumes of data generate a need for modernisation, and that's where data science is needed. It ended up describing the challenge to get innovative thinking, problem solving, mathematics, statistics, programming and industry knowledge together. How to understand the systems, tools and techniques required to extract insight and value from huge amounts of data.

## A month scientific visit From France to the United Kingdom

Thames Water coordinated and hosted the scientific visit of a PhD student in Civil Engineering on the subject "Use of the Smart Water System for the detection and localization of water leakage – Application to SunRise demonstrator" at University Lille 1 – Sciences and Technologies – Laboratory of Civil Engineering and geo-Environment.

During his visit, he presented the progress of Lille Demo site, the implementation of the hydraulic sensors and the data collection and analysis related to leakage. He also acquired an understanding about the solutions being developed in the UK Demo site, had the opportunity to apply his methodology for leakage detection and spent a week in University of Sheffield where he learn about the progress of the algorithms.

## Organization of on-site workshops, demonstrators visits

Thames Water hosted two groups of visitors Acueducto de Bogotá who completed technical visits to the demonstration site. Together with Syrinix hosted a Hong Kong Delegation from the Water Supplies Department.

## What do we want to do with the results of SW4EU after the project finishes?

1. Demonstrate the value of data. Move forward to Big Data, revealing the its latent value.
2. Integrate own and external data sources and results of current analysis temporal and spatial data-meter readings, customer contacts, hydraulic model results etc.
3. Present the integrated data in novel ways, data amalgamation using dashboards and trending.
4. Set the agenda for next generation of data collection strategies for Big Data, informing the type, quality and frequency of data collection and what technology is needed to collect it.
5. Collect the right data at the right time to inform network performance and failure models to enable and optimise prescriptive analytics.
6. Move towards predictive analytics. Discover new knowledge and derived intelligence from predictive and prescriptive analytics.
7. Create a common platform for data visualisation; simple and intuitive, moving to visualisation of analytics outputs.
8. Make technologies for data visualisation for buried infrastructure more accessible and simple to use.

Specifically WP6 will help to:

- Assess the benefits of additional sensors to guide the Infrastructure Alliance on their road to network automation.
- Understand how smart meters can be used for operational intelligence and to customer profiling with the aid of distributed processing and machine learning.
- Produce novel, proven methods for real time leakage detection across varying levels of instrumentation.
- Create methods for localisation of leakage and bursts enabling faster location and repair.
- Start a journey for operations to respond to AURA alerts
- Integrate the SW4EU output into the Intelligence Hub as a data source and a channel for outputs (e.g. alarms)
- Demonstrate why data resolution and freshness are important and its implications.

WP7 will help to:

- Create an interactive 'energy map', a dashboard capable of displaying information derived from near real-time data. Including Leakage alarms and affected areas, areas of excess energy, (e.g. high pressure delivered), routes that consume a significant portion of energy, places where there is no room for optimisation and a view of risk (e.g. leak location, demand, pipe track availability)
- Rank opportunities to manage risk or energy consumption

WP8 will help to:

- Produce a digital solution for interaction with customers, that enables them to visualise their smart metered consumption on a mobile device, e.g. smartphone and tablet
- Analyse how, if at all, use of the solution affects consumption

All packages are enabling customer profiling, which TW intends to use to:

- Have a more accurate hydraulic modelling without becoming hugely more computationally expensive.
- Target properties for water efficiency based on their consumption profile.
- Forecast usage for each individual household.
- Pave the way for acquiring the resources for dealing with tens of trillions of rows of data that will come once the company have installed a couple of million smart meters.
- Detect anomalies by identifying deviations from the norm which could suggest changes in occupancy, problems with the meter, etc.

## University Lille

### 1. SunRise project selected in the 6-years strategic plan between the French government and the region Nord Pas de Calais.

The project Sunrise which aims at the construction of a large Scale demonstrator of the Smart and Sustainable City at the Campus of the University of Lille1 (Lille Demo Site) was selected this year within the 6-years strategic plan between the French government and the region "Nord Pas de Calais". The French government will support Sunrise project with funds for the transformation of the Campus of the University of Lille into a Smart Campus, with a particular focus on water and energy networks. The amount of the support is under discussion.

<http://www.nord-pas-de-calais.gouv.fr/content/download/5945/43319/file/CPER%20NPdC-%2010-07-2015.pdf>

### 2. Organization of the SunRise forum Lille 2015 (Lille, November 9 and 10, 2015)

The forum SunRise Lille 2015 was organized in November 9 and 10 with the support of 40 companies and academic institutions. Around 200 participants attended this conference and around 1 600 from 40 counties followed the conference Live-streaming. The conferences included 8 sessions (round tables) including a session on Smart drinking water and another on Smart Sewage. Erick Oostermeyer presented SW4EU while PhD students from the University of Lille presented the research conducted within SW4EU at Lille Demo Site.

<http://www.forum-sunrise.com/en/home-2/>

### 3. Organization of pavilion Smart City at the North IT Days (Roubaix, April 16, 2015)

SunRise team organized with the support of 15 companies the Smart City pavilion at the big North IT Days at Roubaix in the North of France. Around 1000 participants attended this Forum.

[http://www.nord-itdays.com/conferences\\_content/164399/smart-cities-focus-le-projet-sunrise-.html](http://www.nord-itdays.com/conferences_content/164399/smart-cities-focus-le-projet-sunrise-.html)

### 4. Presentation of SunRise/SW4EU at the 12th forum of Connected Cities in France (Lyon, December 2-3, 2015).

The project SunRise was presented at the plenary session of the 12<sup>th</sup> meeting of the connected cities in France (les interconnectées) which was organized December 2 – 3 in Lyon. Around 100 participants attended the presentation of SunRise.SW4EU project.

[https://www.youtube.com/watch?v=d26KqMH0KR0&list=PL7u4EPWi\\_GhzJkqNvUt2W3CZvGrpsKoN0](https://www.youtube.com/watch?v=d26KqMH0KR0&list=PL7u4EPWi_GhzJkqNvUt2W3CZvGrpsKoN0)

<http://www.interconnectes.com/forum/>

## **5. Presentation of SunRise/SW4EU at the S3C Congress – Smart Countries (Paris, September 1-3, 2015).**

The project SunRise/SW4EU was presented at the S3C Congress – Smart Countries which was organized September 1-3, 2015 at Congress Palace in Paris. This conference was conference within the COP21 preparation in France. Around 300 experts in the field of smart cities and local collectivity attended this congress.

<http://fr.slideshare.net/ishahrour/presentation-sun-rise-smart-city-conference-c3s-paris-september-2>

[http://fr.s3cparis.com/wp-content/uploads/2013/11/S3C\\_Paris\\_2015\\_fr84.pdf](http://fr.s3cparis.com/wp-content/uploads/2013/11/S3C_Paris_2015_fr84.pdf)

## **6. Isam Shahrour TEDx talk “Smart Cities for Smart World” (Science Po, Paris, November 13, 2015).**

Isam Sharour gave a talk at the Science Po TEDx, November 13, concerning the topic Smart Cities for a Smart World. The conference focused on how the Smart City innovative solution could help in facing the world challenges (cities expansion, global warming, water stress,...). Around 400 participants attended this talk.

<http://fr.slideshare.net/ishahrour/lets-build-smart-cities-for-a-smart-world>

## **7. Conference of Isam Shahrour “Smart Cities for developing countries: Utopia or real opportunities” (University American of Science and Technology, Beirut, April 28, 015).**

Isam Shahrour gave a conference on the topic “Smart Cities for developing countries: Utopia or real opportunities” at the University American of Science and Technology in Beirut (April 28, 015). Around 200 peoples from both the academic and socio-economic sectors attended this conference.