



IMPROVING THE EFFICIENCY OF  
URBAN WATER MANAGEMENT  
IN EUROPE



**Aude Glénisson**

DG CONNECT  
European Commission  
Smart Mobility and Living

# Emerging Topics and Technology Roadmap for ICT and Water Management

**WssTP**

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Diamant Conference Centre

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## 7FP Call 2011

**Objective ICT-2011.6.3 ICT for Efficient  
Water Resources Management**

**3 key building blocks:**

Demand management systems,  
Decision support systems,  
Data management

*5 STREPs*

## ICT4WATER CLUSTER

## 7FP Call 2013

**Objective ICT-2013.6 Water Resources  
Management**

To **pilot and demonstrate** ICT systems and services  
for efficient water use and reuse to improve  
awareness.

To **induce changes** in **consumer behavior**.

*5 STREPs*

## H2020 call 2014/2015

**Water 4a and 1b- Water Innovation –  
Boosting its value for Europe**

*5 CSAs + 5 IAs*



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# ICT innovative solutions for water management

- [EFFINET](#) : video
- ICEWATER



# ICeWater

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- Oriented to WDN manager
- Water-energy nexus
- Decision Support as a Service
  
- Leakage management
- Resilience
- Demand forecasting
  - ❑ on SCADA (flow) data for pump scheduling optimization
  - ❑ on AMR data for communication to customers
  - ❑ *future applications enabled by AMR data and forecasting*
    - *Cyber security (detecting False Data Injection)*
    - *Online leakage detection*
    - *Simulation «proactive»*



## Roadmap 2015/2016 – **MAIN GAPS**

- *Efficient Water use and reuse*
- *Reduce Total Cost of Ownership for water ICT*
- *Big Data, Data Sharing and privacy management*
- *Consumer awareness*
- *Decision Supporting System*
- *Water-energy nexus and Water-food-energy nexus*
- *Standardization*
- *Interoperability*



European Commission

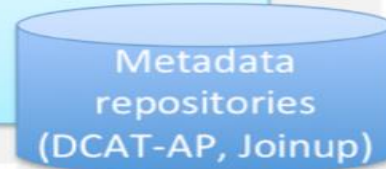
Water providers

Customers

Standard organisations



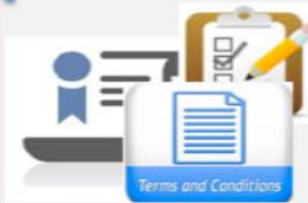
City Information Models and APIs



privacy preservation



terms & conditions



Policy makers



**ICT and Urban Water Management: main components required for addressing data sharing, interoperability, standardisation and dynamic adaptive pricing challenges**

## Roadmap 2016 – **NEW ACTIVITIES**

- *Development of specifications for interoperability and data sharing across services and infrastructures;*
- *Creation of ecosystems of "Platforms for Connected Smart Objects", integrating the future generations of smart devices (i.e. sensors) and network technologies and other evolving ICT advances;*
- *Initiatives on data ownership, free flow of data and on a European Cloud;*
- *Identify, assess and manage Water-Food-Energy interactions;*
- *Provide a market analysis of the water industry in terms of current and foresight integration of ICT solutions and systems*



# Roadmap 2016

## CONCLUSION

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- *Constantly update the roadmap including the results of the ongoing projects taking into account the current situation;*
- *Stimulate demo-site infrastructures in physical terms of establishing large scale test facilities and in terms of financial packages to mitigate risks of the first takers to launch innovative solutions;*
- *The creation of a borderless Digital Single Market for Water Services.*





## More information

*ICT4Water Cluster:* <http://www.ict4water.eu/>

*EFFINET:* <http://effinet.eu/>

*ICEWATER:* <http://icewater-project.eu/index.php?id=000000&spid=en&site=preview>

*Roadmaps 2015/2016:*

<https://ec.europa.eu/digital-single-market/en/news/emerging-topics-and-technology-roadmap-ict-water-management-august-2016>

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