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COMPAGNIE INTERCOMMUNALE LIEGEOISE DES EAUX

# **Smart Metering :**

# **The European EU-SMART.MET Project**

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# smart\_met<sup>®</sup>

- European Project (Horizon 2020 Project under call ICT-34-2016), led by a group of 7 water utilities
- To drive the development of a new cost effective, efficient, interoperable Water Smart Metering system based on open standards
- Through a joint Pre-Commercial Procurement (PCP)
- Budget: €3.24 million
- www.smart-met.eu



#### **The Smart.Met Consortium**



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#### **The Smart.Met PCP**

- Procurement of research and the development of new innovative solutions
- R&D before commercialization
- PCP involves different suppliers competing through different phases of development
- Risks and benefits shared between the procurers and the suppliers





#### **General constraints**

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## **The Smart.Met expected benefits**

- Better detection of leaks/water loss and possibility of taking immediate action
- Better management of networks and water balance: decreasing operating costs
- More efficient management of the billing process
- More efficient water use thanks to increased awareness on water users' behavior
- More sustainable meters: longer battery lifetime (16 years), easily recyclable
  - Avoid lock-in situations



### **The Smart.Met Innovation needs (33)**

- Based on open standards for full interoperability between different devices and software applications supplied by different providers
- Based on standard communication protocols, like for instance IoT Able to guarantee the bi-directional communication in "real time mode" from Smart Meter Layer and Control Room Layer
- Based on an energy source capable to ensure real-time operations for the whole duration of the meter life-cycle, like, for instance an auto-production of energy for its proper use by using the water flow as an energy source
- Able to make decisions on its own without prior communication with the Control Room Layer (ex.: detection of a reverse flow -> immediate closure of the water meter and generation of an alarm sent to the control room)



#### **The Smart.Met general functional architecture**



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## **Smart.Met : next steps**

#### PCP is organised in 3 phases:

- 1) Solution exploration and Design
- 2) Prototyping

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3) Field testing

	DURATION	BUDGET*	EXPECTED R&D PROVIDERS	MAXI INDIVIDUAL BUDGET*
SOLUTION DESIGN	4 months	240,000€	8-10	30,000€
PROTOTYPING	9 months	1,500,000€	4-6	250,000€
FIELD TESTING	12 months	1,500,000€	2-3	500,000€

\*including Italian VAT rate (22%)

Solution Solution September 2017
Preparation and design
June 2017: Publication of the Prior Information Notice √September 2017: Open Market Consultations √

>1<sup>st</sup> half of 2018

Solution exploration and design

>2<sup>nd</sup> half 2018 – 1st half 2019

>2<sup>nd</sup> half 2019 – 2020

Prototyping

**Field testing** of the selected prototypes and final assessment

