

September 26th 2017, Porto CTRL+SWAN Side meeting

"SMART WATER MONITORING:

LOW-COST SENSORS SOLUTIONS FOR HIGH EFFICIENCY WATER MONITORING NETWORKS"

European Innovation Partnership on Water Action Group CTRL + SWAN Cloud Technologies & ReaL time monitoring + Smart WAter Network

Anna Di Mauro



European Innovation Partnerships (EIP)

European Innovation Partnerships (EIP) were born with the main purpose to initiate and promote collaborative processes for change and innovation in the different sectors across the public and private sector, non-governmental organizations and the general public and to contribute job creation and economic growth. **This is mainly done via the establishment of Action Groups.**

The European Innovation Partnership on Water (EIP Water in short) is an initiative within the EU 2020 Innovation Union.

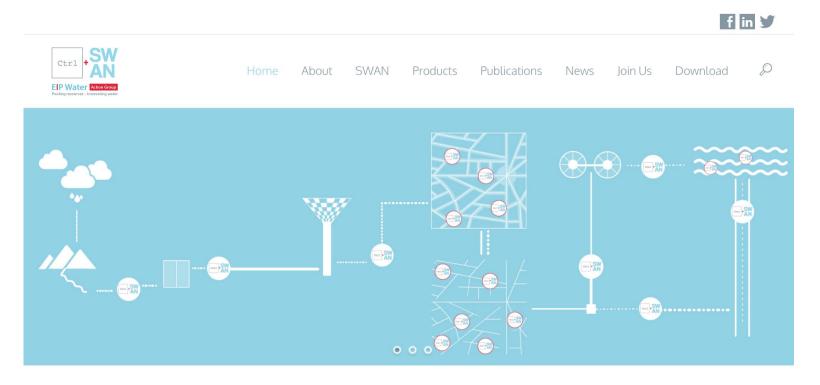
The EIP Water implementation started in May 2013 but right now:

- √The EC does **not invite more new AGs**
- ✓ The EC wants to **maximize** the outcomes and impact of the **current AGs** thought the work undertaken by the AG Group and by leveraging the projects of the individual AG members
- ✓ There is **no statuary time limit for AGs**, AGs can continue working without deadline



CTRL + SWAN Cloud Technologies and ReaL time Monitoring + Smart WAter Network

CTRL+SWAN was founded in April 2014 (www.swan.technology)











CTRL + SWAN Members & Partners

Universities

✓ Second University of Naples – Depertment of Civil Engineering, Design, Building and Environment

✓ Second University of Naples - Department of Industrial and Information Engineering

 \checkmark University of Naples "Federico II" Department of Physics

✓ University IbnTofail of Kenitra

✓ University of Thessaly

✓ University of Exeter

✓...

Research centers

✓ BioMEMs

✓ National Research Council (CNR) - Institute of Information Science and Technologies, Signal and Images Lab (ISTI)

✓ National Research Council (CNR) - Institute for Electromagnetic Sensing of the Environment (IREA)

✓ National Research Council (CNR) - Institute of Geosciences and Earth Resources (IGG)

√The Mexican Institute of Water Technology

✓EURECAT

√...

Companies

✓ Aqua-Consult Ingenieros (A-CING)

✓ Aqualia, gestión integral del agua

✓ EURECAT

✓ EdgeLab S.r.l.

√ Hach Lange

✓INFOSOLUTION S.p.A.

✓ MED.HYDRO s.r.l.

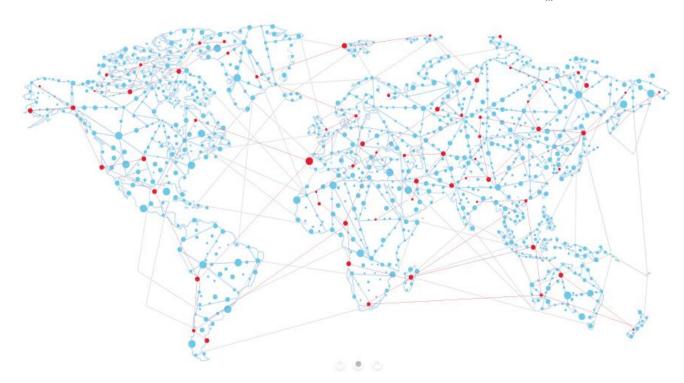
✓ Novaetech s.r.l.

✓S:can s.r.l.

✓ SENSUS ITALIA

✓ SYSTEA - Systems Technology Advance SpA

✓...



Action Group is devoted to the development of innovative sensor technologies to be integrated and implemented in the design of an innovative approach to the water distribution networks management, with the broaden goal to introduce the concept of Smart WAter Network (SWAN) as a key subsystem of the notion of Smart City, as it has been recently recognized in the scientific and technical international community.



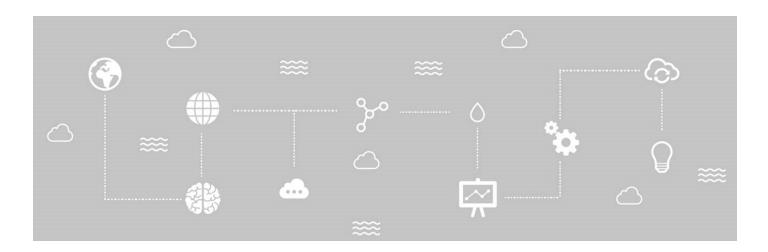
CTRL + SWAN Objectives

- # Promote and develop **innovative smart sensors** to be placed on distribution network for online detection of microbiological and/or physical-chemical parameters
- # Design decision support systems to define optimal partitioning of SWAN to improve management and protection of water supply systems
- # Implementation of smart platform to collect and manage data from sensors in an early warning system based on cloud technologies. It will be based on multi-sourced and cloud data platforms including quality and quantity monitoring









CTRL + SWAN Work in progress



BAT (Best Available Technology) for Smart Water Network

Design of a website section on BAT for SWAN. The idea is to propose to EU and water operators, trough our web Platform, Best Available Technologies (BAT) already proposed for other engineering fields (i.e. remediation, etc.). The idea could become a novel approach to disseminate and implemet some results of many research in hydroinformatics (and not only).



Partecipation of the Action Group to the following Confernce:

HIC 2018 International Conference on Hydroinformatic, on 1-6 July 2018 Palermo, Italy **# Partership:**

Ict4Water Cluster, AQUALIA, Proteus Project, S:CAN, SYSTEA, etc...



Pilot site and/or testing prodcts:

Implementation of the software SWANP on Mexican and Spanish water networks Testing of innovative online sensors on demo site and accademic lab.

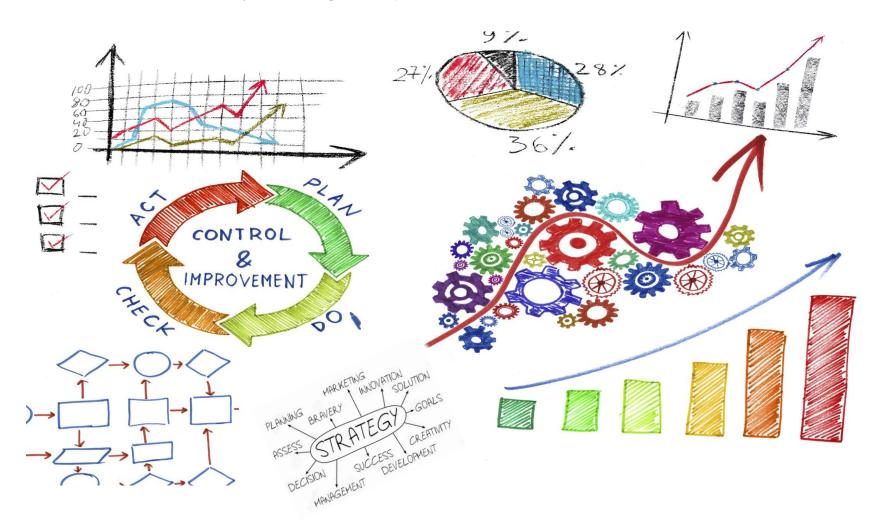


Horizon 2020:

Examination of some HORIZON 2020 proposal to submit R&D projects.

CTRL + SWAN Strategy

- # Strengthen current relationships and generate new ones
- # Looking for funds to partners through applications to European calls (H2020)
- # Design and optimize a really innovative interaction model that can represent a truly best practice
- # Design road maps
- # Transform R&D results into powerful engineered products/services and solutions



Visit our website www.swan.technology

Join us agctrlswan@gmail.com



Thank you for your attention