

wetnet:

smart integrated management of water networks to cut down leaks, energy costs and emissions

Every cubic meter of water pumped into a drink water network that does not reach final use, sums up the quantity of water abstracted in excess, the energy to treat it and the emissions linked. Just think that the energy required to deliver 1000 litres at tap is in a range between 0.3 to 0.6 KWh. That is why smart, efficient management of potable water systems reflects on the quality of service delivered, on costs, on revenues, on tariff, on environmental impacts.

The key to achieve efficient management is to converting into Smart Water Networks, which means grounding the decision making process on good knowledge of the underlying physical system: water network behaviour over time to set dynamic alarm thresholds; perform fine-grained investigations to spot leakages and misoperations early, analyze data to prioritize interventions; explore alternative management choices.

Knowledge is obtained through measuring and its quality depends on proper design, deployment, and management of sensor systems and of collected data.

Until now, converting into Smart Water Networks was an expensive choice. Instead, the solution designed by the WETNET (ECO/12/332771) project allows even small water companies to put in place smart, integrated network management. It has been conceived, engineered and brought to market with the financial support of the Eco-Innovation programme of the European Union by the Italian-Spanish WETNET Consortium (www.wetnet.it), to deliver a scalable,



Each sensor is tested and calibrated on this test rig that simulates real field conditions

configurable, low-cost, open source system that supports well-to-tap decisions.

At pipe end, there is an innovative strain-gauge hot-tap insertion flowmeter device with both stand-alone operation capacity and the possibility to connect to a remote sensing network. This sensor's technology is based on a patented flow-meter already installed in water distribution networks. Very low installation and maintenance costs allow to install all sensors needed to monitor the network. These flowmeters can coexist with others of different type, and send data over existing networks or dedicated new one that can host and serve old and new devices, allowing smooth upgrade plans.

On decision making desks, the Supervisory Services (WSS) are an elegant dashboard for data analytics and intelligent, knowledge-based Integrated Water Network Management, linking to data sources, simulation and modelling tools, and corporate management software in use. A range of data elaboration and presentation tools are configurable to support better decisions. Advanced algorithms trigger event alerts that are sent to users, and available for analysis on mobile devices.

WSS software is released under EUPL licence, and is supported by a growing community of developers.

With WETNET in place, leaks, abnormal consumption variations, incoherent measurements, are constantly under control and linked to decisions that make sense for good management, for users, and for the environment.

Contacts:
Ing. Maurizio Creati
sales@wetnet.it
Phone: +39 050 810640

wetnet
true monitoring of water networks

WETNET dashboard screens,
and a sensor in place (low right)

