

Demo Case Update

From TZW – DVGW-Technologiezentrum Wasser

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TZW is concentrating its efforts on WPs 3 and 4, especially on the French Demo Case. The pilot site is located in Cannes and eight neighbouring municipalities (South of France). TZW is working on this demo case #2 with other partners (SUEZ Smart Solutions, EGM, CNRS).

Testing the NANOSensor developed by CNRS on the TZW test bench

One part of the FIWARE4WATER project is the development and testing of a multi-parameter probe that will provide long term stable and reliable values of water quality parameters in the drinking water distribution network.

The NANOSensor developed and designed by CNRS uses carbon-nanotubes to measure different water quality parameters. To evaluate the performance of the sensor a 12-month testing period on the TZW test bench and a 12-month test period in a real drinking water distribution network has been planned.

Evaluating the sensitivity and long term performance of the sensor

At the moment the test of the NANOSensor in the TZW test bench is being prepared (Figure 1). Main goal is to evaluate the sensitivity and long term performance of the sensor. The NANOSensor will measure temperature, electrical conductivity, pH and free chlorine. The values measured with the NANOSensor will be compared with values of lab measurements of the examined water as well as values of sensors included in the test bench.



NANOSensor in the TZW test bench

The test will be divided in various experiments simulating realistic drinking water conditions. For this purpose, different qualities of water are considered and the water quality will change over time. The tests include experiments with different chlorine concentrations, different pH

values, various amounts of iron and particles and the dosage of DOC to simulate the organic load of a drinking water distribution network. Based on the results additional adaption of the NANOSensor be it on hardware or on software site can be conducted to further improve sensor performance.

After finishing the test of the NANOSensor at the test bench the sensor will undergo its real live test in the drinking water distribution network of Cannes.

Author: TZW

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Project Consortium



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