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smart<sub>met</sub> 

## Project abstract Phase II

[ **FAST S.p.A.** ]

05/07/2019

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Contactor Details	Type/ size of legal entity	Place of performance of contract activities	Logo
<p><u>Main contractor</u></p>	<p>SME FAST S.p.A. Via Molino Poncino, 4 42019 Scandiano - Italy  Pierpaolo Cavalli +39 3357172404 p.cavalli@fastonline.it</p>	<p>% of contract value allocated to main contractor:  <b>100 %</b>  % of activities for the contract performed by the main contractor in EU Member States or countries associated with Horizon 2020:  <b>100 %</b></p>	<p>Main contractor logo  </p>

**Project abstract** (+/- 1000 characters maximum)

Phase II: Develop, demonstrate and validate prototypes in lab conditions. A working prototype solution to submit a test bench in laboratory for verification against Phase 1 specifications and expected costs

Abstract:

The SWMC project is focused on the concept of designing and creating a new generation of NAN (Neighbor Area Network) wireless networks based on Bluetooth Low Energy 5.0 (BLE5) able to read the water meter data and other values connected to the water network control.

This local network NAN BLE5 communicates through IoT / WAN (Wide Area Network) networks like LoRaWan and NB-IoT with centralized systems on WEB Server for storing, managing data, analyze the efficiency and leakages of the water network.

The "prototypes" that we intend to implement is composed of an integrated set of Remote Terminal Units and communication software, and software management applications.

In the project there are two types of AMR Logger:

SL-D-xx: Loggers used to read data from water meters and devices with communication in NAN BLE5.

ML-C-xx: Master Loggers for direct reading of parameters on the water network as pressure and temperature values. The ML-C logger include the local network management on BLE5 and WAN communications to the central supervision system.

In phase II it is planned to produce:

- Several SL-D\_xx loggers
- Several ML-C-xx loggers
- SWMC APP "Configuration" & "User" Software (Android)
- SWMC supervision and data storage software for WEB portal

The tests will be carried out at the FAST headquarters in Scandiano - Italy

In phase II the test concerns the NAN BLE5 Long range communications between the water meters and the relative data management including the management of the APP (Android) and on the WEB portal (standard browser).

The test concerns:

- quality of communications, the speed of data management,
- distances reachable by the BLE5 network even with the presence of obstacles
- accuracy of the data stored and managed by the SWMC system
- expected consumption of the SWMC module batteries and therefore their lifetime

**Previous EU funding**

Is the project based on / a continuation of R&D activities that were previously funded by the EU?:

NO