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Project abstract Phase II

Dynamic Consulting International Telecommunications Spain S.L.

11th July, 2019



Contactor Details	Type/ size of legal entity	Place of performance of contract activities	Logo
Main contractor Dynamic Consulting International Telecommunications Spain S.L. (IAPsolutions). Avda de Castilla 2 Edif F, pl 1. 28830 San Fernando de Henares Spain Joachim Janssen +34 670732861 jjanssen@dci.es	SME	% of contract value allocated to main contractor: 55 % % of activities for the contract performed by the main contractor in EU Member States or countries associated with Horizon 2020: 100 %	** IAPsolutions
Other consortium member(s) (if applicable) Abering Contadores de Agua, S.L. c/ Jerez de Los Caballeros 2 28042 - Madrid SPAIN Antonio Yelmo Muñoz +34 654347509 aym@abering.es	SME	% of contract value allocated to contractor [-]: 25 % % of activities for the contract performed by contractor [-] in EU Member States or countries associated with Horizon 2020: 100 %	SMART METERING



Gomez Group Metering, S.L.	SME	% of contract value allocated to contractor [-]:	
C\ Llodio 3 28034 Madrid SPAIN		20 %	GOMEZ GROUP
Luis Alfonso Cid-Fuentes Gómez		% of activities for the contract performed by contractor [-] in EU Member States or countries	
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Project abstract (+/- 1000 characters maximum)

<u>Phase II</u>: 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

<u>Abstract:</u> In phase II new R&D will be performed to achieve an intelligent leakage and fraud detection mechanism by means of data intelligence and machine learning, based on the sensor data received from the field, which will reduce the intelligence in the sensors/meters, making them more cost effective.

Most of the R&D activities will be spend on the data intelligence in the edge devices (LoRaWAN gateways) and in the Cloud. R&D will be performed on how low footprint data intelligence can be implemented in the industrial PCs of the edge devices. A combination of a new low footprint "real-time data inference machine" and a low footprint "deep-learning machine" will be a good basis for the distributed data intelligence. On top of this new platform specific machine-learning algorithms (with multiple neuronal networks) for the detection of the abnormal behaviour patterns and the preventive maintenance will be defined and implemented.

The paradigm "edge processing" is new for the utility market, it will provide large advantages in the area of intelligent data processing, flexibility and global cost reduction, but it also requires more R&D activities for the logical and physical security of the components in the network.

And finally, extra R&D activities will be performed to define and implement an open meter interface which allows the incorporation of smart-meters from various meter providers.



Previous EU funding
Is the project based on / a continuation of R&D activities that were previously funded by the EU?:
NO
If yes, identify this EU funding: [-] — [-]