PLEDGER

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PRESS RELEASE: Performance optimization and edge computing orchestration for enhanced experience and Quality of Service

PLEDGER will pave the way for Next Generation Edge Computing infrastructures

PLEDGER is a new project coordinated by ATOS Spain which started in December 2019. Pledger is **funded by the European Union's Horizon 2020 research and innovation programme**. The project aims to deliver a new architectural paradigm that will pave the way for next generation edge computing infrastructures, tackling the modern challenges and coupling the benefits of low latencies on the Edge with the robustness and resilience of cloud infrastructures. It will also allow edge computing users to understand the nature of their applications, research understandable quality of service metrics and optimise the competitiveness of their infrastructures.

PLEDGER aims to deliver a set of tools and processes that will enable:
a) **Edge Computing Providers** to enhance the stability and performance effectiveness of their edge infrastructures, through modelling the overheads and optimal groupings of concurrently running services, runtime analysis and adaptation,
b) **Edge Computing Adopters** to understand the computational nature of their applications, investigate abstracted and understandable QoS metrics, facilitate trust and smart contracting and identify how they can balance their cost and performance to optimise their competitiveness and monitor their SLAs, and
c) **Other industry verticals** to act as independent validators of QoS features in IoT applications, enabling new decentralised applications and business models, thus filling a large gap in the emerging Edge/IoT computing market landscape.

The project will validate its results through **three use cases** which are very relevant for the innovative Edge/Cloud computing concepts it plans to introduce:
Manufacturing: PLEDGER will explore, implement and test possible data and computation transfers to the cloud.
Mixed reality: PLEDGER will enable remote rendering by outsourcing the demanding processes like calculations, application logic, or content rendering to other fog nodes or the cloud.
Smart cities: PLEDGER will evaluate how different types of sensors and radio technologies supported by the city infrastructure can be used to enable edge computing-assisted risk detection and mitigation for Vulnerable Road Users (VRUs) in an everyday scenario in the city of Barcelona.

The project has a time duration of 36 months and brings together 9 leading European research/academic institutions, industrial stakeholders and SMEs from 7 different countries, with high expertise in the areas of Cloud computing, Edge computing, IoT, Blockchains and Big data.

More information on the PLEDGER project can be found at www.pledger-project.eu.
More information on the PLEDGER consortium partners can be found at http://www.pledger-project.eu/consortium
For additional information please contact info@pledger-project.eu