



## **SERENE-IoT: creating secured connected healthcare devices for higher patient quality of life at lower cost for health services**

### ***A project within the EUREKA PENTA programme***

Paris, 16 November 2018 – SERENE IoT, a project within the EUREKA PENTA Cluster managed by the Industry Association AENEAS, is developing clinical prototype solutions for connected healthcare services and diagnosis at home, based on Internet of Things (IoT) devices. Aging populations, a rise in chronic disease and a shortage of healthcare professionals in developed and developing countries are putting severe strains on healthcare systems. SERENE-IoT is focusing on solutions that will have positive impacts on quality of life and cost reduction in three domains. The first is remote healthcare ('hospital at home') based on an internet-connected infusion / nutrition pump. The second is rapid, early detection of antibiotic resistant infection (Methicillin-resistant bacteria) and the third is fall prevention via a device that monitors the wearer's gait.

In the European Union alone, estimates indicate that 30% of the population will be over 65 years-old by 2030, and two out of three people in retirement age will have at least two chronic diseases. Currently, 70% of health care costs are spent on chronic diseases, and 41% are dedicated to hospital care. By supporting the shift towards 'hospital at home' care, early detection and prevention, SERENE-IoT seeks to reduce healthcare expenses in its three domains by 50%, as well as promoting lifelong health and high-quality long-term support for people with chronic and / or advanced disease.

Security, safety and privacy are central to the SERENE-IoT project, ensuring that the devices will fully protect sensitive medical data within an end-to-end IoT system platform. In addition, the project will tackle other technical challenges to create devices that are easy to use, interoperable, small, and low power so they can operate for extended periods without recharging. Overall, the project aims to deliver societal and economic benefits, while opening market opportunities for European companies – globally, the healthcare IoT market is expected to grow from USD 32 billion in 2015 to USD 163 billion by 2020<sup>1</sup>.

The SERENE-IoT consortium brings together key players from across the value chain, which allows for a shared understanding of needs, development of complementary technologies and a common vision for connected healthcare and the 'hospital at home' concept. The consortium comprises two care givers, seven large enterprises, five SMEs and five university labs and research institutes from three countries. These include specialists in telecommunications and safety-security systems providers, as well as healthcare solutions manufacturers.

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<sup>1</sup> Source: 2016 Frost & Sullivan report

