



The Sens4Care project aims to design a ground-breaking system for surveillance and infection control targeting Multidrug-Resistant Organisms (MDROs) in hospitals. The Sens4Care solution is a complex, multi-component technological system which: (1) detects most common MDROs in critical hospital settings; (2) supports health care professionals and managers to improve hygiene and better control environment; and (3) trains staff, patients and visitors on behaviour. The Sens4Care solution is composed by advanced Volatile Organic Compound (VOC) detectors, machine learning algorithms, internet-of-things (IoT) platform, web and mobile applications for end-users. The ultimate goals of Sens4Care are to improve the quality of care processes in hospitals, reduce costs and operational impact of infections caused by MDROs, improve appropriateness of antimicrobial medicine usage, and reduce community and social care impact of MDROs acquired in hospitals. The Sens4Care consortium is composed by two companies: Tech4Care (lead contractor, Italy) (www.tech4care.it), focused on development of innovative digital health and mHealth solutions; and Sens Solutions (Spain) (www.sens.solutions), with high-level expertise in smart sensors and detectors for air monitoring.