Project acronym - Project title
MEDIWARN - Virtual biosensor for medical warning precursors

Programme priority Axis	1 Promoting the smart and sustainable growth through research and innovation
Programme Investment Priority	1b) Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies.
Investment priority specific object	1.1 Enhance the activities of innovation and research to improve the quality of life and the utilization of the cultural heritage

Name of the lead partner organisation
Università degli Studi di Catania - Dipartimento di Ingegneria Civile e Architettura

Project Partners	
Partner 2	University of Malta - Faculty of Medicine and Surgery, Department of Surgery
Partner 3	Azienda Ospedaliero - Universitaria "Policlinico - Vittorio Emanuele" U.O.C. Anestesia e Rianimazione 2

Project duration (months)	Start date	End Date
39	20.05.2018	29.08.2021

Project summary

MEDIWARN addresses the problem of delayed early medical intervention in critically ill patients who, in the absence of monitoring and real-time measurement of physiological parameters, may incur in progressive clinical worsening.

The project proposes a technologically advanced system capable of providing high standards of care for hospitalized patients without burdening the economies of care facilities and capitalizing on the knowledge deriving from the method used up to date by healthcare professionals, EWS (Early Warning Score).

This method, based on the collection of vital parameters to be included in a scoring scale that allows a rapid assessment of the patient's clinical status, nevertheless presents the limit deriving from the need to recognize certain alterations and predict critical patient conditions.

Through the project activities an innovative monitoring system will be created that allows the acquisition, in real time, of the vital parameters of the patients using a peripheral sensory system. The data will be sent to a central location equipped with a dedicated computer, on which a mathematical model will be implemented so to provide interpretative elements on the clinical status of patients and their evolution before the worsening of vital functions triggers the alert according to the EWS criteria.

In this way, unlike the EWS, healthcare personnel will be promptly informed of the clinical conditions of each patient since the computer assigned to the department, equipped with artificial intelligence, will provide a clinic picture of the evolution of the patient's clinical status. This information will also be sent to mobile media (tablets) held by medical personnel

Project results

5 enterprises operating in the electro-medical sector that will acquire the technology developed within the project

Project outputs

✓23 virtual biosensor
✓5 cross-border research institutes and enterprises involved in actions aimed at industrial prototyping and marketing of technological products deriving from the project

Budget	ERDF Contribution	National Contribution	Additional Co-financing
€ 1.722.524	€ 1.464.145	€ 258.379	€ 0

Contacts	Social Media	Web site
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