

Note: The information given in this document is still preliminary until partner contracts and funding allocations are finalised.

Project Information

Project Short Name	IS-ACTIVE
Project Full Name	Inertial Sensing Systems for Advanced Chronic Condition Monitoring and Risk Prevention
Project Reference	aal-2008-1-256
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Background of the Project

The IS-ACTIVE project has two key drivers:

- *Paradigm shift in healthcare.* Population of Europe is ageing. The older the population, the higher is the frequency of chronic diseases. This poses an increasing burden on healthcare and social service systems and affects the quality of life by inducing both physical disabilities with frequent hospitalizations and social impairment. There is a need for a paradigm shift from the specialized care centers to the home as self-care environment. Persons with chronic conditions need to be continuously supported in their physical therapy, as the level of physical activity influences directly their status and progress.
- *Technology advances in wireless inertial sensing.* In recent years, miniaturized inertial sensors have become an increasingly popular solution for ambulatory human movement analysis. Furthermore, recent advances in wireless communication and low-power chip design stimulated the development of pervasive technologies, such as wireless sensor and body area networks, foreseen to have a high impact in the wellness and healthcare domains.

Therefore, IS-ACTIVE proposes a combined solution: intelligent miniaturized inertial sensing systems with wireless communication capabilities.

Visions and Objectives of the Project

The objective of IS-ACTIVE is to devise a person-centric healthcare solution for patients with chronic conditions - especially elderly people - based on the recent advances in wireless inertial sensing systems. The project emphasizes the role of the home as care environment, by providing real-time support to patients in order to monitor, self-manage and improve their physical condition according to their specific situation.

IS-ACTIVE aims at producing tangible results in the form of fully-functional prototypes with a relatively short estimated time to market (1-2 years). The project addresses all the development phases of such a

prototype wireless sensing platform, from hardware platforms and software packages to algorithms and user interfacing.

IS-ACTIVE results are to be validated through field trials involving patients suffering from chronic obstructive pulmonary disease (COPD). COPD patients need to manage their chronic condition through extensive physical therapy. However, the physical therapy needs to be adapted to the situation of the patient and according to his/her progress.

Project Partners and Funding

Full name	Short name	Country Code	Type of Organization	Final granted budget in EUR
University of Twente, CTIT	UT	NL	University	341.606
Inertia Technology	INE	NL	SME	178.428
Northern Research Institute Tromsø	NOR	NO	Research	0
Norwegian Centre for Telemedicine, University Hospital of North Norway	NST	NO	Hospital/research	500.625
PROSYS PC	PRS	RO	SME	82.300
Roessingh Research & Development	RRD	NL	Revalidation/Research	217.318
University Hospital Elias	ELS	RO	Hospital/research	74.500
			Total	1.394.777