ITEA3

Project Profile

CareWare

Wearable sensor solutions for monitoring health and wellbeing

The ITEA 2 CareWare project aims to develop and leverage innovative unobtrusive cyber physical systems for monitoring and improving personal health, autonomy, and sports management. Applications are: patient monitoring for people that are not able to communicate on their health status, home care of older people or rehabilitation patients, sports and occupational health.

ADDRESSING THE CHALLENGE

The CareWare project confronts some of the biggest challenges of modern times: how to build digital service innovations enabling productivity enhancement through optimal use of real-world assets such as innovative connected textiles, interoperable wearable sensor solutions, mobile communication and platform solutions. The medical use cases of the project will have an impact on several societal challenges from evaluating the impact of different medicines under development to facilitating the work of medical staff to adapt the medical treatment and care to a person's real situation.

PROPOSED SOLUTIONS

The CareWare project, which includes leading industrial partners, research and educational centres, and innovative start-ups, will provide new solutions for CPS-based digital service innovation bridging the gap between the electronic textile technologies, advanced sensor technologies and application platforms. The CareWare ecosystem will use an open and common architecture reference model stimulating the development of the participating partners' products and know-how to implement proofs of concept in health and sports applications. This will enable the introduction of new combinations and integration of the sensor technologies in textiles, a reference

USE CASES

Patient monitoring systems for people with difficulties to communicate on their health status

Health Care

Careware building blocks for smart wearable sports and health solutions

Sensor technology usage to support coaches, personal trainers & sports clubs

Sports

Home Care

Daily support for the elderly

model and open building blocks to enable the development of a wide variety of cooperative innovative services, systems and appliances, new sensor integration within the existing platform solutions, and support of methodologies to build IOT-based service innovations.
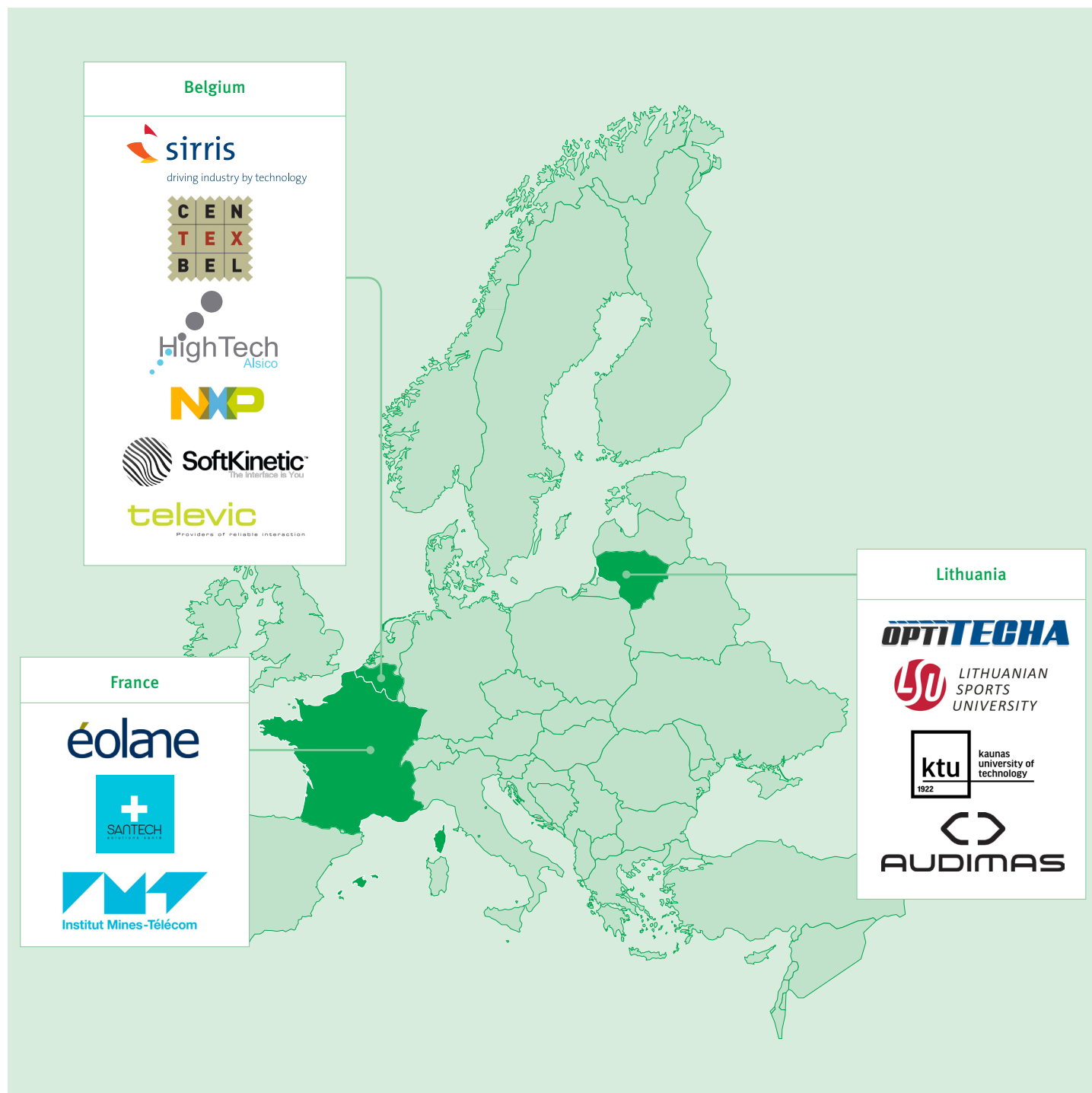
PROJECTED RESULTS AND IMPACT

Among the expected results of CareWare will be durable versatile sensors that are mass producible, easy to integrate into production processes and deliver accurate information, sensors and actuators integrated in garments and other wearable cyber physical systems, ready-to-use platforms including sensor data communication, data processing algorithms
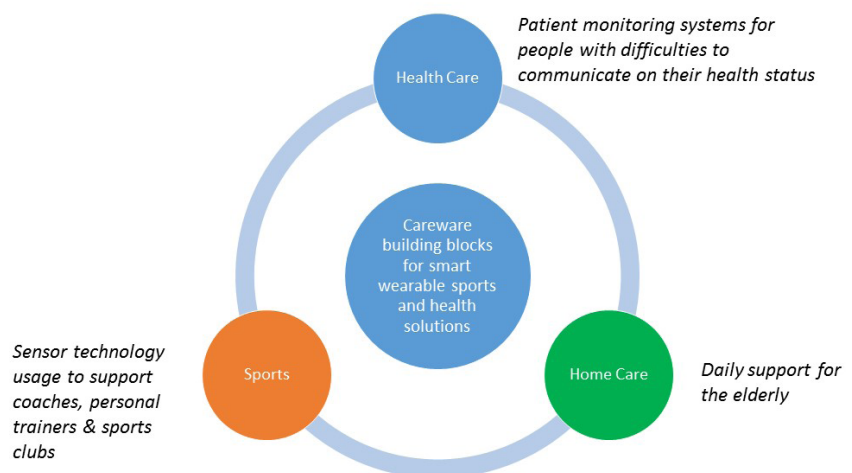
providing personal health information and dynamic databases allowing data model expansion. The innovative value-driven concepts will benefit the user, user's social environment and society by making health monitoring as easy as checking your watch, and combining the monitoring with care and/or coaching services in a compelling way. The health, quality of life, safety and efficiency of the user will be enhanced simply by wearing 'intelligent' clothes and following personalised guidance. The resulting savings from lower costs of care and more efficient working hours will be considerable and provide significant opportunities for the organisations that use CareWare and a better quality of life for the wearer.

CareWare

Belgium

sirris
driving industry by technology

CENTEXBEL

HighTech Alsico

NXP

SoftKinetic
The Interface is You

televic
Providers of reliable interaction

France

éolane

SANTECH
solutions santé

Institut Mines-Télécom

Lithuania

OPTITECHA

LITHUANIAN SPORTS UNIVERSITY

ktu 1922 kaunas university of technology

AUDIMAS

Project start
January 2015

Project end
December 2017

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