Partners

UPPSALA UNIVERSITET

JOHANNES KEPLER UNIVERSITY LINZ

TNO innovation for life

MYCRONIC

Beneli

EVALAN

MYSPHERA

UNIVERSITY OF LJUBLJANA Faculty of Sport

links FOUNDATION PASSION FOR INNOVATION

ELETTRONICA Srl

Politecnico di Torino

Warrant Hub TINEXTA GROUP

Follow us!

persimmon-project.eu

Project details

Project number: 101129713
Project name: PERSONALIZED SUSTAINABLE SMART PATCH OMNIFICENCE
Project acronym: PERSIMMON
Call: HORIZON-CL4-2023-RESILIENCE-01-TWO-STAGE
Topic: HORIZON-CL4-2023-RESILIENCE-01-33
Type of action: HORIZON-RIA
Service: HADEA/B/03
Project starting date: 1 September 2024
Project duration: 48 months
EU Contribution: 7.768.776,26 €

Contacts

PROJECT COORDINATOR
Klas Hjort
Uppsala University
klas.hjort@angstrom.uu.se

DISSEMINATION MANAGER
Isella Vicini
Warrant Hub (Tinexta Group)
isella.vicini@warranthub.it

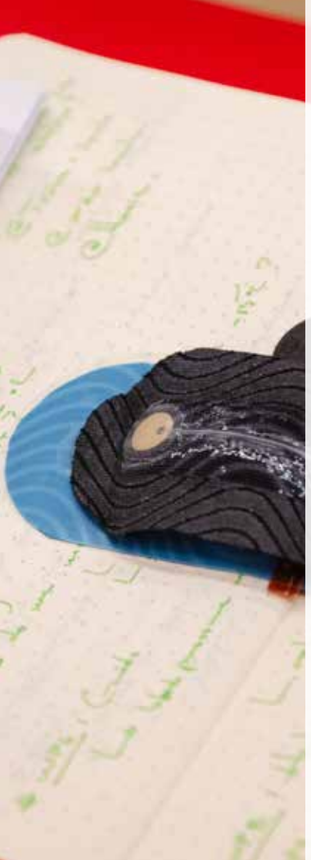
"Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do notnecessarily reflect those of the European Union or the European Health and Digital Executive Agency (HADEA). Neither the European Union nor the granting authority can be held responsible for them."

Powered by Warrant Hub (Tinexta Group)

Persimmon

Personalized Sustainable Smart Patch Omnificence

"Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do notnecessarily reflect those of the European Union or the European Health and Digital Executive Agency (HADEA). Neither the European Union nor the granting authority can be held responsible for them."

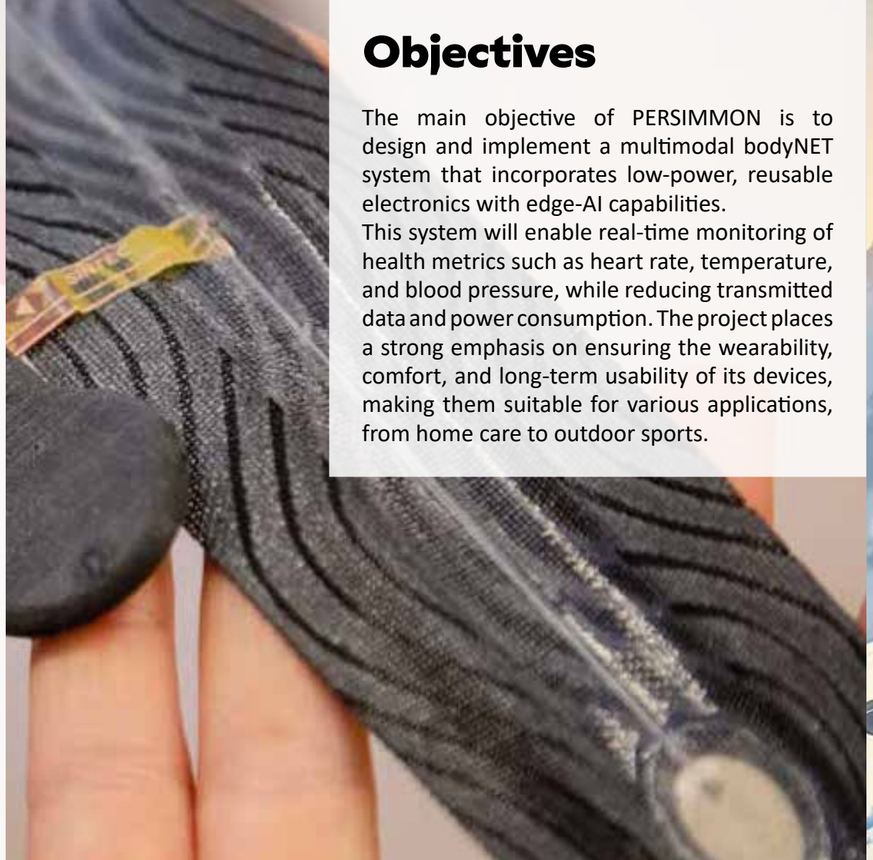


Project Overview

The PERSIMMON project focuses on the development of innovative and sustainable wearable technologies designed for continuous health and sports monitoring.

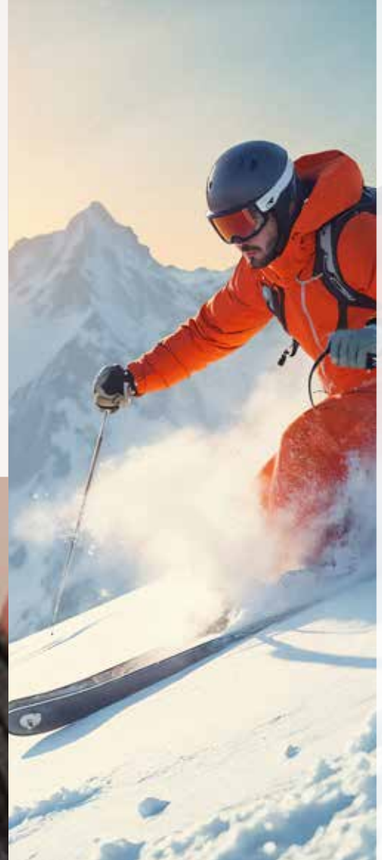
By integrating advanced sensor materials, biodegradable biopolymers and cutting-edge manufacturing methods, the project aims to create eco-friendly smart patches that offer both high functionality and low environmental impact. These patches will be able to capture essential physiological data while being environmentally safe and biodegradable, promoting a circular economy. PERSIMMON is the natural evolution of the Horizon 2020 project SINTEC coordinated by Uppsala University and ended in June 2023.

SINTEC provided a digitally printed soft and stretchable disposable patch with a soft and slim multiuse module protected under it. PERSIMMON will exploit and bring at higher technological readiness level SINTEC main results on digital manufacturing technology, miniaturized sensor boards, Fat-IBC communication, gateway and data apps, and blood pressure monitoring.



Objectives

The main objective of PERSIMMON is to design and implement a multimodal bodyNET system that incorporates low-power, reusable electronics with edge-AI capabilities.
This system will enable real-time monitoring of health metrics such as heart rate, temperature, and blood pressure, while reducing transmitted data and power consumption. The project places a strong emphasis on ensuring the wearability, comfort, and long-term usability of its devices, making them suitable for various applications, from home care to outdoor sports.



Expected Impacts

Sustainability

Eco-friendly smart patches reduce environmental impact through recyclable materials and low power consumption.

Healthcare Innovation

Continuous, non-invasive health monitoring offers improved patient care and proactive management of conditions like cardiovascular disease.

Technology Advancement

PERSIMMON's innovations will set new standards in wearable tech by combining advanced AI, biodegradable materials, and cutting-edge sensors.

Circular Economy

By focusing on recyclability and reducing electronic waste, the project aligns with global sustainability goals for a greener future.