Project Overview

Lifechamps aims to address the inherent complexity caused by cancer treatments and to act in the monitoring of health status and improvement of Quality of Life (QoL) in a significant manner by using emerging technologies in the fields of **Big Data**, **Data Analytics**, and **Artificial Intelligence (AI)**.

Consortium Partners

15 Partners From 9 Countries

Karolinska Institutet

UNIVERSITAT POLITÈCNICA DE VALÈNCIA

DELL Technologies

ALTRAN

cyberlens

Instituto de Investigación Sanitaria La Fe

UNIVERSITY OF SURREY

Academic primary health care centre REGION STOCKHOLM

salumedia

INTRASOFT INTERNATIONAL

University of Glasgow

MYSPHERA IoT & Location Systems for Care

MASSIVE DYNAMIC SWEDEN

European Cancer Patient Coalition

The LifeChamps consortium is a multi-disciplinary team that features:

Sound **experience** in all **key technologies**

Scientific, technical, business, clinical and policy-level **expertise**

Competence in the design of **field studies and testing** with older adults

Access to key infrastructures to carry out trials with end-users in **realistic scenarios**

Major involvement in all **EU initiative on Active and Healthy Ageing**

Strong **coordination** capacity and long **cooperation** track record

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life champs

LifeChamps: A Collective Intelligent Platform to Support Cancer Champions

Project Details

Full Title: LifeChamps - A Collective Intelligent Platform to Support Cancer Champions
Grant Agreement No: 875329
Type of Action: Research & Innovation Action
Topic: H2020-SC1-DTH-2018-2020
Start Date: December 1, 2019
Duration: 3 Years (36 Months)
Funding: 4,999,915.00 € (EUR)

Get in Touch

⟶ **Website**
www.lifechamps.eu

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⟶ **Project Coordinator**
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⟶ **Technical Manager**
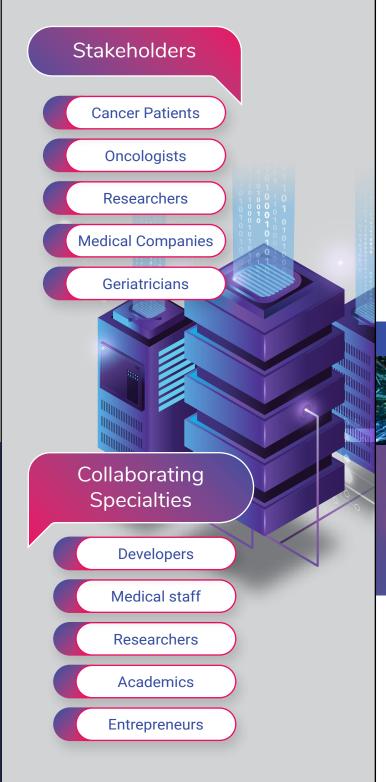Pedro Louro — Altran Portugal SA

The Need — Vision

⟶ The steady increase in life expectancy, mean age and cancer survivorship across the developed countries together with evidence from cancer and geriatrics care research bring forward the urgent need to deal with the "age issue" as a key component of global cancer care strategies. Increasing age and comorbidities are also often associated with a discriminant lower use of aggressive cancer therapies, as well as a higher neglection for their preferences in health-related quality of life care support. We believe in a society where ageist stereotypes and discrimination against older adults will be eliminated from the clinical practice.

The **vision of LifeChamps** is to address the inherent complexity caused by cancer treatments and to act in the monitoring of health status and improvement of quality of life in a significant manner by using emerging developments in the fields of **Big Data**, **Data Analytics** and **Artificial Intelligence (AI)**. Its components will be built upon three pillars:

Approach

! **PREDICTION** A prediction engine capable of providing comprehensive insights at the point of care in order to predict and prevent disorders or cancer relapse associated with cancer treatment at an early stage.

🔧 **CARE** A smart care model to timely address, in a continuous monitoring approach, symptoms responsible for affecting QOL, in particular, frailty.

✓ **ADVICE** A collaborative structure to all targeted users counseling their activities with recommendations, supporting their clinical work and providing quality of service estimation.

Stakeholders

- Cancer Patients
- Oncologists
- Researchers
- Medical Companies
- Geriatricians

Collaborating Specialties

- Developers
- Medical staff
- Researchers
- Academics
- Entrepreneurs

LifeChamps Objectives

- To develop a multi-dimensional index for the quantification of QOL in different patient cases scenarios.
- To develop novel digital biomarkers for the prognosis of QOL deterioration caused by cancer treatment.
- To develop innovative systems medicine tools able to mine, filter, analyse and visualise relevant health data.
- To create a Big Data and HPC-enabled infrastructure for managing multisource and heterogeneous patient-related data.
- To deliver a novel, context-aware, large-scale analytics framework capable of delivering multi-dimensional QOL support to cancer life champions during and after their treatments

LifeChamps Technologies

IoT Data Analytics
Intelligent Algorithms HPC
Wearables Edge Analytics Machine
Big Clinical Records Learning
Data
mHealth PROMs
Artificial Intelligence

Use Cases

⟶ The LifeChamps platform will be validated in four multi-national pilot use case scenarios aimed at demonstrating its applicability and validity for the most prevalent middle-aged and older cancer survivors cases (breast, prostate & skin cancer).