## Project Overview

The LifeChamps project aims to support and deliver the highest care and Quality of Life (QoL) to older cancer patients, their caregivers and clinicians, using emerging developments in the fields of Big Data, Data Analytics, and Artificial Intelligence (AI). Its main focus is on delivering a smart, personalised and secure platform that will monitor health outcomes and address cancers' comorbidities of older adult cancer survivors by preventing long-term side effects and improving QoL.

## 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)

## Consortium Partners

14 Partners From 10 Countries

Aristotle University of Thessaloniki
Karolinska Institutet
Universitat Politècnica de València
DELL Technologies
Capgemini
Instituto de Investigación Sanitaria La Fe
Academic primary health care centre Region Stockholm
EXALENS
netcompany intrasoft
salumedia labs
University of Glasgow
MYSPHERA
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**

A significant involvement in all **EU initiative on Active and Healthy Ageing**

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

## Get in Touch

**Website**
www.lifechamps.eu

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LifeChamps Project

**LinkedIn Group:**
LifeChamps:
A collective intelligent platform to support cancer champions

LifeChamps-H2020

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**Scientific Coordinator**
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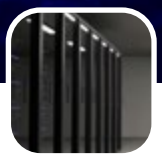
life champs

# LifeChamps: A Collective Intelligent Platform to Support Cancer Champions





## 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. As people getting older, comorbidities are increasing. Those are often associated with a discriminant lower use of aggressive cancer therapies and a higher neglection for their preferences in health-related quality of life care support. Vision statement: We believe in a society where ageist stereotypes and discrimination against older adults will be eliminated from the clinical practice

The LifeChamps project 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 in a significant manner by using emerging developments in the fields of Big Data, Data Analytics and AI. Its innovative 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, morbidities or cancer relapse associated with cancer treatment at an early stage; based on a Big Data-enabled HPC infrastructure with a broad knowledge base, where heterogeneous data from multiple sources is mapped, in a reachable and manageable way to create valuable insights;

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

**ADVICE** Provide a collaborative structure to all target users: (i) older cancer patients - counseling in day to day activities with recommendations and advises on transversal lifestyle domains (e.g., nutrition, physical activity, social inclusion), (ii) physicians – supporting the clinical work by providing actionable insights on individual patient health and QOL trajectory, as well as visualization of aggregated data and their causalities and (iii) healthcare providers and healthcare systems – business intelligence dashboard to provide quality of service estimation.

## Target Audience

- Older cancer survivors
- Healthcare professionals & Professional Caregivers
- Family members / Informal Caregivers of older adult cancer survivors
- Health managers
- Researchers
- Medical Companies
- Universities

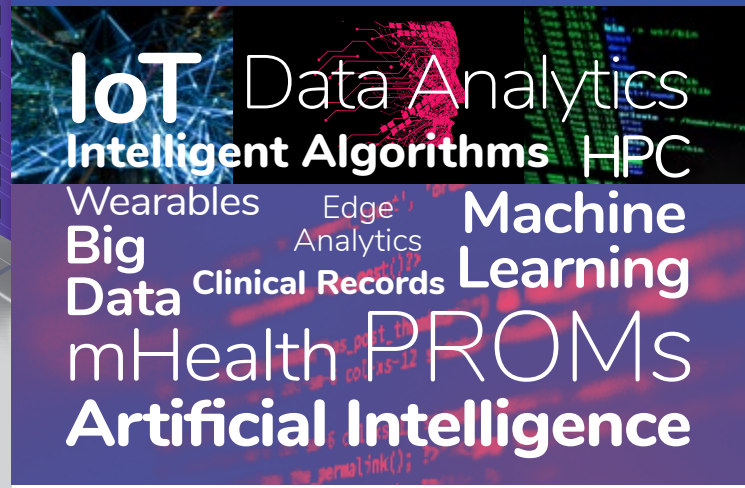
## Collaborating Specialties

- Developers
- Medical staff
- Researchers
- Academics
- Entrepreneurs

## LifeChamps Objectives

- To develop a **multi-dimensional index** for the **quantification of QoL** in different cancer life champions.
- 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 **High Performance Computing** (HPC)-enabled infrastructure for managing multisource and heterogeneous patient-related data.
- To deliver a **novel, context-aware, large-scale** analytics **framework** capable of providing multi-dimensional QoL support to all the different cancer life champions during and after their treatments.

## LifeChamps Technologies




## Use Cases

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