



The Consortium

The HeartCycle consortium consists of public and private partners from research, academic, industrial and medical organizations from ten different European countries and China.

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LIFE TECH
Life Supporting Technologies



Hospital Clínico San Carlos
SaludMadrid
Comunidad de Madrid

UniversitätsKlinikum Heidelberg

empirica

NHS
Lothian

RWTH

PROJECT DETAILS

Project Identifier: FP7 – 216695
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Duration: 48 months
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Compliance and effectiveness
in **Heart Failure** and
Chronic Heart Disease
management

*...helping patients
to help themselves*



The Problem

Cardiovascular disease kills around 1.9 million people every year in the EU, with the associated annual health costs estimated at 105 billion Euro.

Around half of these deaths have occurred to patients with coronary heart disease, the majority of whom required significant periods of hospitalization to treat progressive heart failure.



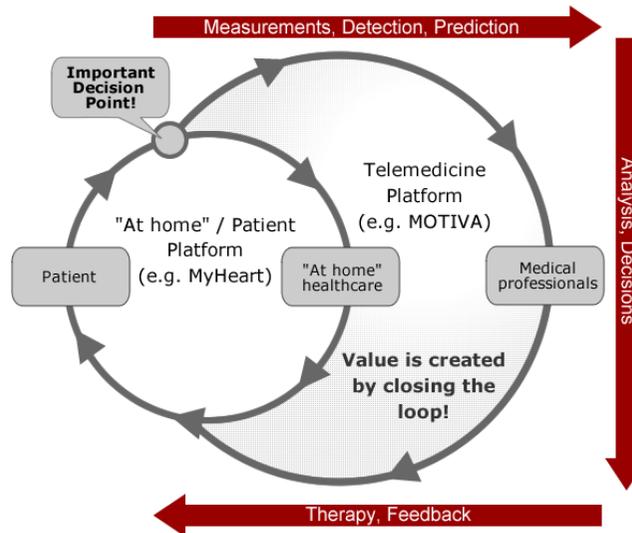
There are currently around 10 million patients with heart failure in the EU and it is one of the commonest medical reasons for hospitalization in adults.

Finding better ways to manage and treat coronary heart disease and chronic heart failure is seen as one of the most effective ways of reducing the human cost and financial burden of these debilitating conditions.



The Approach

The vision of HeartCycle is to improve the **quality of care** for coronary heart disease and heart failure patients by using personalized systems for monitoring their condition at home and involving them in the daily management of their disease.



The system will contain a **patient loop** interacting directly with the patient to support the daily treatment. It will show the health development, including treatment adherence and effectiveness.

Being motivated, compliance will increase, and health will improve.

The system will also contain a **professional loop** involving medical professionals, e.g. alerting to revisit the care plan. The patient loop is connected with hospital information systems, to ensure optimal and personalised care.

The Solution

The HeartCycle system will:

Monitor health status comprising unobtrusive sensors embedded into vests or shirts, bed sheets and home appliances such as weight scales and blood pressure monitors.



Heart Failure Vest

Analyze vital signs and other measurements related to medication and lifestyle effectiveness.

Alert the professionals for unfavorable trends and possible problems; provide feedback on the patient's health status, as well as their adherence to prescribed therapies and progress towards achieving health status milestones.

Integrate care at home with professional care in the hospital.

Directly interacts with the patient in his daily life, will enable feedback and motivation, while personalized care plan for optimal therapy will be provided.

