



**TECHNOLOGY SUPPORT TO IMPROVE QUALITY OF LIFE OF PATIENTS AND CAREGIVERS**

**Felip Miralles – Director Ehealth Unit**

# Eurecat on healthcare

The **healthcare sector** is one of the most strategic in which **Eurecat** is driving innovation.

We develop **innovative services and products** in open collaboration with research centres, companies, healthcare providers and administrations.

## Mission

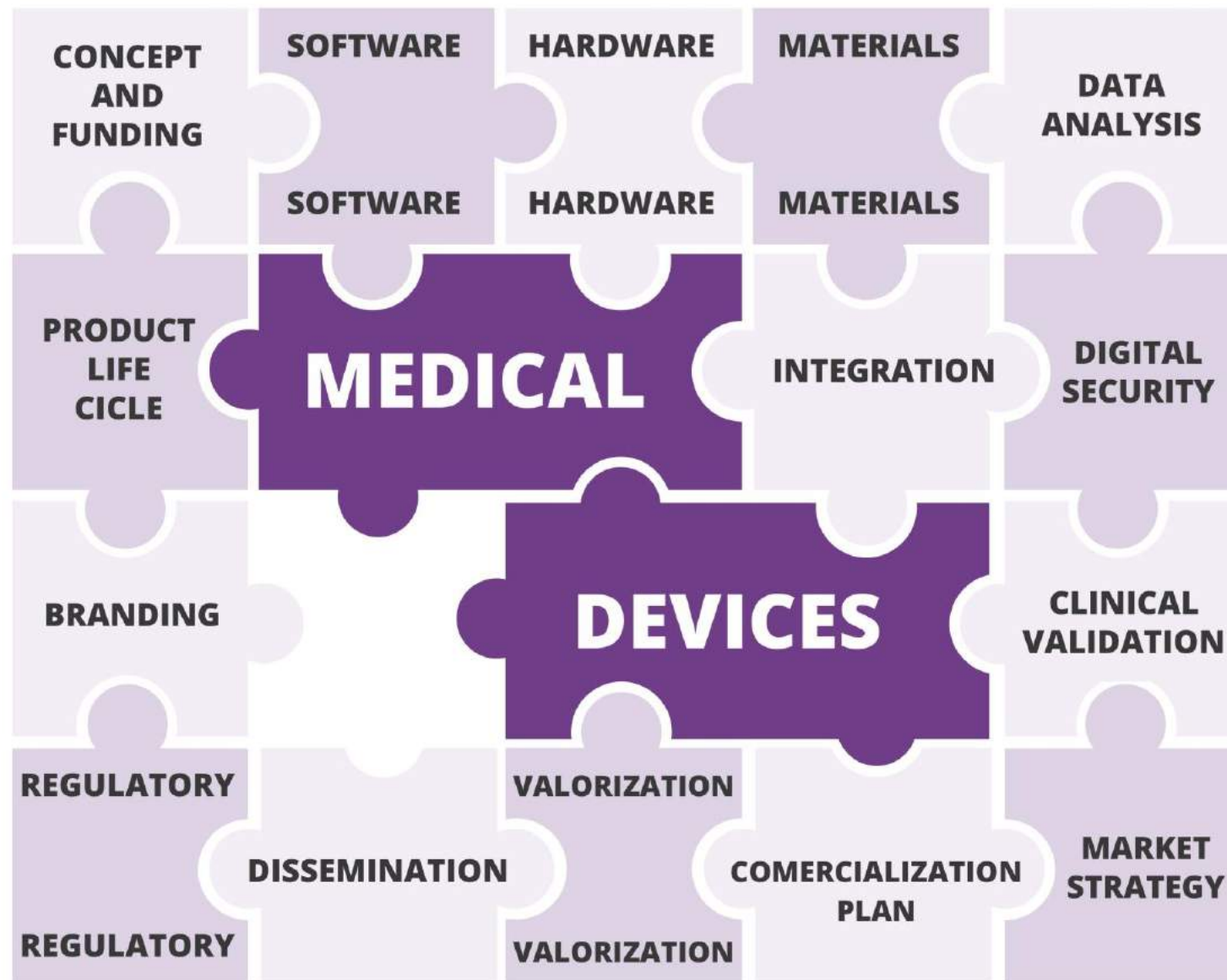
Foster competitiveness of companies and society through applied research, innovation, and knowledge transfer

## Vision

Become the referent on industrial research and technology transfer within the innovation ecosystem



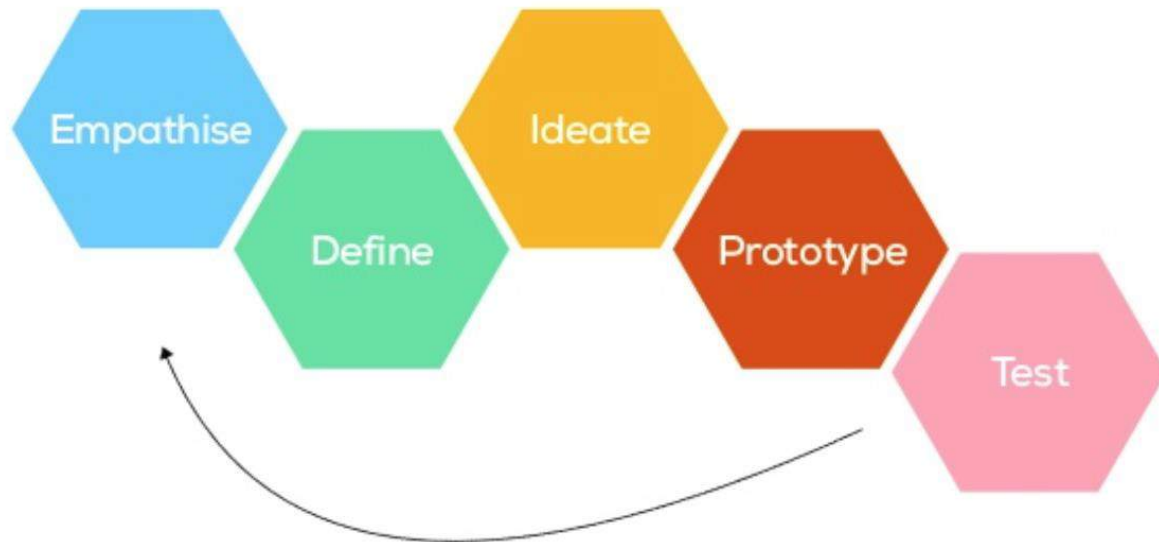
# Flagship project in Eurecat



# Design thinking in health

**Design thinking** is a user centred (patient centred) methodology we use to generate innovative ideas which drive efficacy of solutions from the understanding of real unmet needs of users (specially patients, but also caregivers and health professionals)

It is a process which is carried over step by step, but in an iterative way.





# Paprika

## Actual service

### Trimodal approach

Program including supervised endurance training & promotion of physical activity, nutritional balance and psychological support (mindfulness).

Currently delivered through face-to-face visits with physiotherapists, nutritionists, psychologists...Need to be scaled up to reach more people, cost less and impact more.



# Paprika

## Objectives



### Modular service workflows

Service accesibility, sustainability and transferability requires modularity of service workflow



### Integrated Digital Health Tools

Modular Digital Health tools integrating Adaptive Case Management for professionals and Self-Management apps and devices for patients.



### Personalization and Adaption

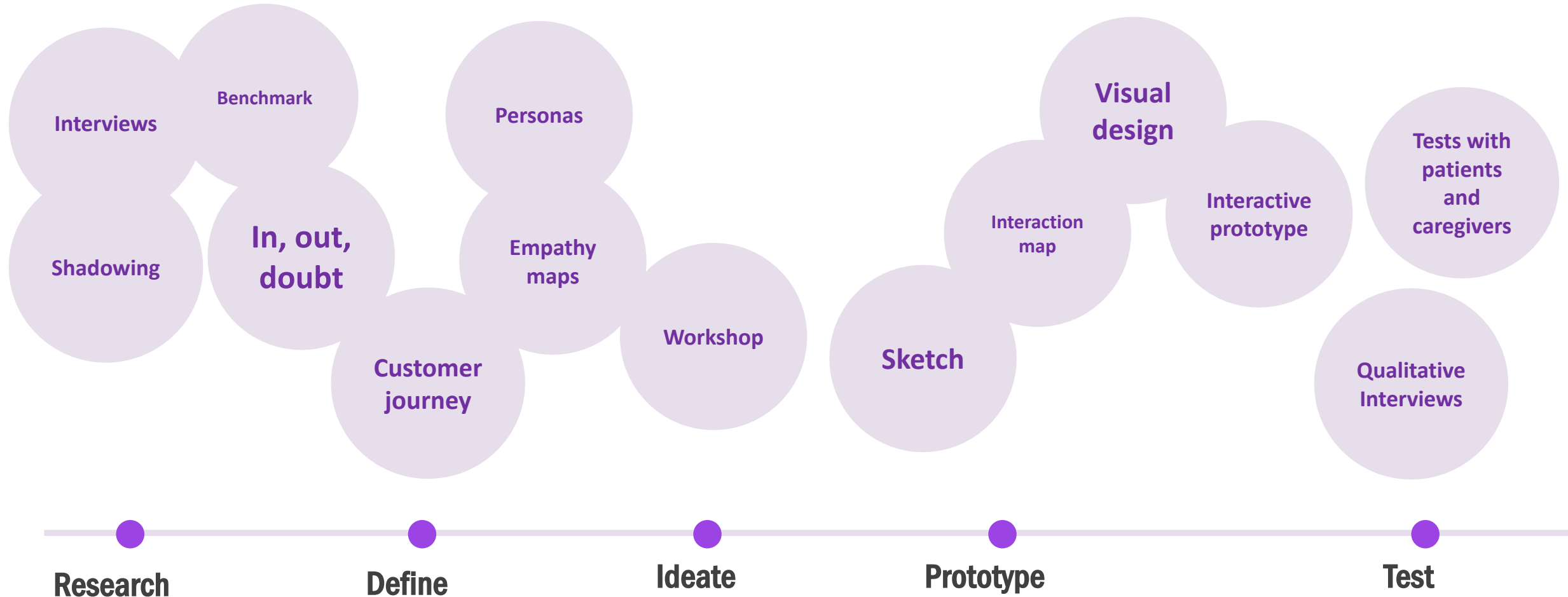
Service is highly adaptive and individualized by nature, therefore solutions must take into account profile and evolution of patients

# Paprika



# Paprika

## How did we reach the solution?

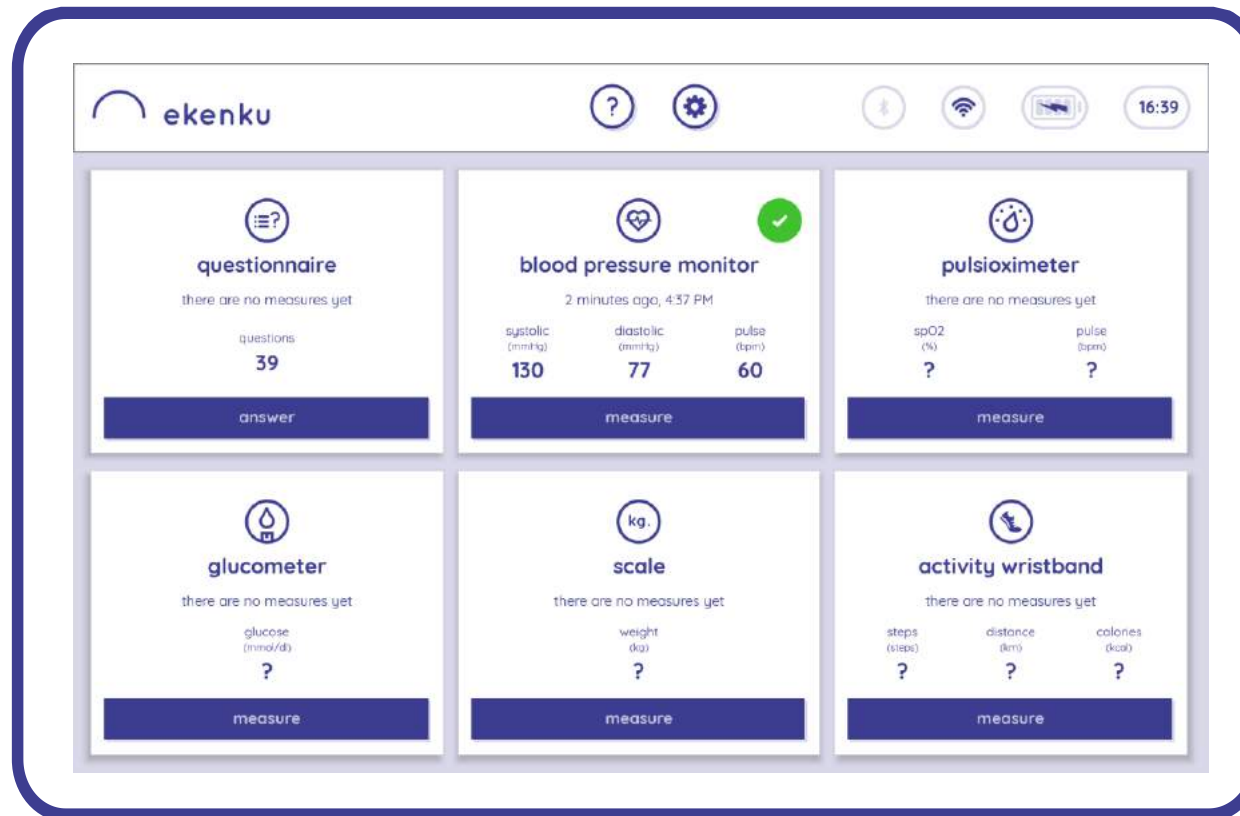




# Ekenku

Solution for the remote follow-up of patients at risk of exacerbation from clinical providers.

ActivAge Project allows large-scale deployment of remote care IoT for monitoring and management of vital parameters for elderly and parkinson's patients



# Connecare



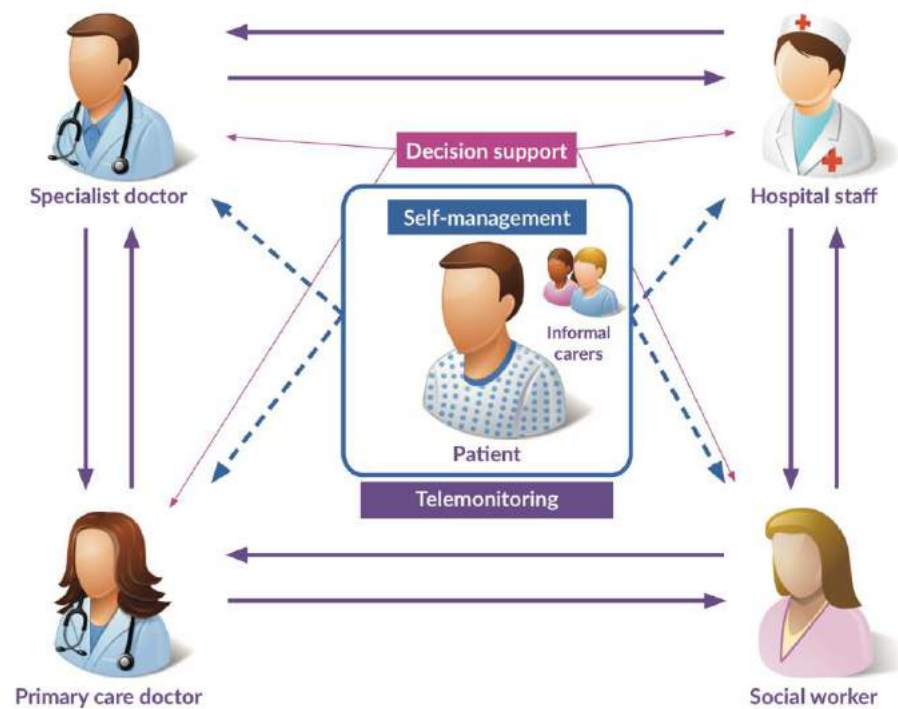
European  
Commission

Horizon 2020  
European Union funding  
for Research & Innovation



CONNECARE

## SMART ADAPTIVE CASE MANAGEMENT



# Preventomics

A biomarker and ICT-based system which provides personalized dietary and lifestyle advice with behavioral stimuli to engage users to improve their health habits and help them prevent the onset of diet-related diseases.




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# Digital Innovation Hub – Healthcare Robotics



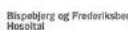
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825003.



# Behaviour

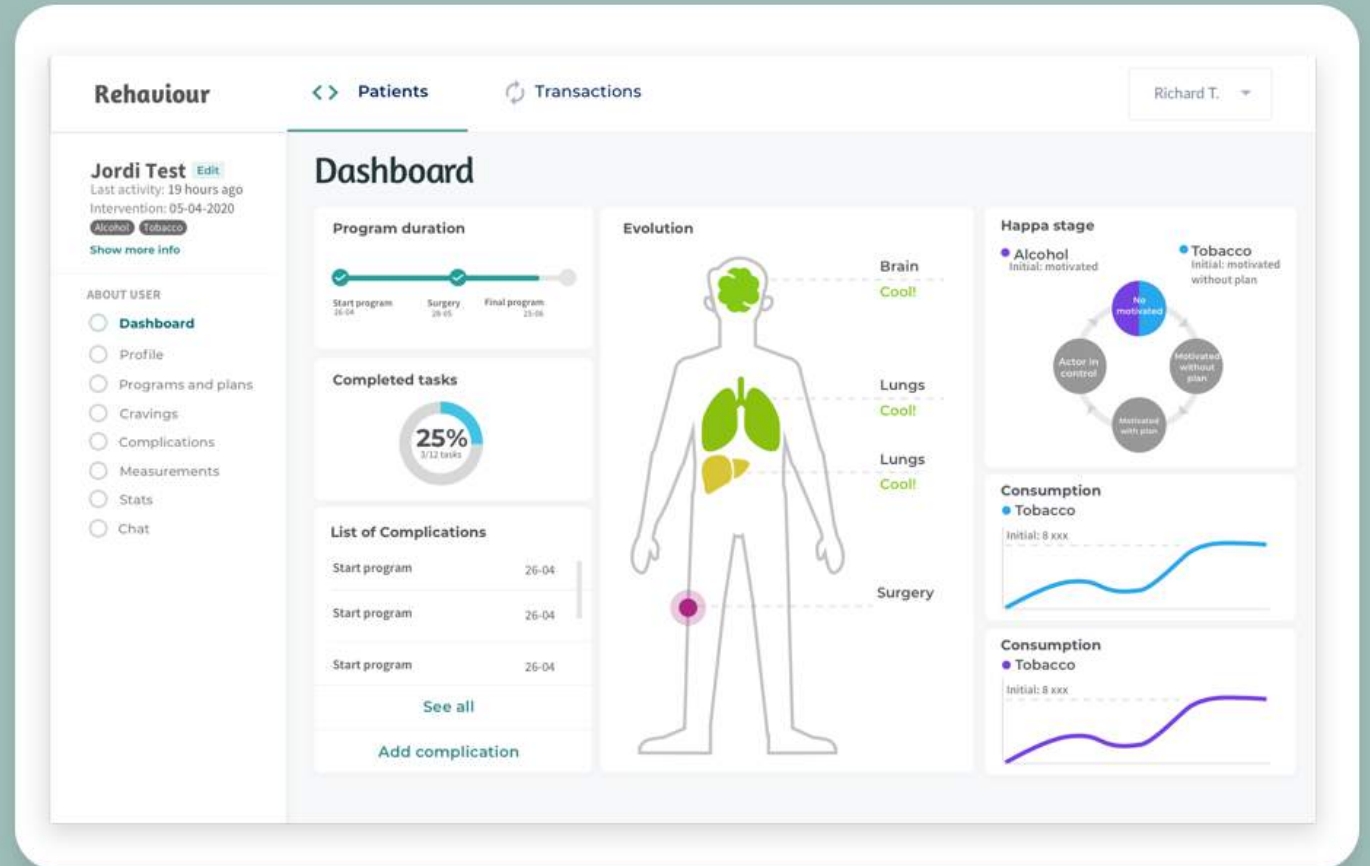
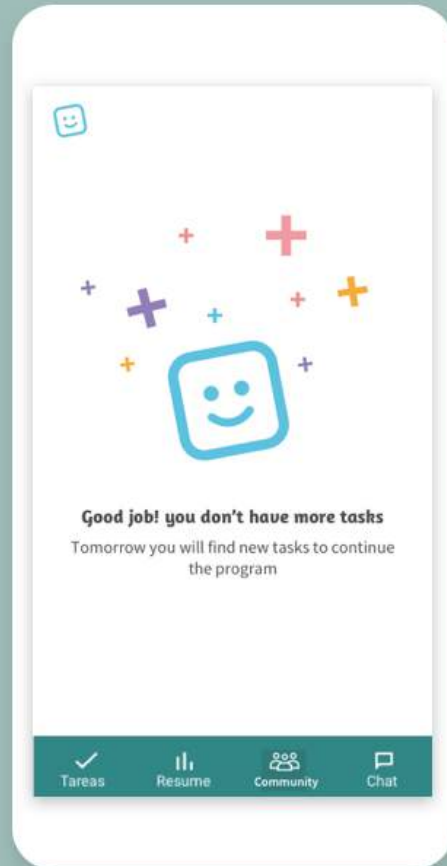
Behaviour change solution for patients before and after a high risk surgery: drop smoke and alcohol intake and adopt healthy habits in order to positively influence complications and mortality .

European Pre-Commercial Procurement, already in its last stage III, being deployed and adopted in 3 European hospitals





# Rehaviour



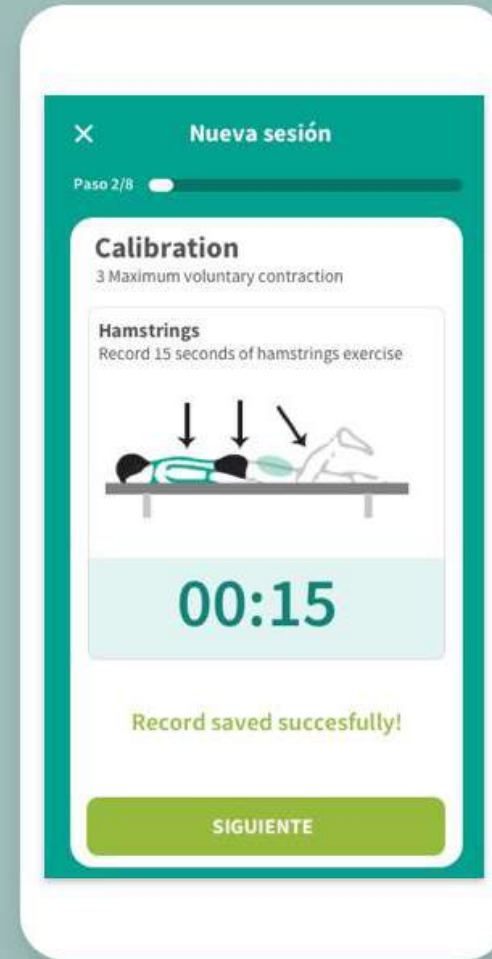
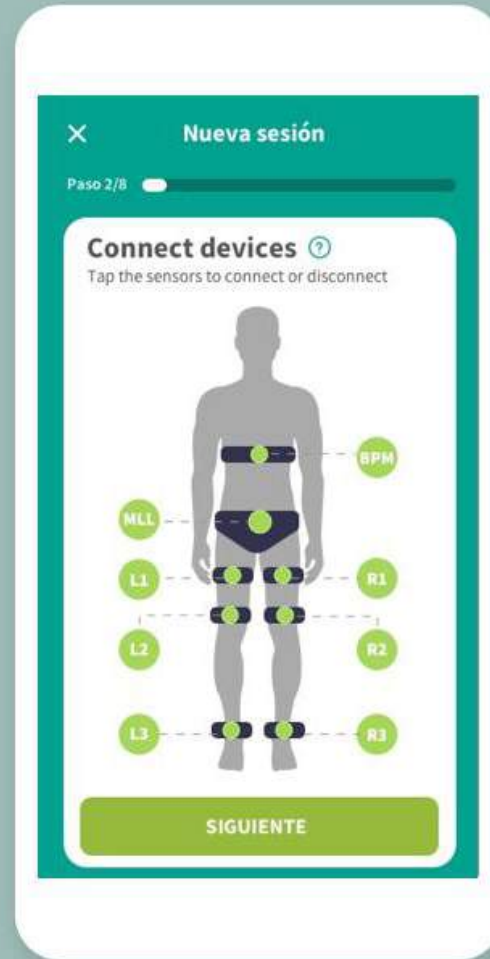
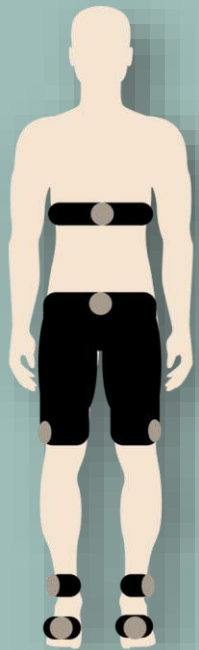


## 6MWT+ – The Six Minutes Walk Test +

Improvement of diagnosis and follow-up of the Six Minute Walk Test protocol, for instance used in the evolution of chronic neuromuscular diseases, through the integration of biomechanics sensors and data fusion.



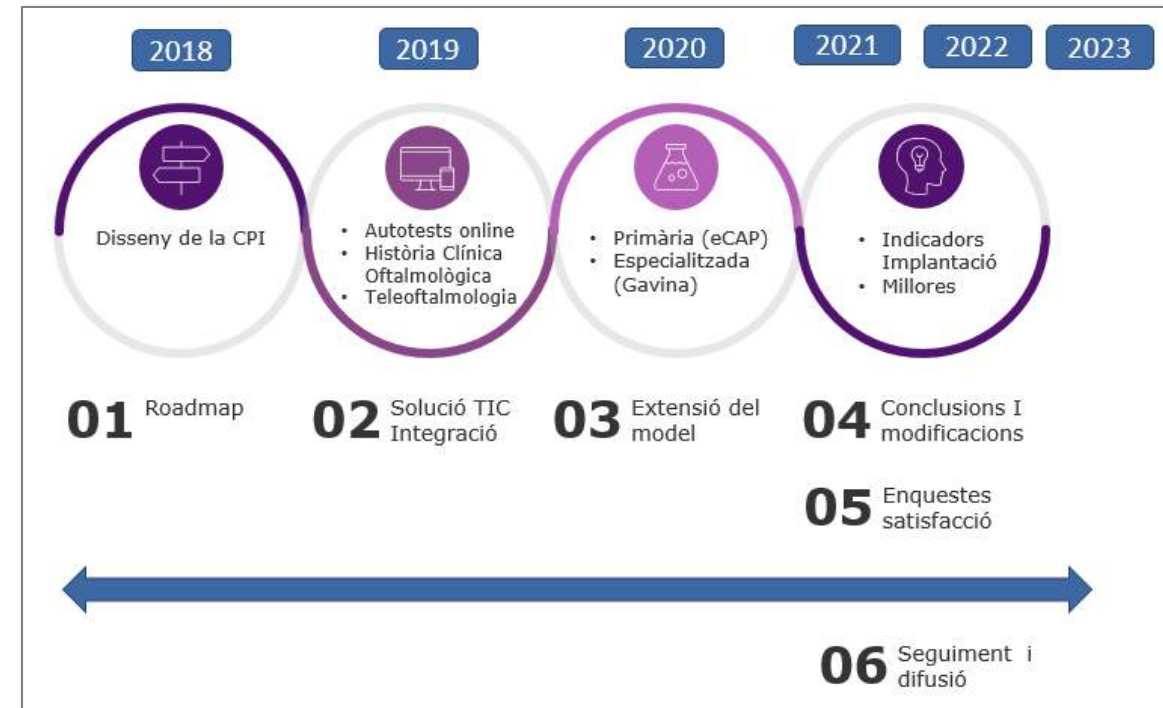
# 6MWT+

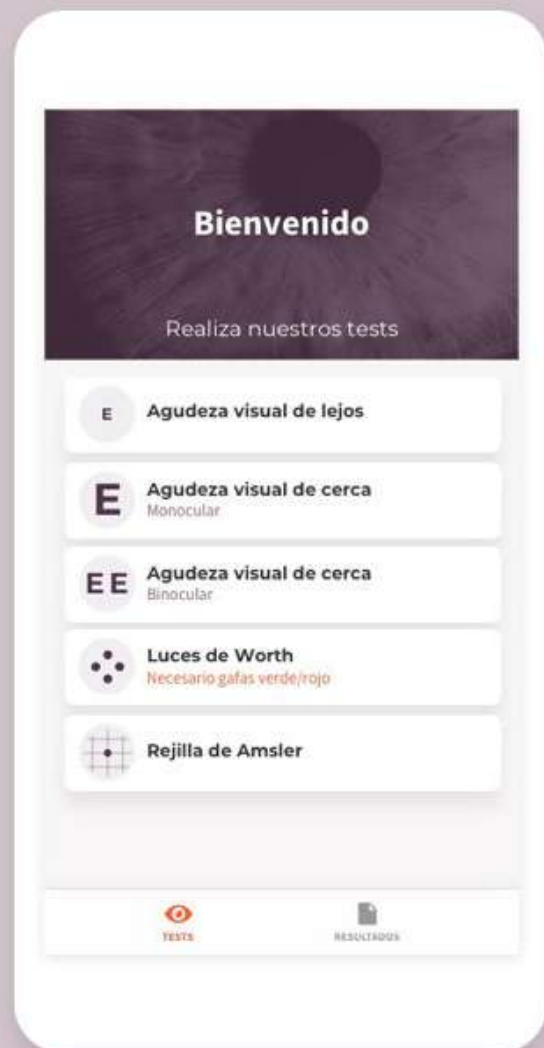






# Integrated care to oftalmologic patient







# Technology acceptance – meaning for the end user

## Design thinking in Health - Benefits:

- Providing a means to listen to patients carefully
- Improving interaction and communication among healthcare teams
- Rediscovering the patient by the professional
- Redesigning more effective and efficient processes and solutions
- Fostering creativity by joining multidisciplinary profiles





Felip Miralles  
Director of eHealth Unit

[felip.miralles@eurecat.org](mailto:felip.miralles@eurecat.org)  
@FelipMiralles