Thematic Panel Discussion

Technology for Independent Living

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Home Care Technologies: Prediction and Prevention

Thematic Panel Discussion:

Technology for Independent Living

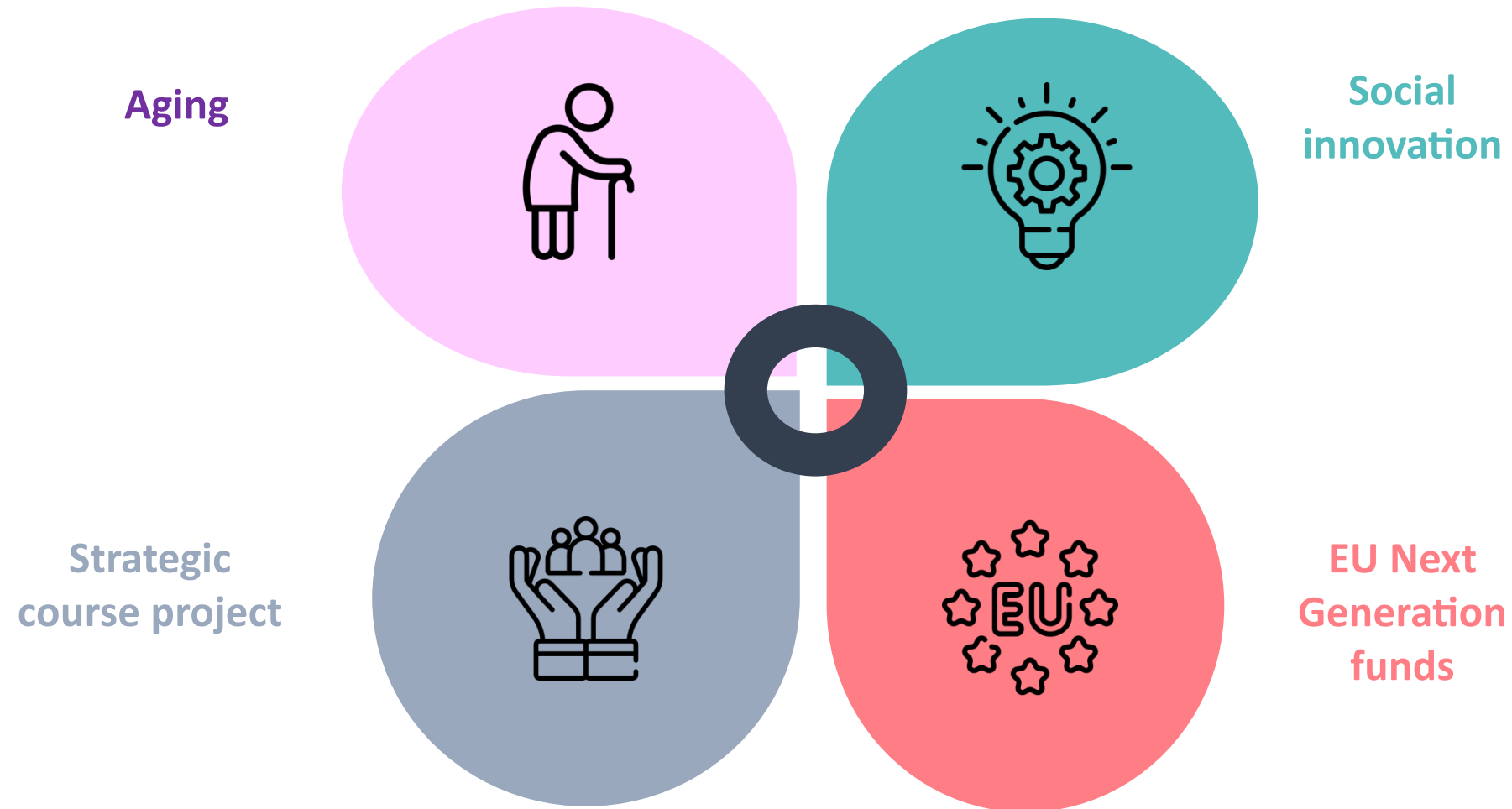16 June 2023, 10:15-11:30 am

Josep Muñoz, General Manager of the Social Services Department, Equality and Social Sustainability Area, Barcelona Provincial Council, Spain

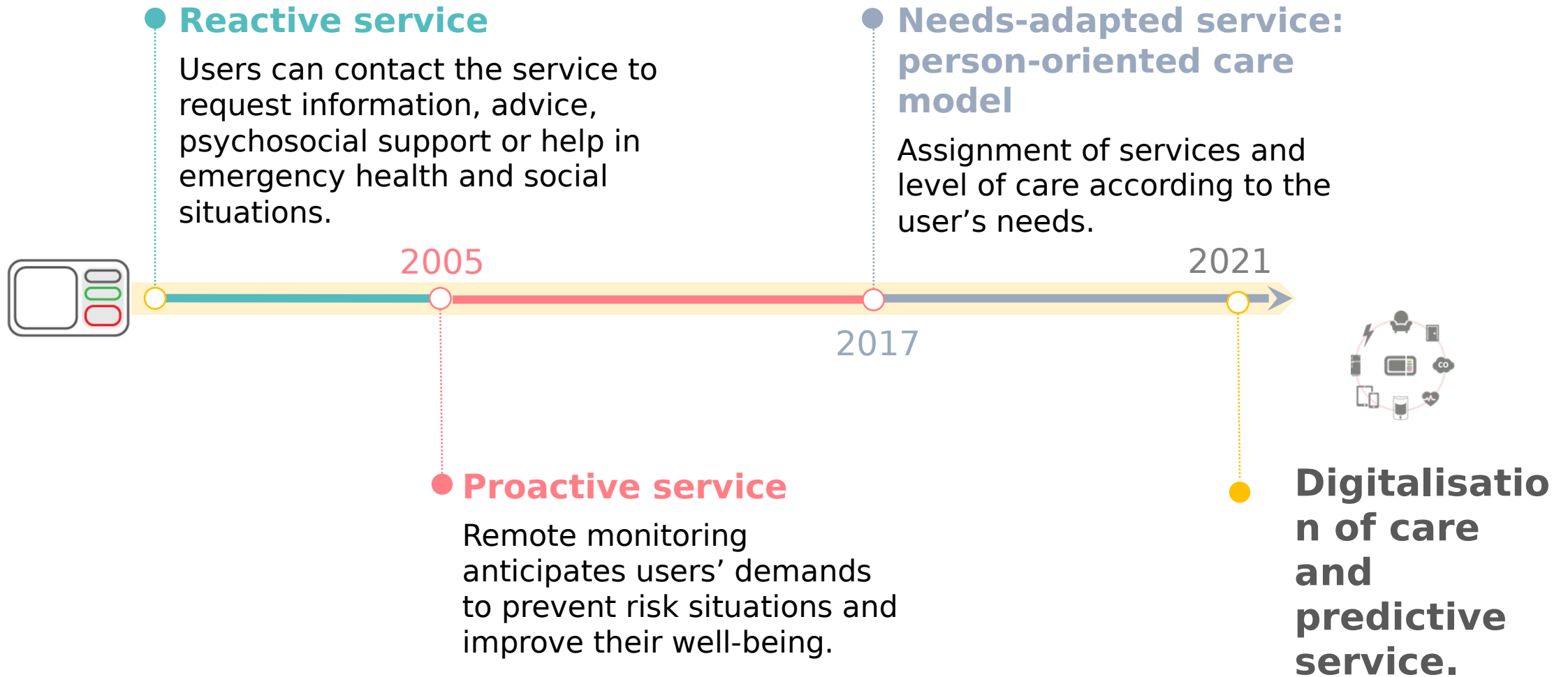**Diputació Barcelona** | Àrea d'Igualtat i Sostenibilitat Social

Context

Aging

Social innovation

Strategic course project

EU Next Generation funds

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Service model. Historical background

Reactive service

Users can contact the service to request information, advice, psychosocial support or help in emergency health and social situations.

Needs-adapted service: person-oriented care model

Assignment of services and level of care according to the user's needs.

2005

2021

2017

Proactive service

Remote monitoring anticipates users' demands to prevent risk situations and improve their well-being.

Digitalisation of care and predictive service.

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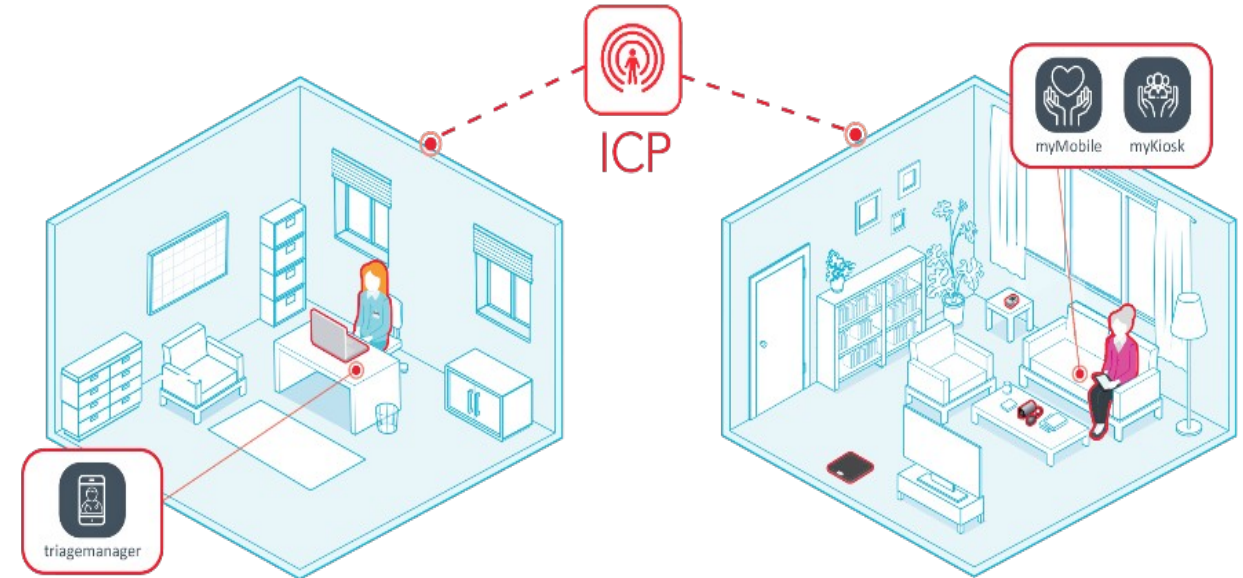
Digital transformation

● **TRANSITION IN DIGITALISING THE HOMES OF USERS**

- **Internet Protocol technology** installed in homes so we can adapt to the digitalisation process being implemented throughout Europe: greater security and reliability.

- Set up of **advanced detectors and sensors** to make it easier to monitor habits in order to establish patterns of behaviour and to predict risks. Digital homes: "ALL IN ONE SENSOR" PROJECT.

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Digital transformation

"All in one sensor"

Obtaining a person's behavioural patterns (sensing) to be able to identify changes in habits, emergency situations and risks early on.

AIOS: "All in one Sensor" – IoT

GWP: gateway

- Temperature
- Moisture
- Presence
- Lighting
- Acceleration
- Infrared rays

► Early **detection** of the initial stages of cognitive impairment, mental and/or physical illness, or undesired loneliness is essential to be able to allocate suitable services and resources aimed at **delaying the onset of these conditions** or alleviate their effects.

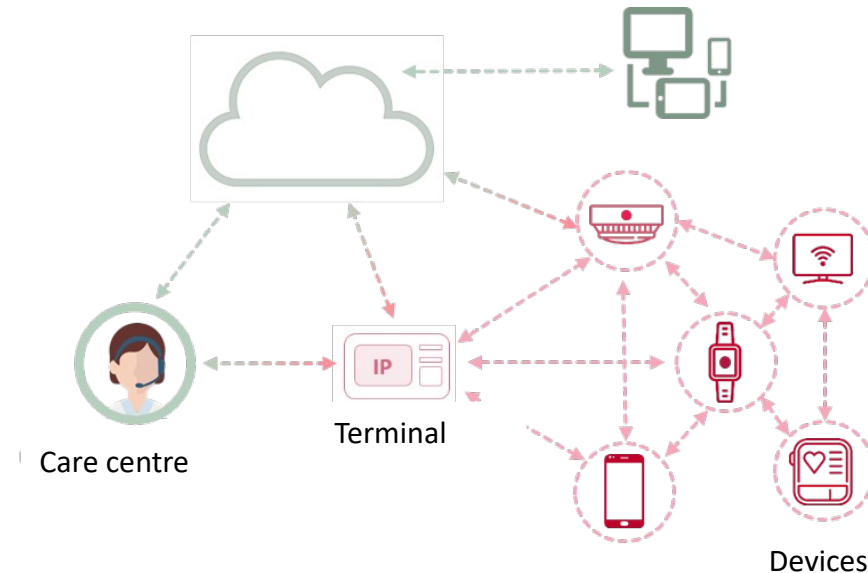► People who live **alone** pose greater difficulty when it comes to the detection of risks by those around them.

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Digital transformation

"All in one sensor"

- It configures a **new behavioural habit management service** via the installation of a host of sensors fitted inside homes.

- It offers advanced **monitoring, learning and prediction** functions.

- It allows resources to be set in motion: **digital cognitive stimulation platform.**

- This is an **Artificial Intelligence (IA)** project based on the **Internet of Things (IoT)**: devices "speak" to one another, beyond the two-way connection of each device with the terminal.
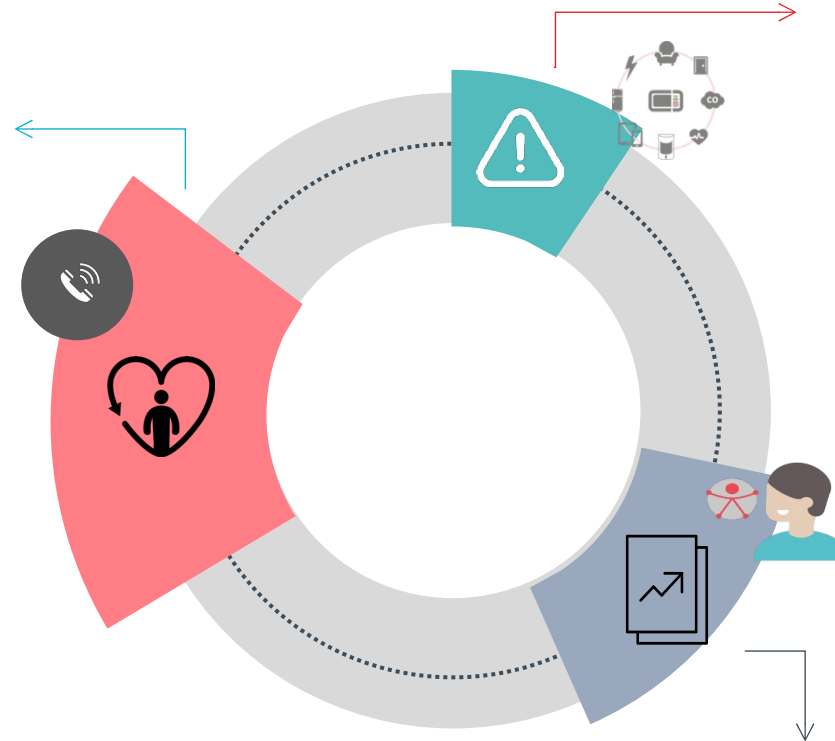
4,000 smart homes

Care centre

Terminal

Devices

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Challenges

Interoperability between social and health services

Ethical aspects and overcoming the **digital divide**

Drive for **sustainable growth of the service**. Expansion of service scope to cover other groups: **universal accessibility**