Physical Rehabilitation at Home

The SHAPES and the MIRATAR projects

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Background: The SHAPES project

SHAPES aims to create an open Ecosystem enabling the large-scale deployment of digital solutions for healthy and independent living addressed to older individuals who face reduced functionality and capabilities

PROGRAM:

H2020-EU.3.1.4.1. – Active ageing, independent and assisted living.

TYPE OF ACCIÓN: Innovation Action.

DURATION: 48 months (1 nov 2019 – 31 oct 2023).

TOTAL BUDGET: 20.944.318,75 €

CONSORTIUM: 36 partners from 14 European countries.

COORDINATOR: Maynooth University (Irlanda).

Background: The MIRATAR project

MIRATAR aims to contribute to the digital transformation of the care economy through the generation of scientific knowledge and new technologies that favor the transition towards a deinstitutionalized care model.

Total budget of 875.840 €
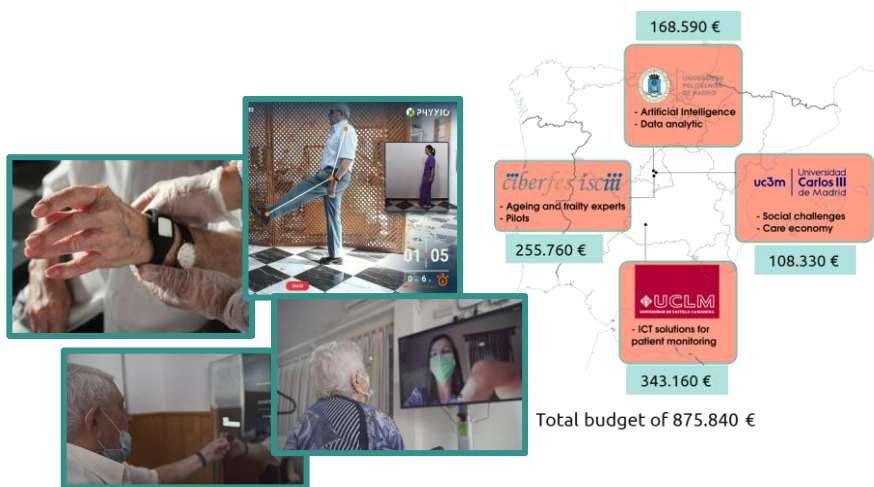
PROGRAM: "*Strategic Projects Oriented to the Ecological Transition and the Digital Transition*"

DURATION: 24 months

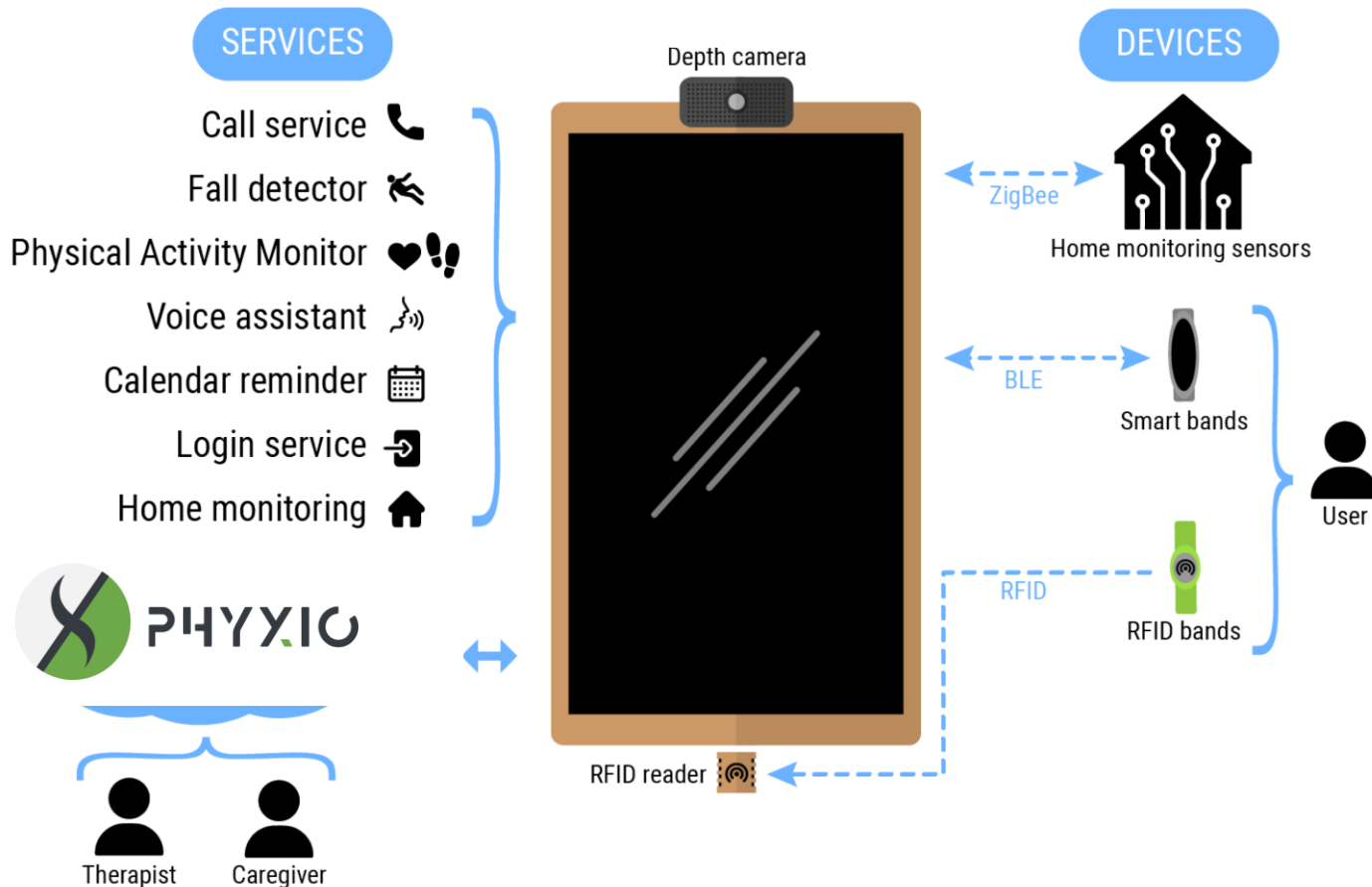**TOTAL BUDGET:** 875.840 €

CONSORTIUM: 4 partners.

COORDINATOR: UCLM

The *Smart Mirror* platform for physical rehabilitation at home and much more
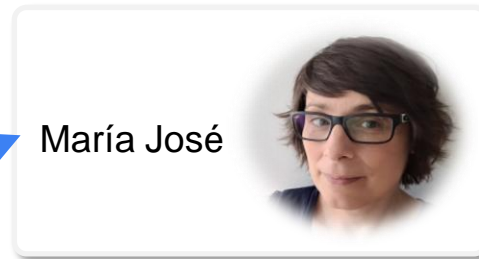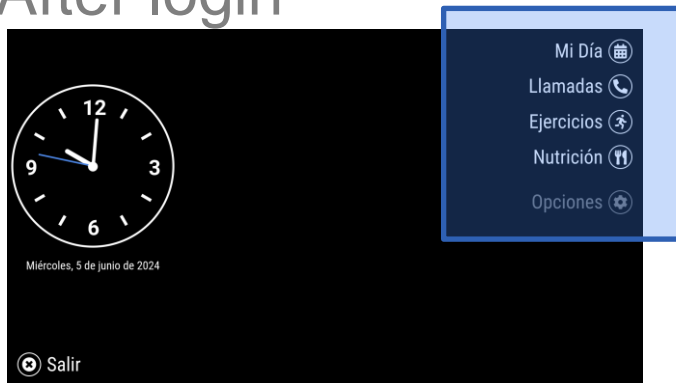
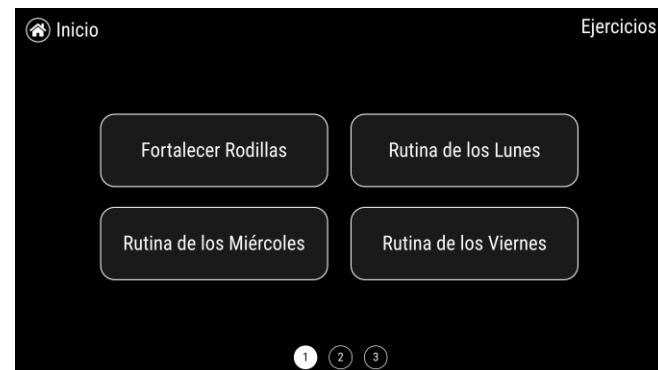# The *Smart Mirror* ecosystem

The *Smart Mirror* interface

1) Login with RFID card

¡Buenos días!

Hoy es miércoles, 5 de Junio de 2024.
Son las **10:01 am**.

María José

2) After login

Mi Día
Llamadas
Ejercicios
Nutrición
Opciones

Miércoles, 5 de junio de 2024

Salir

3) Physical exercise routines

Inicio   Ejercicios

Fortalecer Rodillas   Rutina de los Lunes

Rutina de los Miércoles   Rutina de los Viernes

The *trainer or caregiver* view: exercises

Training sessions

Health data

Home data

Some results from the SHAPES project

Pilot Sites	SAL	AUTH
Participants	N=15 (9 F – 6 M)	N=5 (2 F – 3 M)
Age	82.1 ± 7.6	63.4 ± 10.2
Intervention	30-min sessions 2 times a week For 8 weeks	30-min sessions 3 times a week For 4 weeks
Exercise sessions completed	677	137
Exercises completed	3312	645

Some results from the SHAPES project

Evaluation item	Baseline Mean ± SD	8 week Mean ± SD	Follow-up Mean ± SD	p value
WHOQOL-Bref	94.0 ± 6.5	95.7 ± 4.1	96.5 ±5.8	0.141
Social Function	11.2 ±1.7	11.7 ±1.4	12.9 ±1.4	**0.003**
Barthel modified by Shah	86.1 ± 13.2	89.9 ± 9.0	90.2 ± 8.9	**0.006**
Shoulder Right	119.9 ± 27.4	141.0 ± 29.2	148.3 ± 28.0	**0.002**
Shoulder Left	108.9 ±30.7	132.1 ±25.9	155.8 ±23.7	**0.001**
Hip Right	18.0 ± 8.6	21.7 ± 9.9	28.1 ± 12.9	**0.002**
Hip Left	24.5 ± 9.8	31.0 ± 9.6	30.7 ± 14.0	**0.025**

Some results from the SHAPES project

Pilot site	SAL	AUTH
SUS (0-100)	86.8 ± 6.7	85.5 ± 9.9
TAM SAL (2-10) AUTH (4-20)	9.8 ± 0.8	18.2 ± 3.4

Experience with **Phyx.io**:
- **0%** poor.
- **60%** good.
- **40%** very good.

93.3% reported routines had an impact:
- Increased security.
- Motivation to exercise.
- Physical improvements and well-being.
- Improved social relationships.

Thanks for your attention!

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