FUNDACIÓN intras

Social robots in the frame of holistic care intervention with older adults

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Fundación INTRAS

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101016834

Context of the study

- risk of **premature death**, **worsening of health**, **physical**, cognitive deterioration and loss of quality of life
- lacks on the **systematization**
- **low communication** between sectors
- difficult early detection, adequate holistic monitoring progress or high personalization of health and social prescriptions.

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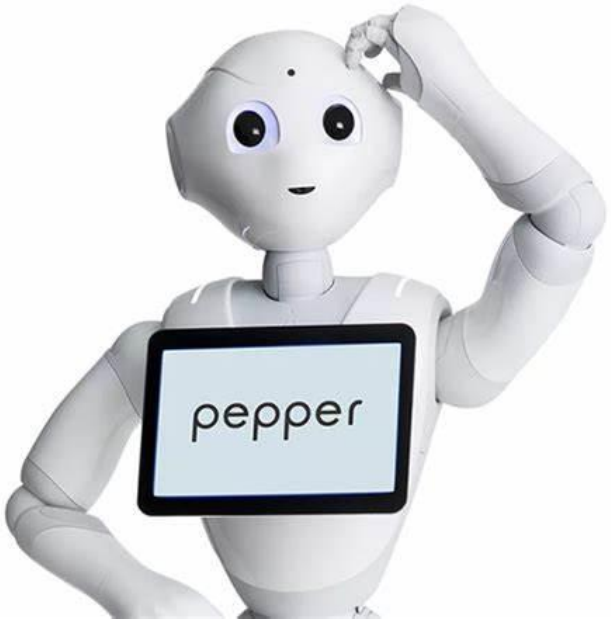
Social robots?

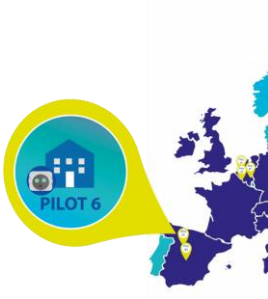
Assistive technologies as **Socially Assistive Robots (SAR's):**

- support the caregiving process
- addressing areas of need that influence admission to nursing home (physical, cognitive, medical and psychosocial issues)
- advantage to care plans adherence.



What do we aim for?

- Prevents the health **deterioration**;
- Reduces the logistic **workload**;
- Increases **quality of life**;
- Enables a social presence;
- Increases the **communication** between services;
- Supports the **therapeutic plans**;
- Increases the level of **personalisation**;



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How?

- Used in **various settings** (within clinical work and dwelling scenarios) and **individual or group format**;
- **User interface** for the communication with the patient (Pepper/tablet applications);
- **Mood screening** – by image (robot) and Likert scale (Tablet);
- Supports the **collection of data** and organizing this in an efficient manner;
- Provides a **monitoring feature**, with compliance of the privacy policies;
- Support with application of GRADIOR and iMAT app and an activity plan editor.

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PILOT 6

HOSMARTAI

AI for the smart hospital of the future

Virtual coach for a continuity of care

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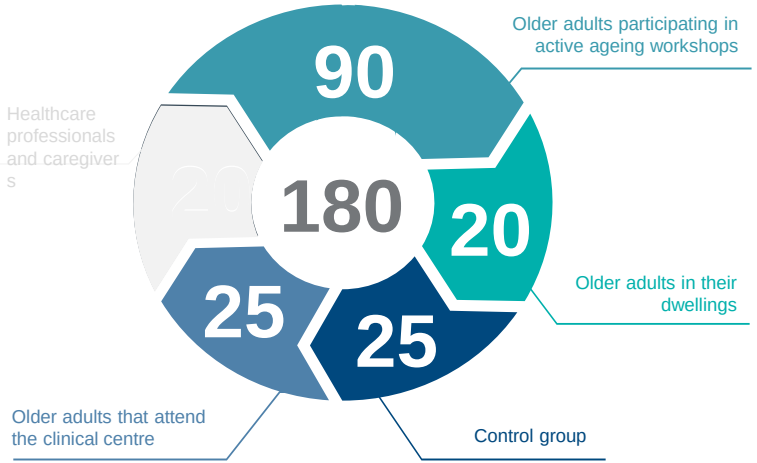
TMA TELEMATIC MEDICAL APPLICATIONS

The study

Evaluating the effect, **usability** and **acceptability** of the solution to support continuity of care.

Research Questions:

- Are the solutions integrated in Pilot 6 usable and accepted by end-users?
- Does the system produce **cognitive changes** for older adults?
- Does the system produce changes in **quality of life**?
- Does the system produce changes in the **participant's mood**?
- Does the system support an understanding of **improving continuity of care**?



Study design: Quasi-experimental study

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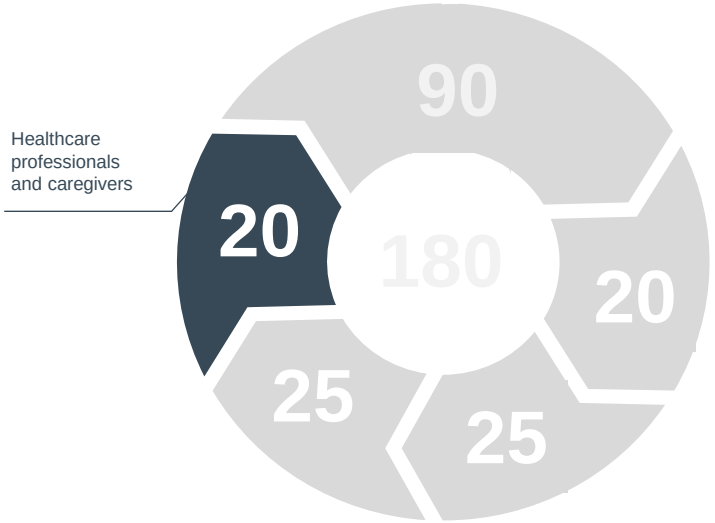
The sub-study

Qualitative evaluation of the usability and acceptability of the solution.

Research Questions:

- Does the system support an understanding of improving continuity of care?



Study design: Qualitative analysis

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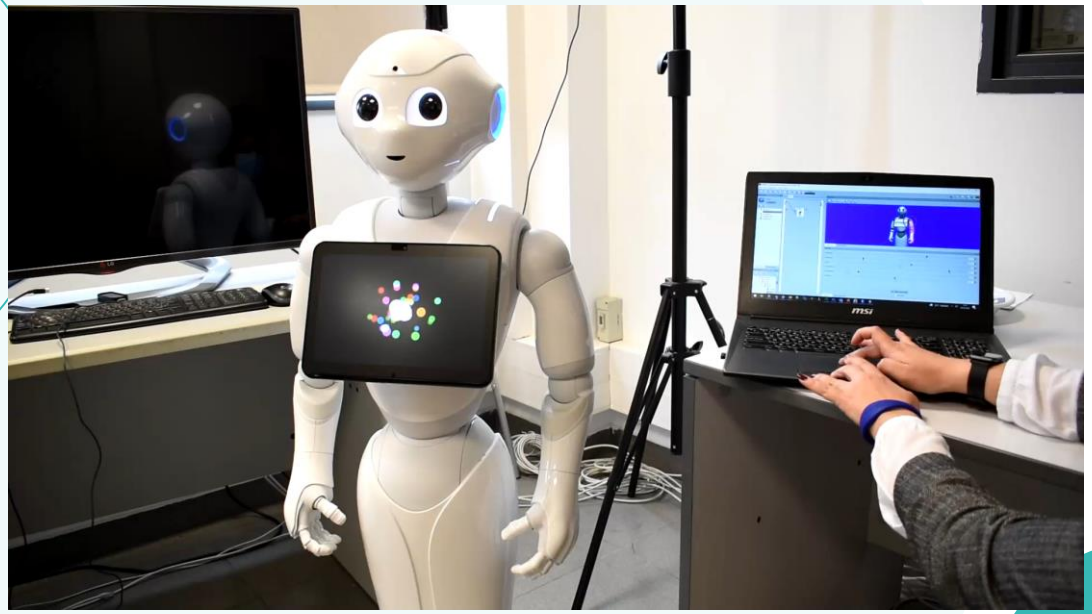
Robot Pepper arrival



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Co-creation methodology

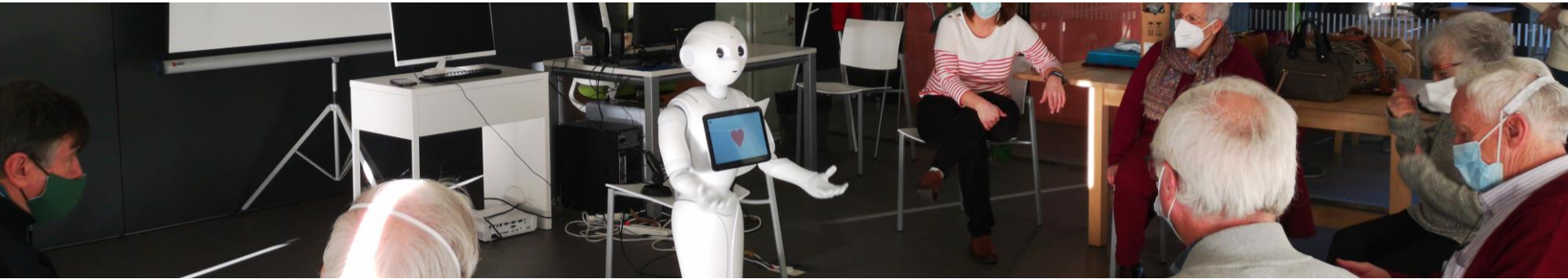
"It is good to older adults with mild cognitive impairment. For patients with serious dementia / severe cognitive impairment, the robot can scare them and confuse them.''

"If the robot does not give more work to professionals, then it is a good tool.''

"It's a simple presence, it can animate patients.''

"It takes workload to the professional, which is good.''

"It allows for the professional to have time to other tasks or to focus on one patient while the robot gives stimulation to the rest. This, if the robot works well.''



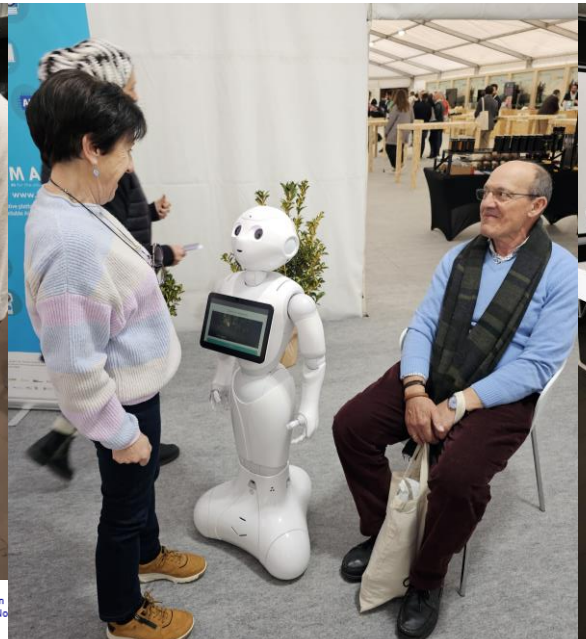
Initial feedback - Features

"It could have a good effect the fact that it is a robot. Sometimes patients do not listen to the professionals, maybe with a different and innovative tool like this, the patients can have more interest and motivation to carry out the exercises."

"It has a friendly aspect."

"The movements seem quite natural."

"The voice is a little mechanic."



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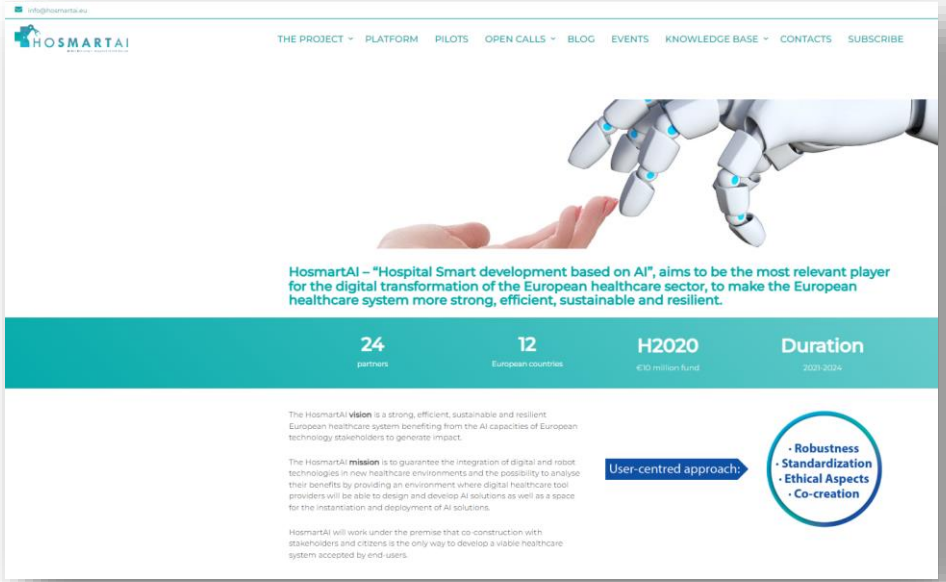
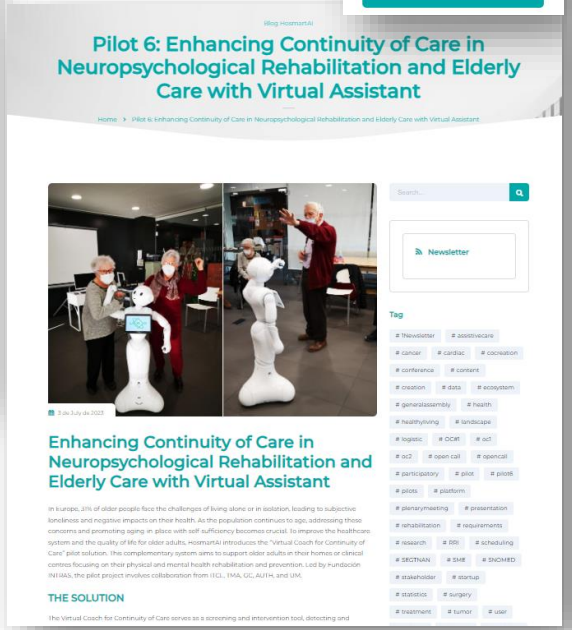
The work continues…





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Part of Springer Nature

ISRCTN85439821
https://doi.org/10.1186/ISRCTN85439821

Almeida, R.; Marques, D.; Losada Durán, R.; Cid-Bartolomé, T.; González-González, S.; Hatzikou, M. (2023). A game changer Joint Design Journey of PREMS and PROMS in the HOSMARTAI virtual coach study. (Poster Presentation) ICIC23 - International Conference on Integrated Care, Antwerpen, Belgium, Poster N659.


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