

2024



# MARIO'S FRIEND

Home Care Project with AI Support

# THE CONTEXT

## The Accelerated Aging of the Population in Italy and Europe

*Italy is one of the countries with the oldest population in the world and faces a growing challenge: the aging population and the consequent increase in the number of elderly people who are not self-sufficient. Currently, those over 65 make up 24.1% of the Italian population, an increase of 3 million over the last twenty years. It is estimated that the number of non-self-sufficient elderly, approximately 3.8 million at the beginning of 2023 (26.8% of the elderly), will rise to 4.4 million by 2030 and 5.4 million by 2050.*

*This situation, which pertains to Europe in general, requires a more comprehensive welfare system, one that goes beyond mere healthcare assistance and includes multidimensional support that involves communities, thus improving the quality of life for the elderly. The challenges to be addressed range from the lack of funds in the healthcare system to the high costs of additional care borne by families and caregivers absent due to work, all of which demand an urgent response.*

# THE PROJECT

Fighting isolation and improving quality of life

*MARIO'S FRIEND is a project that aims to use artificial intelligence to create a "station" for dialogue, help, comparison and stimulation for people who will need Assistance in the near future, without distracting them from their family environment. A dialogue with an intelligent and empathetic Avatar that stimulates the initiative of the assisted person and that is helpful in their daily life. The primary goal is PREVENTION, to avoid or delay cognitive and physical decline while maintaining the greatest possible degree of autonomy.*

Among the specific objectives that can be pursued and declined also on the basis of a scientific-health analysis linked to the territory, we can include:

- ❖ Stimulation of the cognitive abilities of the single person (dialogue, content proposals, interactive entertainment)
- ❖ Enhancement of safety (help protocols in everyday life and monitoring of the environment)
- ❖ Increase in sociability (dialogue windows with family members and health workers)
- ❖ Increase in mobility (proposals for physical exercise in a playful form)
- ❖ Evaluation, tracking and monitoring of cognitive abilities
- ❖ Increase in the psycho-physical well-being of the person also by showing personalized contributions

## GENERAL AIMS

Home support to increase the person's psycho-physical well-being

# THIS IS MY FRIEND

## Hi, I am Sara

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The development and management of all activities takes place through development modules that refine and optimize in detail the Avatar's ability to communicate with the user, also in anticipation of technological features that will soon be released on the market.

## What are we doing today?

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The choice of project features and main functions is dictated by the needs that the reality of home care suggests:

- Tools for overcoming loneliness
- Tools to support the management of daily life
- Scheduling of cognitive and physical stimulation activities
- Personalization of contributions

# PREVENTION IS BETTER THAN CURE

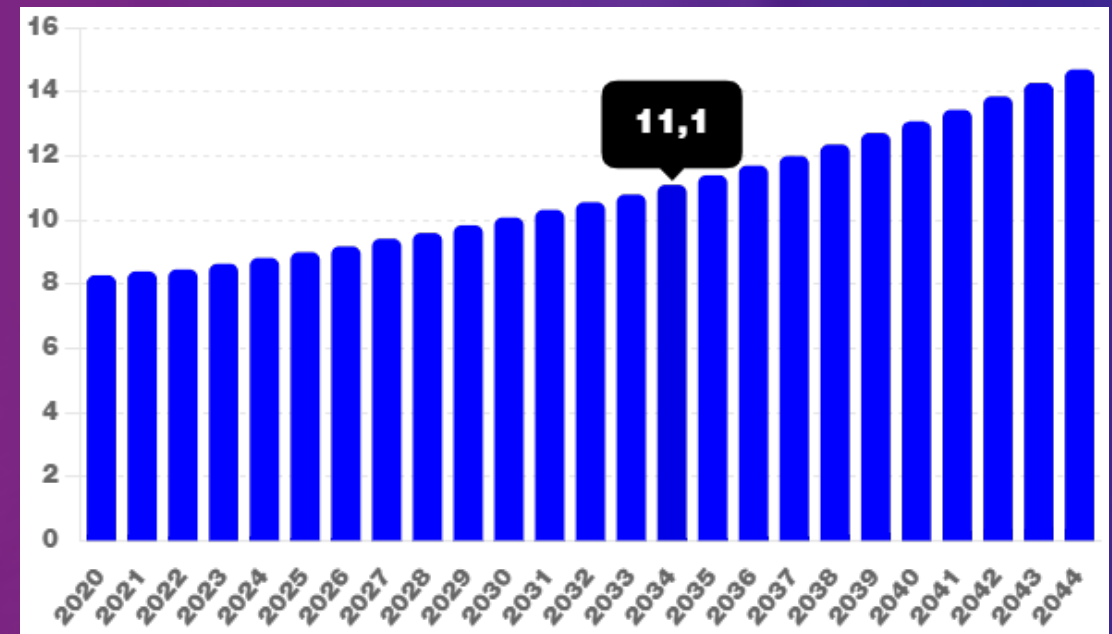
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## LET'S PREPARE THE FUTURE

The project begins with the creation of male and female avatars designed to foster empathy in the assisted person. Integrated into the platform, these avatars serve as a conduit for interactive dialogues aimed at meeting specific needs.

Dialogue is activated through presence detection (audio and video), scheduled prompts, or by the voluntary engagement of the assisted person. The conversations focus on themes tied to an activity schedule, which aims to stimulate the user's attention, memory, and physical activity.

Estimated growth of the number of elderly people in Italy (in millions) in the coming years



# BASIC FEATURES OVERVIEW

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## AVATAR

Proactive and listening interaction. Available 24/7, performs tasks of daily help, companionship, and stimulation of interaction



## Voice Recognition

Dialogue activation on call or with periodic suggestions. Multilingual Avatar, responds to anykind of user



## Contributes selection

Using voice commands or remote control, you can request contributions of any kind (photos, videos, documents) personal or online.



## Activities selection

According to the programming of a personalized schedule or on request, the user can select the activity he wants or is invited to do so.



## Daily reminder

The avatar remembers repetitive daily activities (did you take the pill?). Scheduled or on demand. A personal butler who knows all the needs



## Analytics

With remote supervision of use, periodic reports of the results are created with the sending of alerts to family members or health workers in the event of detection of critical issues or deterioration.

# MARKET OPPORTUNITY

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## Involvement of the local reality

The creation of territorial facilities connected to existing social and health infrastructures provides an effective response to aging-related issues. The involvement of municipalities, healthcare facilities, and general practitioners enables timely reporting and identification of individuals suitable for home care, guided by the latest technologies. Analysis of ongoing field experiments drives the continuous development of new modules to measure effectiveness and refine solutions, adapting them to the specific characteristics of the population involved, including age and location...



## Scalability

The project aims to improve the ability to respond to the needs of the elderly not only from a health point of view, but also from a social and relational one, creating support networks that are able to provide continuous and quality assistance to the elderly, regardless of their country of origin. The structure of the project finds its maximum expression precisely in its expandability to all nations thanks not only to a back office and a multilingual A.I. user interface, but also to R&D activities in collaboration with institutions, universities and foundations.



## The role of the nursing home

Currently, in Italy, the "Open RSA" model is most developed in Lombardy, where there are over 700 facilities involved in this form of assistance but reach a number of about 3000 units on the national territory. They represent a valid tool to combat the isolation of the elderly but are also a very precious ally in identifying the cases most suitable for home care with A.I. and their supervision. Every elderly person who participates in the "Mario's Friend" program is a success achieved for the community.

# ARCHITETTURA DEL PROGETTO

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POSTAZIONE ASSISTITO

SERVIZI DI AI

POSTAZIONE AMMINISTRAZIONE DELLA SOLUZIONE

POSTAZIONE OPERATORI SANITARI

POSTAZIONE ANALISI QUALITY EXPERIENCE

ARCHIVIO IN CLOUD DEI CONTRIBUTI



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