MARIO APPs

The applications deployed on the MARIO robots for use and evaluation at the Pilot sites cover a range of activities, which aim to both entertain the PWD and to reduce loneliness by making it easier for them to stay connected to their network of Friends and Family. These applications are:

- **My Music.** My Music allows PWD to play music from a pre-defined play list uploaded by a Carer.
- **My Games.** My games app, allows the PWD user to play games, on the tablet of the screen of Mario, that can help them train their memory and cognitive abilities or just to entertain themselves.
- **My News.** This app facilitates the PWD user getting informed, through the screen of the robot and speech, about the latest news, that are relevant to their interests, previously inserted in the app, by the caregivers. Local and specific news can be also included in the sources, with the respective configuration from the caregivers.
- **My Family & Friends.** This app reads Twitter feeds to the PWD with a specific hastag that is provided to the family and friends of the PWD.
- **My Chat.** The My Chat App allows PWD to make and receive calls with their contacts via Mario.
- **My Calendar.** The purpose of the My Calendar app is to improve the temporal orientation of the PWD. It facilitates prompting and planning of activities and events in which the PWD has an interest in and which were inserted in the app from a caregiver through a web UI that the app has for that purpose.
- **Reminiscence.** This app provides a series of visual, textual and speech prompts pre-loaded by a Carer that promotes a dialogue with the PWD about past life events.

Within the main MARIO screen these are arranged under three main headings from which the PWD can choose, i.e.:

- **See what is happening around you:** My News & My Calendar
- **Connect with Family & Friends:** My Family & Friends & My Chat
- **Do you want to play something:** My Music, My Games & Reminiscence

Eventually, MARIO hosts a **CGA App** specifically designed for healthcare professionals. This App aims at enabling the robot to autonomously perform and manage the execution of specific tests required in the Comprehensive Geriatrics Assessment (CGA) process, in order to assist formal caregivers and physicians in the multidimensional assessment phase and facilitate the evaluation of a Multidimensional Prognostic Index (MPI).

The introduction of a robotic solution able of autonomously performing parts of a CGA is expected to reduce the direct involvement of health professionals in the time-consuming data collection tasks, as well as the perceived tiredness resulting from the performance of repetitive tests. As a result, this will empower them to concentrate their efforts on the interpretation of the results and the elaboration of personalized care plans. In the long term, the objective is to enable MARIO to perform a continuous monitoring over time of the different domains that contribute to the assessment of patient's conditions, with an opportunity to early detect relevant changes in the health status.