



Agile CoCreation of Robots for Ageing

D 2.1 Mobility Application Requirements

Project: ACCRA
Project Number:
Deliverable: D2.1
Title: Mobility Application Requirements
Version: 1.0
Date: 30/09/2017
Confidentiality: Public
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Funded by



国立研究開発法人
情報通信研究機構
National Institute of Information and
Communications Technology

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Abbreviations and Definitions

| Abbreviation | Definition |
|--------------|--|
| ICT | Information and Communication Technologies |
| ACCRA | Agile CoCreation of Robots for Ageing |
| QoL | Quality of Life |
| EMS | Elderly Mobility Scale |
| LED | Light Emitting Diode |
| TTS | Text-To-Speech |
| HRI | Human Robot Interaction |

Executive Summary

The aim of this deliverable is to present the mobility application technical requirements that will be developed for the Co-Creation phase. The analysis has been conducted on the basis of the “Needs Analysis” performed in Italy (Ospedale Casa Sollievo Della Sofferenza – San Giovanni Rotondo) and The Netherlands (WVO Zorg).

A total of 54 end users (elderly, formal and informal caregivers) were recruited and interviewed to define the main needs according to ACCRA methodology. On the basis of this outcome cross-country and specific country requirements were defined. These outcomes can be related to a specific need or they can be “transversal” for all the needs.

From a technical point of view, ASTRO robot will be improved to accomplish all the requested services. All the hardware parts and the software modules that will be developed or the aspects that will be investigated during the co-creation are described in Sect. **Erreur ! Source du renvoi introuvable..**

From a service point of view, this deliverable aims to re-define Mobility services that will be presented to the end-users during the co-creation meeting both in The Netherlands and Italy to be discussed and improved by the team involved. These services can be executed a specific elderly request, or can be activated by the caregiver or by the system on specific condition. Summarizing the services are:

- *Guidance*: the user will ask to ASTRO to support him during the walking. ASTRO will act as a mobile walker guaranteeing a safe navigation in the environment.
- *Exercise*: the user will decide to perform a physical exercise proposed by ASTRO. At the end of the exercise ASTRO collects the user feedback to personalize the exercise offered.
- *Mobility Coach*: If the user doesn't move, ASTRO suggests to walk together or to perform a physical exercise.
- *Medicine Reminder*: ASTRO, at proper time, reminds the users to take his medicine and collects user's feedback on the correct assumption.
- *Reports for Caregiver*: the caregiver can use the interface to have a quick overview on the user's feedback concerning the exercise and the correct assumption of medicine.

At the end of this deliverable (Sect. **Erreur ! Source du renvoi introuvable.**), the customer expression of services is also reported. These tables reports a short description of each service and a list of questions that will be presented to the users during the co-creation to refine the service both from technical and user point of views.

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