

# **ROBOTIC ASSISTANT FOR MCI PATIENTS AT HOME**

#### **PROJECT AIMS**

RAMCIP aims to research and develop real robotic solutions for assistive robotics for the elderly and those suffering from Mild Cognitive Impairments and mild Alzheimer Disease (AD).

This is a key step to developing a wide range of assistive technologies.

We will adopt existing technologies from the robotics community; fuse those with user-centered design activitites and practical validation, with the aim to create a step-change in robotics for assisted living.



#### THE RAMCIP VISION

- Research and development of a novel domestic service robot:
- Capable to provide proactive and discreet assistance
- In a series of significant aspects of the user's daily life

ASSIST IN	Food preparation	Eating activities		Dressing activities	a
	Socialization	Lower-body treatment activities		Taking medication	Discrete Assistanc
	Managing the home and keeping it safe	Maintaining positive affect		Exercising cognitive and physical skills	
ta	High-level cognitive functions				
ta	Hi	gh-level cogr	nitive functio	ons	e and
ASSIST	Hi <sub>l</sub> Home Environment	gh-level cogr Humar Commu	nitive functio Robot nication	ons Safe Manipulations	oactive and
/ TO ASSIST	Hi Home Environment and Human Activity	gh-level cogr Humar Commu Multimodal	nitive function Robot nication -Touch	ons Safe Manipulations Object Grasping/	e, Proactive and
IOW TO ASSIST	Hi Home Environment and Human Activity Modelling and Monitoring	gh-level cogr Humar Commu Multimodal Adaptive	nitive function Robot nication -Touch screen -Speech	Safe Manipulations Object Grasping/ Manipulation/Handover High object Reaching	Safe, Proactive and

- Focus on the needs of people with Mild Cognitive Impairment (MCI) and evolving dementia
- To support independent living and quality of life



# **KEY FACTS**

- **Contract Nr:** 643433
- **Consortium:** 8 partners from 6 counttries
- Start: January 2015
- Duration: 3 years
- Programme: PHC-19-2014
- Budget: € 3,98 M.
- **Further info:** www.ramcip-project.eu

"A novel robot to provide proactive and discreet assistance to elderly people with Mild Cognitive Impairment (MCI) in their own home"

### RAMCIP Leaflet No.1 March 2015

#### **SPECIFIC OBJECTIVES**

- Objective 1: To develop a service robot that will be capable of robustly understanding actions, complex activities and behaviour of multiple persons in the user's home
- Objective 2: To develop a service robot that will provide proactive, discreet and optimal assistance to the user
- Objective 3: Establishment of advanced communication channels between the user and the robot
- Objective 4: Establishment of advanced physical interaction between the robot and the home environment
- Objective 5: Establishment of assistance activities involving physical interaction between the robot and the user
- Objective 6: To validate RAMCIP project results in real-life scenarios

### PARTNERS

The RAMCIP Consortium consists of 8 complementary partners from 6 different European Countries, namely Greece (Thessaloniki, Heraklion), Germany (Munich), Italy (Pisa), Poland (Lublin), Spain (Barcelona) and United Kingdom (London)











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