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R2M
RESEARCH TO MARKET
SOLUTION



STOCKPORT
METROPOLITAN BOROUGH COUNCIL



ortelio



4th Annual Social Work and Social Care Research in Practice Conference

MARIO

Managing active and healthy aging with use of caring service robots

Funded by the European Union's Horizon 2020 research and innovation programme, within the thematic section 'Societal Challenge on Health, Demographic Change and Wellbeing'.

MARIO: Managing active and healthy aging with use of caring service robots

- Aims to address the difficult challenges of loneliness, isolation and dementia in older persons through companion/service robots.
- 10 partners from 6 Countries- France, Italy, Greece, Germany, Uk, Ireland
- 3 pilot sites for the introduction of MARIO robot
- Value of Grant: €4million
- Duration 3 years February 2015- February 2018

The Partners

Name	Short Name	Country
Stockport Metropolitan Borough Council	STOCK	United Kingdom
R.U. Robots Limited	RUR	United Kingdom
Universitat PASSAU	PASSAU	Germany
National University of Ireland, Galway	NUIG	Ireland
ROBOSOFT Services Robots	ROBO	France
Ortelio Ltd	ORTELIO	United Kingdom
Fondzione Casa Sollievo Della Sofferenza	IRCCS	Italy
Conisglio Nazionale Delle Ricerche	CNR	Italy
R2M Solution SRL	R2M	Italy
Caretta-Net	CNET	Greece



Why a companion robot?

- 30% of PWD are lonely
- MARIO uses enabling technologies; focuses on:
 - Promoting social connectedness, autonomy
 - Reducing isolation
 - Enhance QOL and slow deterioration



- MARIO has
 - An embodied voice
 - easy-to-use interface;
 - a carer/ family can personalise it to individual needs and preferences

The Robot - MARIO Kompai



<http://www.robosoft.com/news/kompai-at-the-2nd-wic-award/index.html>

To find out more go to <http://www.mario-project.eu/portal/>

3 pilot sites

1. Italy – Acute Hospital

- Led by IRCCS Casa Sollievo della Sofferenza
- Acute geriatric department (40 beds)



2. Ireland -long-stay residential care

- Led by School of Nursing & Midwifery NUIG
- More than 50% of residents have moderate to severe dementia



3. United Kingdom-Stockport -the community



User Led design

- Identify key requirements that PWD and Carers would like MARIO to have & be able to do, to reduce loneliness and isolation of PWD and enhance connectedness
- What would make MARIO acceptable?



Interviews

- PWD

NUIG=29; Stockport=15; IRCCS=4

Total=48

- Carers

NUIG =49; Stockport=10; IRCCS=20; R2M=13

Total=92

- Relatives: NUIG=7

- **Surveyed:** 130 Carers



I would like Mario to...

- Remind me of daily and weekly events
- Store my phone numbers; important events like birthdays and anniversaries
- Remind me that I had visitors earlier in the day and who they were as sometimes I forget and think no one has visited
- Store and play on demand my favourite music and movies
- Remind me to take my medications, and to eat and drink
- Contact medical help if I fall or am unwell
- Locate my keys or handbag
- Know my favourite book, read it to me; speak loudly so I can hear
- Enable me to contact my family via skype
- Have interactive games; would help me retain my abilities for longer
- Recognise faces so he could prompt me as to who people were
- Know the lay out of my home so he can direct me e.g. to the bathroom
- Speak more like a human
- Will he share my business/secrets with someone else?
- Will he replace the need for a nurse?

So what does this mean for MARIO?

- Prompts the PWD maintaining memory
- Engages PWD in individualised meaningful activities
- Enables PWD to use technology and reduce dependence on others
- Talks to the person; Facilitates & supports choices
- Connects PWD to family & friends
- Personalised activities based on life history
- Has an UI which is simple and intuitive

Stay up-to-date on the MARIO Project at:

- <https://www.facebook.com/mario.project.eu>
- <https://plus.google.com/116012490277146118083/posts>
- <http://www.mario-project.eu/portal/>
- https://twitter.com/mario_project
- <https://www.youtube.com/channel/UCdxaxbf9BLZjl698HCuTyBQ>
- Paper Casey et al 2016 is available at <https://aran.library.nuigalway.ie/handle/10379/5904>