



Easy Line+ is a European Project under the IST Priority in the European 6th Framework Programme for Research and Technological Development, which includes an eInclusion Strategic Objective.

The Easy Line+ project has developed a prototype of a smart system, focused on the kitchen, which supports elderly persons with or without disabilities to carry out a longer independent life compensating their loss of physical and or cognitive abilities.

The users, elderly persons, may interact with the white goods appliances at home by themselves, using adapted user interfaces, or allow the smart system e-servant to do so, always under the user's requirement and carer supervision.

The e-servant is the central part of the system which, considering information provided by sensors, RFID and user's habits, enhances the intelligence of the white goods and provides new functions:

- Ease the usage of household appliances adapting to the disabilities or preferences of the user, using adapted interfaces. The e-servant does not automatically change the system's functioning to avoid user disorientation.
- Provides useful information and warnings about the use of the household appliances as it keeps record of the information provided by the sensors.
- Detects emergency situations and automatically takes some actions: warn the user, switch off some appliances, for example the hob and oven in case of fire or the washing machine if water is detected.

The system has been evaluated by 66 elderly and disabled people in UK and Spain and by 20 formal and informal carers with good results regarding accessibility, usability and functionality of the system. This evaluation also proves that such a system would be useful for the main objective of the project:

allow people to remain independent for longer time at their homes. The consortium of this project is led by Universidad de Zaragoza as R&D expert in new technologies suitable for increasing the functionalities of 'white goods' (Neuronal Networks, Zigbee, RFID sensors), jointly with:

- BSH-España White Goods' manufactures
- Glyndwr University, Wales R&D experts in new technologies suitable for increasing the functionalities of 'white goods' (Human Machine Interfaces)
- GERA-IDENT GmbH experts in RFID applications
- Motive Technology UK Limited experts in software
- C-LAB Accessibility experts (participation from month 1 to month 27)
- Grupo de empresa G2V: experts in Domotic implementation

Why older people are “e-excluded” and initiatives within the MonAMI project to create e-inclusion.

Research shows that those left behind in the “information society” are the usual suspects at risk of social exclusion; for example many older people. Why is that?



The “6 C’s” of e-inclusion

While the *cost* of communications has decreased, the cost of installing and maintaining an ICT infrastructure in the home is a considerable investment for people who are mainly on fixed incomes. ICT equipment and services require frequent updates which can deter price-sensitive elderly from making the initial move.

60% of EU-27's households have Internet. However *connectivity* is still a significant barrier. Only 17% of older people in EU-27 access the Internet at least once a week. The mismatch between the low level of connectivity and the modern developments of communication cries for more targeted public support for older people.

Ageing brings with it an increased risk of illness and disabilities which can

hamper the use of standard ICT. Older people's *capability* is related to the accessibility of ICT. Within the MonAMI project, solutions to accessibility include the “Time management” service facilitating remembering daily events and important appointments by using common products such as mobile phones and email.

One reason that older people give for not using ICT is “no interest”. This can partly be explained by lack of exposure or a lack of *confidence*. Another reason could be lack of relevant *content* for older people. This lack of self-confidence is often specific to the computer domain, which further supports findings that ICT content carries a generational bias. The MonAMI project aims to tackle the content and confidence issues with services such as “IP-TV with Accessible Games”. With a television, set-top box

and kinetic console, older people can play active, age-relevant games remotely with their family and friends, thereby improving self-esteem and quality of life.

Finally, *continuity* refers to the degree to which ICT is used in everyday life. Only 25% of EU-27's retired and economically inactive population use the internet regularly, compared to 56% of the population as a whole. This demonstrates a clear severance of ICT from the daily lives of the majority of older people.

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PSSRU's role in MonAMI is to evaluate the user benefits of MonAMI services and to study the exploitation potential of these services in the European market.

The European project MonAMI will demonstrate how accessible, useful services for elderly and people with disabilities can be delivered in mainstream systems and platforms.

Read more about the project on www.monami.info and <http://themonamiproject.wordpress.com>

