Easy Line *Plus*

LOW COST ADVANCED WHITE GOODS FOR A LONGER INDEPENDENT LIFE OF ELDERLY PEOPLE

www.easylineplus.com

Information Society Technologies Programme
Contract nº 045515

Easy Line Plus

It is a known fact that the number of elderly people in Europe is increasing dramatically. Left to themselves, individual families will not be able to solve the problems of caring for elderly people, who cannot cannot lead independent lives, and also they may be prone to household accidents. Nevertheless, there is a European policy to improve and increase independent life of elderly people

Old age implies some sensorial problems and disabilities that get worst with the years.These disabilities will make the tasks to carry out in an independent life difficult. It is known that the main disabilities (42%) are those that prevent home tasks being undertaken and that, about a quarter of household accidents happen in the kitchen, where the white goods. Consequently, domestic appliances that usually have been a big help in their independent daily life, owing to their new functional limitations, now become barriers to it.

EASYLINEPLUS MAIN OBJECTIVE

To develop prototypes near to market of advanced white goods, in order to support elderly persons with or without disabilities to live a longer independent life, which will compensate for their loss of physical and/or cognitive abilities.

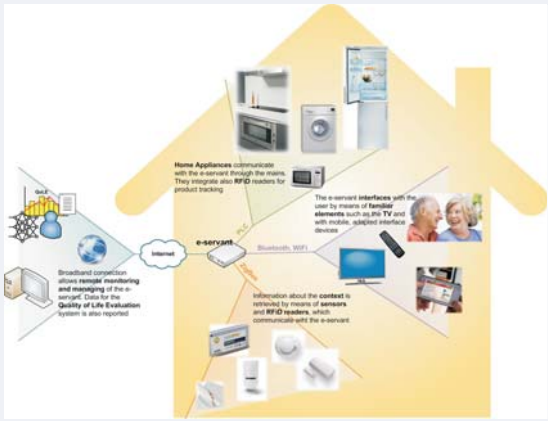
HOW?

The project foresees that integrated **RFID, Neural Networks and HMI technologies** will combine to build a system that can capture data of the home environment and can control any white goods appliance in the home.

The users, elderly persons, may activate by themselves any white goods appliances in the home, or allow the e-servant to do the activation. The e-servant will be a **White Goods control system, based on the sensor information and the habits of the user**, that can program any application with or without user cooperation. The e-servant will also be a learning system that **detects the loss of abilities of the user and try to compensate for them.**

An example could be a refrigerator with an RFID reader that can read the RFID label of the products placed into it. Once this information is stored, the home system (e-servant) can tell the user which food is missing, which food is going to go out of date, and could tell them which food can be eaten in line with a known condition or disease (diabetes, gout, etc).

Another example of the use of RFID/EPC code is the automatically programming of a washing machine. The washer can read the RFID label of the clothes and determine which washing programme best fits the clothes the user has put in.



SYSTEM ARCHITECTURE

All the Easylineplus project functionalities will be controlled by an extremely easy-to-use e-servant system for elderly people:

DEVICES: All the devices within the green frame would be the physical context

USER INTERFACES: yellow frame is the human-machine interface (HMI) that manages user interaction

e-SERVANT: Inside the red frame we have the intelligence of the system; what is been called e-servant

EASY LINE PLUS POTENTIAL IMPACT

The Easy Line Plus project will have a clear impact on society from the very beginning. The results of the project are aimed at contributing to solve a crucial social problem: the **e-inclusion of elderly people**, by developing ICT systems that are easy to use by any people.

The success of any technological project as Easy Line Plus has to take into account two important aspects: success on achievement of technological objectives and acceptance of innovation and results in the market.

Easy Line Plus has foreseen innovation related activites such as:

- End-users involvement
- Standardization
- Dissemination
- Knowledge protection
- Development of Exploitation Plans

In addition, it has been contemplated a exploitation and dissemination plan, designing a specific workpackage to cover dissemination and other innovation-related activities. Between the above mentioned activities, we find:

- Scientific dissemination through congresses and articles in scientific magazines.
- Standards dissemination (ISO Guide 71).
- End users dissemination, in collaboration with users organizations.
- Industrial partners exploitation.
- Service operators exploitation.
- Final installers exploitation.