

Independent and safe in old age

Complex and user-friendly assistance system for elderly People

The project idea

The demographic trend is changing our society: People live and stay active longer. The high-tech strategy 2020 of the German Government reacts to that with defined the Future project "Leading an independent life even in old age". The aim is a high quality of life for older people for as long as it is possible to obtain - starting from the central living space, their own Apartment. It has to be redesigned to allow senior citizens everyday life as far possible unaided by others. On the basis of modern Microsystems and communication technology for example, new telemedical solutions or technical assistants for everyday life are developed – Ambient Assisted Living (AAL) is the keyword.

Conventional systems use sensors, integrated in a mobile device or special hardware to be worn on the body. Many older people, however, are unable to cope with the operation of technical equipment.

Within the 8th EraSME Call for European R & D projects industrial and research partners from Germany and Spain, are developing an assistance system that is connected to a TV set, since this is the technical platform that most seniors are familiar with.

The product and its innovation

Various services are provided by the AAL system. It surveys for example the vital parameters (e.g. heart rate, temperature), reminds of medication and appointments, recognizes and warns of hazardous situations (such as gas, fire or fall of the user) and, if the user himself is unable to react, alarm neighbours or relatives.

For this purpose a central unit will be developed, which via a sensor network in the flat and a "Body Area Network" records and computes health and environment information and generates the corresponding notifications on the TV screen.

The key innovations of the project include the following development:

- intuitive user interface that allows simple interaction with the system via TV and works mostly autonomous after installation
- target group-matched control unit
- integrated wireless networks, that survey medical and environment information
- modular and adaptive system that automatically adjusts to the users needs
- flexible integration of different communication technologies for the transmission of automated notifications
- efficient and secure system for the recognition of activities or dangerous situations from data acquired by the sensors described above



The required wide range of skills for the development is fitted by specific experience of the project partners in the areas of hardware and software development and communication and sensor technologies.

Market and customers

With a strongly increasing proportion of people above sixty years (German Federal Statistical Office: From almost 26 percent in 2009 to over 36 percent in 2030) the demand for AAL systems is growing rapidly.

The cooperation partners

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For further information visit the project website www.liningplusplus.eu.

Source

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