



Overview of running EU-funded projects in the area of ICT for Ageing Well

You will find below an overview of running projects funded by the ICT Policy Support Programme under the Competitiveness and Innovation framework Programme (CIP)¹, and the Seventh (FP7 - 2007-2013) Framework Programmes for Research and Technological Development².

October 2011 - September 2013

AALIANCE2

Next Generation European Ambient Assisted Living Innovation Alliance

<http://www.aaliance.eu>

up to 1 M€ EC funding (FP7)

AALIANCE2 will build upon the successful work and the wide network already established in the AALIANCE Innovation platform (2008-2010). AALIANCE2 seeks to:

1. Transform the existing AALIANCE Community in a long-term sustainable network:

- to create the central entity for all AAL-related issues and stakeholder in Europe
- to form an European Technology Platform focusing not solely on technology but on integrated solutions for a societal challenge
- to provide a central node for global interaction

2. Find solutions for major challenges in AAL which consist of:

- coordinating the various activities of European industry and research institutions in the field of Ambient Assisted Living by building consensus upon research priorities in a AAL Roadmap and Strategic Research Agenda for the upcoming decades
- standardisation requirements in the field of ICT and Wellbeing (incl. care and healthcare standards)
- providing recommendations for a overcoming market barriers and effective regulations in AAL markets
- investigating the current state-of-the-art and market developments in AAL in North America and Asia

3. Support the implementation of coherent strategies of the public and private sector.

¹ http://ec.europa.eu/ict_psp

² <http://cordis.europa.eu/fp7/ict>

October 2011-September 2014

ACCOMPANY

Acceptable robotiCs COMPanions for AgeiNg Years

<http://accompanyproject.eu/>

up to 3.600 M€ EC funding(FP7)

The proposed ACCOMPANY system will consist of a robotic companion as part of an intelligent environment, providing services to elderly users in a motivating and socially acceptable manner to facilitate independent living at home. The ACCOMPANY system will provide physical, cognitive and social assistance in everyday home tasks, and will contribute to the re-enablement of the user, i.e. assist the user in being able to carry out certain tasks on his/her own. **Services to the user will be delivered through socially interactive, acceptable and empathic interaction**, building on computational models of robot social cognition and interaction. A state of the art service robot platform, Care-O-bot® 3 will be used to assess user requirements and user acceptance of the robot. Results from user studies will then be fed back to adapt the technology so that it better suits user demands and preferences. Three test sites in three different European countries (UK, the Netherlands, France), as well as a dedicated showcase, will ensure an extensive evaluation process considering cultural differences. In addition, ACCOMPANY will specify and benchmark design and ethical guidelines for service robots for the elderly.

January 2012- December 2014

AGEINGWELL

Network for the Market uptake of ICT for Ageing Well

<http://www.ict-ageingwell.net/>

up to 0.5 M€ EC funding(CIP)

The aim of the AgeingWell Network is to build and animate a **European network focused on improving the quality of life of Elderly People by promoting the market uptake of ICT solutions for Ageing Well.**

To achieve its aim, the following five main objectives of the AgeingWell project are:

- 1.Develop Guidelines for deployment and sharing of best practice between key competence centres;
- 2.Build an ICT for Ageing Knowledge Centre with the aim to share relevant information and results with the AgeingWell Community;
- 3.Develop an ICT for Ageing Society Strategic Agenda, with the aim of providing a study on options for future structure and implementation of EU innovation funding;
- 4.Promote the European innovation reinforcement between innovative ICT & Ageing enterprises (in particular SMEs) and the Investment Community;
- 5.Raise awareness within the European community of ICT & Ageing stakeholders.

March 2010 - February 2012

BRAID

Bridging Research in Ageing and ICT Development

<http://www.braidproject.eu>

up to 1 M€ EC funding (FP7)

The project has engaged with key stakeholders to develop a Roadmap for Ageing. The roadmap consolidates the various existing perspectives, plans, roadmaps and research and provides guidelines on the coordination of the stakeholders in ICT and Ageing. **It draws on published research and stakeholder networks to create a self-sustaining, dynamic strategic mechanism for overcoming the fragmentation that has plagued e-inclusion, and for improving co-ordination and collaboration among stakeholders.** On completion, the project published an Executive Summary that provides an overview of over two years work.

February 2011 –January 2014

CAALYX-MV

Complete Ambient Assisted Living Experiment – Market Validation

<http://www.caalyx-mv.eu/project>

up to 2 M€ EC funding (FP7)

The objective is to widely validate an innovative and efficient ICT-based solution focused on improving the quality of life of the elderly. The CAALYX-MV system consist basically on a wearable light device able to measure specific vital signs of the elder, as well as to detect falls and to communicate autonomously in real time with his/her caregiver in case of an emergency, wherever they are. The emergency information can be directed to the personal caretaker and/or the 112 Emergency Service. The emergency information will provide the geographic position and health information of the elder in a sensible way for the caretaker or emergency service. **The incorporation of largely non-intrusive new sensors for fall detection and highly sensitive geo-positioning is expected to address many of the elderly concerns about adopting technology.** The system will be tested and validated under real usability sites arranged through three pilots in different EU countries (Spain, Italy and the Netherlands), and will obtain reliable assessment by gathering real end users feedback.

April 2012-March 2015

CARER+

Ageing well in the community and at home: developing digital competencies of care workers to improve the quality of life of older people

<http://www.carerplus-project.eu>

up to 2 M€ EC funding (CIP)

The project aims to identify these new competences to support older persons in the home - **anticipating a new and vital role for care workers**, as a ‘CarerPlus’, by developing a set of learning paths and educational resources for mobile and work based learning, that respond to major challenges to their professionalisation: isolation, access to technology, flexibility of study modes, lack of support and motivation, formal accreditation, recognition of prior experience, and scalability. The service proposed consists of the deployment of a pervasive technological environment for self and professional development, supported by a pedagogical approach that foregrounds active cooperation (peer-to-peer and intergenerational learning).

October 2008- January 2012

COMMONWELL

Common Platform Services for Ageing Well in Europe

<http://www.commonwell.eu>

up to 2.6 M€ EC funding (CIP)

The CommonWell services for integrated eCare were developed and piloted at four sites in Europe: in England, Germany, Holland and Spain. At each site, an integrated service with a distinct profile was implemented, showing how flexible integration can serve different needs and target groups within the population 65+. The evaluation of the CommonWell pilots showed that **integrated eCare service can bring about tangible benefits to all involved**. Foremost, there are positive impacts on older people, including those with chronic conditions, and their relations with caring responsibility. But also social and health care professionals as well as service providers can benefit from integrated services.

January 2008 – June 2012

COMPANIONABLE

Integrated Cognitive Assistive & Domestic Companion Robotic Systems for Ability & Security

<http://www.companionable.net>

up to 7.800 M€ EC funding (FP7)

The project has **linked intelligent home systems with Hector, a fully autonomous robot designed to play the role of a “companion” for elderly people** (especially those living alone, or spending many hours of the day alone), to help them remain independent, secure fit and happy, through fall detection mechanisms integrated with emergency calls or remote monitoring services, personalised dialogue/interaction displaying emotional intelligence (using both visual, vocal and tactile interfaces, sensor-based movements such as “follow me” and natural language recognition of commands) to avoid feelings of loneliness, provide friendly reminders, store/bring important objects such as keys, wallet, and offer cognitive stimulation/games, as well seamless video connections to family and friends.

November 2011- October 2014

DALI

Devices for Assisted Living

<http://www.ict-dali.eu>

up to 3M€ EC funding (FP7)

The aim of the DALi project is to produce a device that will prolong out-of-home mobility in older adults. **The "c-walker" will support navigation in crowded and unstructured spaces by acquiring sensory information, by anticipating the intent of human agents and by deciding the path that minimises the risk of accidents.** This assistive technology has a merely assistive role: it recommends a course to the user through visual, acoustic and haptic interfaces. The user remains in charge of final decision making. The c-Walker is the expected result of a multidisciplinary research, with an active involvement of the end user in the RTD activities to elicit requirements, co-define the specifications, monitor and test the project (through an advisory panel) and the prototype (through lab and field experiments). The intended users of the c-walker are older adults, who have a combination of mild cognitive, visual and/or auditory impairments and are losing confidence in independent exploration of public environments.

May 2008- June 2012

DREAMING

ElDeRly-friEndly Alarm handling and MonitorING

<http://www.dreaming-project.org>

up to 2.7 M€ EC funding (CIP)

DREAMING brings together a set of services which, packaged together, allow extending the **independent life of elderly people while providing them with an equivalent level of safety as that they would enjoy in a protected environment such as an elderly home**, and offering them a way of staying in touch with their loved ones even when the latter are away. In addition, the DREAMING services facilitate the management of chronic conditions in a home setting reducing the need to use the expenses resources of acute hospitals to a bare minimum.

January 2012 - December 2014

FARSEEING

Fall Repository for the design of Smart and self-adaptive Environments prolonging Independent living

<http://farseeingresearch.eu>

up to 3.5 M€ EC funding (FP7)

FARSEEING aims to **promote better prediction, prevention and support of older persons, by long-term analysis of behavioural and physiological data** collected using Smartphones, wearable and environmental sensors: leading to self-adaptive responses. **FARSEEING aims to build the world's largest fall repository.** This will include samples of both high functioning community-dwelling elders and high-risk groups of fallers. The architecture of the database will facilitate collection, analysis and processing of data related to falls, daily activity and physiological factors. The inclusion of a longstanding cohort study ensures a representative population sample, which is urgently needed to translate technological advance into real world service provision.

March 2012- February 2015

FATE

Fall Detector for the Elder

<http://www.project-fate.eu>

up to 2.2 M€ EC funding (CIP)

The ultimate goal of the project is to widely validate an innovative and efficient ICT-based solution focused on improving the elder's quality of life by an accurate detection of falls in ageing people, both at home and outdoors. This will be done by implementing an **accurate, portable and usable fall detector that runs a complex and specific algorithm to accurately detect falls, and a robust and reliable telecommunications layer based in ZigBee and Bluetooth technologies**, capable of sending alarms when the user is both inside and outside the home. The system will be complemented by secondary elements such as a bed presence sensor or the i-Walker, an intelligent robotic walker, with the entire system ensuring successful prevention and detection of falls in all circumstances. The system will be tested and validated in three pilot studies involving real living scenarios, one in each of three different EU countries (Spain, Italy and Ireland), in close collaboration with the relevant public authorities.

February 2010 – January 2013

FLORENCE

Multi Purpose Mobile Robot for Ambient Assisted Living

<http://www.florence-project.eu>

up to 3.550 M€ EC funding (FP7)

The Florence project aims to improve the well-being of elderly (and that of his/her loved ones) as well as improve efficiency in care through AAL services supported by a general-purpose robot platform. The Florence system with its multipurpose mobile robot platform will pioneer the use of such robots in delivering new kinds of AAL services to elderly persons and their caretakers. **The main objective is to make this concept acceptable for the users and cost effective for the society and care givers.** Florence will put the robot as the connecting element between several stand alone AAL services in a home environment as well as between the AAL services and the elderly person. Via the care and coaching services supported by Florence the elderly will remain much longer independent.

January 2012- December2014

GIRAFF+

Combing social interaction and long term monitoring for promoting independent living

<http://www.giraffplus.eu>

up to 3 M€ EC funding (FP7)

Early detection and adaptive support to changing individual needs related to ageing is an important challenge in today society. The Giraff+ project aims at developing a system that addresses such a challenge. The system consists of a network of home sensors that measure e.g. blood pressure or temperature, or detect e.g. whether somebody occupies a chair, falls down or moves inside a room. **The data from these sensors are interpreted by an intelligent system in terms of activities, e.g. the person is going to bed, and health and wellbeing, e.g. the person is tired or well rested. These activities can then trigger alarms or reminders to the person or his/her caregivers, or be analysed over time by a health professional.** There is also a telepresence robot, the Giraff, which can be moved around in the home by somebody connected to it over internet, e.g. a caregiver. The Giraff is effectively a mobile communication platform, equipped with video camera and display, and microphone and speakers, and it helps the user to maintain his/her social contacts.

October 2011 - December2012

GOLDENWORKERS

<http://www.goldenworkers.org/>

up to 0.5 M€ EC funding (FP7)

The main goal of Goldenworkers is to identify emerging technologies and socio-economic trends, new models of extending professional active life and novel application scenarios in the area of ICT for active ageing at work, leading to the definition of a beyond of the state-of-the-art research agenda, fully embraced by research and practice community.

GOLDENWORKERS aims to build a roadmap for ICT adoption in the field of active ageing at work; the project has three main objectives:

Towards the research community: To define research directions in the field of ICT for active ageing at work

Towards companies and public services organizations: To define an action plan going forward to adapt companies and society to the new demographic, economic and social reality

Towards policy makers: To provide recommendations on policy and public service design to integrate ageing workers into society through the innovative use of ICT.

November 2011 – October 2014

HOBBIT

The Mutual Care Robot

<http://hobbit-project.eu/>

up to 2.800 M€ EC funding (FP7)

While world players in home care robotics tend to follow a pragmatic approach such as single function systems (USA) or humanoid robots (Japan, Korea), **HOBBIT introduces a new, more user-centred concept called “Mutual Care”:** By providing a possibility for the Human to “take care” of the robot like a partner, real feelings and affections toward it will be created. It is easier to accept assistance from a robot when in certain situations, the Human can also assist the machine. In turn, older users will more readily accept the help of the HOBBIT robot. Close cooperation with institutional caregivers will enable the consortium to continuously improve acceptance and usability.

March 2010- February 2013

HOME SWEET HOME

Health monitoring and sOcial
integration environMEnt for
Supporting Wide ExTension of
independent life at HOME

[http://www.homesweethome-
project.be/](http://www.homesweethome-project.be/)

up to 2.400 M€ EC funding (CIP)

HOME SWEET HOME brings together a set of services which, packaged together, allow extending the independent life of elderly people. HOME SWEET HOME (HSH) is trialling a new, economically sustainable home assistance service which extends elders independent living. HSH intends to achieve this by providing a comprehensive set of services which support elders in their daily activities and allows carers to remotely assess their ability to stay independent. While systems of this kind inevitably represent an intrusion in the elders private life, HSH privileges features which can be used by the elders themselves and limits to a bare minimum the need for other people to interfere with their private life unless a clear need is detected by the system. **The project is centered around the goal of measuring the real impact of monitoring, cognitive training and e-Inclusion services on the quality of life of the elderly, the cost of social and healthcare delivered to them, and on a number of social indicators.**

April 2012 - March 2015

I-DONT-FALL

IntegratEd prevention and
Detection sOlutioNs Tailored to
the population and Risk Factors
associated with FALLs

<http://www.idontfall.eu/>

up to 2.600 M€ EC funding (CIP)

The main goal of the I-DONT-FALL project is to deploy, pilot and evaluate a range of innovative ICT solutions for fall detection and prevention management. The platform will be flexibly configured to the needs of specific target groups and risk factors associated with fall incidents. Based on the I-DONT-FALL integrated platform: (a) End-users will enjoy tailored fall technological solutions, while (b) Medical experts and health professionals will be offered a wide range of tools, enabling them to customize fall solutions to the end-users' needs. The effectiveness of the solutions will be tested by over 500 elderly users/ patients across different countries, cultures, age groups and fall risk factors. **From a policy perspective, the project will elicit best practices for tailoring fall management solutions to specific risk factors, root causes and users' (fallers') needs.**

April 2010 – September 2012

INCASA

IntegratEd Network for
Completely Assisted Senior
citizen's Autonomy

<http://www.incasa-project.eu>

up to 2.140 M€ EC funding (CIP)

The project deals with citizen-centric technologies and public/private services network, to help and protect independent elderly people, prolonging the time they can live well in their own home by increasing their autonomy and self-confidence. The improvement of quality of life and social care for the ageing population will be provided by the assessment of the typical habit profile of the monitored person, starting from the basic assumption that the elderly people are habitual people. Unusual behaviours will be the basis of an eInclusion strategy, provided by external actors, whose level of support depends from the degree of relationship with the assisted people and the rules and the actors depending from the organization of the national healthcare and social system. For this reason **inCASA will reuse pre-existing solutions/services for human/environment monitoring, integrated in order to collect and analyze data to profile user habits and implement customized intelligent multilevel alerts/communication services.**

January 2010 – December 2012

INDEPENDENT

ICT Enabled Service Integration for Independent Living

<http://www.independent-project.eu/>

up to 2.600 M€ EC funding (CIP)

The potential of ICT-enabled support such as telecare and telehealth could be exploited in a more effective way if they were not, as today, embedded in healthcare and social care services delivered in “silos”. Against this background, INDEPENDENT develops and pilots an integrated set of ICT-enabled services dealing with a range of threats to independent living common to older people. **Through innovative usage of ICT, current “silos” in service delivery are broken up to allow for cooperation across relevant care sectors and participation of family members.**

October 2011 – Septembers 2014

ISTOPPFALLS

ICT based System to Predict & Prevent Falls

<http://www.istoppfalls.eu>

up to 3.300 M€ EC funding (FP)

The project is to develop and implement ICT based technologies which can be easily integrated in daily life practices of older people living at home, and which allow for exercise training and fall risk assessment based on discrete measuring technologies and adaptive assistance functions. The Senior Mobility Monitor (SMM) will continuously monitor mobility in daily life and will provide quantitative information on frequency, duration and type of mobility activities and qualitative information on balance function and muscle power. The MS Kinect based fall preventive exercise training program will facilitate home-based falls preventative exercises, whereby data is acquired by unobtrusive sensing together with biomechanical modelling and optional heart rate data assessment. **A knowledge based system for fall prediction & prevention correlates these two sources of mobility information and in turn provides sufficient data to perform a trend analysis of these entities.** iStoppFalls will be based on an interactive TV solution with gesture & voice control, and thus provides advanced human computer interaction adjusted to the capabilities of our older adult users living at home.

February 2010-January 2013

KSERA

Knowledgable Service Robots for Aging

<http://www.ksera-project.eu/>

up to 2.900 M€ EC funding (FP7)

The project will research and develop a **Knowledgeable Service Robot for Aging** (KSERA) that will serve several related purposes for elderly persons in general and those with pulmonary disease in particular. Specifically KSERA will provide (1) a mobile assistant to follow and monitor the health and behavior of a senior, (2) useful communication (video, internet) services including needed alerts to caregivers and emergency personnel, and (3) a robot integrated with smart household technology to monitor the environment and advise the senior or caregivers of anomalous or dangerous situations. KSERA aims at an adaptive technical aid that will provide needed and useful services in a pleasant, easy-to-use format via a robot that also acts as a companion and assistant.

June 2009 – March 2012

LONGLASTINGMEMORIES

<http://www.longlastingmemories.eu/>

up to 2.300 M€ EC funding (CIP)

The project has implemented an **integrated ICT platform which combines state-of-the-art cognitive exercises with physical activity in the framework of an advanced ambient assisted living environment, while respecting ethical and legal boundaries.** By combining cognitive exercises and physical activity LLM delivers an effective countermeasure against age-related cognitive decline, as well as and cognitive impairment seen in the early stages of degenerative brain diseases, thus actively improving the quality of life of the elderly and significantly prolonging the time they can remain independent at home.

December 2009-November 2012

MOBISERV

An Integrated Intelligent Home Environment For The Provision Of Health, Nutrition And Mobility Services To The Elderly

<http://www.mobiserv.eu/>

up to 2.750 M€ EC funding (FP7)

MOBISERV is developing and using up-to-date technology in a coordinated, intelligent and easy to use way to support independent living of older persons as long as possible in their home or various degrees of institutionalization. The support will be delivered in interior (at home) daily living situations. MOBISERV is developing a personal intelligent platform consisting of various middleware and devices plus a primary set of functionalities. The physical elements are a robotic platform equipped with cameras and wireless communication devices, smart home automation infrastructure (e.g. wifi, sensors, central home control server etc) and intelligent textiles embedding sensors.

January 2012 – December 2015

ROBOT-ERA

Implementation and integration of advanced Robotic systems and intelligent Environments in real scenarios for the ageing population

<http://www.robot-era.eu/robotera/>

up to 6.500 M€ EC funding (FP7)

The objective of Robot-Era is to develop, implement and demonstrate the general feasibility, scientific/technical effectiveness and social/legal plausibility and acceptability by end-users of a plurality of **complete advanced robotic services, integrated in intelligent environments**, which will actively work in real conditions and cooperate with real people and between them to favour independent living, improve the quality of life and the efficiency of care for elderly people.

January 2012 – September 2015

SILVER

Supporting Independent LiVing for the Elderly through Robotics

<http://www.silverpcp.eu/>

up to 2.600 M€ EC funding (FP7)

The project searches for new technologies to assist elderly people in their everyday lives. By the use of new robotics based technologies, the elderly can continue independent living at home even if they have physical or cognitive disabilities. **The new technologies and solutions are sought by using a Pre-Commercial Procurement (PCP) process.** In Europe, the PCP has so far been an under-utilized tool for promoting innovation. **One of the aims of this project is to demonstrate the effectiveness of this approach to address societal and governmental needs.**

June 2009 – March 2012

SOCIABLE

Motivating platform for elderly networking, mental reinforcement and social interaction

<http://www.cognitivetraining.eu>

up to 2.300 M€ EC funding (CIP)

SOCIABLE introduces a radically new approach for ICT assisted cognitive training and social activation for a wide range of senior citizens including cognitive intact elderly, older adults with Mild Cognitive Impairment, as well as patients suffering from mild Alzheimer's disease. SOCIABLE supports personalized cognitive training interventions designed according to medically sound principles covering all the cognitive skills. **The applications support a novel approach combining the conventional human care factor with an ICT surface computing platform.**

February 2010 – January 2013

SRS

Multi-Role Shadow Robotic System for Independent Living

<http://www.srs-project.eu>

up to 3.600 M€ EC funding (FP7)

The project will demonstrate an innovative, practical and efficient system called “**shadow robot**” for personalised home care. SRS solutions are designed to enable a robot to act as a shadow of its controller. For example, elderly parents can have a robot as a shadow of their children or carers. In this case, adult children or carers can help them remotely and physically with tasks such as getting up or going to bed, doing the laundry and setting up ICT equipment etc. as if the children or carers were resident in the house.

February 2010-January 2014

UNIVERSAAL

UNIVERSal open platform and reference Specification for Ambient Assisted Living

<http://www.universaal.org/>

up to 10.775 M€ EC funding (FP7)

The main goal of the universAAL project is to make it easier for the ICT industry in Europe to develop and successfully deploy AAL solutions. To achieve this, the project is developing **an open standardized platform/specification on which the AAL service providers can quickly and cheaply build AAL services**. The project also assists the developers by providing development tools to further decrease the development costs. Moreover, universAAL helps to further expand the AAL market by providing an application store, called uStore, through which developers, service providers and end users can offer and obtain AAL applications.

November 2011 - October 2014

USEFIL

Unobtrusive Smart Environments for Independent Living

<http://www.usefil.eu/>

up to 3.400 M€ EC funding (FP7)

The project aims to address the gap between technological research advances and the practical needs of elderly people by developing advanced but affordable in-home unobtrusive monitoring and web communication solutions. USEFIL intends to use **low cost "off-the-shelf" technology to develop immediately applicable services** that will assist the elderly in maintaining their independence and daily activities. Installation of the USEFIL system will not require retrofitting in a person's residence and will be almost invisible once installed. Because the system will be "software driven," based on open source platforms, applications can be easily added or subtracted with no real limit to the overall number of services offered. USEFIL intends to provide guidelines for the community of technology developers to optimize future generation of applications for an ageing population.

November 2011 - October 2014

WIISEL

Wireless Insole for Independent and Safe Elderly Living

<http://www.wiisel.eu>

up to 3.000 M€ EC funding (FP7)

The main goal is to develop an insole for elderly, placed in the shoe, monitoring the way of walking. **The system is expected to detect changes in gait and balance in daily elderly environment in order to prevent the risk of falls**. Moreover, the system will provide security to the elderly directly affecting their quality of life. Thanks to a wireless system and chips built into the insole, the data captured by the movement of the foot are sent to a mobile device or computer, so that the doctor, caregiver or nurse, can follow the evolution of the patient, to know if he follows correctly the rehabilitation or if he returns into bad habits that increase the risk of falling. If this occurs, an alert is sent immediately to the responsible caregiver.

Updated September 2012