

# Ambient Assisted Living (AAL) Joint Programme

## Call for Proposals 2012 AAL-2012-5

## ICT-based Solutions for (Self-) Management of Daily Life Activities of Older Adults at Home

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## 5<sup>th</sup> Call for proposals to the Ambient Assisted Living Joint Programme (AAL JP)

The AAL Joint Programme launches its Fifth Call for Proposals: "ICT-based Solutions for (Self-) Management of Daily Life Activities of Older Adults at Home", which encompasses important dimensions of the broad topic of Home Care.

Previous Calls in the AAL JP focused on the following topics: Call 1 asked for proposals related to "management of chronic health conditions", while the focus in Call 2 was ICT-based solutions advancing "social interaction of elderly people". Call 3 focused on "ICT-based Solutions for Advancement of Older Persons' Independence and Participation in the "Self-serve Society". Call 4 asked for proposals focused on "ICT-based Solutions for Advancement of Older Persons' Independence and Participation in the "Self-serve Society". Call 4 asked for proposals focused on "ICT-based Solutions for Advancement of Older Persons' Mobility".

#### Introduction

The aim of the AAL Joint Programme is to provide innovative ICT-based solutions including innovative products, systems or services to enhance older adults' quality of life and to strengthen the industrial base in Europe. Projects funded under the AAL Joint Programme address identified wishes and needs of the end-users. They are multinational, collaborative and cost-shared. Funding contracts of individual project partners are concluded with the relevant national funding authority.

The AAL JP is thus a demand-driven research and development funding programme **for innovative ICT-based products, services, and systems**. Its main goal is improving the quality of life, autonomy, participation in social life, skills, and employability of older adults, while improving service delivery and reducing the costs of care are secondary targets. AAL projects should aim at introducing their solution to the market a maximum of 2-3 years after the end of the project.

The AAL JP is a common funding activity driven by 23 Partner States with the financial support of the European Commission, based on article 185 of the European Union Treaty. Therefore, project proposals submitted for funding to the AAL JP should have a European dimension (i.e. the proposed project cannot be accomplished in equal quality on an individual national level) and solutions shall be adaptable across Europe. Furthermore, the solution should address end-user needs that are transnational and European in character. As cultural, organisational, and market diversity are important for the uptake of ICT-solutions, proposals are encouraged to take these factors into account and include them in their pilot activities.



#### The Focus of the Call

Call 5 aims at the development of ICT-based solutions which enable and sustain older adults to continue managing their daily activities in their home. The call aims also at ICT-based solutions which support informal carers<sup>1</sup> in their assistance.

The AAL Joint Programme aims at innovative and ICT-based solutions delivered by applied research and development activities, which are financially sustainable and underpinned by a credible business case<sup>2</sup>. Successful projects are expected to target systemic solutions addressing the users' wishes and needs<sup>3</sup>, or to provide a contribution which is meant to be integrated into a systemic solution, including some kind of support service. Find more information on the areas which are within the scope of the present Call 5 in the chapter entitled "Description of the Call".

#### Call Rationale

Most people prefer to live independently in their own homes for as long as possible. When support is necessary, there are different options: using technology and/or assistance delivered by someone else.

Today, informal care, including family care, is the predominant model of support for older adults. According to a 2010 estimate 80% of all care across Europe is given by family carers<sup>4</sup>. Currently, informal care givers sum up to 19 Million persons across Europe<sup>5</sup>. Family carers provide "primary assistance with activities of daily life"<sup>6</sup>. However, formal care<sup>7</sup> services are in many cases indispensable and paid care for older adults is a growing phenomenon across Europe. Migrant care workers also play an important role in this sector<sup>8</sup>.

Demographic changes and individualized family structures are increasing the demand for long-term care services<sup>9</sup>. New concepts of care are required to provide such services. In the future, there will not be enough people around to work neither as paid formal nor as informal caregivers, including family members, to cope with the care needs. Therefore, new ways have to be developed to look after the increasing number of older adults in the coming decades.

<sup>&</sup>lt;sup>1</sup> Informal carers are defined as family members, close relatives, friends or neighbors who provide care as non

professionals. The care provided includes emotional support and assistance. For more details see INTERLINKS project. <sup>2</sup> For more information see the chapter entitled "Framework for 'Business Case Development' under the AAL Joint Programme" in the Guide for Applicants.

<sup>&</sup>lt;sup>3</sup> For more information see the chapters entitled "Framework for 'End-user Involvement' under the AAL Joint Programme" and "Guideline for Ethical Considerations in Projects Co-funded by the Ambient Assisted Living Joint Programme" in the Guide for Applicants.

http://cms.horus.be/files/99907/MediaArchive/Events/Annual\_conferences/Annual\_Conference\_on\_CARE\_2011/111031\_ SP%20recommendations%20on%20Care\_final.pdf

<sup>&</sup>lt;sup>5</sup> Observatory for Sociopolitical Developments in Europe, Caregiver leave models in European comparision, Newsletter 2/2010.

<sup>&</sup>lt;sup>6</sup> European Charter for Family Carers, http://www.coface-eu.org/en/Publications/Charter-for-Family-Carers/

<sup>&</sup>lt;sup>7</sup> Formal care services are provided by paid professionals. For more details see INTERLINKS project.

<sup>&</sup>lt;sup>8</sup> See footnote 2.

<sup>&</sup>lt;sup>9</sup> European Commission, Second Biennal Report on Social Services of General Interest, pp. 17-22.Source: see footnote 2.



Thus, these demographic changes give opportunities for the development of new technological solutions for enabling and sustaining management of activities of daily life, such as getting dressed or maintaining personal hygiene; instrumental activities of daily life like taking medication, doing grocery shopping, preparing a hot meal; or making up for physical limitations apparent in lifting objects.

In SHARE<sup>10</sup> (Survey of Health, Ageing and Retirement in Europe) 8.8% of respondents said they had difficulties in getting dressed; in ELSA (The English Longitudinal Study of Ageing) the relevant figure was higher (12.7%). 8.2% of the respondents to SHARE, and 9.7% of ELSA respondents had difficulties with grocery shopping; and 24.3% of the SHARE respondents and 23.8% of ELSA respondents had difficulties lifting objects.

Furthermore, malnutrition in older adults is not only a common problem, but also frequently overlooked. Specifically, it may lead to a premature dependency and result in deteriorating health.

ICT-based solutions<sup>11</sup> have significant potential to enable and sustain self-management and home care of older adults. Good solutions should provide benefits on a practical, social and psychological levels. In addition, other forms of ICT-based service delivery will need to be identified.

<sup>&</sup>lt;sup>10</sup> Axel Börsch-Suppan et al, (eds.), 2008, First Results from the Survey of Health, Ageing and Retirement in Europe (2004-2007). Starting the Longitudinal Dimension. p.34.

<sup>&</sup>lt;sup>11</sup> Find more information on available technologies in: Ger van den Broek et al. (eds.), 2010, AALIANCE Ambient Assisting Living Roadmap; and in BRAID project, "D6.21 Consolidated Roadmap of ICT and Ageing" http://www.braidproject.eu/sites/default/files/D6.21%20Final.pdf

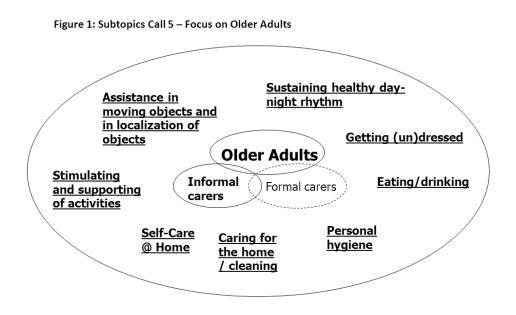


#### **Description of the Call**

This Call under the AAL JP invites proposals aiming at developing innovative ICT-based solutions which have the potential to enable and sustain management of daily life activities of older adults by giving support in relation to:

1. Enabling older adults to sustain and continue managing daily life activities in their home.

This includes ICT-based solutions which are used by the older adults, as well as solutions which require support by others.



Possible subtopics that are within the focus of the call:

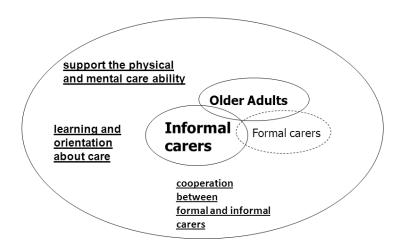
Primary end-users / older adults:

- Self-Care @ Home (self-check of health conditions and life-style, medication reminder, etc...) including tele-assistance alarms in the sense of instant communication and mobilization of all kinds of relevant support services (not just the traditional emergency button).
- Stimulating and supporting daily activities at home
- Assistance in moving objects and in localization of objects (keys, mobile, glasses)
- Sustaining healthy day-night rhythm by improving surrounding conditions
- Getting (un)dressed
- Eating/drinking: sufficient nutrition, diet personal assistance solutions, weight loss / gain monitoring, monitoring of intake, interaction with drugs, meal preparing, shopping for food and other daily necessities
- Personal hygiene including access to toilet / incontinence
- Caring for the home / cleaning



2. Supporting informal carers to give assistance

Figure 2: Subtopics Call 5 – Focus on Informal Carers



Possible subtopics that are within the focus of the call:

Secondary end-users / informal carers

- Learning and orientation about care
- Support the physical and mental care ability of the caregiver including preventing psychological stress.
- Cooperation between formal and informal carers: improve communication and foster complementarity between formal and informal care<sup>12</sup>

Included: Solutions involving care/service robots, as part of a complete solution.

Excluded: Management of chronic conditions; proposed solutions that cover subtopics which were already addressed in previous calls; proposed solutions that have a primary focus on formal carers (e.g. targeting at increasing their productivity).

<sup>&</sup>lt;sup>12</sup> Futureage: A Roadmap for European Ageing Research. Coordinator: The University of Sheffield, Sociological Studies. October 2011, Funded by the European Commission's Seventh Framework Programme. FP7-HEALTH-2007-B/no 223679. www.futurage.group.shef.ac.uk



#### **Expected Impact**

The expected impact of the Call includes social, psychological, health and economic aspects (wider economy, region, local authority, public sector services, individual, carer). In particular:

- Increasing independence of older adults in managing the daily life activities in their home.
- Easing the tasks of informal carers.
- Savings in care costs as people stay in their own homes longer, postpone and reduce (in) formal care needs, or delay move to care homes.
- Strengthening the industrial base in Europe, through developing emerging products, services and systems which meet the needs and wishes of end-users concerning home care and have a high potential for a viable business case.
- Facilitating new European cooperation, including end-users and different stakeholders in the value chain<sup>13</sup>.
- Contributing to the aim of the European Innovation Partnership on Active and Healthy Ageing (EIPAHA) that is to increase by 2 the average number of healthy life years in the EU by 2020.

Projects should adopt a holistic and end-user centered approach, in their aims as well as their organization and expertise. The innovation concept of the AAL JP is based on creating markets by developing solutions which meet the needs and wishes of end-users. Therefore, involvement of end-users from the outset of the project to its end is deemed to be essential for the success of the projects as is development of commercial aspects throughout the project. Proposed solutions might target groups of persons who do not have easy access to services or ICT (people living in rural areas; older adults living alone; older adults living in areas without relevant and/or accessible public transport; older migrants; ...). As many older adults live in financially constrained situations, affordable solutions are highly encouraged. Also, the gender profile of the end-users should be taken into account.

Solutions need to be based on real user needs, where a distinction has to be made between needs of the caregiver and the recipient of the services. Motivational aspects have to be taken into account. Similarly, formal and informal caregivers need to be treated separately, as their roles, qualifications and requirements are different. Attitudes towards the use of technologies also vary accordingly (e.g: formal caregivers may fear losing their jobs and being replaced by robots, while informal caregivers may be hesitant because of a lack of training and experience).

In order to increase motivation and interest using ICT-based solutions it is necessary to focus on wellness, convenience and comfort, rather than illness, impairments and limitations. It is assumed that solutions that offer a lifestyle choice in terms of care, housing and leisure generate more acceptance and positive interest, thereby stimulating the development of a sustainable market for such solutions.

<sup>&</sup>lt;sup>13</sup> Considering the pilot European Innovation Partnership on active and healthy ageing, http://ec.europa.eu/active-healthyageing



Technologies and services need to be empowering, helping users to "do things themselves" in a better or easier way, rather than "doing things for them". Technologies and services should be adaptable in order to adjust to changing needs or circumstances of the users.

Integrated solutions might include aspects of building services (natural and artificial lighting, acoustic, heating and ventilation) to prevent or delay functional decline. Solutions must be designed to focus on the user as active agent, making personal choice and adapting the home environment to his/her needs.

#### **General Indications for Solutions Aimed at in Call-2012-5**

Solutions should be equipped with simplified, intuitive or personalized interfaces which are adaptable to changing end-users' abilities and requirements. Important issues are Inclusive Design<sup>14</sup> and accessibility for older adults. Solutions should be applicable to more than one context and adaptable to different needs as people grow older. Existing standards should be used. If standards are not available, they should be developed together with interoperable systems. The consortia should have in mind that obstacles to (self-)management of daily life activities can differ depending on the environment (e.g. urban vs. rural), culture and gender to name a few.

Proposals should include a description of:

- how the diversity of needs and wishes of older adults with respect to the focus of the call will be met;

- how end-users will be involved in the development process;

- how end users will be provided with the necessary capacities for effective use of the solution in question after completion of the project.

Proposals must present a work plan specifying the innovation process from development and validation of the concept through user involvement and pilot testing to final prototype, supplemented by a business case for sustainable market development. Proposals should describe the complete service-model required for the ICT-based products and systems in relation to the AAL JP user-groups (see notes below).

Proposals must be creative and ambitious documents "beyond the state of the art" compared to solutions presently available on the market. Providing an information website or giving access to an information repository will not be considered as solutions fulfilling this requirement.

To be eligible for funding through AAL Call 5, proposals must fulfil the national eligibility criteria and conform to the requirements regarding form and date of submission. All eligible proposals will be evaluated and scored by an international panel to establish a ranking order. Proposals scoring above the required threshold will enter into the procedure for allocating co-funding from the AAL Joint Programme. Funding contracts for individual project partners will be concluded with the relevant national funding authority.

See the Guide for Applicants for further details regarding proposal requirements.

<sup>&</sup>lt;sup>14</sup> The term is synonymous to universal design and design for all.



#### Notes

The AAL-programme is an ICT-innovation programme focusing on the needs and wishes of end-users (definitions below). ICT is understood in the same broad sense as in FP7.

Definition of end-users in AAL Joint Programme:

- Primary end-user is the person who is actually using an AAL product or service, a single individual, "the well-being person". This group directly benefits from AAL by increased quality of life.
- Secondary end-users are persons or organisations directly being in contact with a primary end-user, such as formal and informal care persons, family members, friends, neighbours, care organisations and their representatives. This group benefits from AAL directly when using AAL products and services (at a primary end-user's home or remote) and indirectly when the care needs of primary end-users are reduced.
- Tertiary end-users are such institutions and private or public organisations that are not directly in contact with AAL products and services, but who somehow contribute in organizing, paying or enabling them. This group includes the public sector service organizers, social security systems, insurance companies. Common to these is that their benefit from AAL comes from increased efficiency and effectiveness which result in reducing or capping in the mid and long term.



#### **Basic Information on Call AAL-2012-5**

- Date of publication: 29 February 2012
- Closure date: 31 May 2012, 17h00 Central European Time (CET)
- Indicative total funding<sup>15</sup>: *51,55* M€
- This amount includes a contribution of up to  $\in$  22 825 000 by the European Communities.
- Consortia submit one common project proposal with one partner acting as coordinator.
- Project proposals will be evaluated centrally by independent European experts.
- Selection of proposals will be based on the evaluation and other criteria specified in the Guide for Applicants.
- Approval of list of selected proposal by the AAL General Assembly expected for September 2012.
- Funding of individual project partners will follow the respective national rules; reference to the national rules can be found in the Guide for Applicants.
- Funding decisions by national funding institutions expected for December 2012.

#### **Characteristics of AAL JP Collaborative Projects**

- Aims at ICT-based solutions to identified user needs
- Time-to-market perspective of maximum 2 to 3 years after end of the project
- Project total budget: 1 7 M€
- Maximum funding from the AAL Joint Programme: 3 M€
- Significant involvement of industry and other business partners, particularly SMEs are encouraged. The efforts of industry and other business partners are expected in total to be 50% or more.
- Realistic trial set-up at the end of the project
- Proactive end-user involvement throughout the life of the project
- Defined market segment(s), use cases and target group(s) and address the wishes and needs of these specific group(s).

#### **Consortium-level Eligibility Criteria – Collaborative Projects**

- Submission of a complete proposal through the AAL electronic submission system before the deadline, as specified in the Call for Proposals
- English as the language of the proposal
- Consortium composition of at least 3 independent <u>eligible organizations</u> (legal entities), from at least 3 different AAL Partner States participating in the Call for Proposals
- Consortium must include at least one eligible business partner
- Consortium must include at least one eligible SME partner which can be the business partner
- Consortium must include at least one eligible end-user organization
- Size of the consortium: 3 10 partners
- Duration of the project: 12 36 months
- Adherence to the specifications for structure and technical details (e.g. page count) of the proposal submission.

<sup>&</sup>lt;sup>15</sup> For an overview of the AAL Partner States' financial commitments see the chapter entitled "AAL Partner States' Funding Commitment".



#### **National Eligibility Criteria**

- Eligible for funding are only organisations that are explicitly included in the national eligibility criteria published as part of the Call text.
- It is <u>highly recommended</u> to contact the AAL National Contact Persons (NCP) prior to submission of a proposal (list of NCPs and contact data can be found on the AAL JP website <u>www.aal-europe.eu</u>).
- In some countries, establishing contact with the NCP prior to the submission of the proposal is a requirement for being eligible for funding.

In addition, the project may eventually include organizations not requesting funding or organizations that are not eligible for funding according to national eligibility rules or organizations not residing in any AAL Partner State<sup>16</sup>. Such organizations may be associated to the project without funding from the AAL Joint Programme, but they cannot be crucial for the project's implementation. They will not be taken into consideration when assessing the project proposal for eligibility and characteristics stated above.

#### **Guide for Applicants**

Please consult the Guide for Applicants for detailed information on the application requirements, how to submit a proposal, evaluation and selection processes, reference to the programme level and national eligibility criteria, programme evaluation criteria, national funding rules as well as details on where to obtain further information.

<sup>&</sup>lt;sup>16</sup> The participation of organisations residing outside an AAL Partner State is restricted to organisations residing in a Member State of the European Union that currently does not participate in the AAL Joint Programme, i.e. Bulgaria, Czech Republic, Estonia, Latvia, Lithuania, Malta and Slovak Republic.



### AAL Partner States' Funding Commitments

AAL Partner State	Commitments
Austria	2,000,000€
Belgium	1,000,000€
Cyprus*	0€
Denmark	500,000€
Finland*	0€
France	2,000,000€
Germany	3,000,000€
Greece*	0€
Hungary*	0€
Ireland	500,000€
Israel	500,000€
Italy**	2,500,000 €
Luxembourg FNR	300,000 €
Luxembourg Luxinnovation	300,000 €
Netherlands	1,900,000€
Norway	750,000 €
Poland	500,000 €
Portugal	200,000 €
Romania	1,000,000 €
Slovenia	200,000 €
Spain (ISCIII)**	2,400,000 €
Spain (MINETUR)**	1,750,000 €
Sweden	1,000,000 €
Switzerland	4,000,000 €
United Kingdom	2,400,000 €
Total commitment by AAL Partner States	28,700,000€
Expected EC contribution for AAL Call 5	22,850,000€
Expected total funding commitment	51,550,000 €

\* Cyprus, Finland and Greece do not participate in this call (AAL-2012-5).

\*\* The indicated funding is still subject to a national decision process.

Please Note: The EC co-funding is granted to the AAL States (or member organisations) listed above on top of the indicated commitment. The final allocation depends on the call outcome.