FINAL
PROJECT REPORT

vAssist

Please send this report ELECTRONICALLY to the Central Management Unit (CMU) as well as a copy to the National Contact Persons (NCPs) of the coordinator and project partners

The coordinator of the project must submit this report within 60 calendar days after the final date of the project, on behalf of the consortium.

If you have any additional question,
please contact the AAL CMU at CMU@aal-europe.eu,
or your NCP (see details on www.aal-europe.eu/aal-ncp)

Report date	30/04/2015

PUBLISHABLE PROJECT INFORMATION (TO BE USED BY AALJP)

1A. PROJECT	
Project full title	Voice Controlled Assistive Care and Communication Services for the Home
Project acronym	vAssist
Project No.	AAL-2010-3-106
Project Website	http://vassist.cure.at
Project duration	•Starting date: 01/12/2011 •Termination date: 28/02/2015
Coordinator's name and details	Full name: Manfred Tscheligi E-mail address: manfred.tscheligi@ait.ac.at Telephone number: +43 50550 4500

1B. PROJECT PARTNERS					
No.	**Partner organisation name**	**Partner org. acronym**	**Type***	**Project costs: Public grant in Euro**	**Project costs: Partner own contribution in euro**
1 (coord.)	AIT Austrian Institute of Technology	AIT	RTD	90.622,00 €	30.208,00 €
	(Center for Usability Research & Engineering)	CURE	RTD	185.085,00 €	61.695,00 €
2	Institut Mines-Télécom	IT	RTD	210.862,00 €	261.594,00 €
3	Chambre de Commerce et d'Industrie de Paris - ESIEE Paris	ESIEE	RTD	131.862,00 €	165.900,00 €
4	Integrazioni e Sistemi SpA	I&S	SME	223.112,50 €	293.037,50 €
5	Shankaa	Shankaa	SME	94.500,00 €	115.500,00 €
6	ASICA Électronique Industrielle	ASICA	SME	101.749,00 €	124.359,00 €
7	PL.O.T EDV-Planungs- und HandelsgesmbH	PLOT	SME	150.206,00 €	150.206,00 €

8	Hôpital Broca - Assistance-Publique Hôpitaux de Paris	AP-HP	USER	119.783,00 €	117.316,00 €
9	EURAG Österreich	EURAG	USER	25.759,00 €	17.174,00 €
10	MobyView	MV	SME	85.290,00 €	104.243,00 €
*Please select one of these options: SMEs, Large, END USER, RTD, other					

1C. PUBLISHABLE PROJECT RESULTS SUMMARY *(1 PAGE)*

In this section, please present the results of your project, including the following information:

- *what is your product/service (result of the AAL JP project work)*
- *what needs/problems does your product/service respond to*
- *what are the target groups of users and payers*
- *what is the technological innovation of your product/service (in terms of novelty of concept, approach to the development etc.)*
- *what is the social innovation of your product/service (benefits to society and economic impact)*
- *what is the expected time to market and*
- *how will you overcome the main possible barriers and exploit opportunities*

In 2011, the number of Europeans (i.e. EU-28) older than 65 years for the first time exceeded the mark of 90 million people and projections see this number constantly increasing (Source: Eurostat). While significant improvements in the medical sector as well as increased health awareness (e.g. regular sport, balanced nutrition, reduction of alcohol and tobacco) may generally assure our future well-being, rising age sooner or later leads to physical or cognitive constraints. The goal of AAL is to offer integrated technologies that help older adults to cope with these decreasing capabilities.

One of the biggest challenges of assistive technologies is to provide interaction techniques that address the specific needs of older people. In this context, speech is seen as a natural interaction modality that can help to overcome the prevalence of fine-motor problems or chronic diseases.

Figure 1: vAssist Project logo

The main goal of vAssist was to offer voice controlled home-care and communication services for seniors based on a multi-lingual (i.e. French, German, Italian, English) natural language user interface. The project focused on people with chronic diseases and motor skills restrictions. Funded within the European AAL Joint Programme, the project involved 10 consortium members from industry and academia, located in Austria, France and Italy. While vAssist predominately focused on speech as an interaction modality it also sought to optimize the integration of GUIs to offer alternative interaction for

situations where speech is not suitable or simply not wanted. By using the devices already existing in the users' home (smartphone, tablet, TV) the goal was also to lower potential adoption costs.

A crucial aspect of vAssist was to understand older user's specific characteristics and requirements towards the interaction with multimodal user interfaces and to analyze potential cultural differences. Following a user-centered design process, the performed focus groups, user studies and field trials involved representatives of the project's target group in all stages of the design and development, leading to services and business models, which are adapted to people's requirements and specific needs.

Figure 2: Example vAssist end-user services

Providing multimodal user interfaces enabling the user to interact with the end-user services by seamlessly switching between the preferred interaction modality (speech or touch) requires the interplay of different software components (speech recognition, text-to-speech synthesis, backend services, frontend applications etc.). Within the vAssist project it could be shown, that it is possible to connect loosely coupled frontend services with a backend processing the speech in- and output connected via an open API. In contrast to proprietary solutions available on the market, this approach allows for an easy deployment of services for various use cases.

Addressing the service scenarios that have shown to be important for the project's target group, three different frontend service prototypes were implemented: The DailyCare app, providing simple mechanisms for the self-management of well-being data (sleep, physical activity), the PillBox app, providing a mechanism for the management of prescriptions and health-data, as well as DailyCom (app and web-interface), a flexible platform for the communication between older people and their formal and informal caregivers. The services were implemented based on the Android platform, allowing for easy deploying the services to the different hardware platforms (smartphone, tablet, TV). In a similar way, services on other software platforms could be connected to the vAssist API.

Representatives of the target groups were actively involved in the development and optimization of the multimodal user interfaces. The employed design method, which used existing language technology components in combination with Wizard-of-Oz, has proven successful. Future projects will benefit from the project's findings related to the user-driven development process of speech-based AAL solutions.

A long-term evaluation of the system in the everyday life of older people revealed the system's potential in improving their well-being and quality of life. Overall, speech interaction is favored over traditional input modalities and leads to an increased engagement with assistive technology. Participants appreciated the ease-of-use and the perspicuity of the services. They also confirmed the utility, the modular setting as well as the business model of the system. Taking these results into account, a broad behavioral intention for the usage of vAssist can be anticipated.

The successful evaluation of the service prototypes laid the basis for the exploitation of the project's developments. A comprehensive exploitation strategy was developed by the consortium, analyzing the target market and defining possible revenue strategies. A partner network between the European SME partners of the project was set up as basis for the further commercialization of vAssist. Talks with potential service providers already showed first success.

CONFIDENTIAL PART OF THE REPORT

2. DELIVERABLES SUBMITTED AND MILESTONES ACHIEVED DURING THE PROJECT

In this section, please provide details in case your project deviated from the Description of Work *(work plan) with respect to delivery dates, achievement of milestones or changes in planned outputs; please indicate whether and to whom (AAL NFA/NCP) the changes have been communicated.*

Has the project been finalised in line with the Description of Work?	YES ☐	NO ☐	PARTLY X

IN CASE OF DEVIATION*, PLEASE EXPLAIN:*

The project has encountered delays in the delivery of the prototypes for the user studies related to technical problems when integrating the different system components. In order to ensure that the final system prototypes show the necessary quality for a seamless implementation of the field trial, an additional iteration of technical tests had to be performed, which led to a delay for the finalization of the 2nd lab trial. For this reason, a cost-neutral extension of the project by 3 months was requested by the consortium (new end date: 28/02/2015). This request was decided upon by the project board on 04/06/2014, requested from the AALA CMU on 01/09/2014 and confirmed on 05/09/2014.

An extension of the iterative development phase and the time for preparing the field trial allowed the consortium to demonstrate the positive and great achievements of the project.

Has the project achieved its expected results as described in the Description of Work?	YES X	NO ☐	PARTLY ☐

IN CASE OF DEVIATION*, PLEASE EXPLAIN:*

3 A. PROJECT RESULTS - SCIENTIFIC/TECHNICAL PROJECT RESULTS

Provide a summary of the confidential results, including:

- The progress per work-package
- The performance of the project consortium (added value of cooperation, added value and performance of each partner etc.)
- Scientific/technical achievements during the course of the project
- End-user services developed during the course of the project
- Other confidential information

WP1 Management and ethics

The activities in WP1 covered all aspects related to the strategic and everyday management of the project, the maintenance of a seamless communication between the consortium members and between the project and the national funding organizations/the AAL CMU, as well as to control the delivery and quality of all reports and other project outcomes and to ensure the compliance with ethical principles. This, in particular, included the coordination of the project-internal communication infrastructure (mailing list, website and document repository) and procedures (monthly Skype conferences, consortium meetings etc.) and to deliver all the necessary internal and external reports.

In course of the third project year a cost-neutral extension of the project by 3 months was requested (see section 2); in addition, all necessary steps for the accession of the AIT Austrian Institute of Technology as party to the project consortium and transferring the role of the official project coordinator to this new partner were taken.

WP2 Requirements specification

Within WP2 the users' requirements related to the design of the vAssist solution and the development of a business model were analyzed. Two rounds of focus groups were organized in Austria and France, both of which let primary users discuss devices, services, interaction and business requirements of future communication and tele-health applications. The result of these activities was a detailed structured description of in total 120 specific functional and non-functional requirements related to end-user devices, future services, interaction design as well as service delivery and pricing models. User's requirements are summarized in D2.1 (User Requirements), requirements related to the vAssist business model in D2.2 (Service provider and business requirements).

Based on the requirements analysis, the system architecture of vAssist was defined in an iterative process – described in D2.3 System Definition and further specified in D3.5 (System specification) – ensuring the compatibility with existing platforms for the delivery of AAL services.

As basis for the development of the vAssist end-user services, a set of 21 (later extended to 22) service and business scenarios was developed describing the intended solution in a narrative way (D2.4 Scenarios definition).

WP3 Service and device independent platform development

Work in WP3 covered all aspects related to the development, integration and validation of the vAssist service infrastructure. This in particular included the development of the message bus architecture, the adaption of the different speech technology components, the selection and integration of the end-user devices and the development of the end-user services (see section 1C). It is important to note that the DailyCare app, the PillBox app and DailyCom were just test cases. Our technological endeavors have proved that we have in our hands a toolbox capable of producing any application as per its specific functionalities. For the user studies, all modules where installed to the vAssist operation center (hosted by partner I&S). The end-user services were made available in the Google Play Store and installed on the user's front end devices. User profiles were created allowing users to process the specified usage scenarios. In addition, an organizational process for the technical support during the field trials was set up.

The implementation of the end-to-end process, demonstrating the feasibility of the integration of a spoken-dialog system with different applications and services, was achieved. Although some aspects in modelling the natural language dialogues were underestimated in their complexity, the results showed that it is possible to connect loosely coupled services and apps to a natural language driven system whereas state-of-the-art implementations in the field are connecting specific applications to

specific (undisclosed) APIs. The flexibility of the system architecture – based on a message broker component that coordinates user's requests and the backend services – proved to be successful. Also, during the trials different dialogue handling technologies could be used in Austria, France and Italy.

WP4 Lab and field trial evaluation

Within WP4 the different service prototypes were iteratively evaluated in lab and field trials involving representatives of the target groups. The overall goal of the user evaluations in the iterative lab trials was to identify issues regarding usability, quality of experience and quality of service factors, to provide feedback and suggestions for improvement to the developers, and to unveil problems a future user is likely to encounter. A mix of different qualitative and quantitative measurements was applied to gather insights about the satisfaction and usability of the evolved vAssist system.

The first lab trial was implemented in Austria (Vienna) and France (Paris), as well as additional user studies in Italy (Prato). The goal of this evaluation was to get first insights on the user experience of the first system prototype as well as to collect speech data for the optimization of the voice user interfaces. The second lab trials were performed in two iterations in Austria (Vienna) and in France (Paris). The setups included the evaluation of touch-only interaction (France and Austria) as well as the evaluation of real speech-based interaction with the smartphone (France) and speech-based tasks on TV (Austria).

Overall, the results of the lab trials showed that the vAssist system prototype has great potential in supporting the well-being of older people. Participants reported to be fond of the vAssist prototype and the functionalities it provides. Especially the possibility of interacting with the system using speech-input was appreciated, yet at the same time participants voiced concerns about the maturity of the system. In particular, the integration of GUI and VUI was not on a satisfactory level and had to be addressed in the following development activities. This included but was not limited to issues such as a not sufficient quality of the voice output, unnatural speech interaction patterns, and poor semantic interpretation of speech input. Key insights led to further improvements of the accessibility and intuitiveness of the system and the further consideration of specific requirements for older adults.

Based on these insights and the respective improvements of the prototype, a field study took place in Austria, France and Italy to evaluate and assess the vAssist system in real world environments. User evaluations focused on issues related to quality of experience and quality of service factors, investigation of the system's influence on the users' life, e.g. their quality of life, and the evaluation of the business model. In Austria and France the PillBox application, the DailyCare application and the communication services were tested. In addition, France included the Ambulatory Terminal. The DailyCom application was evaluated in Italy. Thus, all relevant prototypes were tested during the field phase. To ensure a methodological theoretical guided approach, the taxonomy by Wechsung et al. (2012) was operationalized and a mixed-method approach was applied.

The field study revealed the system's potential in supporting the well-being and quality of life of older adults. Furthermore, the utility of self-monitoring including the (graphical) reports and the motivational effect of the system were highly valued. The ease of use and the perspicuity were rated as good and the system demands only low mental, physical and temporal resources. Participants perceived the system as rather playful, allowing spontaneity and an enjoyable experience. The analysis further revealed that limitations of the perceived usefulness are linked to the desire for minor additional input possibilities and additional services. Offering these additional services, a broad behavioural intention for the usage of the system can be anticipated. Further, the perceived relevance of the Assist system is closely related to individual needs justifying a modular set of services.

The implementation plan and the applied methodology of the vAssist user studies is described in D4.1 Evaluation and assessment plan for the lab and field trials), the results of the lab trials in D4.2 (Lab trials evaluation report), the results of die field trials in D4.3 (Field trials evaluation report).

WP5 Dissemination and exploitation

The activities in WP5 were related to planning and controlling all project-related dissemination activities – including the creation of dissemination material and the maintenance of the project website – and coordinating the consortium's efforts toward developing a strategy for the exploitation of the project's developments.

The consortium members led or participated in a number of scientific and general dissemination activities, which included paper and poster presentations at scientific conferences and at events addressing the scientific and general public (detailed overview in D5.3 Final dissemination report). The project made a major contribution related to understanding older people's specific characteristics and requirements towards the interaction with multimodal user interfaces (speech and touch) and the user-driven development process of speech-based user interfaces for assistive technology. The related findings were presented as scientific publications and discussed with the HCI community at numerous conferences. This achievement will lay the foundation for future innovations in this highly topical research area.

A comprehensive strategy for the exploitation of the vAssist project developments was carried out – in particular, performing an analysis of the target market and the customer segment, the definition of customer relationships and revenue strategies and the creation of a partner network among European SME partners. The defined service delivery and pricing models were validated with representatives of the project's target groups within the field trials. The consortium participated in relevant networking events and bilateral meetings with potential service providers in Europe and beyond. As a first achievement of this process, the Italian rehabilitation center ASL4 of Prato decided to continue the trial operation of the vAssist communication services beyond the end of the Italian field trial (as agreed on with partner I&S). In addition partner MobyView is currently in talks with representatives of the communities in Quebec/CA (Magog and Sherbrooke), that are interested in introducing the solutions developed in vAssist.

A summary of the market analysis, an overview on the value proposition for the different customer segments and a description of the relevant customer relationships and channels are included to the vAssist exploitation plan (D5.2).

The SMEs of the consortium decided to sign a Memorandum of Understanding as basis for the exploitation of the vAssist developments after the end of the project.

3 B. PROJECT RESULTS – BUSINESS MODELS & INDICATORS

*Please insert here a short summary of the **business model** selected for your product/service (max. ½ page). If not explained in the publishable summary section, please describe:*

- *What **product/service** will you offer?*
- *What main problem(s) does it solve or what **benefits** does it provide to the customer?*
- *What is the **added value** of your product/service versus that of competitors and/or compared to existing solutions on the market? What is your **unique selling proposition**?*
- *How will the product be sold? Who will **provide** products/services?*

The basis for any further exploitation of the project's developments is its system architecture. In con-

trast to proprietary solutions that are available on the market, it allows for an easy development of speech-based assistive services. Therefore either the services developed within the project (PillBox app, DailyCare app, DailyCom platform) or newly developed speech-enabled AAL-services can be offered to potential customers. In contrast to many existing solutions, vAssist allows for an integrated management and the exchange of health-related data with formal and informal caregivers.

The user studies performed within the project, clearly confirmed the added value of speech-based services that support older adults in their activities of daily living, like the self-management of health-related data and the communication with informal and formal caregivers. Providing a multimodal interface allows addressing new customer segments (people with chronic diseases or restrictions in motor skills). In addition, also the benefit of remote support systems for the care ecosystem has been demonstrated.

These aspects, the flexibility of the system infrastructure and the possibility to provide speech-enabled multimodal interfaces for various AAL services are the most important unique selling points of vAssist.

As described in D5.2 (Exploitation plan), the vAssist business model addresses both, the public and the private sector, paving the way for a market introduction in different customer segments. Public as well as private stakeholders can be considered as potential service providers.

The business model evaluation showed that a “try and buy” model in combination with either a flat rate fee or charging per use is the preferred service delivery model in the target group. Monthly costs should not exceed 14€ and the optimal price for offering the vAssist services is 10€ per month (excluding hardware costs).

Results from the user studies and the evaluation of the business models further showed the particular importance of smartphones as a hardware platform for personal health assistance. The widespread distribution of smartphones and their portability led to an increasing popularity of app-based services for the self-management of health-related data.

Please answer the questions below, if possible:	
What is the **targeted range of manufacturing/service costs** per product/service unit (€, € per month etc.)?	vAssist services are hardware-independent; targeted service costs are 10€/month (see above)
What is the **estimated size of the targeted market** in Europe for your product/service (in €)?	n.a.
In your business model, **who will pay** for the product/service (you can tick more than one box): X End user (older person) X Informal carers X Formal care providers ☐ Public subsidies ☐ Insurance ☐Other (add if necessary) ☐ not yet decided	
In your business model, **who will take the decision about purchase** of the product/service (you can tick more than one box): X End user (older person) X Informal carers/family X Formal care providers ☐ Public subsidies ☐ Insurance ☐Other (add if necessary) ☐ not yet decided	
At what **stage of development** are you with your product/service (e.g. research, pilot, real life trial etc.)?	real-life trial
When will your product/service be **ready for market**?	supervised trial use possible right after the project
What type of **further research/development** is necessary to finalize the product (technical, adoption, market research etc.)?	further adaptions/technical tests necessary for widespread deployment (see below)

What **further investments** are necessary to launch product on the market?	(see comment below)
Which is the **expected turnover** to be generated by your product/service in 2-3 years?	n.a.

Please insert here any other information related to the business model, such as:
- *what is the targeted market niche?*
- *do you need certification for your product/service before gaining access to the market?*
- *what type of certification and from who?*
- *do you need to perform reliability testing?*
- *any other information*

Before launching services based on the vAssist infrastructure, further developments are necessary. Certain features of the system have to be improved before making the system available to a wider user group. At the moment, the communication services do not provide a gateway to the PSTN network, the adjustment of the frontend services to different screen types has to be improved and the SDS component does not provide dynamic session handling. As consequence thereof the registration process demands a manual set up of new users. In addition, further reliability testing is necessary.

3 C. PROJECT RESULTS – END USER INDICATORS

In the section below, please provide the information you have gathered during your project on primary, secondary and tertiary end-users[1] of your product/service. Note that secondary end-users can be formal and informal careers (see footnote). For the indicators cited below, please provide information if available; any other qualitative or quantitative information on beneficiaries can be provided instead.

Type of end-user (primary, formal and informal secondary, tertiary end-users)	Within the user studies, primary, secondary and tertiary users were involved. Primary users were older people with motor skill impairments and/or chronic diseases; secondary users either informal (family members, relatives, friends) or formal caregivers (health professionals, nurses). Tertiary users were defined as service providers offering tele-medicine, e-health and e-inclusion solutions as well as social and medical services.

1 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 saving expenses or by not having to increase expenses in the mid and long term.*

Total number of end-users involved (by type of end-user, gender, etc.)	**Requirements analysis:** - Austria: 18 primary users (11 female/7 male), 8 secondary users (3 female/5 male) - France: 16 primary users (10 female/6 male), 16 secondary users (10 female/6 male - *Italy*: 9 primary users (3 female/6 male), 4 secondary users (4 female)* **1st and 2nd lab trial:** - Austria: 16 primary users (8 female/8 male) - France: 16 primary users (14 female/2 male) - *Italy*: 23 primary users (9 female/12 male), 5 secondary users* **Field trials:** - Austria: 19 primary users (8 female/9 male**) - France: 9 primary users (7 female/2 male) - Italy: 10 primary users (5 female/5 male), 5 secondary users * Additional user studies in Italy (not planned in DoW)* ** 2 participants decided not to furnish particulars*
Average age and age distribution of involved end-users	**Requirements analysis:** - Austria: 58-86 years - France: 78 years (mean) - *Italy: 59- 82 years* **1st and 2nd lab trial:** - Austria: 60-72 years - France: 65-86 years - *Italy: 65-87 years* **Field trials:** - Austria: 66-84 years - France: 61-87 years - Italy: 63-70 years
Location of end-user (rural, town, large city, etc.)	Participants of Austrian and French user studies mainly live in urban or suburban areas (Vienna and Paris); participants of Italian user studies in urban and rural areas (Prato and Tuscany region).
Situation of end-users (single household, family setting, independence, etc.)	Austrian and French participants live independently either in single households or with spouses, partners and/or family members. Participants of the Italian user studies are patients of a rehabilitation center.
Health status (disabilities, mobility, cognitive function, etc.)	About half of the participants involved in the field trials in all three trial sites reported to see a medical doctor once a month or more often and have age-related restrictions such as (fine) motor impairments that could lead to problems with the upper limbs. French participants received

	care in a daily care hospital due to respiratory diseases, high blood pressure, diabetes, arthritis and/or minor cognitive impairments. Participants of the Italian trial site were patients of a rehabilitation center because of respiratory diseases.
Socio-economic background (education, income class, etc.)	Educational level, professions before retirements and income class vary beyond the participants reflecting demographic realities in Austria, France and Italy. Hence, middle class representatives were most prevalent.
Total number of end-users effectively using the AAL solution beyond the project implementation period	10 primary users continue to use the vAssist system beyond the project implementation phase at the rehabilitation center ASL4 of Prato (as agreed on with partner I&S)
Any other information	(for details, see D4.3 Field trial evaluation report)

Please describe here the principles applied and procedures followed in handling ethical issues such as ethics towards technology use, to privacy, data management, ethical considerations regarding human-robot interaction, exit strategy, etc.

As a very first task of the project, all relevant ethical issues and national regulations for all project activities with active user involvement where analyzed (see D1.2 Ethical Guidelines). Participation in the user studies was based on voluntariness. In order to ensure the right of self-determination, prior informed consent by the participants was required for the participation in all studies.

The analysis of the user's requirements also took into account data security and privacy aspects; the resulting functional and non-functional requirements where strongly taken into consideration in the design and development of the vAssist solution.

3 D. PROJECT RESULTS – OTHER INDICATORS	
Patents, which are the direct result of the project work	/
Other **Intellectual Property Rights** (IPR) resulting from the project work	/
Collaboration to **standards**, which are the direct result from the project work	/
Publications (scientific or other), which are the direct result from the project work (please provide details)	In total 22 publications resulted directly from the project work of vAssist, thereof 16 scientific papers (peer-reviewed). Additional publications (e.g. INTERSPEECH 2015, ASSETS 2015) are currently under review. (for details, see D5.3 Final dissemination report)
Other **dissemination activities**	According to the defined dissemination strategy, a wide range of target groups was addressed by the project's dissemination activities. In addition to publications in journal and conference proceedings, also the non-

	scientific community was addressed. Industry representatives were addressed in specific networking events and bilateral meetings. The target user group and a wider public were addressed by the organization and participation in health events and by articles published in online and print media. vAssist was represented at the AAL Forum events in Eindhoven/NL (2012), Norrköping/SE (2013) and Bucharest/RO (2014).
Type and size of audience reached by dissemination activities	(where available, the coverage of all performed dissemination activities is indicated in D5.3 Final dissemination report)
Technology transfer agreements and/or any other **business deals** achieved	The SME partners of the vAssist consortium agreed on signing a memorandum of understanding on the exploitation of the project results after the end of the project. The Italian care center ASL4 or Prato decided to continue the trial use of vAssist after the end of the project (as agreed on with partner I&S). (for details, see D5.2 Exploitation plan)
Spin-off/s set up	/
Number of **jobs** created	/

4. FINANCIAL INFORMATION - OTHER COMMENTS

Please check appropriate box:

The financial part of the project X is in line with (or) ☐ deviates from the partner's Grant Agreements & Work Packages plans (personal efforts, other costs, etc.)**?**

In case of deviation, please give a short explanation:

/

Other comments related to financial part of the project: /

5. AAL JP PROGRAMME

Please comment, using your AAL project experience, on the main advantages and disadvantages of AALJP projects.

The developments of the vAssist project would not have been possible without the support of the AAL Joint Programme. Especially due to the relevance of multi-lingual and multi-cultural aspects for the project, the European collaboration of the consortium proved to be successful.

Further harmonization of country-specific provisions would be desirable in order to facilitate financial and administrative management of the projects. The combination of both, a clear market orientation (development) and the support for breaking-through innovation (research) will be necessary to achieve the overall goals of the program.

Last but not least, we are very concerned about the future of the AAL Joint Programme in France. Six out of ten consortium members of the vAssist project are SMEs, research and end-user organizations from France. Only with the participation of France, our successful collaboration can be continued within the program.