



FINAL PROJECT REPORT

SENIORCHANNEL AAL-200-2-09

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	28/05/2013
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PUBLISHABLE PROJECT INFORMATION (TO BE USED BY AALJP)

1A. PROJECT	
Project full title	SeniorChannel - An Interactive Digital Television Channel for Promoting Entertainment and Social Interaction amongst Elderly People
Project acronym	SeniorChannel
Project No.	AAL-2009-2-090
Project Website	http://innovation-labs.com/seniorchannel
Project duration	• Starting date: 01/03/2010 • Termination date: 01/03/2013
Coordinator's name and details	Full name: Ernesto Ruiz Murcia E-mail address: ermurcia@indra.es Telephone number: +34 91 480 69 52 <i>* Both e-mail address and tel. number must be provided.</i>

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.)	Indra Software Labs	ISL	Large Enterprise	368.882,8€	571.393,2€
2	University of Padova	UNIPD	University	303.000€	303.000€
3	Brainstorm Multimedia	BRA	SME	423.822€	290.612€
4	Audemat	ADMT	SME	548.513€	670.465€
5	Asociación Parque Galicia	APG	END USER	0€	0€
6	M31 Spa	M31	SME	345.000 €	345.000 €
*Please select one of these options: SMEs, Large, END USER, RTD, other					

1C. PUBLISHABLE PROJECT RESULTS SUMMARY (1 PAGE)

The goal in SeniorChannel project is to integrate innovative technologies and high added value content in order to provide elderly people with an opportunity to interact and share their knowledge, opinions and aspirations with the wider community and derive enjoyment from the experience. Furthermore, SeniorChannel gives elderly care professionals an innovative approach to develop and manage the specific social needs of the elderly in the wider community. To achieve this goal the SeniorChannel consortium has developed an Interactive Internet Protocol Television Channel that not only provides elderly people with a method of interacting but also with a unique means of access to the range of diverse activities in their community including the opportunity to share knowledge and experience, the ability to participate in topical debates, entertainment services, work-shops and discussion groups regardless of their geographical location. The unique approach adopted by the SeniorChannel consortium has been to develop and implement a low cost, easy-to-use, integrated TV studio and production centre that will enable community driven broadcasting. SeniorChannel also provides new business opportunities through direct access to a growing segment in the market.

To obtain an effective solution to promoting socialization and providing entertainment to elderly people at their place of residence, SeniorChannel began with a comprehensive analysis of user opinions in the user centre pilot at Spain, in order to determine the requirements, expectations and preferences of end users with regard to the creation of the SeniorChannel proposition. This assessment of user requirements involved 22 elderly people and 5 elderly care providers.

Using the data collected in the users' requirements assessment, the technology has been developed, adapted and integrated for the TV production site and for the elderly person's home. At the TV production site a low cost integrated TV studio and production centre has been created integrating real time video and graphics applications that allow the production and broadcast of high quality interactive programmes. In addition a bidirectional information system has been developed to manage all the contents to be displayed on the TV and the interactive information coming from elderly people at their place of residence. For the user sites, SeniorChannel uses a technologically strong solution based on a DTT Set-top box that easily allows elderly people to access and interact with the contents.

The integrated system has been tested and evaluated, setting up one TV studio and production centre in Spain and broadcasting programs to a pilot user group involving 44 elderly people in the three countries: Spain, France and Italy. The feedback generated during user testing has provided the basis for modification and refinement thus bringing the design of the application more into line with the preferences and needs of those involved. During the evaluation and testing, a socio-economic and organizational assessment has been carried out to analyze the socio-economic impact of the project not only on the audience group, but also on the European economic system considering SeniorChannel as a way of generating private funds to complement the public funding of social services to elderly people and thereby decrease the substantial costs to the public sector.

Finally, the SeniorChannel concept and methodology is intended to result in a ready-to-market solution for promoting interaction and socialization amongst elderly people. Critical to success has been clearly thought-out dissemination and exploitation strategies and carefully executed business plans together with associated IPR Management.

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.

The work in WP6 has been behind the schedule due to the delay in the approval of the participation of the Italian partners in the project by the Italian government, but it has been finally been completed. This delay has been communicated to the AAL by means of the Annual Progress and Financial Report of the year 2012 and to the Italian NCP by M31 partner.

Has the project been finalised in line with the Description of Work?

YES ☐

NO ☐

PARTLY ☒

IN CASE OF DEVIATION, PLEASE EXPLAIN:

THERE HAVE BEEN DELAYS IN WP6 DUE TO THE DELAY IN THE APPROVAL OF THE PARTICIPATION OF THE ITALIAN PARTNERS IN THE PROJECT BY THE ITALIAN GOVERNMENT. IN PARTICULAR THESE DELAYS HAVE AFFECTED DELIVERABLES D6.2 AND D6.3 BUT FINALLY ALL THE WORK HAS BEEN COMPLETED.

Has the project achieved its expected results as described in the Description of Work?

YES ☒

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

The work carried out in the SeniorChannel project by the consortium members has completed all the planned tasks and milestones. In WP1 “Project Management”, the project coordination and the control of project results and milestones has been done. Regarding WP2 “User Requirements”, the input of the users and elderly care professionals has been gathered, identifying the end-user interests. Continuing from this point, WP3 “System Development and Integration” has taken the users requirements as input to develop: a low cost and easy Virtual Studio to create the different programs in SeniorChannel, an hybrid Set Top Box to watch the content and be able to interact with them and a robust infrastructure including a Video Server and an Interaction Server to allow the different elements to communicate. The WP4 “Content and Programming” has also taken the user interests as an initial point to produce a set of individual content specifications and the pilot content programs. Once that WP3 and WP4 were completed, the WP5 “Pilot Evaluation and Usability Assessment” completed the objectives of installing the SeniorChannel technology to be evaluated and to collect the information and results from the different pilots with the users. WP6 “Socio-economic and Organizational Assessment” has conduct the assessment of the socio-economic and organizational impact of SeniorChannel technology on user groups. Finally, WP7 “Dissemination and Exploitation” has: disseminated the results in the different stages of the project, develop a strategy for exploiting these results and managed the IPR generated in the project.

The SeniorChannel consortium has proven to be a well balanced and strong consortium. Each partner has contributed with his experience and knowledge, making possible the results of the project which wouldn't have been possible without the cooperation of the partners taking benefit of the existing synergies. This collaborative work of the consortium has enriched the partners. Also the communication and cooperation between the members have proven crucial to overcome the difficulties that had appeared over the years of project development.

The main result of the SeniorChannel project is an interactive IPTV channel exclusively for elderly people with content and programmes specifically design to promote socialization. SeniorChannel provides elderly people with a mechanism for expressing their creativity by involving them in the production and broadcast of programme content and formats as well as allowing them to participate in programmes from the comfort of their own homes. This is the result of the project, although it includes other results that can be used and integrated into other applications and utilities such as: the 3D Virtual Studio, the Virtual Studio Controller, the Video Server, the Set Top Box with its interface, the Interaction Server, the Validation Material and the SeniorChannel contents.

3 B. PROJECT RESULTS – BUSINESS MODELS & INDICATORS

The first approach for the commercialization is to set up a joint venture from the industrial partners (Indra Software Labs, Brainstorm Multimedia, Audemat, M31 Spa) that could deal with the elderly entertainment sector and with the public administration an international level for the commercialization of SeniorChannel. Nowadays there haven't been found other solutions similar to SeniorChannel offering to elderly people a complete solution covering from the production of content to the interaction at home.

After the completion of the 3 year project, the SeniorChannel solution will be available for elderly centres, elderly universities and other interested organizations by the acquisition of the Virtual Studio to produce their own content. The senior centres will be able to introduce advertisements from sponsors in the programs and in the interface in order to have revenues that will help to return the investment in a first stage and to have additional income for the centre after that. The sponsors will find in SeniorChannel an ideal option to place their advertisements as they would know exactly what type of consumer they are targeting. The access to SeniorChannel will be free for those users that have computers at home and with an additional cost for those users that need the Set Top Box at homes.

Please answer the questions below, if possible:

What is the **targeted range of manufacturing/service costs** per product/service unit (€, € per month etc.)?

73.000€ (3D Virtual Studio,
Video Server and Interaction
Server)
350€ (Set Top Box)

What is the **estimated size of the targeted market** in Europe for your product/service (in €)?

7.500 M€

In your business model, **who will pay** for the product/service (you can tick more than one box):

- ☒ End user (older person) ☐ Informal carers ☐ Formal care providers ☒ Public subsidies
☐ Insurance ☒ Other (Elderly Centres, Elderly Universities)
☐ 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):

- ☒ End user (older person) ☐ Informal carers/family ☐ Formal care providers ☒ Public subsidies
☐ Insurance ☒ Other (Elderly Centres, Elderly Universities)
☐ not yet decided

At what **stage of development** are you with your product/service (e.g. research, pilot, real life trial etc.)?

Pilot

When will your product/service be **ready for market**?

3-6 months

What type of **further research/development** is necessary to finalize the product (technical, adoption, market research etc.)?

Technical, adoption

What further investments are necessary to launch product on the market?	90.000€
The issue of isolation and marginalisation of the elderly in society is an European issue. Given the demographic trends in the aging population, it is necessary to implement activities that address this issue at a European level. The targeted market niche of the project is elderly people, who retire from professional life and relinquish the responsibility that comes with parenthood. This can lead to disengagement as they feel their involvement in society is less valued compared to when they were younger and more active. The SeniorChannel project focuses its efforts in improving the quality of life for elderly people by facilitating engagement and interaction amongst them.	

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-users¹ of your product/service. Note that secondary end-users can be formal and informal carers (see footnote). For the indicators cited below, please provide information if available; any other qualitative or quantitative information on beneficiaries can be provided instead.

To obtain an effective solution to promoting socialization and providing entertainment to elderly people at their place of residence, SeniorChannel began with a comprehensive analysis of user opinions in the user centre pilot at Spain, in order to determine the requirements, expectations and preferences of end users with regard to the creation of the SeniorChannel proposition. This assessment of user requirements involved 22 elderly people (primary users), 12 women and 10 men with a mean age of 72.45 and all residents in Alicante city. Also 5 elderly care providers (secondary users) were involved, 1 man and 4 women with an average age 39.75 and all residents in Alicante city. The involvement of these two user groups –elderly users (primary) and elderly care providers (secondary) – from the user site is one of the most important strengths of the SeniorChannel methodology. They had ensured that end user opinion is a fundamental part of the research process so that the outcome of the project is useful both as a novel alternative for enjoying leisure time but also as a socialization instrument to enhance the elderly person's welfare.

The integrated system has been tested and evaluated, setting up one TV studio and production centre in Spain with six elderly people residents in Alicante city for its evaluation. Also 8 elderly people, 2

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.*

women and 6 men with a mean age of 68 and all resident in Alicante city tested the Set Top Box from their homes. 3 of the elderly users hold a secondary education degree, 2 of them a diploma, 4 of them a university degree and 1 of them a post-lauream specialization. Eyesight, hearing and motor impairments varied among participants.

A second users validation of the Set Top box was arranged with 30 users (10 each of the countries: France, Italy and Spain), 50% of the sample were women and 50% were men. Their mean age was 69.9, and specifically 68.8 for the French subsample, 68.3 for the Italian sub-sample and 72.6 for the Spanish sub-sample. Participants had no clinical or pathological deficit apart from impairments due to normal aging (i.e., 20 participants, 8 from France, 7 from Italy and 5 from Spain wore eyeglasses and needed them to watch TV; 1 French participant used a hearing aid; none of the participants declared any fine motor difficulties, which could have prevented using the remote and filling in the questionnaire). At least 2 participants from each country lived alone (3 people from France, 2 people from Italy and 4 from Spain).

The feedback generated during user testing has provided the basis for modification and refinement thus bringing the design of the application more into line with the preferences and needs of those involved.

3 D. PROJECT RESULTS – OTHER INDICATORS

Patents , which are the direct result of 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)	- "Involving elderly users in design: techniques to collect preferences for interactive digital television" published in the Annual Review Of Cybertherapy and Telemedicine 2012 proceedings. - "SeniorChannel An Interactive Protocol Internet Television Channel for Promoting Entertainment and Social Interaction amongst Elderly People" published in the Springer IWAAL 2011 proceedings.
Other dissemination activities	- AAL Forum 2012: * Final session of the AAL Award 2012 * E8 "Social Interaction". * Senior Sessions - European Health Forum 2012. - The SeniorChannel project has been selected as one of the 36 initiatives inside Enterprise 2020 Spain. - Participation in e-Inclusion Award 2012. - Participation in OPTICAE project. - AAL Forum 2011. Poster contributor. - Driving Innovation in Psychosocial Care: Addressing Cognitive Deterioration in the Ageing Process" workshop 2011. Demonstrator. - TV and radio interviews.

	- Several news releases.
Type and size of audience reached by dissemination activities	General and specific audiences in Europe and Latin America.

4. FINANCIAL INFORMATION - OTHER COMMENTS

Please check appropriate box:

The financial part of the project ☒ 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:

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Other comments related to financial part of the project:

The Italian partners of the project have encountered repeated delays with the Italian AAL National Contact Point during the approval of its participation to the project.

5. AAL JP PROGRAMME

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

The AALJP offers a great opportunity to work with partners across Europe, putting together large companies, SME and university in innovative projects with very attractive financial conditions.

The main problem with AALJP resides in that each partner follows the rules of their country, being a source of potential problems. After the submission of the proposal and its acceptance, it can occur that a partner of the initial consortium cannot participate at the end due to the lack of funding in his country; having to find another partner with the same characteristics willing to join the consortium. It is also a problem when the approval in one of the countries is delayed, affecting in this manner the rest of the consortium and the overall project.