Project Fact Sheet

Name of the project, acronym, number (AAL-20NN-N-XXX):

Age Sensitive ICT Systems for Intelligible City For All, I'CityForAll, AAL-2011-4-056

Coordinator Organization:

Commissariat à l'Energie Atomique et aux Energies Alternatives

Length of the project and starting date:

42 Months, 1st of July 2012

Partners:

Name	Type (end-users, business, SME, R&D)	Country	Web address
Commissariat à l'Energie Atomique et aux Energies Alternatives	R&D	France	www-list.cea.fr
Université Paris Descartes	R&D	France	lipade.mi.parisdescartes.fr
Agenzia Nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile	R&D	Italy	robotica.casaccia.enea.it
Technische Universität München	R&D	Germany	www.tum.de,
Centro Ricerche FIAT	R&D	Italy	www.crf.it
Centre d'Expertise National des Technologies de l'Information et de la Communication pour l'autonomie	End-user	France	www.centich.fr
Active Audio	SME	France	www.activeaudio.fr
EPFL - Laboratoire d'Électromagnétisme et d'Acoustique	R&D	Switzerland	infoscience.epfl.ch/collection/Infoscience/Research/STI/IEL/LEMA

Objective of the project (<u>Between 400 and 500 characters</u>):

The I'CityForAll project aims at enhancing the sense of security and self-confidence of presbycusic people whose hearing degradation increases with age. Two mobility environments are considered: public confined spaces and urban space. The ICT solutions consist of intelligent loudspeakers for better intelligibility of vocal messages in public confined spaces and systems embedded in vehicles for better localization of urban sound alarms like ambulances, police cars, fire trucks, etc., as the presbycusis alters the perception of distance and the direction of sound source.

Abstract of the project (Including technology in use, end-users involvement – <u>between 1200 and 1500 characters</u>):

The goal of I'CityforAll is to design "Audio Aged sensitive" ICT systems enhancing self-confidence, mobility, safety, for a better social and mental (overall) well being.
The targeted population corresponds to people older than 50 years in mobility situations and affected by presbycusis that induces a loss of sense of safety and self-confidence.
Affected **Security and Mobility due to altered sound perception of elderly** is observed in two main situations**:**
- Mobility in confined public spaces such as transport stations, airports, supermarkets, museums, etc...where altered audio/speech and verbal communication perception has serious impact on emotional, physical and social well-being.
- Urban Mobility where the elderly are involved in 40% of fatal injuries (105,000 deaths/year), and 1500 accidents/day require medical assistance according to the European Network for Safety.

Therefore two Audio Aged Sensitive ICT innovations will be designed:
· [**I'CityLoudSpeaker**]: smart loud speakers for better intelligibility in confined public spaces such as railway stations, airports, museums and during car driving.
· [**I'CityAlarm**]: Embedded system in vehicles for automatic outdoor alarm localization and indoor alarm enhancement.
These systems will be "transparent" and embedded in mass products for people with presbycusic hearing without impacting normal hearing people, in the "Design for All" approach. The I'CityForAll innovations will be tested by using the analysis software developed by the CENTICH and involving 90 users of the targeted population which will be compared to a normal group of population. The results of this assessment will form the basis of a labelling procedure that can be extended to other technological solutions.

Expected results and impact (<u>Between 400 and 500 characters</u>):

Three demonstrators will be presented at the end of the I'CityForAll project:
- Assessing Intelligibility product based on the I'CityForAll Objective quality criteria of vocal announces that will allow public companies such as Museums or transportation companies to assess their needs.
- Loudspeakers dedicated to large spaces (i.e. railway stations, museums...), integrating the global processing chain of emission, correction and generation of vocal announces with various ambient noises.
- Vehicles equipped with automatic real-time presbycusis equalization and alarm localization systems

Total cost of project and public contribution:

Budget : 5 082 399.00 € with a public contribution of 2 409 300.36€

Images or graphic (Logo, images or photos showing the product or service): Images or photographs (also graphics where needed) are mandatory. Send ftp link or esp file.

http://www.icityforall.eu/images/logo.png

Website link(s):

www.icityforall.eu

Contact person (name, e-mail, phone, address):

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