



Company

Research group

## ■ Project

### Project partners

Coordinator:  
CEA LIST (France)

Parties involved:  
UPD (France)  
ENEA (Italy)  
TUM (Germany)  
CRF (Italy)  
CENTICH (France)  
ACTIVE AUDIO (France)  
EPFL (Switzerland)

### Project finance

Funding agencies:  
ANR, BMBF, MIUR, FDEA, CNSA

Amount of funding:  
EUR 2,409,300



Targeted application scenarios:  
(a) confined public spaces and (b) vehicle.

## Objectives

The project I'CityForAll (Age Sensitive ICT Systems for Intelligible City For All) aims at enhancing the sense of security and self-confidence of presbycousic persons, whose hearing degradation increases with age. Two situations are considered: mobility in public confined spaces and mobility in urban space. For public confined spaces, the ICT solutions consist of intelligent loudspeakers for better intelligibility of vocal messages. For urban mobility, I'CityForAll partners will develop a system embedded in vehicles for better sound alarm localization of ambulances, police cars, fire trucks, etc., as the hearing degradation alters perception of distance and direction of sound source. These systems will be "transparent" and embedded in mass products for the large public.

We target the design of embedded solutions in mass products at reasonable cost for persons with pseudo-normal and presbycousic hearing without impacting normal hearing people (concept "for All").

## AAL deliverables

Based on an end-user orientated evaluation carried out within I'CityForAll, the main deliverables are:

- Objective quality criteria for vocal announces and alarms
- Loudspeakers dedicated to large spaces (i.e. railway stations), 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
- Intelligibility For All recommendations

Demonstrators will be presented at the end of the I'CityForAll project, scheduled for June 2015.

## Target partners

The targeted partners are companies interested in integrating the compensated loudspeaker system developed during the project, such as:

- Public transport companies
- Museums
- Supermarkets
- Associations

## Contact details

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