www.ict-dali.eu

A project supported by the European Commission under the 7th Framework Programme

01 nov 2011 - 31 oct 2014

SIEMENS
SIEMENS
Aktiengesellschaft Oesterreich
Austria

indra
Indra Software Labs SLU
Spain

inria
INVENTORS FOR THE DIGITAL WORLD
Institut National de Recherche en Informatique et en Automatique
France

IIT
Dipartimento di Ingegneria dell'Informazione
Università degli Studi di Siena, Italy

northumbria UNIVERSITY
University of Northumbria at Newcastle
United Kingdom

FORTH Institute of Computer Science
Foundation for Research and Technology Hellas
Greece

VISUAL TOOLS
Visual Tools
Spain

ATHESINA STUDIORUM UNIVERSITAS
Dipartimento di Ingegneria e Scienze dell'Informazione
Università degli Studi di Trento, Italy

DAL. DEVICES FOR ASSISTED LIVING

SEVENTH FRAMEWORK PROGRAMME

The aim of the **DALi** project is to produce a device that will prolong out-of-home mobility in older adults. One key to successful ageing is the ability to stay independently mobile enabling sustained levels of physical and social activity. In **DALi**, we pursue autonomous mobility through the development of our "**c-walker**". With this mobility aid we will provide physical, cognitive and emotional support to older adults in public environments such as shopping centres and airports.

The **c-walker** supports navigation in crowded and unstructured spaces by acquiring sensory information, by anticipating the intent of human agents and by deciding the path that minimises the risk of accidents. This assistive technology has a merely assistive role: it recommends a course to the user through visual, acoustic and haptic interfaces. The user remains in charge of final decision making.

DALi's areas of innovation

User Sensitive Development
Techniques to accommodate a diverse range of user abilities and follow inclusive design principles.

Planning
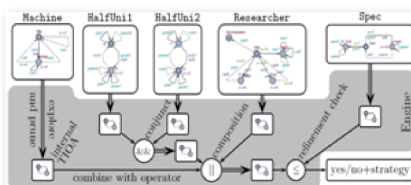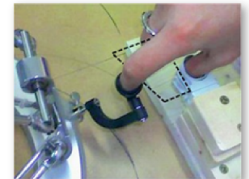Modeling of the dynamics of human motion, efficient motion planning in crowded environment.

Sensing Technologies
Sensor fusion, environment description and localisation of the system inside the space where it operates.

Interfaces
Development of haptic, acoustic and visual interfaces to support navigation in the environment.

Cognitive Engine
Short range situation assessment and automatic detection of anomalies.

Technological Infrastructure
Design of software architecture,middleware and operating system.

DALi devices will pave the way towards a new generation of intelligent machines for elderly people. In particular, it will enable:

A - Substantial efficiency gains for care provision and augmented independence and quality of life for the ageing population.

B - Improved competitiveness of EU industry through proven feasibility, and impact to move the results into downstream RTD or innovation.

C - Strengthened potential for Europe to become a global leader in the field of ICT and "ageing well", including development of global interoperability standards in the field.

D - Strengthened global position of European industry in service robotics for "ageing well" as well as significantly advances state of the art in the field.

For further information: **www.ict-dali.eu**