Preface

Technology is starting to be available to a substantial portion of the population and humans have in their hands a number of devices and applications that were not available to us to such a degree of versatility before. This is happening in many related domains in parallel such as housing, real estate, smart home, energy, social care, and health. Active Assisted Living (AAL) combines a whole range of innovative key technologies from these domains. Nowadays, we can recognize the trend that precisely this community is discussing, that of domain spanning system concepts, to integrate seamlessly and spontaneously the various components and solutions into an overall systems approach.

This fourth edition of the most prestigious event of AAL gives us the opportunity to get to know the latest advances in the area, to examine the different products being built by renowned experts in this area worldwide, to understand the current challenges of the state of the art, and to suggest innovative ways to develop this blending of humans and technology one step higher.

While this potential has been recognized for some time, breakthroughs in terms of widespread availability and deployment of solutions are yet to be achieved. The EU and the AAL Association have funded activities in this area for some years, and some of these are now at a stage in their development where direct hands-on involvement of development companies is the best way to make sure that this work produces results that are effective and applicable in real industrial settings.

To follow these goals a conference series has been established as an annual showcase event for the people involved in this community: the purpose of the AAL-Kongress (Congress for Active Assisted Living) is to exhibit and demonstrate ICT solutions, promote networking within the community, provoke debate on various topics and highlight new or emerging developments in the area to inform the AAL community, and discuss the problems and challenges we have to face in the coming years.

The first AAL Kongress 2008 had the focus on applications of intelligent assistive systems in the areas of "health & homecare," "safety & privacy," "maintenance & housework," and "social environment." At the second

AAL-Kongress more than 520 participants attended. It focused on use cases to support the manufacture of products adjusted to the needs of the user. In 2010 the third AAL-Kongress was organized with close to 600 participants, also with a focus on use cases. In 2011 it advanced to the leading congress for AAL with 870 participants. In 2012 the focus was on technologies in a self-determined life and the number of participants attending was over 1000, still addressing economic challenges and trendsetting applications on innovative technology. In 2013 the sixth AAL-Kongress focused on "quality of life in times of changing demography and technology." Within the thematic topic "Better Life with Assistive Technologies" the congress addressed in 2014 the basic human needs in the different areas of housing, mobility, work, health, and care.

However, AAL has still not arrived in peoples' minds. Only a few people know about AAL solutions. The few knowing it do not know where to buy solutions and if so, they do not know who can install them in their homes. This was the reason for the eighth German AAL-Kongress in 2015, to bring AAL closer to the people by combining the AAL-Kongress in 2015 with the "Zukunft Lebensräume" fair for the first time. With its 970 participants the congress provided an excellent platform to exchange qualified information and knowledge between researchers and developers, manufacturers and users, service providers, end users and representatives from politics, industry, and associations.

From the large number of contributions from the call for papers a selection has been made with topics such as: Social participation and mobility, Sensor data analysis, Acceptance factors and barriers, Human−Computer Interaction, Social participation and communication, and Basic technologies and the future of technology. To underline the research priority the research papers have been evaluated restrictively. Close to 60 presentations and more than 130 papers by a call for papers were submitted to the eighth AAL-Kongress. After a solid review process by three independent reviewers, who were matched by their expertise area to the topic of each paper, 12 papers were accepted to be included in these scientific proceedings of the conference.

This preface is an opportunity to acknowledge the efforts of all the people who helped to make this congress a reality. It also gives us the opportunity to thank the Reviewing Committee, the organizers of this event, and all of the paper presenters and conference participants helping to make AAL-Kongress 2015 a success.

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