

Assessing user-needs to realize active aging in the built environment

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F.J.M. VAN GASSEL (Convener). Assessing user-needs to realize active aging in the built environment. Gerontechnology 2012;11(2):110; doi:10.4017/gt.2012.11.02.533.00 **Participants:** *F.J.M. VAN GASSEL (Netherlands), W.J.M.J. VAN DEN BOUWHUIJSEN (Netherlands), R. DIJKMAN (Netherlands), D. COMPAGNA (Germany), K. KOHLBACHER (Germany), P. SCHMID (Netherlands), G. PAL-SCHMID (Netherlands).* **ISSUE** Over the coming five decades the 15- to 64-year-old population in Europe will decrease from about 333 to 283 million persons, over the same period the median age of the total population will increase from about 40 years to 48 years¹. Globally, the median age of the population will increase with about 5 years between 2005 and 2025. Supporting active aging in the construction sector plays a key role in a number of application domains of gerontechnology: housing, mobility, communications, leisure and work according the European Construction Technology Platform (ECTP)². The World Health Organization (WHO) describes active aging as a process of optimizing opportunities for health participation and security in order to enhance the quality of life as people age. Active refers to be physically active or to participate in the labor force. In the domain of housing construction it asks for two different approaches: (i) robotizing the workforce of construction workers, and (ii) providing the built environment with robot technology to facilitate independent living for the elderly. Both approaches are complex building assignments and call for a new way to assess user-needs and societal values. In this symposium we will focus on the last approach. Technologies to enhance user-needs for aging-in-place are available but users do not accept the applications by and large. A better understanding of the user-needs of the elderly can help. **CONTENT** Findings, methods, and expected developments are the focal points in this symposium. Drivers and barriers are discussed from both housing and a gerontechnology point of view. **STRUCTURE** Four different ways to better understand user-needs will be presenting. First, Frans van Gassel will present a method to analyze and improve problematic activities of daily living for aging-in-place. Next, Wim van den Bouwhuijsen will explain the 'AEM-Cube design' that categorizes diversities among residence users. The AEM-cube[®] gathers data on 3 scales: attachment, maturity, and exploration. Then Diego Compagna and Florian Kohlbacher will present an approach entitled 'Scenario-based design for user-centered development of care robots'. In the last presentation Peter Schmid will talk about integral design aids for 'age-proof' housing with some easy-to-follow models. After these individual presentations Frans van Gassel will moderate an open discussion on how to improve the current situation and how to foster a better understanding of the issues. **CONCLUSION** With the number of aging people rapidly growing in the (developed) world, it is not enough to develop tools and equipment to support people. Society needs an inclusive design of the whole built environment with an infrastructure that supports people's mobility. The challenge for automation and robotics is to support the domains of architecture and civil engineering. This support must create an "inclusive" built environment for economical, health and societal reasons (ECTB).

References

1. Eurostat. Statistics in focus; 2008; epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-SF-08-072/EN/KS-SF-08-072-EN.PDF; retrieved November 7, 2011
2. ECTP. Challenging and Changing Europe's Built Environment. A vision for a sustainable and competitive construction sector by 2030. European Construction Technology Platform (ECTP); 2005; www.ectp.org; retrieved April 5, 2012

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Affiliation: Eindhoven University of Technology, Eindhoven, Netherlands;

E: f.j.m.v.gassel@tue.nl

F.J.M. VAN GASSEL. Testing a working method for designers to solve problems with activities of daily living. Gerontechnology 2012;11(2):110-111; doi:10.4017/gt.2012.11.02.633.00 **Purpose** Aging-in-place is an accepted concept in our aging society. Older adults prefer to stay in their own environment to enjoy their independence and take part in social activities. In short, they want to maintain full citizenship: physically, mentally and socially. However, our current built environment is commonly ill-suited to aging-in-place. Think for instance of the barriers when shopping with a walker. Activities of daily living (ADL) and instrumental activities of daily living (iADL)