

*H.S.M. Kort, J. van Hoof. Smart technology at home: a multidisciplinary challenge. Gerontechnology 2008; 7(2): 144.* In the Netherlands, the population aged 65 years and over will increase from 15% to 17% in 2013<sup>1</sup>. Most older adults live at home (90%) with or without assistive technology or care support. Most older adults choose to live at home in their well-known neighbourhood<sup>2</sup>. With the biological ageing process, the chance of getting chronically ill increases. Having a chronic disease does not mean that a person is ill, but the accompanying impairments go together with limitations in daily living and in social participation. The older adult does not exist and they are not a homogenous group. Therefore, in the Technology@Home project<sup>3</sup> the design of dwellings was based on lifestyle and type of impairment. The mock-up dwellings planned are: (i) the comfort, safety and low vision home (CSL); (ii) the dementia home; and (iii) the COPD and mobility home<sup>3</sup>. The project was executed by a consortium consisting of the professional association of installers, their professional education fund, a regional innovation fund and the Chair of Demand-Driven Care of the Faculty of Health Care of Hogeschool Utrecht (HCHU). The mock-up dwellings would be used as a real-life learning environment, in which: professionals could see and receive instructions about possibilities for smart technology at home; older citizens could experience technology-supported living; carers could get acquainted with the technological possibilities; and in which students could be made enthusiastic about smart technology. In addition, based on the experience of various visitors, research would be done to examine whether smart technology at home may contribute to a delay in the demand for care. **Methods** The initiators in the consortium worked out their vision of smart technology at home. Their visions were transcribed into a project plan by a brainstorming group. Later, this group was transformed into a steering committee to obtain structural consultation. Literature research and practical experience of consumers and installers were used to describe the functional program. Students examined all kinds of aspects of smart technology at home and the implications for the design of the mock-up dwellings. Healthy older citizens, older adults with COPD, and a representative of the Dutch Alzheimer's Foundation were asked to comment on the dwelling concepts. In addition, this was also done with a group of installers for the CSL dwelling. All this information was used as input to adjust the designs. **Results and discussion** The CSL dwelling is the only mock-up realised to date. Results are: a change in lateral thinking in the HCHU; students are enthusiastic to have made a useful contribution; installers expected the use of more innovative technology. The true innovation lies in the combination of use of available technology for certain lifestyles, or to compensate impairments. For older citizens the CSL dwelling seems to be a 'normal' dwelling, since the smart technology is placed out of sight. Some lessons learnt are: a collective goal is not the same as having collective interests; continuity in project management is essential; developing knowledge does not mean dissemination of knowledge; and transformation from vertical professional-orientated solutions to horizontal consumer-orientated solutions are all challenges in achieving a multidisciplinary approach of technology at home. This still is necessary to overcome the so-called 'pilotitis' from smart technology at home.

## References

1. [www.cbs.nl/nl-NL/menu/themas/bevolking/publicaties/artikelen/archief/2007/2007-2339-wm.htm](http://www.cbs.nl/nl-NL/menu/themas/bevolking/publicaties/artikelen/archief/2007/2007-2339-wm.htm)
2. Overbeek R van, Schippers A. Ouder worden we allemaal. Trendstudies en toekomstdebatten over de vergrijzing in Nederland. Utrecht: NIZW; 2004
3. Dijken F van, Hoof J van, Kort HSM. Proceedings of the 8<sup>th</sup> International Conference Healthy Buildings; 2006; 3:127-130

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