Slim wonen ontzorgt. A set of architectural design strategies and patterns for age-friendly homes

**Background**

The Dutch population is ageing. Besides the increasing number of ageing inhabitants, the life expectancy is also increasing (CBS, 2017). In addition to this ageing population, the number of seniors suffering from dementia is increasing as well, from 270,000 inhabitants in 2017 to 500,000 inhabitants in 2040 (Alzheimer Nederland, 2017). Dementia is a general term for a decline in mental ability that severe enough to interfere with daily life. Seniors suffering from dementia in a later stage, are not able to live at home anymore, and have to move to an inpatient residential health care facility.

However, many of these facilities are outdated at the moment, and do not meet the demands of the residents anymore. This is due to the shift in focus in the health care concept, from a perspective on giving care, to the perspective of living (Mens & Wagenaar, 2009). Many inpatient health care facilities (nursing homes) are built just before this shift in focus. (Statline CBS, 2016, Mens & Wagenaar, 2009). This results in buildings that do not support the demands anymore. How could these inpatient residential health care environments be designed in a way that the quality of life of these seniors – suffering from dementia – could be improved?

RSZK Zorgprofessionals is a progressive organization, and offers care in the fields of nursing, care, and home care. Besides these forms of care, they also offer a wide range of services at home. In the beginning of 2017, they formulated their strategic policy for the upcoming years. The motto of this policy is “Thuis is Kim over” (RSZK, 2017).

In order to react on the social challenges of this era, and to focus on the future, RSZK Zorgprofessionals is exploring manners how the residential health care environment for seniors suffering from dementia in their organization should change. Besides the formulation in the summer of 2017 of their strategic plan for real estate, the organization has initiated a collaboration with the TU/e in order to face the challenges together. This resulted in the PDEng project 'Slim wonen ontzorgt'.

**Aim of the project**

The purpose of the project is to develop a future-oriented model of a smart inpatient residential health care facility for seniors with dementia; which includes spatial strategies, technology, and social aspects. This will be done in order to improve the quality of life for its residents, and improve the efficiency of the care process. This study focuses on the following spaces: entrance, corridor, meeting area, bathroom, and individual room of the resident.

**Methods**

A mix of multiple research methods will be conducted, among others a literature study, observations, interviews with different stakeholders and focus groups. Guidelines and housing typologies for this smart residential health care environment will be created in a process of co-creation with RSZK Zorgprofessionals. The co-creation process is taking place in using focus groups with professionals and users.

**Results**

The result of this project will be the future-oriented model, which includes multiple typological floorplans and housing typologies for the target group. Furthermore, multiple integral interventions in the residential health care environment for the target group will be designed and tested in the living lab of RSZK.