Dementia has a severe impact on quality of life of not only older adults diagnosed with this condition, but also their family. Every year there are 10 million new cases of dementia worldwide.

In this PDEng-project, as a part of the research program Empathic Environments, an early prototype of an interactive home system has been developed to enable older adults with early-stage dementia to live longer independently at their homes. The prototype of the Guiding Environment has been developed in co-creation with several companies, care organizations, and universities. Using sensor and projection technologies, this product guides older adults with early-stage dementia to perform their daily activities and helps them maintain their circadian rhythm. Through close collaboration with healthcare professionals, this study made a start with mapping the needs of different user groups (older adults with dementia, healthcare professionals and informal caregivers) who have been involved throughout the entire design process. In this way, the user needs are identified and incorporated into the design of this prototype. This has been translated into a practical tool for designers and electrical installation technicians to provide them insights into the actual needs of this target group.