

# Enhancing physical activity in people with dementia

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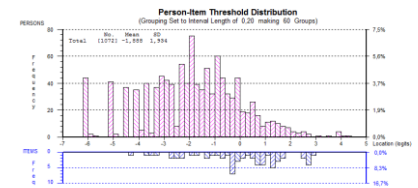
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**CeMSIIS** CENTER FOR  
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 **MEDICAL  
UNIVERSITY  
OF VIENNA**

- We analyse outcome data in health care, develop corresponding instruments, optimize measurement scales and adapt assessments to different contexts.
- Outcomes include the measurement of clinical signs and symptoms as well as results of medical interventions, but also quality of life, functioning, pain, fatigue or the impact of exercise-induced dyspnoea in daily life - outcomes which are most important for patients.
- The inclusion of the patients' perspective is essential for outcome measurement.
- The Section for Outcomes Research develops methods to measure, analyse and compare outcomes in health care by using complex scores, patient-reported instruments, multivariate models, Rasch analyses, mixed methods, and activity- and motion-analyses.
- Data gathering is optimized with sensor technologies and e-health solutions.
- Qualitative research methods are developed and applied.

## Who We Are



## Project idea

### Status quo

- Dementia leads to severe impairments in independence, mobility and quality of life.
- Physical activity and mobility are health promoting factors in older adults in general and more specifically in people with dementia.
- People with dementia hardly benefit from social and technological innovations. However, social and technological innovations, including AAL technologies, could potentially enhance physical activity, as well as in- and outdoor-mobility and quality of life of people with dementia.
- Trials with large sample sizes on the effect on AAL technologies are currently lacking.

### Project aims

- According to users' needs and already existing applications an AAL solution for people with dementia will be developed in order to increase physical activity and in- and outdoor mobility.
- Investigation of motivational models to increase users' motivation to be physically active.
- The AAL solution will be able to interact with the user (e.g. Avatar) and will be voice controlled to increase usability and feeling of interaction.
- Multi-center trial with a large sample size to generate evidence for AAL technologies in dementia will be performed.

## Looking for

### **We need**

- (a) technical partners for the development of the training application prototype
- a design partner for a highly aesthetic and intuitive interface
- a technical partner with expertise in voice controlled interaction
- a partner with expertise in Avatar-based user interaction
- clinical partners in other countries for a multi-center trial with a large sample size to generate evidence for AAL technologies in dementia

### **We offer**

- Expertise in patient-oriented outcomes measures
- Expertise in development and evaluation of AAL technologies
- Expertise in the management of international multi-center clinical trials
- Multidisciplinary team of psychologists, physicians, physiotherapists, occupational therapists, health researchers, methodologists, etc. with special knowledge in gerontology
- Excellent publication skills
- Excellent contacts to international scientific (Vienna, Leiden, London, Timisoara) and technical partners, user organisations and test regions to guarantee user involvement