FORTE: Forskningsrådet för hälsa, arbetsliv och välfärd

Application

2018-01793 Iwarsson, Susanne Funk18

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Information about application

Call name: Research on Functional Impairment 2018
Type of grant: Project
Focus: Functional impairment
Call for proposals subject area: Forte

Project title (english): Socially Sustainable Housing Policies for People Ageing with Disability: Producing a Knowledge Base Supporting Participation and Active Citizenship

Project start: 2019-04-01
Project end: 2022-03-31

Review panel applied for: Funk18

Classification code: 30502. Gerontology, specialising in Medical and Health Sciences (specialising in Social Sciences to be 50999), 50999. Other Social Sciences not elsewhere specified, 20102. Construction Management, 21199. Other Engineering and Technologies not elsewhere specified

Funds applied for

Year:	2019	2020	2021	2022
Amount:	1,351,730	1,775,065	1,507,170	362,595

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Project title and abstract

Project title (Swedish)*

Socialt hållbar bostadspolitik för personer som åldras med funktionsnedsättning: Utveckling av en kunskapsbas som stödjer delaktighet och aktivt medborgarskap

Project title (English)*

Socially Sustainable Housing Policies for People Ageing with Disability: Producing a Knowledge Base Supporting Participation and Active Citizenship

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Abstract (Swedish)*

Av de 1,9 milj. personer i Sverige som är 65 år och äldre bor 96 % i vanliga bostäder, varav många åldras med funktionsnedsättningar. Projektets grundantagande är att funktionshinder uppkommer i mötet mellan individen och miljön och förenar perspektiv från såväl åldrandeforskning som rehabilitering. Det övergripande syftet är att generera ny kunskap om utmaningar och möjligheter kring äldres bostäder och därmed bidra till en forskningsunderbyggd och socialt hållbar bostadspolitik som stödjer delaktighet och aktivt medborgarskap.

Detta tvärvetenskapliga, gränsöverskridande projekt bygger på blandade metoder och omfattar tre empiriska studier: 1) en kvalitativ intervjustudie med äldre som åldras med funktionsnedsättning, i socialt utsatta bostadsområden; 2) en studie för att identifiera kritiska incidenter bland äldre med funktionsnedsättning som de uppmärksammas av anställda i kommunala bostadsbolag; 3) en kvantitativ medborgarforskningsstudie (s k massexperiment) där seniorer, inklusive personer som åldras med funktionsnedsättning, bidrar med att samla in data om bostäders tillgänglighet över hela landet. Studie 4 är en syntes av resultaten och kommer att generera underlag för rekommendationer för hur bostadspolitiken kan göras mer socialt hållbar och inkluderande för den åldrande befolkningen, med särskilt fokus på de som åldras med funktionsnedsättning.

Projektet engagerar forskare från Lunds universitets medicinska, samhällsvetenskapliga och tekniska fakulteter. En doktorand kommer att rekryteras och handledas av ett tvärvetenskapligt team. Partners utanför akademin är en kommun, två kommunala bostadsbolag, pensionärsförbund, patientföreningar och föreningar inom funktionsrättsrörelsen, föreningen Vetenskap & Allmänhet samt ett mjukvaruföretag. Projektet kommer att bidra till en mer hållbar social bostadspolitik för en betydande grupp av Sveriges befolkning genom att generera kunskap som bejakar mångfalden bland äldre och deras aktiva medborgarskap.

Abstract (English)*

Of the 1.9 million older adults in Sweden 96 % live in ordinary housing in the community, and many are ageing with functional limitations. This project is based on the premise that disability is generated by the person-environment encounter, and represents a fusion of ageing research and rehabilitation perspectives. The overarching aim is to generate new knowledge on challenges and opportunities regarding housing for older people, in particular for those ageing with disability, thereby contributing to research-based and socially sustainable housing policies supporting participation and active citizenship.

This inter- and transdisciplinary mixed methods project includes three empirical studies: 1) a qualitative interview study with people ageing with disability, in disadvantaged neighbourhoods; 2) a study on critical incidents as acknowledged by employees in public housing companies; 3) a quantitative citizen science study (i.e., mass-experiment) engaging senior citizens, including people ageing with disability, in nationwide data collection on housing accessibility. In Study 4, we will synthesize findings and generate a base for recommendations to nurture socially sustainable and inclusive housing policies, with a specific focus on people ageing with disability.

The project involves researchers at the Faculties of Engineering, Medicine and Social Sciences at Lund University (LU). We will recruit one PhD student, who will be supervised by an interdisciplinary team. Non-academic partners include one municipality, two public housing providers, senior citizens´, patient and disability rights associations, a non-profit association on science for the public, and a software company. This project has the potential to make housing policies more socially sustainable to a substantial part of the Swedish population by generating knowledge relevant for the diverse and growing ageing population and their active citizenship.

Time plan

Number of project years*

3

Calculated project time*

2019-04-01 - 2022-03-31

Subject classification

Forte's main and subareas*

Folkhälsa (FH) > Funktionshinder

Alternative subarea

Övrigt > Övrigt ÖVR

Coordination area*

Disability

SCB codes*

30502. Gerontology, specialising in Medical and Health Sciences (specialising in Social Sciences to be 50999)

50999. Other Social Sciences not elsewhere specified

20102. Construction Management

21199. Other Engineering and Technologies not elsewhere specified

Project description

Purpose, background, research questions, theories, relation to previous research in the area, identified research needs and the originality of the project*

Globally as well as in Sweden, there are inequalities in the experiences of ageing based on disability, age, gender, social class and neighbourhood (Walker 2011). There is a growing number of older adults and people living at home with functional impairments (Eurostat 2014); among people aged ≥60 years, 55% - 98% have at least two chronic diseases, and the accumulation of chronic diseases over time is associated with progressive functional impairments, ultimately leading to disability.

Applying Lawrence's (2017) comprehensive definition, housing ranges from individual rooms in dwellings to the neighbourhood and beyond. Housing and neighborhood contexts shape the lives of older adults and are an effect of previous circumstances, possibilities and inequalities, but are also shaped and influenced by them as active citizens. Ageing and housing is a complex matter, comprising human interaction with physical premises and technologies, for those ageing with disability often integrated with health care and social services. Home is the hub of everyday life (Fänge & Dahlin Ivanoff 2009) and a place where autonomy can be executed, but also a disabling context if there is a lack of support, social contacts and accessibility (Schafer 2017).

OVERALL AIM:
TO GENERATE NEW KNOWLEDGE ON CHALLENGES AND OPPORTUNITIES CONNECTED TO AGEING WITH DISABILITY AND HOUSING, THUS CONTRIBUTING TO THE EVIDENCE BASE FOR SOCIALLY SUSTAINABLE HOUSING POLICIES
SUPPORTING PARTICIPATION AND ACTIVE CITIZENSHIP FOR THE DIVERSE AGEING POPULATION

Age is an organizing principle for welfare provision and societal planning, and is enabling as well as excluding in terms of social rights (Mattsson 2018). Disability is prevalent with increasing age but the housing stock in

Sweden is not designed to accommodate older adults with functional limitations (Granbom, Iwarsson et al. 2016). Little is known about differences and similarities related to ageing with different manifestations of disability, and in different types of neighbourhoods, for example, in disadvantaged areas. Such neighbourhoods are characterized by low socioeconomic status, high presence of crime, safety issues, quick population turnover, and a high proportion of immigrants (Polisen 2017).

By 2050, the global population of older persons will reach 2.1 billion (United Nations 2015), with 15% living with one or more disabling condition. Close to half of those aged 60+ have disabilities, and more than 250 million experience moderate to severe disability (WHO and World Bank 2011; Marengoni et al. 2011). The prevalence of physical and cognitive impairments increases with age, in particular among those aged 75+, with clusters of cardiovascular and neuropsychiatric disease constituting the major patterns of chronic disease (Prados-Torres et al. 2014). Years lived with disability for both sexes increased from 537.6 million in 1990 to 764.8 million in 2013, while age-standardised rates decreased from 114.87 per 1000 people to 110.31 per 1000 during 1990-2013 (Vos et al. 2015).

This project represents research applying a functioning, disability and health perspective. Disability refers to the negative aspects of the interaction between the individual (with a health condition) and the context (environmental and personal factors) (WHO 2001). Until the 1960-ies, people with different manifestations of disability had a shorter life expectancy, but attributed to improvements in medical treatment, rehabilitation and technology, the majority now have a life expectancy close to that of the general population. The knowledge about ageing with disability is evolving strongly, with an increased understanding of what is happening as people age with disabling conditions. Even if prevalence estimates often are presented for older age groups, in order to target ageing with disability people should be addressed in research already from age 50+, as their ageing process might result in functional decline earlier and progress faster than in the population in general (Kemp 2005). However, existing research does not sufficiently address the person-environment dynamics generating disability, and studies paying attention to environmental factors is necessary to contribute to the implementation of the United Nation's Convention on the Rights of Persons with Disabilities (CRPD).

Our project is novel in several respects. In research as well as in policymaking and practice, the silo-thinking in this field is striking. That is, on the one hand efforts are concentrated to housing provision, construction and management, and on the other to health care and social services issues. Thus, applying a novel combination of methods we will contribute to closing the gap between knowledge fields and societal sectors. The project is transdisciplinary in nature, implying a fusion of academic interdisciplinary knowledge (Thompson Klein 2010) with the knowledge of lay-people (Lawrence 2004). As there is a need for bottom-up transdisciplinary approaches in which older adults and non-academic partners are involved (Murtagh 2015; Walker 2007), a diversity of knowledge and service users will interact with researchers from different disciplines in transdisciplinary co-creation of knowledge.

CONTRIBUTING TO CLOSING THE GAP BETWEEN HOUSING PROVISION AND HEALTH CARE AND SOCIAL SERVICES, WE WILL INVOLVE CORE INTEREST PARTIES SUCH AS MUNICIPALITIES, PUBLIC MULTI-FAMILY HOUSING PROVIDERS, SENIOR CITIZENS', DISABILITY RIGHTS' AND OTHER NON-PROFIT ASSOCIATIONS IN THE CO-CREATION OF NEW KNOWLEDGE

Preparing this proposal, we developed the following research questions (RQ) together with our non-academic partners:

Study 1:

1. How do older people living in disadvantaged neighbourhoods experiences disability?
2. How do such contexts influence, create, and sustain disability?
3. How do people aging with a disability in disadvantaged neighbourhoods negotiate and experience a sense of community, and how do they position themselves in their neighbourhood context?

Study 2:

1. What kinds of critical situations related to housing for people ageing with disability do employees of the

public housing sector encounter and identify in their practice?
2. To what extent and how do they address such issues, and what kind of solutions do they suggest to solve them?

Study 3:

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1. What interest and capacity do senior citizens', patients' and disability rights' organisations have to contribute to reliable and valid data collection on aspects of housing, as part of their execution of active citizenship?
2. What is the character and magnitude of physical environmental barriers and accessibility problems as recorded by senior citizens, including people ageing with disability, in different types of housing and residential areas across Sweden?

Study 4:

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1. What inequalities related to disability, age, gender and neighbourhood characteristics regarding housing are demonstrated by the synthesised findings related to RQ 1-3?
2. With particular attention to people ageing with disability,
    - what are the legal barriers for optimal housing in later life, and how could policy and regulation changes improve the situation?
    - what changes/refinements of current policies do the synthesised findings suggest, and how can these be implemented?

Overview of the research field and relation to earlier research

Focusing on functioning and disability as people age, the heterogeneity of the ageing population is increasing, and research approaches that address the capacities, needs and the changing contexts in which older people live in are called for (Beard & Bloom 2015). A generally stated hypothesis is that environmental factors, such as housing disadvantages (Alley et al. 2009), are determinants of health (Chatterji et al. 2015), but research addressing such dynamics in a comprehensive manner is scarce. The population segment of people ageing with disabilities is increasing (Prince et al. 2015), and there is an urgent need for research on their situation with respect to housing. Health and social factors are taken into account, but regarding the built environment and what it represents as people age, research is scarce (Roy et al. 2018). As functioning and disability are inextricably related to context (WHO 2001), comprehensive public health and disability policies must take the physical and social environment into consideration (Beard & Bloom 2015). However, epidemiological studies mainly focus on health variables (see e.g., Wilhelmsen et al. 2010) whereas housing studies mostly target design (see e.g., Afifi et al. 2014), planning or economy aspects. With the medical advances related to chronic disorders, an increasing segment of the ageing population can expect to live for many years with disabilities, with largely understudied life situation consequences. In clinical research targeting specific diagnoses, aspects of housing and other environmental factors are largely neglected. Studies on care and social services are sometimes related to type of housing, but the main interest is related to the services and needs (see e.g., Freedman & Spillman 2014). While there is evidence that housing is associated with health, well-being and participation as people age, with some support for causal effects between housing and disability-related outcomes (Wahl et al. 2009), the paucity of studies targeting ageing with disability and housing is striking. Summing up on this, the lack of holistic research approaches nurturing socially sustainable housing policies is a true threat to people ageing with disability.

As to theory, research on ageing and housing is firmly linked to the Ecological Theory of Ageing (Lawton & Nahemow 1973; Scheidt & Norris-Baker 2003) and to models of person-environment (P-E) fit (Carp 1987; Kahana 1982). Of particular relevance for people ageing with disability, individuals with lower functional capacity are more vulnerable to environmental press, which is an important mechanism when considering aspects of housing – not the least the accessibility dimension. Psychological theories on perceived control (Lachman 1993) and the belief that controlling our lives has advantages for how we influence our environment (Schulz & Heckhausen 1999) provide important perspectives. Incorporating disability in studies on home and health, the International Classification of Functioning, Disability and Health (ICF) (WHO, 2001) constitutes the prime conceptual framework. Adding a life course perspective where ageing takes place in parallel with societal change, Riley's early work is useful (Riley 1985). A novel trait of the proposed project is to integrate these theories with those on social citizenship (Marshall 1950) and on critical stances to inequalities (Jönson & Harnett

2015, 2016) based on age, gender, disability (McGrath et al. 2017) and neighbourhoods. We will use the concept of ageism to interpret findings on the possibilities of people ageing with disability to achieve active citizenship. At present, there is an evolving theoretical advancement including integration and development of existing theories and conceptual frameworks (see e.g., Harnett et al. in press; Wahl et al. 2012).

Research on home, health and disability must tackle challenges that call for novel project designs and analysis approaches. Since long, our research is influencing the knowledge frontier in this field of research, not the least in terms of conceptual (Iwarsson & Ståhl 2003) and methodological contributions (Fänge & Iwarsson 2003; Iwarsson et al. 2012). The proposed project is underpinned by pragmatism (Cherryholmes 1992); a worldview typically associated with mixed methods research. This approach combines deductive and inductive thinking, as the researcher mixes quantitative and qualitative data (Creswell & Plano Clark, 2011). Successively, we have introduced mixed methods designs in our research (Lien et al. 2015; Tomsone et al. 2016), thus contributing to this evolving research tradition. Evidenced by our publication record, our core methodology for studies on ageing with disability and housing is well established and feasible for use with different sub-groups of the ageing population (Jörgensen et al. 2016; Nilsson et al. 2016; Kader et al. 2017; Norin et al. 2017; Slaug et al. 2017).

Our empirical results have increased the attention to housing and disability in research on ageing (see e.g., Bigonnesse et al. 2014; Byles et al. 2014; Mahler et al. 2014). Overall, there is a complex interplay among objective and perceived aspects of home (Nygren et al. 2007), and these are associated with health (Oswald et al. 2007). Relating specifically to ageing with disability, we have shown that most of the variance in housing accessibility problems (a facet of P-E fit) is attributed to functional limitations (Slaug et al. 2018), implying that longitudinal changes are generated by the increasing complexity of individual profiles of functional limitations over time (Granbom, Slaug et al. 2016; Iwarsson & Wilson 2006). Very old people, that is, a population segment often challenged by decreasing functioning and increasing disability, who live in accessible housing, perceive their home as useful for activities and consider themselves as responsible for their housing situation are more autonomous in daily life, report higher well-being and less depressive symptoms (Oswald et al. 2007). Turning to the influence of chronic disease and progression of disability on such dynamics, explorative studies show that despite similarity in number of environmental barriers, people ageing with Parkinson's disease live in housing with more accessibility problems and are more dependent in ADL than matched controls (Nilsson et al. 2013). Also, they perceive their homes as less usable for activities and are less attached to their homes (Haak et al. 2013).

User participation in research concerns involvement that goes beyond just providing, for example, blood samples, answering surveys, being tested or interviewed. Instead of being a research subject, the user is an active partner in the research process (Brett et al. 2014). A broad definition of "users" includes all parties that are interested in and/or beneficiaries of research. This means that users are senior citizens in the general ageing population and vulnerable people with specific characteristics and needs. Users are also informal carers, health care, social services and industry professionals as well as public agency, policy-maker, and interest organization representatives (Kylberg et al. 2018). To capture the diversity of the population it is important to also pay attention to functional capacity, gender, age, ethnicity, socio-economic factors, etc. The purpose of involving users in research has its origin in ideas relating to empowerment; to support individuals to take control over their own situation, involving a striving to shift power in the research process from the researchers to those the research concerns. The research process is then characterised by being carried out with the users as partners, with continuous feedback for mutual reflection and action between the parties as an important principle. Users are seen as representatives of various groups and as experts on their situations and conditions (Ross et al. 2014). The degree and importance of user participation are illustrated and discussed in various ways in the literature (Barber et al. 2012; Staniszewska, 2009), and published studies represent a wide range of topics involving many disciplines. Current research is dominated by qualitative approaches, which is valuable for developing in-depth knowledge. However, to contribute to cumulative building of generalizable knowledge it is necessary to develop a broader arsenal of methods for user participation in research (Kylberg et al. 2018).

Moving research involving people ageing with disability further, citizen science is promising but hitherto not seen in research involving people ageing with disability. In such approaches, citizens/users contribute to the development of new knowledge while satisfying their own motivations such as learning new things, helping other people, and advancing science (Land-Zandstra et al. 2016; Kullenberg & Kasperowski, 2016; West & Pateman 2016). Primarily, the expanded workforce of citizens has been used to collect large quantities of data (Kullenberg & Kasperowski 2016). Studies suggest that the quality of data collected by citizen scientists is often comparable to that of data collected by professional scientists (Lewandowski & Specht 2015). Citizens may also contribute to other phases of the research process, such as defining research questions and analysing results (Haklay, 2013; Ottinger 2010). Since 2009, the non-profit organisation Vetenskap & Allmänhet (Public &

Science, VA) has coordinated a national "mass experiment" where thousands of primary and secondary school pupils across Sweden have collected data that would have been impossible for researchers to collect on their own (Kasperowski & Brounéus 2016; Kullenberg et al. 2018; Wall 2014; Persson Waye et al. 2015; Marklinder & Eriksson 2015). No such project involving people ageing with disability has ever been performed in Sweden, or to our knowledge, anywhere else in the world.

Related projects

The research team is supported by a thematic collaboration initiative financed by LU (2018-2020; PI: S. Iwarsson), with the goal to encourage collaboration between researchers and non-academic partners in terms of generation of novel research. The proposed project is one of the first concrete outcomes of this university-supported initiative. Financed by Forte, the UserAge program (Dnr 2016-07090, 2017-2019; 2020-2022; PI: S. Iwarsson) constitutes a theory, methodology and knowledge development platform, which is nurturing our understanding of user participation in research on ageing and health.

Specifically regarding data collection approaches of relevance for the proposed project, in projects such as the InnovAge (European Commission, Dnr 306058-2, 2013-2015; PI: A. Walker) we have gained knowledge of older people's capacity to contribute using surf tablets (Jonsson, Haak et al. 2016; Jonsson, Slaug et al. 2016). We produced a prototype version of an application (app) useful for collection of data on functional limitations, environmental barriers and accessibility in housing and exterior surroundings (Figure 1). In an ongoing project (FORMAS, Dnr 2017-2019; PI: S. Iwarsson) involving employees in Karlshamnsbostäder AB (KaBo; a public housing company), the data collection interface is further developed and evaluated for use in practice contexts. While targeting different groups of users, these developments are beneficial for the proposed project. The Strategies for Evaluation of Housing Adaptation" project (FORMAS, 2015-2017; PI: A. Malmgren Fänge) is another relevant project, where the effects of an evidence based strategy to housing adaptation case management were compared to ordinary practice (Boström et al. 2018; Ekstam et al. 2014; Thordardottir et al. 2016). Other relevant projects are the TECH@HOME (Malmgren Fänge et al. 2017), and the recently finalized AAL project Home4Dem. Providing important input and networking opportunities for the proposed project, VA is developing a national portal for citizen science in collaboration with three universities across Sweden, useful in promoting national impact (Arenas for Cooperation through Citizen Science, ARCS), funded by Vinnova (Dnr 2017-03527). VA is a partner in the EU-Citizen.Science project, which will create a platform for citizen science in Europe, funded within the Horizon 2020 (Dnr 824580).

Previous Forte grant ref. number

Study design, methods and data material*

We will apply a mixed methods 4-step convergent parallel design, where qualitative and quantitative data will be collected and analysed in three studies running in parallel, before being merged and interpreted together. The four design steps are design and data collection, data analysis, merging of results, and interpretation of the merged results (Creswell & Plano Clark 2011). This will counteract methodological limitations by obtaining different but complementary data to validate, corroborate and explain conclusions gained from the different data sources (Torrance 2012). Studies 1-3 represent the data collection and analyse steps, addressing the respective RQ. In Study 4, guided by RQ on the project level we will merge the results from Studies 1-3, followed by interpretation and synthesis of the merged results.

Study 1: Ageing with disability in disadvantaged neighbourhoods

For this interview study using principles of Grounded Theory (GT) (Corbin & Strauss 2015), we will recruit people ageing with disability living in disadvantaged neighbourhoods (N=4; Polisen 2017) in Helsingborg city. Individuals aged 50+, who have had a physical or psychiatric disorder for more than five years, which the individual perceives as disabling and for which s/he receives municipal health- or social care services will be eligible for the study. We will recruit via municipality-employed nurses in Helsingborg city (confirmed partner). We will apply purposeful sampling to reach a wide variety of experiences according to the principles of GT. Albeit not determining the sample size beforehand (Patton 2002), N=25-30 is reasonable.

We will develop a semi-structured interview guide with themes based on RQ 1 and the theoretical underpinnings of the study. The themes will include experiences of disability, stigma, the ageing body and mind, thoughts on relocation, neighborhood attachment, sense of community and creating community, neighborhood changes, barriers and facilitators for participation. We aim to capture process of change, in the neighborhood, in relation to ageing and disability. Thus, each aim will have a temporal aspect looking at the past, present and future.

The interviews will be made individually in each participant's home, with the use of a translator when needed. The interviews will be recorded and transcribed verbatim. Applying the principles of GT, we will analyze the interviews in parallel with collecting data, to guide further recruitment (theoretical sampling) and contionous development of the interview guide. To reach rapport and high quality in-depth data, and to improve trustworthiness, each participant will be interviewed three times during a 3-5 month period. In connection with one of the home visits, the participant and the data collector will spend time out-of-home as well, thereby extending the interview to explicitly include also neighborhood aspects. In brief, the analytic approach will be a combination of line-by-line coding to arrive at in-vivo codes, with more of a holistic case-based approach to arrive at theoretical codes in an iterative process. This process will involve the data collectors, other researchers in the team as well as non-academic partner representatives. In addition, member checks will be applied (Patton 2002).

Study 2: Critical incidents at the crossroads of housing, care and social services in the public housing company context

In this critical incidents study, we will explore acts performed by employees (e.g., property managers) in two public multi-family housing companies (KaBo, Österlenhem AB). Our partners indicate that although such staff are employed to provide housing services, they also provide caring acts to people ageing with disability (Nilsson Motevasel 2000), but with major uncertainties about mandate and legalities. Their experiences and frustration constitute the inspiration and starting-point of this study.

The data collection will be guided by the Critical Incidents Technique (CIT) (Flanagan 1954). The original CIT consisted of procedures for collecting observations of human behaviour to facilitate their potential usefulness in solving practical problems but is flexible and may be adapted for specific situations. We will modify the CIT for data collection in situations involving tenants ageing with disability and their housing situation, identified as critical by property managers in public housing practice contexts. We will identify critical incidents rather than judge them according to performance criteria (Brorsson et al. 2013; Jensen et al. 2002), which is a simplification of the CIT but adequate to answer the explorative RQ. Together with our public housing partners, we will develop a modified, project-specific CIT.

Study 3: A mass-experiment on housing accessibility involving people ageing with disability

Making use of the participant recruitment and data collection organisation strategies provided by VA (confirmed partner) (Kasperowski & Brounéus 2016), senior citizens (aged 65+), including people ageing with disability (aged 50+), across Sweden will be engaged in a mass-experiment. Using an existing app (Helle et al. 2015; Jonsson, Slaug et al. 2016) tailored for the mass-experiment context (Figure 1), the participants will collect quantitative data on housing accessibility in ordinary housing in their residential areas. This citizen science approach offers an expansion of the workforce needed to collect large data sets, relying on scientific standards for creating valid data with the participating citizens taking an active role throughout (Haklay 2013).

Participants will be recruited via several patients' and disability rights' organisations (contacts established) as well as the two major senior citizens' organisations in Sweden (PRO; SPF Seniorerna; confirmed partners) and an upcoming national portal for citizen science in Sweden which will be launched in May 2019 (www.medborgarforskning.se).

For the data collection, we will use our existing research-based app for surf tablets (Haak et al. 2015; Helle et al. 2015; Jonsson, Slaug et al. 2016) (Figure 1), and adapt it for this study. Software developers (miThings, confirmed partner) will collaborate with users to adapt the existing app into a user-friendly graphic interface connected to a database where users will be able to explore the results and interact with other users. Such an instant feedback system will enhance motivations for users to take part and engage with the project (Reeves et al. 2017). Based on 20 years of research (Iwarsson et al. 2012), the Housing Enabler (HE) is an internationally acknowledged instrument for inventory of the functional capacity of individuals, environmental barriers in housing and analysis of accessibility problems (Iwarsson & Slaug 2010). The instrument is reliable for use by multiple raters in different contexts (Helle et al. 2010; Iwarsson et al. 2005), but has hitherto not been used in research involving citizens in data collection. The HE is the basis for the app, developed to make it possible for senior citizens, including those ageing with disability, to overview and make predictions about housing accessibility in their homes.

A successful recruitment process needs to build upon targeting and capturing the interest of senior citizens, including people ageing with disability, to participate. Thus, we can only roughly estimate the number of participants beforehand. A good half of people aged 66-75 and one fourth of those aged 76+ have access to

surf tablets (Internetstiftelsen 2017). In 2016, PRO's annual price investigation engaged 1,500 members. Relying on VA's experiences from mass-experiments with other age groups, N=3,000 is a realistic sample size.

Study 4: A knowledge base for social housing policies supporting participation and active citizenship

Moving further to the steps merging of results and interpretation of the merged results of the convergent parallel design (Creswell & Plano Clark 2011) we will address RQ4. The purposes of such integrated analyses are triangulation (i.e., validation based on corroboration between data sets), complementarity (i.e., different methods to answer related questions), and expansion (i.e., data sources address different aspects answering questions raised by other data sets) (Palinkas et al. 2011; Sandelowski, 2000). Employing an interactive merging strategy, narrative integration and weaving, presenting qualitative and quantitative data together and connected based on specific topics, will be used (Fetters et al. 2013). As to the priority of the data sets, we foresee that this will not be equal as their application, purpose and usefulness will vary with the RQ. Data presentation workshops and analysis meetings will be an integral part. Emerging themes will be explored and developed based on the theoretical underpinnings, relevant inter/national reports, policy documents and legislation. The outcome of Study 4 is an integrated synthesis of the results of the entire project.

Study design and project structure related to budget

Given the study design, methods and project structure, most of the SEK 4,99 million budget is dedicated to personnel costs. Co-funding for the non-academic partners is not specified in the budget but constitutes in-kind time spent by them for participation in Studies 1-4, as well as in the communication and knowledge translation activities.

The Principal Investigator (PI: S. Iwarsson) is the holder of a private annual donation from the Ribbingska Foundation in Lund, and she will work approximately 10% of full time employment (FTE) during the three years of the project with funding from them. Assisted by S. Schmidt, who will manage the grant using 3% of FTE during the 3 years, she has the overall responsibility for the project. Supporting the communication strategy, the communication officer at CASE (E. Skogh) will devote 2% of FTE to the project. Professor and assoc. professor salaries (P-O. Hedvall, H. Jönson, A. Malmgren Fänge, S. Olander) will not be funded from the project budget, but each will allocate 5-10% FTE over the project period. Assistant researcher M. Granbom will devote 40% of her time throughout, with a specific responsibility as the lead of Study 1. Our data management expert (B. Slaug) and the miThings software expert (K. Mårtensson) will be responsible for data transfer, data management and standard operation procedures for quality control, as well as the technical optimisation of the data collection app. In addition, Slaug will contribute to analyses and publications generated from the project. Staff from Vetenskap & Allmänhet will work devote 15% FTE during the first two years of the project coordinate Study 3. One PhD student (to be recruited) will work in the project, with an active role in Studies 1-2, 100% funded for three years.

Running costs for data collection are for local, regional, and national travel, instruction workshops, meetings, materials and supplies (including printing costs), as well as cost for interpreters in case needed with study participants/knowledge users not able to communicate in a Scandinavian language or English. Additionally, there will be fees for ethic permits for Studies 1-3. Time and travel costs will be reimbursed for user involved in the different studies. Study 3 has several ICT expenses related to software programming to transfer the existing data collection app to a user-friendly format, establishment of a website and interactive database, and production of an online training video. We will present our research findings during the latter parts of the project at national and/or international scientific conferences, while funding for such activities will be sought from other sources. Communication and knowledge translation activities are costs related to communication with stakeholders and the public beyond the scientific community.

Indirect costs were calculated following the Association of Swedish Higher Education's (SUHF) full cost model. From Jan 1, 2018, at the Faculty of Medicine, LU (hosting faculty), IKT costs for the staff working on the project, including computer upkeep, network access, software, data security, etc. are included in the indirect costs. For the direct costs described above we estimate 20% in indirect costs which is the current rate at the Department of Health Sciences (hosting department). The costs for premises are for office space for the researchers and is proportional to the actual time commitment for those engaged in the project.

Interdisciplinarity*

Interdisciplinarity creates conditions for intellectual syntheses where advances in disciplinary domains interact and form new combinations, and where research can incorporate practical knowledge, unfettered by disciplinary boundaries (Thompson Klein, 1990). Our project represents the problem-focused interdisciplinary research orientation, typically addressing problems of societal relevance (Lyall, 2012), benefitting from a constellation of applicants representing a pragmatic intersection of different disciplinary backgrounds with common interests. Representing the greatest departure from a discipline base, our project transcends into co-production of knowledge (Lyall, 2012) involving non-academic partners and users in transdisciplinary research (Lawrence, 2015).

The project will be implemented in the context of the interdisciplinary Centre for Ageing and Supportive Environments (CASE) at Lund University, established and supported by funding from Forte (2006-1613, 2007-2017; PI: Iwarsson). S. Iwarsson is Head of the Active and Healthy Ageing research group and A. Malmgren Fänge of the Participation, Ageing and Everyday Life group at the Dept. of Health Sciences, Faculty of Medicine. Their groups engage co-workers from epidemiology, health economy, gerontology, design sciences, occupational therapy, nursing, physiotherapy, psychology, public health and sociology. Everyday Living Conditions and Contexts of Eldercare at the School of Social Work, Faculty of Social Sciences, is led by H. Jönson. This research includes studies on welfare models and organization of care, gender and ethnicity, ageism, and social problems of older people. At the Faculty of Law, led by T. Mattsson the Elder Law Research Environment represents research focusing on societal inclusion, integrity, legal security, and social rights for different groups of senior citizens. At the Faculty of Engineering, S. Olander at SIRen, Dept. of Building and Environmental Technology, has with the Swedish Universities of the Built Environment a strong network of construction-related research and industry. P-O. Hedvall, Director of CERTEC, Dept. of Design Sciences, represents research on accessibility, universal design, and rehabilitation engineering, in close collaboration with the disability rights' movement. Evidenced by previous external evaluations, there are results showing that we have attained integration among disciplines, stated as promising in terms on interdisciplinarity (Forte 2011).

Gender and diversity perspectives in the content of the research*

This project acknowledges a diversity perspective firmly rooted in the fact that disability is generated in the person-environment encounter (WHO 2001), and focuses on how the housing sector should be transformed to include people ageing with disability. Representing research with a strong potential to support the implementation of the CRPD, with patients' and disability rights' organisations as partners its underpinnings will be integrated and serve as a guiding-star throughout. Moreover, a critical perspective to the intersection of age, gender, social class, ethnicity, disability and neighbourhood in the context of ageing with disability and housing is at the core of this project. Age limits are common in the Swedish social security and care legislation (LSS 1993; SoL 2010), but the Discrimination Act (2008) prohibits everyone but the legislator from creating such age limits. Gender based inequalities regarding housing decisions in later life is an insufficiently studied aspect. More women are economically dependent and thus limited to achieve social citizenship in its fullest sense. Women have worse situations compared to men in most dimensions of ageing, and the European Commission's gender equality strategy (2014) highlights the economic and social impacts of policies addressing ageing societies. In Sweden, 40% of older women are living alone, but men living alone have less social contacts. Women have less favourable economic situations, and more commonly rent rather than own their dwelling (Näringsdepartementet 2015). Age, gender, ethnicity and disability are discrimination grounds. As to issues related to neighbourhood aspects, research on housing and ageing seldom addresses, for example, social class and rural-urban differences. With a critical perspective permeating the proposed project on all levels – in research as well as in organisation and management – we will engage a diversity of study participants, researchers and non-academic partners according to the aforementioned criteria. Our project complies with the gender equality and diversity policies governing LU's efforts on such issues.

Work plan*

Research environment and research team

The project is situated in the Centre for Ageing and Supportive Environments (CASE), bridging research at four faculties at LU. Of specific relevance for research involving people ageing with disability due to neurodegenerative disorders, we have a close collaboration with the Strategic Research Area of Neuroscience at LU (MultiPark). Of importance for our capacity to include participants of non-Swedish origins in the project, a range of different nationalities and language capacities is represented among the co-workers in these research environments. Thus, when necessary we can commission staff to assist in specific interview situations, in particular in Study 1. We have access to well-established infrastructures including specialised

technical/administrative staff (e.g., in grant management and public relations), well-equipped facilities, technical equipment, etc. PhD students have the opportunity to affiliate with the Swedish National Graduate School on Ageing and Health (SWEAH; PI: Iwarsson).

1. **Iwarsson** (PhD; prof. in gerontology, Faculty of Medicine) is the principal investigator (PI). Her academic leadership record includes the coordination of large inter/national inter- and transdisciplinary projects and conferences. Also at the Faculty of Medicine, assoc. prof. A. **Malmgren Fänge** is leading cross-national research on housing and technology issues involving people ageing with different types of disability. M. **Granbom** is an assistant researcher, who will have a major role and work effort in the project, to be assisted by a PhD student. Assistant researcher B. **Slaug** is a skilled data manager and an expert when it comes to quantitative methods involving housing accessibility data and functional profiles representing different manifestations of disability. Assoc. prof. S. **Schmidt** adds competence in medical psychology to the team, with excellent skills in scientific coordination. Prof. H. **Jönson**, Faculty of Social Sciences, brings in expertise on social rights and social policies related to ageing with disability and housing. From the Faculty of Engineering, assoc. prof. P-O. **Hedvall** has a strong anchorage in universal design and accessibility research, with well-established collaboration with the disability rights' movement. Assoc. prof. S. **Olander** represents building construction and management, with firm research and innovation collaboration with the housing industry. Key persons of confirmed non-academic partners, with specific roles in the project, are F. **Brounéus** at VA, C. **Clang** at KaBo, K**. Mårtensson** from miThings AB, and S. **Ålund** from PRO Skåne, Chair of CASE & UserAge Board of Users.

Project structure and Work Packages

The convergent parallel design (Creswell & Plano Clark 2011) implies that Studies 1-3 will be running in parallel, with preparations to be initiated in project Month (M) 1. All co-applicants will to some extent be involved already at this stage, but at different rates depending on individual responsibilities and tasks. Importantly, they will function as facilitators in the transdisciplinary research process. Senior research input is crucial to prepare the applications for ethical permits for the empirical studies. Examples of other concrete tasks are serving as methodological experts, co-supervisors for PhD students, and as co-authors in publications.

The project is structured into five interrelated Work Packages (WP). WP1-3 each consist of one study. WP4 serves to integrate and synthesise the findings of the entire project, and WP5 includes cross-cutting tasks. Iwarsson (PI) will have the overall scientific and management responsibility for the project with assigned researchers responsible for the day-to-day management of each WP, in WP1-4 assisted by non-academic key persons.

WP1. Qualitative interviews (Lead: Granbom and Ålund; M 1-24)

Task 1. Preparation. We will develop the semi-structured interview guide and pilot it with members of CASE & UserAge Board of Users and employees from Helsingborg municipality. Recruitment will be prepared together with a municipality-employed nurse, using records of home care service clients and her knowledge of individuals to reach sample diversity.

Task 2. Implementation. We will contact potential informants via postal mail followed by a phone call. Several exclusion criteria apply: living in the area <1 year, cognitive limitations preventing participation, and not able to communicate in Swedish, English, or by using a translator. Granbom and the PhD student will each collect the data at home visits.

Task 3. Data handling and analyses. Audio tapes will be transcribed verbatim, for the first 2-3 interviews by the researchers, and for the remainder by means of the NVivo 12 transcription function. Aided by the software, data will be analyzed according to the principles of GT (Corbin & Strauss 2015). Throughout the analysis process, researchers and non-academic partner representatives will be engaged in an iterative feedback process, including member checking with informants.

WP2. Critical Incidents study (Lead: Malmgren Fänge and Clang; M 1-24)

Task 1. Preparation. Based on expressed interest to serve as co-researchers, together with property managers employed at KaBo and Österlenhem AB (confirmed partners) we will develop the modified, project-specific CIT. Property managers will describe critical situations that involve aspects of housing services, health care and social services as related to people ageing with disability. Examples are property managers finding a tenant who sustained a fall, is no longer able to manage personal hygiene, or "checking on" tenants living in challenging

situations. We will establish a functional description of the types of problematic situations to capture, with an openness to define incidents as critical based on the tenants' as well as the employees' circumstances/perceptions. We will develop plans and specifications for the data collection, including instructions for the observations and recordings of data.

Task 2. Implementation. Following ethical approval (WP5), engaging a total of 8-10 property managers (i.e., observers), the data collection will take place during six months, at all occasions where an observer experiences a problematic situation fulfilling the functional description. Researchers will monitor the first three CIT registrations of each observer to ensure adherence to the protocol. Periodic quality checks will be conducted during the data collection, followed by adjustments to the protocol if deemed necessary.

Task 3. Data analysis. The first phase is an inductive classification of critical incidents. Once a classification system has been developed, objectivity can be achieved in placing the incidents in the defined categories (Flanagan 1954). Applying a team-based analysis process, validity and trustworthiness will be ensured. Our modified CIT will involve researchers and non-academics, and results will be discussed in workshops involving project team members and tenants.

WP 3. Mass-experiment (Lead: Iwarsson and Bronéus; M 1-24)
Task 1. Preparation. We will establish communication with interested patients', disability rights' and senior citizens local organisations, and ask them to each nominate 1-2 volunteer instructors. Making use of earlier experiences of involving users in the development of graphic interfaces (Jonsson et al. 2018), iterative workshops and individual test sessions will be co-lead by a researcher and miThings with a subset of the volunteer instructors to adapt the existing app for this study. Applying previous experiences gained by VA (Kasperowski & Brounéus 2016), in this phase we will also produce a manual and an instructional video. Subsequently, we will organise a 1 ½-day course for the instructors, at three locations across Sweden. An interrater reliability pilot study (N=30 pairwise assessments), including questions on feasibility for use in a mass-experiment, will be implemented.

Task 2. Implementation. VA will organise the recruitment process, primarily through invitations via the organisations' networks of local organisations and strategic media work. Implemented by VA and the researchers, the mass-experiment will be advertised and introduced six months prior to the data collection (recruitment target: N=3,000). Once the sample is established, preparations and training involving the volunteer instructors, VA experts and researchers will follow. The manual and instructional video on how to participate in the experiment will be published online, so that individual participants can enter the project and participate independently (see Fig. 2). As experience has showed that we can expect a snowballing effect with news of the project spread by word of mouth and media, we will allow new participants to enter the project until the data collection phase has been completed. The data collection period is four weeks.

Task 3. Data analysis and iterative feedback process. Following standard operation procedures, the data will be delivered to the researchers guided by data management (co-applicant Slaug) and software experts (miThings, confirmed partner). The attainment of the targeted number of participants and the data quality will be analysed, overall and in detail. We will use state-of-the-art statistical methods including specific approaches established for HE data (see e.g., Pettersson et al. 2017; Slaug et al. 2011, 2018). As the study will include data collected in the dwellings of people with different manifestations of disability, alerted by the findings of a recent methodological involving older adults with spinal cord injury (Norin et al. 2018) we will pay attention to reliability and validity threats.

WP 4. Synthesis of findings (Lead: Iwarsson and Ålund; M 18-36)
With active input from all the senior researchers, here the transdisciplinary coordination is at the core, thus involving all the non-academic partners and representatives of people ageing with disability in a range of activities. Making use of the analyses of each Studies 1-3 data set, we will employ an interactive merging strategy to arrive at a combined analysis, allowing for comparisons and interpretations (Creswell & Plano Clark 2011). Data presentation workshops and analysis meetings will be an integral part. Emerging themes will be explored and developed based on the theoretical underpinnings, relevant inter/national reports, policy documents and legislation. The synthesis of findings will be presented in scientific as well as popular formats.

WP 5. Cross cutting activities (Lead: Iwarsson; Months (M) 1-36)
Task 1: Ethics. We will work together to develop the ethics applications to the Regional Ethical Board in Lund for Studies 1-3 because similar ethical issues are present in all. As the project includes methodology hitherto not

applied in research on ageing with disability, the team will meet at least two times per year to identify and resolve any new ethical issues that arise. If new issues require changes to the approved protocols, queries or amendments will be submitted to the Ethical Board.

Task 2: Management & communication. Iwarsson has the overall responsibility with the executive management and monitoring delegated to S. Schmidt. We will continuously assess, monitor and act on risks. Early on and throughout there will be coordinated activities involving the non-academic partners. For time plan, see Figure 3. Moreover, coordination of the scientific publication process is an important management activity. Communication and knowledge translation activities (see Impact and communication of research results section) will be coordinated by the communication officer at CASE (E. Skogh). A project website will be established at the start of the project with regular progress updates.

Task 3: PhD student and thesis. A PhD student with a health sciences or social sciences background will be recruited. Depending on his/her disciplinary background and personal interests, Iwarsson or Jönson will serve as the main supervisor, assisted by an interdisciplinary team of co-supervisors and a non-academic mentor from one of our partners. Data from Studies 1-2 will constitute the empirical base for the thesis project. To complete the PhD degree, the student will continue to work with the data from this project for one year beyond the end of the funding period, with funding from other sources. For example, the Faculty of Medicine, LU, regularly provides salary for 3-4 months during the fourth year of PhD studies.

Collaboration

Well established inter/national collaboration includes methodology development, empirical research, PhD student supervision, organisation of/presentations at conferences and joint publishing. Within the UserAge program, national partners include the Centre for Ageing and Health-AGECAP at the University of Gothenburg, PRO-CARE at Kristianstad University, and the Swedish Family Care Competence Centre (Anhöriga) at Linnaeus University. The Swedish National Graduate School on Ageing and Health (SWEAH) engages 15 partner institutions. We also have a range of public agency and industry partners in ongoing research.

Examples of international collaborators are F. Oswald, Goethe Univ. Frankfurt, Germany; S. Szanton, Johns Hopkins Univ., U.S.; T. Rantanen, Univ. of Jyväskylä, Finland, and we are partners of a COST Action on ageism. A consultation process with R. Lawrence, Univ. of Geneva, Switzerland, and J. Goodwin, AGE UK, England, is relevant for the transdisciplinary orientation and the assessment of research impact.

Ethical considerations*

The project fulfils the Helsinki Declaration's requirements for research involving humans, and ethical approval will be sought from the Regional Ethical Board in Lund. We will follow the rules and regulations regarding the General Data Protection Regulation (GDPR). All data will be located on a high-security platform for storing, handling and analysing data (LUSEC, Faculty of Medicine).

Research participants must be protected against the risk of physical or mental injury and the violation of their integrity. In qualitative research, there can be challenges regarding confidentiality, and novel methods are raising new ethical issues. With traditional methods there are well-established routines to protect the participants' identities. However, this is not always possible in qualitative research using newer methods. For example, in observations using the CIT (Flanagan, 1954), it might be that the observer is not able to obtain informed consent in advance without making it impossible to conduct the research. Transdisciplinary research involving non-academic partners and senior citizens as co-researchers requires high attention to ethical issues. The preparation of applications for ethical permits will include thorough investigations that includes a weighing-up of the risks involved against the knowledge gained. A systematic examination of ethical considerations is needed and will be applied, with particular attention to the different and potentially dual roles of study participants and non-academic partner representatives serving as co-researchers. There are also training issues relating to junior researchers developing the moral sensitivity skills necessary to engage in ethically competent research involving users. Throughout, high standards with respect to the quality of the research, ensuring that those involved have understood and accepted the conditions that apply to their participation, will be adhered to (Swedish Research Council 2017).

References for the project description

Barber R, et al. (2012). Can the impact of public involvement on research be evaluated? A mix methods study.

Health Expect, *15,* 229-241.

Beard JR & Bloom DE (2015). Towards a comprehensive public health response to population ageing. *Lancet, 385,* 658-661.

Brorsson A, et al. (2013). Managing critical incidents in grocery shopping by community-living people with Alzheimer's disease. *Scand J Occup Ther, 20,* 292-301.

Chatterji S, et al. (2015). Health, functioning, and disability in older adults – present status and future implications. *Lancet, 385,* 563-575.

Creswell J & Plano Clark VL (2011). *Designing and conducting mixed methods research,* (2nd Ed.). Los Angeles: Sage.

Fetters MD, et al. (2013). Achieving integration in mixed methods designs—principles and practices. *Health Serv Re, 48,* 2134–2156.

Haklay M (2013). Citizen science and volunteered geographic information – overview and typology of participation. In: Sui, D.Z., Elwood, S. &d M.F. Goodchild (Ed.) *Crowdsourcing geographic knowledge: volunteered geographic information (VGI) in theory and practice*, pp. 105-122. Berlin: Springer.

Kasperowski D & Brounéus F (2016). The Swedish mass experiments — a way of encouraging scientific citizenship? Journal of Science Communication, 15, (1), 9 pages.

Lawrence RJ (2004). Housing and health: from interdisciplinary principles to transdisciplinary research and practice. *Futures, 36,* 487-502.

Manville, C et al. (2015). *Preparing impact submissions for REF 2014: An evaluation. Approach and evidence*. Santa Monica, CA: RAND Corporation.

Marshall TH (1950). *Citizenship and social class,* London: Pluto Press.

McGrath C, et al. (2017) Reshaping understandings of disability associated with age-related vision loss (ARVL): Incorporating critical disability perspectives into research and practice, *Disabil Rehabil, 39*, 1990-1998.

Pablos-Mendez A & Shademani R (2006). Knowledge translation in global health. *J Cont Edu Health Prof, 26,* 81-86.

Palinkas LA, et al. (2011). Mixed method designs in implementation research. *Admin Policy Ment Health and Ment Health Serv Res, 38,* 44–53.

Roy N, et al. (2018). Choosing between staying at home or moving: A systematic review of factors influencing housing decisions among frail older adults. *PloS ONE, 13,* e0189266.

Riley MW (1985). Age strata in social systems. In: RH Binstock & E Shana (Eds.). *Handbook of aging and the social sciences*. New York: Van Nostrand Reinhold.

Schafer MH (2017). (Where) is functional decline isolating? Disordered environments and the onset of disability. *J Health and Soc Behr, 58,* 1–18.

Thompson Klein J (2010). A taxonomy of interdisciplinarity. In: R. Frodeman et al. (Eds.), *The Oxford handbook of interdisciplinarity,* pp. 15-30. Oxford: Oxford University Press.

Torrance H (2012). Triangulation, respondent validation, and democratic participation in mixed methods research. *J Mix Meths Res, 6,* 111-123.

Publications of the research group

Granbom M, Iwarsson S, Kylberg M, Pettersson C, & Slaug B (2016). A public health perspective to environmental barriers and accessibility problems for senior citizens living in ordinary housing. *BMC Public Health, 16, 772, 11 pages*.

Harnett T, Jönson H, & Taghizadeh Larsson A (in press). Rethinking the concept of successful aging: A disability studies approach. In: Aubrecht, K., Kelly, C., & Rice, C. (Eds.), *Aging/Disability Nexus* Toronto: UBS Press.

Iwarsson S & Ståhl A (2003). Accessibility, usability and universal design – positioning and definition of concepts describing person-environment relationships. *Disability and Rehabilitation, 25, (2), 57-66*

Iwarsson S, Haak M & Slaug B (2012). Current developments of the Housing Enabler methodology. *British Journal of Occupational Therapy, 75, (11), 517-521*.

Jensen G, Iwarsson S & Ståhl A (2002). Theoretical understanding and methodological challenges in accessibility assessments focusing the environmental component: An example from travel chains in urban public bus transport. *Disability and Rehabilitation, 24*, (5), 231-242.

Kylberg M, Haak M & Iwarsson S (2018). Research with and about user participation: potentials and challenges. *Aging Clinical and Experimental Research, 30, (1), 105-108*.

Norin L, Iwarsson S, Haak M & Slaug B (2018). The Housing Enabler instrument: assessing threats to reliability and validity. *British Journal of Occupational Therapy, published online 25 June 2018*.

Slaug B, Schilling O, Iwarsson S & Carlsson G (2011). Defining profiles of functional limitations in groups of older persons: How and why? *Journal of Aging and Health, 23, (3), 578-604*.

Slaug B, Iwarsson S, Alegre Ayala J & Nilsson MH (2017). Housing accessibility problems for people with Parkinson's disease. *Acta Neurologica Scandinavica, 136, 501-510*.

Wahl H-W, Fänge A, Oswald F, Gitlin L & Iwarsson S (2009). The home environment and disability-related outcomes in aging individuals: What is the empirical evidence? *Gerontologist 49, (3), 355-367*.

Gender distribution of the research group*

We comply with the gender equality and diversity policies of LU. The gender distribution of the research team is three women (43%) and four men (57%). In the recruitment of a new PhD student, assessments based on competence will form the basis. Strategic personnel planning with active gender equality targets applies to all recruitment processes in the research environment, considering the overall gender distribution of CASE rather than the constellations of researchers of specific project teams.

Attached images

User-driven Housing for Older People

Centre for Ageing and Supportive Environments (CASE), Lund University, Sweden

Background

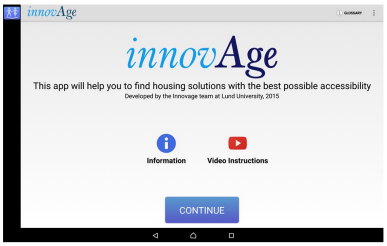
The ageing population is a grand global challenge. As more and more people are living longer periods of their lives with functional limitations there are increasing demands for accessible housing that supports active and healthy ageing. The work package User-driven Housing for Older People was part of the EU-financed project INNOVAGE, which aimed to generate innovative approaches for improved quality of life and well-being as people age, and ultimately to extend the healthy life years.

Aim

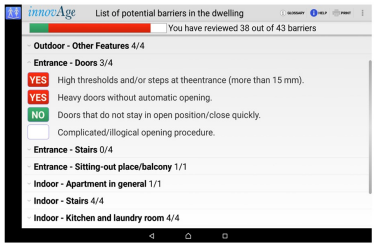
To develop, demonstrate and evaluate a novel computerized tool that support senior citizens to compare and evaluate housing options with regard to accessibility issues. The tool should raise awareness on appropriate housing in old age, and empower senior citizens to become more actively involved in decision-making in the context of housing provision.

The methodological platform was Housing Enabler, a research-based methodology for person-environment fit assessment and analysis of housing accessibility problems.

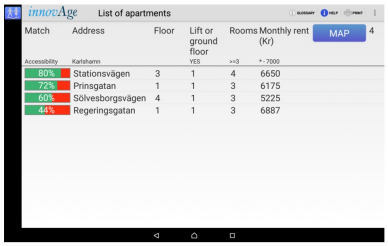
The INNOVAGE Housing app supports decision-making with regard to housing accessibility issues



Detect, evaluate and provide information on environmental barriers that induce accessibility problems



Suggest or recommend possible actions to address accessibility problems in current dwelling



Find the best match among available apartments with regard to the user's functional abilities

Method

The ICT tool has been developed and tested for use in cooperation with senior citizens:

- Senior citizens and professionals from the housing sector in Sweden, Germany, Latvia and Italy were engaged in research circles
- Data on environmental barriers were collected in more than 400 apartments in Sweden and Latvia
- A prototype Android was iteratively developed
- The prototype was usability tested by 30 senior citizens in Sweden and Latvia

Results

A well-accepted and fully functional prototype of an app optimized for use on 10" surf tablets is successfully developed and tested. Based on the user's self-assessments about functional abilities and valid databases on environmental barriers in available apartments, the app can:

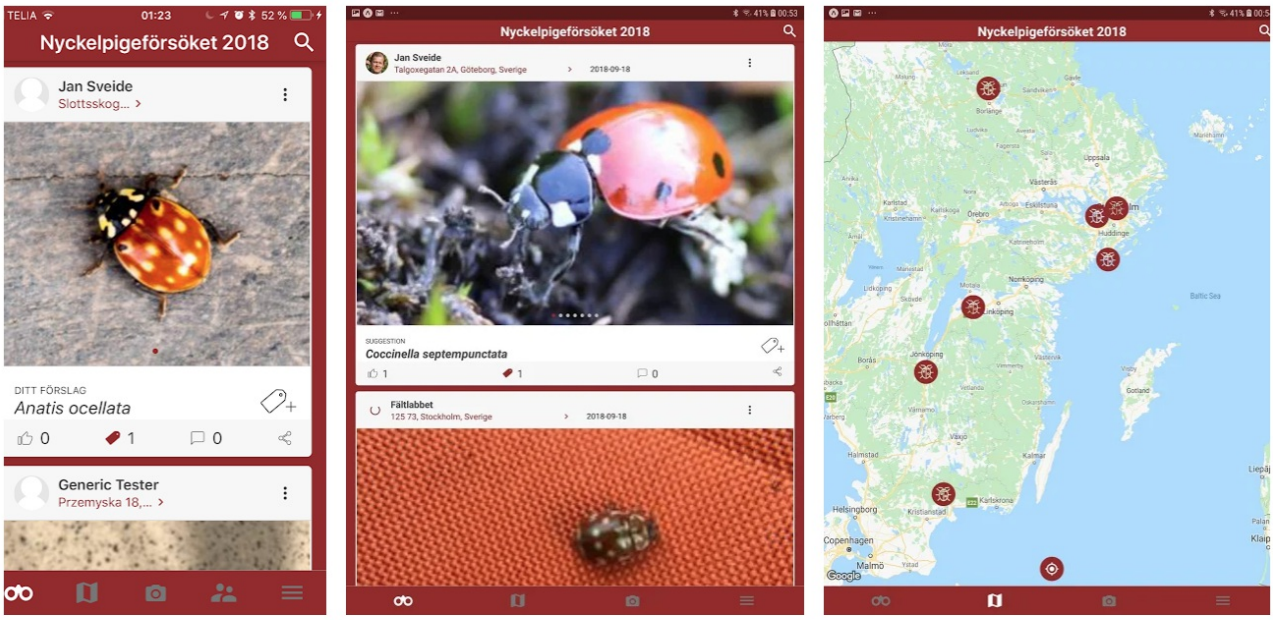
- enable the user to make more informed decisions about their current and/or future housing
- support users' decision-making to find housing solutions with the best possible accessibility in relation to their current and/or projected future functional abilities

Conclusion

The app is useful in terms of raising awareness on appropriate housing solutions. Ultimately, the app can influence housing policies and housing provision practices across Europe to better serve the needs of people with functional limitations.

Contact: Oskar Jonsson, Post Doc, PhD in Industrial Design, Telephone: +46 46 222 19 96, Email: oskar.jonsson@med.lu.se
CASE, Department of Health Sciences, Lund University, P.O. Box 157, SE-221 00 LUND, SWEDEN, www.med.lu.se/case

Figure 1. Overview of the development of our app for accessibility audits, from the InnovAge project



Footnote. These screenshots illustrate the type of smartphone interface used to guide participants for the data collection in a mass-experiment, as prepared by Vetenskap & Allmänhet (VA). In this example, the task was to collect detailed data on ladybirds, all over Sweden.

Figure 2. Citizen Science and Mass experiments illustrations

	Project Month																																	
Work Packages (WP) & Tasks (T)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
WP1. Qualitative interviews and observations																																				
T1: Preparation																																				
T2: Implementation																																				
T3: Data handling and analyses																																				
WP2. Critical Incidents study																																				
T1: Preparation																																				
T2: Implementation																																				
T3: Data analysis																																				
WP3. Mass-experiment																																				
T1: Preparation																																				
T2: Implementation																																				
T3: Data analysis and iterative feedback process																																				
WP 4. Synthesis of findings																																				
WP 5. Cross cutting activities																																				
T1: Ethics																																				
T2: Management & communication																																				
T3: PhD student and thesis	Recruitment																																			

Figure 3. Gantt Chart - Project timeline

Relevance

Relevance in relation to societal needs and Forte's area of responsibility*

This project resonates with Forte's vision of a more equal, inclusive and sustainable society, and represents research focusing on how society must be adapted to people ageing with disabilities rather than the other way round. It relates to the United Nation's CRPD as well as Sustainable Development Goals, in particular those of good health and well-being (#3), reduced inequalities (#10) and sustainable cities and communities (#11). The project represents original and novel needs-driven inter- and transdisciplinary research with potential to influence policy and practices in key areas. Collaboration and participation in research is an integrated ambition, and the project will contribute to the development of forms for more effective use of results through active communication and collaboration (see Forte 2015).

In contrast to policies that frame older people as a threat to the common welfare, actions to support healthy ageing are investments for the future (WHO 2015). Our vision is a society realizing participation and active citizenship of people facing more challenges as they age than the general population does, specifically targeting people with different manifestations of disability. Our interest of person-environment interplay resonates with research gaps, as well as laws, policy recommendations and ethical codes that govern and play out in housing provision and health care/social services practices. We will address housing policy at different levels, concentrated to the perspectives of people ageing with disability, public housing providers, and non-profit organisations. Addressing the influence and possibilities of people ageing with disability, including specific sub-groups that might be vulnerable due to age, gender or neighbourhood to affect housing policies, their own housing situation and the development of residential areas, the societal relevance of our project is high. Furthermore, the synthesised findings will serve to identify success factors for societal conclusion of people ageing with disability.

Promoting societal benefit and impact we are applying a broad definition of users (Kylberg et al. 2017; WHO 2012). While we address "service users" as well as "knowledge users", the latter are at the core. Users of the knowledge produced by our project are people ageing with disabilities, housing industry professionals, public agency, policymaker, interest organization and media representatives, as well as health care and social services professionals. This diversity of users (or, stakeholders) interacts with researchers from different disciplines in transdisciplinary co-creation of new knowledge. Noteworthy for our project, social sustainability and stakeholder involvement is an increasingly important topic for property developers (Martinez & Olander 2015), but research and application fields are not integrated. Throughout all the studies planned, project partners representing different categories of users will be actively involved. Noteworthy, we developed the RQ and project plan based on active involvement of senior citizens, including people ageing with disability, and non-academic project partners, speaking to relevance as addressed by Forte in the present call.

Evaluating processes that are subjective and socially constructed is complex, but Barber et al. (2012) found it feasible to evaluate the impact of public involvement in the identification and prioritisation of research topics, communication of results and on key stakeholders. Municipalities and county councils, non-profit organisations, housing market planning and industry actors, as well as policymakers and senior citizens – in particular people ageing with disability – will benefit from our findings. As we will identify the most relevant, significant facets of the new knowledge produced, and the changes we are aiming for based on the evolving findings, we do not formulate impact goals beforehand. Nevertheless giving examples, we foresee that the results from Study 2 will have an impact on the awareness of public housing providers and the health care and social services sector regarding people ageing with disabilities that risk to "fall between the chairs" when it comes to responsibilities. In turn, this might affect legislation. We expect that Study 3 will affect senior citizens' and housing providers' awareness of accessibility problems in the housing stock, ultimately demonstrating impact in, for example, real estate agents' advertisements of apartments for sale. Maybe our project will inspire real estate agents to add an "accessibility classification", congruent with the widely used "energy classification" in their advertisements? Towards the end of the project period we will assess and evaluate research impact, engaging an expert consultant (J. Goodwin, AGE UK, United Kingdom) making use of the case study format and experiences from the REF 2014 (see Iwarsson et al. 2018; Manville et al. 2015).

Public engagement*

Addressing ageing with disability and housing by research, understanding how to make use of evidence to develop the inter/national policy agenda targeting such issues at the individual, group and population levels is essential. The knowledge derived may be of limited value unless put into practice. The need to ensure that research into ageing with disability and housing is effectively translated to policy and practice is immediate and increasing. Various types of evidence help public authorities, non-governmental organisations, senior citizens and researchers improve policies and practices, especially where they put people ageing with disability at the heart of the process of research and development.

Our efforts will target different levels and groups in society, that is, senior citizens, people ageing with disability and their organisations, housing providers, real estate agents, policymakers and media. The ultimate goal is to impact on the housing situation of people ageing with disability, thus supporting participation and active citizenship for those experiencing challenges related to diverse manifestations of disability.

The research team behind the present proposal has a strong record of research with user participation (Kylberg et al. 2015, 2018). Of particular importance is the CASE & UserAge Board of Users, established in 2010 and since then actively involved in our research activities. Making active use of UserAge (PI: Iwarsson), which is an ongoing 6-year research program (financed by Forte) devoted to user involvement in research, an integrated communication and knowledge translation strategy underpins our project. In a mutual learning process involving researchers and users in parallel with empirical projects, taking current and evolving theory into account, UserAge researchers are establishing an iterative research activity including communication. Including the efforts of a communication officer employed at CASE, these activities will directly benefit our project.

With a specific aim to generate new knowledge together with core interest parties already in the preparation of this proposal and throughout, efficient interaction with interest parties will take place. In the present project, VA, KaBo, miThings AB, PRO Skåne, SPF Seniorerna in Skåne and Helsingborg municipality are confirmed partners, and contacts preparing for confirmed partnerships with patient's and disability rights' organisations have been established. Importantly, our non-academic partners aspire to make use of their research involvement in branding and marketing activities. Accordingly, there is a high likelihood that the research results will be used in non-academic contexts.

In the mass-experiment (Study 3), the collaboration with users will be very pronounced. VA was founded in 2002 and is a non-profit membership organisation working to promote dialogue and openness between researchers and the public. VA's members consist of some 80 organisations, representing a broad range of societal actors, including authorities, universities, companies and associations. Since 2009, VA has practised citizen science as a facilitator and coordinator. Making use of their vast experiences of large-scale citizen science endeavours, collaboration and communication with senior citizens - with people ageing with disability at the core - will be ground-breaking for research with the potential to nurture the implementation of the CRPD in the context of housing. For example, using social media before and during the mass-experiment, communication experts at VA will encourage and facilitate direct dialogue among the actors. This reduces the risk for misunderstandings and delays, as questions and ambiguities can be sorted out immediately. Participants will report their results to an interactive database, where they will be able to explore and discuss the findings with other participants. Results can be filtered according to geographic region, types of housing, and accessibility scores. This will increase participants motivations to take part in the project, promote awareness of the societal challenge among participants and in wider society, and provide researchers with valuable insights as to how the experiment and its results are experienced and interpreted by the participants. During and after the data analysis phase, we will provide feedback and collect participant input to the emerging results by means of online communication, video clips, popular science reports, workshops and public seminars.

Impact and communication of research results*

Communication, knowledge translation (KT) (WHO 2012) and utilisation of research are important for senior citizens, including people ageing with disability, voluntary sectors, industry and society. Research must make sense and act as a basis to advocate for better policies and practices.

Our communication activities cover scientific, societal, policy and practical aspects with the goal of acquiring the highest possible visibility and utilisation of research results. The primary channel for scientific publishing is original papers in international peer-reviewed journals, primarily those using Open Access (OA). For journals not using OA, parallel publishing as organised by LU applies. We will also contribute with books/book chapters, targeting the inter/national scientific community. The PhD student project will be presented in a doctoral dissertation based on four original publications. Another important channel for scientific communication is participation at inter/national conferences, strategically selected to communicate our findings to the diversity of disciplines that would benefit from the scientific outcomes of the program.

KT has a comprehensive scope and denotes the synthesis, exchange and application of knowledge by relevant users to accelerate the advantages of global and local innovation (Pablos-Mendez & Shademani 2006). As the impact of KT is underestimated and communication opportunities are often not maximized (Bauer & Bucchi 2007), we are continuously considering aspects related to communication engaging users with different backgrounds and interests. These include the information to be conveyed/shared, communication channels used, contexts where communication takes place, and the characteristics of target groups (Fishbein & Cappella 2006). Here as in other facets of our project, CASE & UserAge Board of Users is important and constantly contributes with critical as well as enthusiastic input to the communication and KT initiatives and activities.

The public relations officer employed for CASE will be actively involved in the research and responsible for the communication strategy. We carefully tailor communication approaches to match type of message and target group, using a combination of channels and methods. For example, involving senior citizens and older people with disabilities, staff in public housing, or media require varying modes of communication. We use traditional and novel forms of news media to reach different target groups (see e.g., Iwarsson 2016; Accessibility Arena Almedalen 2016). The results from our project will be communicated at user-oriented conferences, where workshops and lectures will be organized together with relevant industry, VA and patients', disability rights' as well as senior citizens' organizations. With LU having access to "The Conversation" online communication platform, we will continuously translate and publish results to appeal to the international policymaking and public audiences. In order to reach broader categories of users such as older people ageing with disability directly concerned themselves about housing issues, we will participate in public exhibitions and popular fairs.

VA has extensive experience and expertise in arranging events and activities aimed at stimulating dialogue between researchers and the public in new ways and in novel arenas, which will be used to create awareness and engagement for our project. VA is the Swedish national coordinator for European Researchers' Night, the annual European science festival. As part of this, VA runs the Researchers' Grand Prix, which is a science communication competition for researchers. Another example is the aforementioned mass experiments in schools that engage pupils across Sweden in real research. Activities also include science cafés and media seminars for scientists. VA has a strong digital presence with a number of established websites and a bi-monthly newsletter with 2,700 subscribers. The organisation engages actively in social media, with over 7,000 followers on Twitter, several Facebook communities and a YouTube channel. Through the organisation's long-term strategic media work, VA's projects – in particular the mass experiments – are covered in national Swedish news media on a regular basis.

Summing up on this, considering the societal relevance and novelty of this transdisciplinary project we are confident that it will achieve widespread coverage in local, national and international media. The project will generate new knowledge, which will nurture development and innovation at the crossroads of housing and related health care and social services. With non-academic partners and users involved through the research process, the likelihood of success in terms of utilisation and impact is high.

Budget

Running costs and salaries including social fees

	Running Cost	Description	2019	2020	2021	2022	Total
1	Salaries	Salary for staff working on project	836,650	1,125,471	1,073,058	263,621	3,298,800
2	Ethical permits	Application fees for applications to the ethical review board	15,000	0	0	0	15,000
3	User Involvement	Local travel and honoraria for users involve across all studies	7,500	10,000	10,000	2,500	30,000
4	WP1: data collection	Local travel and fees for translators during interviews	7,500	10,000	2,500	0	20,000
5	WP1: transcription	Transcription cost for interviews	4,000	20,000	6,000	0	30,000
6	WP2: workshops and data collection	Local/regional travel and meeting costs related to planning, data collection, and data analyses	15,000	35,000	10,000	0	60,000
7	WP3: database and website	Development and maintenance of interactive database and website	70,000	95,000	25,000	0	190,000
8	WP3: user friendly app	Upgrading app with user-friendly interface with users	60,000	75,000	15,000	0	150,000
9	WP3: travel	Travel in Sweden for instructor course	10,000	10,000	0	0	20,000
10	WP3: Instructional video	Production costs for instrutional video and manual	60,000	20,000	0	0	80,000
11	WP4: travel and workshops	Local and national travel and meeting costs for workshops and popular science presentations	0	20,000	55,000	20,000	95,000
12	Rent	Office space for staff working on project	50,000	70,000	70,000	20,000	210,000
Total			1,135,650	1,490,471	1,266,558	306,121	4,198,800

Total budget

	Specified costs	2019	2020	2021	2022	Total, applied
1	Running costs	1,135,650	1,490,471	1,266,558	306,121	4,198,800
2	Subtotal	1,135,650	1,490,471	1,266,558	306,121	4,198,800
3	Indirect costs	216,080	284,594	240,612	56,474	797,760
4	Total project cost	1,351,730	1,775,065	1,507,170	362,595	4,996,560

	Other costs	Total cost
1		4,198,800
2	0	4,198,800
3		797,760
4	0	4,996,560

Full time monthly salary excluding social fees

Project participators

1

First Name Susanne
Last Name Iwarsson
Academic Title Professor
Working address Lunds universitet - 314500 Inst för Hälsovetenskaper
Year Of Birth 1958
PhD Year 1997
Gender Female
Academic Discipline 30302. Public Health, Global Health, Social Medicine and Epidemiology

2

First Name Steven
Last Name Schmidt
Academic Title Associate professor
Working address Lunds universitet -
Year Of Birth 1967
PhD Year 2005
Gender Male
Academic Discipline 50102. Applied Psychology incl. Clinical Psychology, Psychotherapy

3

First Name Agneta
Last Name Malmgren Fänge
Academic Title Associate professor
Working address Lunds universitet - Hälsovetenskaper 314500
Year Of Birth 1958
PhD Year 2004
Gender Female
Academic Discipline 30306. Occupational Therapy

4

First Name Björn
Last Name Slaug
Academic Title Doctor
Working address Lunds universitet - Hälsovetenskaper 314500
Year Of Birth 1964
PhD Year 2012
Gender Male
Academic Discipline 30302. Public Health, Global Health, Social Medicine and Epidemiology

5

First Name Stefan
Last Name Olander
Academic Title Associate professor
Working address Lunds universitet - Bygg- och Miljöteknologi 107440
Year Of Birth 1971
PhD Year 2006
Gender Male
Academic Discipline 20102. Construction Management

6

First Name Håkan
Last Name Jönson
Academic Title Professor
Working address Lunds universitet - Socialhögskolan 253191
Year Of Birth 1964
PhD Year 2001
Gender Male
Academic Discipline 50402. Social Work

7

First Name Marianne
Last Name Granbom
Academic Title Doctor
Working address Lunds universitet - 314511 Aktivt Hälsosamt Åldarande Iwarsson
Year Of Birth 1975
PhD Year 2014
Gender Female
Academic Discipline 30306. Occupational Therapy

8

First Name Per-Olof
Last Name Hedvall
Academic Title Associate professor
Working address Lunds universitet - 107602 Certec

Year Of Birth 1970
PhD Year 2009
Gender Male
Academic Discipline 20199. Other Civil Engineering

	Project participators	Projectsalary(1)	Months salary (2)	2019 (3)	2020 (3)	2021 (3)	2022 (3)
1	Susanne Iwarsson	No		10%	10%	10%	10%
2	Steven Schmidt	Yes	47,100	3%	3%	3%	3%
3	Agneta Malmgren Fänge	No		10%	10%	10%	5%
4	Björn Slaug	Yes	42,700	20%	20%	22%	25%
5	Stefan Olander	No		5%	5%	10%	5%
6	Håkan Jönson	No		5%	5%	10%	5%
7	Marianne Granbom	Yes	41,900	40%	40%	40%	40%
8	Per-Olof Hedvall	No		5%	5%	10%	5%

1 - Salary of the project (check box)
2 - Monthly Salary Excl Soc Fees
3 - During each year to supply the approximate workload in the project as a percentage of full-time.
The effort should be given even for people who shall not be paid from the project

Salary costs excluding social fees for other personell

	Role in the project	Name, function	Salary in the project (1)	Salary recalculated to monthly salary (2)
1	Supporting the communication strategy	Erik Skogh, communication officer	Yes	37,400
2	Working in studies 1-2	To be recruited, PhD student	Yes	28,100
3	Coordination of mass experiment study 3	To be determined, Vetenskap & Allmänhet staff	Yes	45,000

	2019 (3)	2020 (3)	2021 (3)	2022 (3)
1	2%	2%	2%	2%
2	100%	100%	100%	100%
3	15%	15%	5%	

1 - Mark with an X if the person will be paid through the project.
2 - State salary/estimated salary recalculated to monthly salary for full-time work excluding social fees, for personell that will be paid through the project.
3 - State the approximate work contribution in the project in percentage, full-time per year.
Workload should also be stated for personnel not being paid by the project.

Other funding for this project

Funder	Applicant/project leader	Type of grant	Status	Reg no or equiv.
2019	2020	2021	2022	
No information added				

PDF attachment publications (optional)

No file has been uppload ed

CV

CV - Susanne Iwarsson

Name: Susanne Iwarsson
Birthdate: 19580328
Gender: Female
Country: Sweden

Doctorial degree: 1997-03-20
Academic title: Professor
Employer: Lunds universitet

Doctors degree

Examination	Organisation	Dissertation title (original language)	Supervisor
30302. Public Health, Global Health, Social Medicine and Epidemiology, 1997-03-20	Lund University		Åke Isacsson

Educational history

Research education

Examination	Organisation	Dissertation title	Name of supervisor
PhD degree, 30302. Public Health, Global Health, Social Medicine and Epidemiology, 1997-03-20	Lund University, Sweden	Functional capacity and physical environmental demand	Åke Isacsson

Basic education

Year	Examination
1999	30306. Occupational Therapy, Degree of Bachelor of Science in Occupational Therapy, Lund University, Sweden
1996	30306. Occupational Therapy, Degree of Master, Lund University, Sweden

Professional history

Employments

Period	Position	Part of research in employment	Employer
april 2005 - Present	Professor	100	Lund University, Sweden, 314500 Inst för Hälsovetenskaper
december 2003 - april 2005	Professor	60	Lund University
januari 1999 - december 2003	Senior lecturer	50	Lund University

Merits and awards

Docentur

Year	Subject	Organisation
1999	30306. Occupational Therapy	Lund University, Sweden, 314500 Inst för Hälsovetenskaper

Supervised persons

Year	Supervised persons	Role
2017	PhD student, Sophie Jörgensen (PhD student), Lund University, Sweden, Hälsovetenskaper 314500	Secondary supervisor
2015	Postdoc, Charlotte Löfqvist (Postdoc), Lund University, Sweden, 314511 Aktivt Hälsosamt Åldarande Iwarsson	Main supervisor
2014	PhD student, Marianne Granbom (PhD student), Lund University, Sweden, 314511 Aktivt Hälsosamt Åldarande Iwarsson	Main supervisor
2014	PhD student, Cecilia Pettersson (PhD student), Lund University, Sweden, 314511 Aktivt Hälsosamt Åldarande Iwarsson	Main supervisor
2014	Postdoc, Merja Rantakokko (Postdoc), Lund University, Sweden, 314511 Aktivt Hälsosamt Åldarande Iwarsson	Main supervisor
2014	Postdoc, Signe Tomsone (Postdoc), Lund University, Sweden, 314511 Aktivt Hälsosamt Åldarande Iwarsson	Main supervisor
2012	Postdoc, Maria H Nilsson (Postdoc), Lund University, Sweden, 314511 Aktivt Hälsosamt Åldarande Iwarsson	Main supervisor
2006	PhD student, Maria Haak (PhD student), Lund University, Sweden, 314511 Aktivt Hälsosamt Åldarande Iwarsson	Main supervisor
2005	PhD student, Åse Brandt (PhD student), Lund University, Sweden, 314511 Aktivt Hälsosamt Åldarande Iwarsson	Main supervisor
2004	PhD student, Agneta Malmgren Fänge (PhD student), Lund University, Sweden, 314511 Aktivt Hälsosamt Åldarande Iwarsson	Main supervisor

Research grants awarded in competition

Period	Funder	Project leader	Your role	Total amount (SEK)
2018 - 2020	Formas, Sweden - Other financing agencies and organisations	Susanne Iwarsson	Applicant	2 999 814
2017 - 2019	Forte, Sweden - Other financing agencies and organisations	Susanne Iwarsson	Applicant	9 000 000
2017 - 2020	Forte, Sweden - Other financing agencies and organisations	Susanne Iwarsson	Applicant	5 900 000
2014 - 2020	VR - The Swedish Research Council, Sweden - Other financing agencies and organisations	*Susanne Iwarsson, summary of two individual grants	Applicant	25 000 000
2007 - 2016	Forte, Sweden - Other financing agencies and organisations	Susanne Iwarsson	Applicant	50 000 000

Awards and distinctions

Year	Name of award/distinction	Issuer
2018	Editor (health sciences/public health), European Journal of Ageing	Springer
2014	Honorary doctor at Riga Stradins University, Latvia	

Year	Name of award/distinction	Issuer
2010	Fellow, BSS Section, Gerontological Society of America	

Other merits

Period	Type of merit	Description
2019 - 2019	Member of Scientific Committee	Member of the Scientific Committee for the IAGG conference in Gothenburg, Sweden, 2019
2011 - 2018	Bibliometric summary	211 (98 past 5 years) original, peer-reviewed papers in international journals; 149 (41 past 5 years) other publications, 344 (110 past 5 years) national/international peer-reviewed conference contributions. H-index = 49 (All) and = 35 (past 5 years); 8,785 citations with 5,257 citations in past 5 years (retrieved from Google Scholar 8 Nov 2018, to reflect the interdisciplinary research profile).
2017 - 2017	Keynote speaker	Keynote speaker at the IAGG conference in San Francisco 2017

Intellectual property

Intellectual property

Type	Product classification
http://www.innovage.group.shef.ac.uk/wp2-interactive-ict-prototype.html	63. Information services

CV - Marianne Granbom

Name: Marianne Granbom
Birthdate: 19750928
Gender: Female
Country: Sweden
Doctorial degree: 2014-12-12
Academic title: Doctor
Employer: Lunds universitet

Educational history

Research education

Examination	Organisation	Dissertation title	Name of supervisor
PhD degree, 30306. Occupational Therapy, 2014-12-12	Lund University, Sweden, 314511 Aktivt Hälsosamt Åldarande Iwarsson	Relocation and residential reasoning in very old age - housing, health and everyday life	Susanne Iwarsson

Basic education

Year	Examination
2005	30306. Occupational Therapy, Degree of Master, Linköping University, Sweden
1999	30306. Occupational Therapy, Degree of Bachelor of Science in Occupational Therapy, Linköping University, Sweden

Professional history

Employments

Period	Position	Part of research in employment	Employer	Other information
augusti 2016 - juli 2019 (Present)	Postdoctoral fellow, Project employment	100	Lund University, Sweden, 314511 Aktivt Hälsosamt Åldarande Iwarsson	On leave 2016-2018 for postdoc at Johns Hopkins University, Baltimore, MD. US
januari 2015 - juli 2016	Assistant professor, Temporary position	40	Lund University, Sweden, 314527 Delaktighet Åldrande Malmgren Fänge	50-35% research
november 2009 - december 2014	PhD student, Project employment	100	Lund University, Sweden, 314511 Aktivt Hälsosamt Åldarande Iwarsson	

Post doctoral assignments

Period	Organisation	Subject
augusti 2016 - juli 2018	Johns Hopkins University, USA, Center for Innovative Care in Aging	30306. Occupational Therapy

Merits and awards

Supervised persons

Supervised persons	Role	Number
Student	Main supervisor	12

Research grants awarded in competition

Period	Funder	Project leader	Your role	Total amount (SEK)
2016 - 2018	Formas, Sweden - Other financing agencies and organisations	Marianne Granbom	Applicant	3 221 384
2016 - 2017	Sweden - Oterh private actors,	Marianne Granbom	Applicant	200 000
2016 - 2017	Sweden - Oterh private actors,	Marianne Granbom	Applicant	50 000
2016 - 2017	Sweden - Higher education institutions,	Marianne Granbom	Applicant	75 000
2016 - 2017	Sweden - Higher education institutions,	Marianne Granbom	Applicant	50 000

Awards and distinctions

Year	Name of award/distinction	Issuer
2017	Summer Research Institute	Johns Hopkins University
2012	Elected in competition to participate in International Summer School In Ageing, Ancona, Italy.	

Other merits

Period	Type of merit	Description
2012 - 2018	Bibliometric summary	11 original, peer-reviewed papers in international journals; 4 other publications; 17 national/international peer-reviewed conference contributions; 9 invited speaker contributions; 13 media contributions (e.g. news articles, Swedish Public Radio, Swedish Public Television). 1 paper with decision to revise and resubmit, 1 submitted and 3 in manuscript. 168 citations with 167 in past 5 years). H-index = 6 (according to Google Scholar).
2016 - 2018	P.I. experience	PI in two on-going empirical studies.1) Residential reasoning of low-income older adults. It is a U.S. - Swedish cross-cultural comparative study on housing preferences and possibilities to age in place. Qualitative longitudinal study. U.S. data analysis completed. Collaborators: Ph.D. candidates L. Roberts and M. Nkimbengh and professor Sarah Szanton. 2017-2019. Funded by FORMAS international mobility grant and the Crafoord foundation 2) Aging in (the Right) Place. A design and development study of a housing counseling tool for older adults in Sweden. In collaboration with Östersund kommun. Study team members: Dr M. Zingmark and U. Paulsson, Östersunds kommun. International collaborators are Professors Sarah Szanton and Laura Gitlin at Johns Hopkins University. Web-based prototype to be tested in December 2018. Funded by FORMAS international mobility grant, Helge Axson Johnsons stiftelse, Östersund Municipality and Lund University.

CV - Per-Olof Hedvall

Name: Per-Olof Hedvall
Birthdate: 19700123
Gender: Male
Country: Sweden
Doctorial degree: 2009-12-04
Academic title: Associate professor
Employer: Lunds universitet

Educational history

Research education

Examination	Organisation	Dissertation title	Name of supervisor
PhD degree, 20199. Other Civil Engineering, 2009-12-04	Lund University, Sweden, Designvetenskaper 107340	The Activity Diamond – Modeling an Enhanced Accessibility	Bodil Jönsson
Licentiate degree, 20199. Other Civil Engineering, 2007-10-17	Lund University, Sweden, Designvetenskaper 107340	Situated Design for All	Bodil Jönsson

Basic education

Year	Examination
2005	50101. Psychology (excl. Applied Psychology), 1-30 hp, Kristianstad University, Sweden
2002	50301. Pedagogy incl. Special Needs- and other orientations of Pedagogy, 1-90 hp, Kristianstad University, Sweden
1992	20206. Computer Systems, Degree of Bachelor of Science in Engineering, Kristianstad University, Sweden

Professional history

Employments

Period	Position	Part of research in employment	Employer
oktober 2014 - Present	Senior lecturer, Permanent employment	80	Lund University, Sweden, 107602 Certec
juli 1992 - Present	Other	0	Furuboda Association, Sweden, KompetensCenter
januari 2018 - december 2019	Gästforskare, Project employment	5	Mittuniversitetet, Sweden, Design (DES)

Research exchange assignments

Period	Type	Organisation	Subject
januari 2018 - januari 2020	Guest researcher	Mittuniversitetet, Sweden, Design (DES)	20199. Other Civil Engineering

Merits and awards

Docentur

Year	Subject	Organisation
2017	201. Civil Engineering	Lund University, Sweden, Designvetenskaper 107340

Supervised persons

Year	Supervised persons	Role
2016	PhD student, Susanne Frennert, Lund University, Sweden, Designvetenskaper 107340	Secondary supervisor
2015	PhD student, Henrik Svarrer Larsen, Lund University, Sweden, Designvetenskaper 107340	Main supervisor

Research grants awarded in competition

Period	Funder	Project leader	Your role	Sub amount (SEK)	Total amount (SEK)
2018 - 2018	VINNOVA - Verket för innovationssystem, Sweden - Other financing agencies and organisations	Håkan Eftring	Co-applicant	0	581 194
2018 - 2022	Allmänna Arvsfonden, Sweden - Other governmental funding	Funktionsrätt Sverige	Co-applicant	1 300 000	8 700 000
2016 - 2017	Sweden - Higher education institutions,	Cecilia Winberg	Co-applicant	70 000	1 100 000
2016 - 2020	European Union (EU),	Charlotte Magnusson	Co-applicant	4 500 000	45 000 000
2010 - 2013	Allmänna Arvsfonden, Sweden - Other governmental funding	Per-Olof Hedvall	Applicant	0	6 700 000

Awards and distinctions

Year	Name of award/distinction	Issuer
2006	Årets guldkorn 2016, Kategori: funktionshinder	Allmänna Arvsfonden / The National Inheritance Fund

Other merits

Period	Type of merit	Description
2018 - 2019	Scientific Expert: "Översyn av styrningen inom funktionshinderspolitiken" (Dir. 2017:133)	Scientific expert on Universal Design, assigned by the Swedish Government to take part in Dir. 2017:133 "Översyn av styrningen inom funktionshinderspolitiken" ("Review of governance in disability policy", my translation).
2012 - 2017	Bibliographic summary	Total number of publications since 2006: 43 Number of publications of different types during the last five years (2013-2018): - Peer-reviewed contributions in journals and in proceedings with DOI: 13 - Peer-reviewed conference contributions: 10 - Book chapters: 4 - Books and other monographs: 2 - Editor Conference Proceedings: 1 - Popular science contributions: 3 Citations 2013-2018: 118; H-index: 5 (Data from Google Scholar 2018-11-12)
2012 - 2015	Scientific Expert: Regeringens Användningsforum.	Member of The Swedish Government's Forum for Usability and Accessibility in ICT (Användningsforum) "The forum's main task was to have a continuous dialogue concerning accessibility and usability as a quality indicator of ICT. It gathered experts from civil society, the private and public sector as well as scientists and researchers. Apart from president Erik Borälv, Användningsforum consisted of 24 experts and was supported by a secretariat. Användningsforum reported to the ministry of Enterprise and Innovation and the minister responsible for information technology." (from http://www.anvandningsforum.se/about-anvandningsforum/)

CV - Håkan Jönson

Name: Håkan Jönson
Birthdate: 19640508
Gender: Male
Country: Sweden
Doctorial degree: 2001-04-06
Academic title: Professor
Employer: Lunds universitet

Educational history

Research education

Examination	Organisation	Dissertation title	Name of supervisor
PhD degree, 50402. Social Work, 2001-04-06	Lund University, Sweden, Socialhögskolan 253191	Modern ageing: Images of older people presented by Swedish pensioners' organizations 1941-1995	Rosmari Eliasson-Lappalainen

Basic education

Year	Examination
1991	50402. Social Work, Degree of Master, Stockholm University, Sweden
1986	50402. Social Work, Degree of Bachelor of Science in Social Work, Mittuniversitetet, Sweden

Professional history

Employments

Period	Position	Part of research in employment	Employer
april 2012 - Present	Professor	50	Lund University, Sweden, Socialhögskolan 253191

Post doctoral assignments

Period	Organisation	Subject
mars 2003 - mars 2007	Linköping University, Sweden, Institutionen för samhälls- och välfärdsstudier (ISV)	50901. Social Sciences Interdisciplinary incl. Peace and Conflict Research, Studies on Sustainable Society

Research exchange assignments

Period	Type	Organisation	Subject
januari 2000 - juni 2000	Gästdoktorand	University of Florida, USA, Department of Sociology	50401. Sociology (excl. Social Work, Social Psychology, Social Anthropology)

Interruptions in research

Period	Description
2007-01-01 - 2007-12-31	Föräldraledighet
1999-07-01 - 1999-12-31	Föräldraledighet

Merits and awards

Docentur

Year	Subject	Organisation
2008	50402. Social Work	Lund University, Sweden, Socialhögskolan 253191

Supervised persons

Year	Supervised persons	Role
2017	PhD student, Sara Helmersson	Main supervisor
2012	PhD student, Weddig Runquist, Lund University, Sweden, Socialhögskolan 253191	Secondary supervisor
2009	PhD student, Anna Olaison, Linköping University, Sweden, Institutionen för samhälls- och välfärdsstudier (ISV)	Secondary supervisor
2008	PhD student, Magnus Nilsson, Linköping University, Sweden, Institutionen för samhälls- och välfärdsstudier (ISV)	Secondary supervisor
2007	PhD student, Janicke Andersson, Linköping University, Sweden, Institutionen för samhälls- och välfärdsstudier (ISV)	Secondary supervisor

Research grants awarded in competition

Period	Funder	Project leader	Your role	Sub amount (SEK)	Total amount (SEK)
2018 - 2020	Forte, Sweden - Other financing agencies and organisations	Tove Harnett	Co-applicant	0	4 150 000

Period	Funder	Project leader	Your role	Sub amount (SEK)	Total amount (SEK)
2016 - 2018	Forte, Sweden - Other financing agencies and organisations	Håkan Jönson	Applicant	0	570 000
2014 - 2017	Forte, Sweden - Other financing agencies and organisations	Håkan Jönson	Applicant	0	3 100 000
2010 - 2013	Sweden - Other governmental agencies,	Håkan Jönson	Applicant	0	1 500 000
2003 - 2007	Forte, Sweden - Other financing agencies and organisations	Håkan Jönson	Applicant	0	3 500 000

Awards and distinctions

Year	Name of award/distinction
2002	Oscar II:s stipendium för bästa samhällsvetenskapliga avhandling

Other merits

Period	Type of merit	Description
1995 - 2018	Publications	About 80 publications, 26 peer-reviewed articles, 5 published books (monographies), 4 books as editor, about 35 conference presentations (H-index 13, according to Publish or Perish).

CV - Agneta Malmgren Fänge

Name: Agneta Malmgren Fänge
Birthdate: 19580425
Gender: Female
Country: Sweden
Doctorial degree: 2004-03-19
Academic title: Associate professor
Employer: Lunds universitet

Educational history

Research education

Examination	Organisation	Dissertation title	Name of supervisor
PhD degree, 30306. Occupational Therapy, 2004-03-19	Lund University, Sweden, Hälsovetenskaper 314500	Strategies for Evaluation of Housing Adaptations. Accessibility, Usability and ADL Dependence	Susanne Iwarsson

Basic education

Year	Examination
1999	3. Medical and Health Sciences, Degree of Master, Lund University, Sweden
1982	30306. Occupational Therapy, Degree of Bachelor, Lund University, Sweden

Professional history

Employments

Period	Position	Part of research in employment	Employer
juli 2005 - april 2023 (Present)	Senior lecturer	32	Lund University, Sweden, Hälsovetenskaper 314500
maj 2004 - juni 2005 (Present)	Researcher	30	Lund University, Sweden, Hälsovetenskaper 314500

Merits and awards

Docentur

Year	Subject	Organisation
2009	30306. Occupational Therapy	Lund University, Sweden, Hälsovetenskaper 314500

Supervised persons

Year	Supervised persons	Role
2019	Guest student, Yuki Hayashi	Secondary supervisor
2019	Postdoc, Connie Lethin	Secondary supervisor
2018	Postdoc, Björn Thordardottir	Main supervisor
2017	Postdoc, Lisa Ekstam, Lund University, Sweden	Main supervisor
2016	PhD student, Björg Thordardottir, Lund University, Sweden	Main supervisor

Other merits

Period	Type of merit	Description
2018 - 2020	Steering Committe´ member	Member of the Steering Committé for Centre for Ageing and Supportive Environments, CASE, Lund University, Sweden
2011 - 2018	Universities in Sweden	Faculty opponent at 4 doctoral dissertations
1999 - 2018	Summary of publications	44 original peer-reviewed publications in scientific journals (22 during the last 5 years), 59 conference proceedings (24 over the last 5 years), 7 book chapters 10 international or national reports (4 during the last 5 years).

CV - Stefan Olander

Name: Stefan Olander
Birthdate: 19710129
Gender: Male
Country: Sweden
Doctorial degree: 2006-09-15
Academic title: Associate professor
Employer: Lunds universitet

Educational history

Research education

Examination	Organisation	Dissertation title	Name of supervisor
PhD degree, 20102. Construction Management, 2006-09-15	Lund University, Sweden, Lunds tekniska högskola – LTH	External Stakeholder Analysis in Construction Project Management	Bengt Hansson

Examination	Organisation	Dissertation title	Name of supervisor
Licentiate degree, 20102. Construction Management, 2003-05-15	Lund University, Sweden, Lunds tekniska högskola – LTH	External Stakeholder Management in the Construction Process	Bengt Hansson

Basic education

Year	Examination
1999	20102. Construction Management, Degree of Master of Science in Engineering, Lund University, Sweden

Professional history

Employments

Period	Position	Part of research in employment	Employer
mars 2010 - Present	Senior lecturer, Permanent employment	100	Lund University, Sweden, Bygg- och Miljöteknologi 107440
januari 2007 - mars 2010	Senior lecturer, Temporary employment	100	Lund University, Sweden, Byggvetenskaper 107420
januari 2001 - december 2006	PhD student, Temporary employment	100	Lund University, Sweden, Byggvetenskaper 107420

Merits and awards

Docentur

Year	Subject	Organisation
2010	201. Civil Engineering	Lund University, Sweden, Bygg- och Miljöteknologi 107440

Supervised persons

Year	Supervised persons	Role
2019	PhD student, Agnes Lindell	Main supervisor
2018	PhD student, Carlos Martinez	Main supervisor
2015	PhD student, Simon Siggelsten, Malmö University, Sweden	Main supervisor
2014	PhD student, Fredrik Wikberg, Lund University, Sweden	Main supervisor
2012	Licentiate, Helena Pålsson, Lund University, Sweden	Main supervisor

Research grants awarded in competition

Period	Funder	Project leader	Your role	Sub amount (SEK)	Total amount (SEK)
2016 - 2017	Formas, Sweden - Other financing agencies and organisations	Lars Stehn	Co-applicant	200 000	1 000 000
2013 - 2017	Formas, Sweden - Other financing agencies and organisations	Kristina Mjörnell	Co-applicant	750 000	22 985 000

Period	Funder	Project leader	Your role	Sub amount (SEK)	Total amount (SEK)
2013 - 2017	Formas, Sweden - Other financing agencies and organisations	Anna Kadefors	Co-applicant	1 500 000	24 990 000
2010 - 2013	Sweden - Research and technology organisations,	Stefan Olander	Applicant	0	1 500 000
2003 - 2006	Sweden - Research and technology organisations,	Stefan Olander	Applicant	0	400 000

Other merits

Period	Type of merit
2014 - 2018	Member of the steering committee for research environment SIRen (Sustainable and integrated renovation)
2014 - 2018	Member of the steering committee for research environment ProcSIBE (Procurement for Sustainable Innovation in the Built Environment)
2013 - 2015	Member of the research and innovation committee for Swedish Centre for Innovation and Quality in the Built Environment (IQ Samhällsbyggnad)

CV - Steven Schmidt

Name: Steven Schmidt
Birthdate: 19670414
Gender: Male
Country: Sweden
Doctorial degree: 2005-07-13
Academic title: Associate professor
Employer: Lunds universitet

Educational history

Research education

Examination	Organisation	Dissertation title	Name of supervisor
PhD degree, 50102. Applied Psychology incl. Clinical Psychology, Psychotherapy, 2005-07-13	University of Alabama at Birmingham, USA, Medical Psychology Program	Assessment & Impact of Pain Symptoms among Medicare Beneficiaries: Implications for Policy Makers, Managed Care, & Primary Care	Joshua Klapow

Basic education

Year	Examination
2002	50102. Applied Psychology incl. Clinical Psychology, Psychotherapy, Degree of Master, University of Alabama at Birmingham, USA
1999	50101. Psychology (excl. Applied Psychology), Degree of Bachelor, San Diego State University, USA

Professional history

Employments

Period	Position	Part of research in employment	Employer
mars 2011 - Present	Scientific Coordinator-most recent of multiple positions, Permanent employment	35	Lund University
januari 2009 - oktober 2010	Behavioral Scientist, Permanent employment	20	Centers for Disease Control and Prevention, USA, Division for Heart Disease and Stroke Prevention
juli 2003 - oktober 2008	Clinic manager / Clinician, Permanent employment	0	U.S. Air Force, USA, Primary Care Psychology-Clinical Psychologist

Research exchange assignments

Period	Type	Organisation	Subject
februari 2018 - februari 2018	Guest Lecturer-Global	Keio University, Japan, Graduate School of Science and Technology	20108. Environmental Analysis and Construction Information Technology

Interruptions in research

Period	Description
2010-10-11 - 2017-01-09	Approximately equivalent to 12 months of 100% parental leave.
2003-07-08 - 2008-10-10	Military Service

Merits and awards

Docentur

Year	Subject	Organisation
2017	305. Other Medical and Health Sciences	Lund University, Sweden, Hälsovetenskaper 314500

Supervised persons

Year	Supervised persons	Role
2022	PhD student, Samantha Svärdh, Lund University, Sweden, Hälsovetenskaper 314500	Secondary supervisor
2022	PhD student, Yadanuch Boonyaratana, Lund University, Sweden, Hälsovetenskaper 314500	Main supervisor
2021	PhD student, Yukie Hayashi, Keio University, Japan, IKAGA Lab/Graduate School of Science and Technology/School of Science for Open and Environmental Systems	Secondary supervisor
2019	PhD student, Jean Ryan, Lund University, Sweden, Teknik och samhälle 107460	Secondary supervisor
2018	PhD student, Maya Kylén, Lund University, Sweden, Hälsovetenskaper 314500	Secondary supervisor

Research grants awarded in competition

Period	Funder	Project leader	Your role	Sub amount (SEK)	Total amount (SEK)
2021 - 2023	LMK-stiftelsen, Sweden - Other financing agencies and organisations	Steven Schmidt	Applicant	0	7 500 000
2018 - 2020	Formas, Sweden - Other financing agencies and organisations	Susanne Iwarsson	Co-applicant	0	2 999 814
2017 - 2020	Forte, Sweden - Other financing agencies and organisations	Susanne Iwarsson	Co-applicant	0	5 900 000
2017 - 2019	Forte, Sweden - Other financing agencies and organisations	Susanne Iwarsson	Co-applicant	0	9 000 000
2014 - 2018	Forte, Sweden - Other financing agencies and organisations	C. Chiatti	Co-applicant	0	4 330 000

Other merits

Period	Type of merit	Description
2017 - 2021	Chair-Forum Medicum Research Infrastructure Planning Group	Leading the group that is responsible for the design and procurement of research infratructure for the future medical and health sciences knowledge centre (Forum Medicum) at Lund University. http://forummedicum.blogg.lu.se/english/
2018 - 2019	Appointed Guest Associate Professor (Global)	Faculty appiontment at the Graduate School of Science and Technology, Faculty of Science and Technology, Keio University, Japan

Intellectual property

Intellectual property

Type	Product classification
software/app	63. Information services

CV - Björn Slaug

Name: Björn Slaug
Birthdate: 19640727
Gender: Male
Country: Sweden
Doctorial degree: 2012-06-01
Academic title: Doctor
Employer: Lunds universitet

Educational history

Research education

Examination	Organisation	Dissertation title	Name of supervisor
PhD degree, 30302. Public Health, Global Health, Social Medicine and Epidemiology, 2012-06-01	Lund University, Sweden, Hälsovetenskaper 314500	Exploration and Development of Methodology for Accessibility Assessments: Based on the Notion of Person-Environment Fit	Susanne Iwarsson

Basic education

Year	Examination
1991	60301. Philosophy, Degree of Bachelor, Lund University, Sweden

Professional history

Employments

Period	Position	Part of research in employment	Employer
augusti 2000 - Present	Research engineer, Permanent employment	30	Lund University, Sweden, Hälsovetenskaper 314500
januari 2014 - december 2016 (Present)	Postdoctoral fellow, Temporary employment	100	Lund University, Sweden, Hälsovetenskaper 314500
april 2008 - juni 2012	PhD student, Temporary employment	100	Lund University, Sweden, Hälsovetenskaper 314500

Post doctoral assignments

Period	Organisation	Subject
januari 2014 - december 2016	Lund University, Sweden, Hälsovetenskaper 314500	30302. Public Health, Global Health, Social Medicine and Epidemiology

Merits and awards

Supervised persons

Year	Supervised persons	Role
2022	PhD student, Nilla Andersson, Lund University, Sweden	Secondary supervisor
2018	PhD student, Lizette Norin, Lund University, Sweden	Secondary supervisor

Research grants awarded in competition

Period	Funder	Project leader	Your role	Sub amount (SEK)	Total amount (SEK)
2017 - 2018	Forte, Sweden - Other financing agencies and organisations	Björn Slaug	Applicant	0	200 000
2016 - 2019	VR - The Swedish Research Council, Sweden - Other financing agencies and organisations	Susanne Iwarsson	Co-applicant	0	3 300 000
2014 - 2016	Forte, Sweden - Other financing agencies and organisations	Björn Slaug	Applicant	0	1 600 000
2012 - 2015	European Union (EU),	Susanne Iwarsson	Co-applicant	0	5 376 500
2011 - 2012	Swedish Institute of Assistive Technology, Sweden - Other financing agencies and organisations	Björn Slaug	Applicant	0	371 000

Other merits

Period	Type of merit	Description
2013 - 2017	Bibliometric summary	H-index = 11 (past 5 years based on Google Scholar). A total of 32 peer reviewed publications in international journals (20 in past 5 years). More than 20 presentations at international scientific conferences (10 in past 5 years). Two softwares in past 5 years.

Intellectual property

Intellectual property

Type	Product classification
http://www.innovage.group.shef.ac.uk/wp2-interactive-ict-prototype.html	63. Information services

Publications

Publications - Susanne Iwarsson

Name: Susanne Iwarsson
Birthdate: 19580328
Gender: Female
Country: Sweden
Doctorial degree: 1997-03-20
Academic title: Professor
Employer: Lunds universitet

Scientific publication - peer-reviewed

Original journal article

Title: Living and ageing with stroke: An exploration of conditions influencing participation in social and leisure activities over 15 years.
Authors: Anna Norlander, Susanne Iwarsson, Ann-Cathrin Jönsson, Arne Lindgren
Date of publication: 2018-04-19 **Volume:** 32 **Issue number:** 7
Name of journal: Brain Injury
Academic publication - peer-reviewed: Original journal article

Title: BUS TRIPS – A self-management program for people with cognitive impairments after stroke.
Authors: Emma Carlstedt, Susanne Iwarsson, Agneta Ståhl, Helene Pessah-Rasmussen, Eva Månsson Lexell
Date of publication: 2017-11-07 **Volume:** 14 **Issue number:** 11
Name of journal: International Journal of Environmental Research and Public Health
Academic publication - peer-reviewed: Original journal article

Title: Psychometric evaluation of the Parkinson's disease Activities of Daily Living Scale.
Authors: Stina B Jonasson, Peter Hagell, Gun-Marie Hariz, Susanne Iwarsson, Maria H Nilsson
Date of publication: 2017-09-25 **Volume:** 2017 **Issue number:**
Name of journal: Parkinson's Disease
Academic publication - peer-reviewed: Original journal article

Title: Depressive symptoms among older adults with long-term spinal cord injury: Associations with secondary health conditions, sense of coherence, coping strategies and physical activity.
Authors: Sophie Jörgensen, Kathleen Martin Ginis, Susanne Iwarsson, Jan Lexell
Date of publication: 2017-08-01 **Volume:** 49 **Issue number:**
Name of journal: Journal of Rehabilitation Medicine
Academic publication - peer-reviewed: Original journal article

Title: Secondary health conditions, activity limitations, and life satisfaction in older adults with long-term spinal cord injury.
Authors: Sophie Jörgensen, Susanne Iwarsson, Jan Lexell
Date of publication: 2017-01-01 **Volume:** 9 **Issue number:**
Name of journal: PM&R
Academic publication - peer-reviewed: Original journal article

Title: Cross-national usability study of a housing accessibility app: Findings from the European InnovAge project.
Authors: Oskar Jonsson, Maria Haak, Signe Tomsone, Susanne Iwarsson, Steven Schmidt, Knut Mårtensson, Torbjörn Svensson, Björn Slaug
Date of publication: 2016-10-03 **Volume:** 12 **Issue number:** 1
Name of journal: Journal of Usability Studies
Academic publication - peer-reviewed: Original journal article

Title: Housing accessibility and its associations with participation among older adults living with long-standing spinal cord injury.
Authors: Lizette Norin, Björn Slaug, Maria Haak, Sophie Jörgensen, Jan Lexell, Susanne Iwarsson
Date of publication: 2016-09-16 **Volume:** 40 **Issue number:** 2
Name of journal: The Journal of Spinal Cord Medicine
Academic publication - peer-reviewed: Original journal article

Title: The association between indicators of health and housing in people with Parkinson's disease.
Authors: Maria H Nilsson, Susann Ullén, Henrik Ekström, Susanne Iwarsson
Date of publication: 2016-07-27 **Volume:** 16 **Issue number:** 146
Name of journal: BMC Geriatrics
Academic publication - peer-reviewed: Original journal article

Title: Long-Term Predictors of Social and Leisure Activity 10 Years after Stroke. [Elektronisk resurs]
Authors: Anna Norlander, Emma Carlstedt, Ann-Cathrin Jönsson, Eva Månsson Lexell, Agneta Ståhl, Arne Lindgren, Susanne Iwarsson
Date of publication: 2016 **Volume:** 11 **Issue number:** 2
Name of journal: PLOS One
Academic publication - peer-reviewed: Original journal article

Title: Adaptive Strategies and Person-Environment Fit among Functionally Limited Older Adults Aging in Place: A Mixed Methods Approach
Authors: Laura L Lien, Carmen D Steggell, Susanne Iwarsson
Date of publication: 2015 **Volume:** 12 **Issue number:** 9
Name of journal: International journal of environmental research and public health
Academic publication - peer-reviewed: Original journal article

Publications - Marianne Granbom

Name: Marianne Granbom
Birthdate: 19750928
Gender: Female
Country: Sweden
Doctorial degree: 2014-12-12
Academic title: Doctor
Employer: Lunds universitet

Scientific publication - peer-reviewed

Original journal article

Title: Household Accessibility and Residential Relocation in Older Adults
Authors: Marianne Granbom, Nancy Perrin, Sarah Szanton, Thomas Cudjoe, Laura Gitlin
Date of publication: 2018-11-02 **Volume:** advanced access **Issue number:**
Name of journal: The Journals of Gerontology: Series B Soicial Sciences
Academic publication - peer-reviewed: Original journal article

Title: Cohabitants' perspective on housing adaptations: a piece of the puzzle
Authors: Marianne Granbom, Afsaneh Taei, Lisa Ekstam
Date of publication: 2017-01-01 **Volume:** 31 (4) **Issue number:**
Name of journal: Scandinavian Journal of Caring Sciences
Academic publication - peer-reviewed: Original journal article

Title: Residential normalcy and environmental experiences of very old people: Changes in residential reasoning over time. [Elektronisk resurs]
Authors: Marianne Granbom, Ines Himmelsbach, Maria Haak, Charlotte Löfqvist, Frank Oswald, Susanne Iwarsson
Date of publication: 2014 **Volume:** 29 **Issue number:** Jan 6
Name of journal: Journal of aging studies
Academic publication - peer-reviewed: Original journal article

Title: Voices on Relocation and Aging in Place in Very Old AgeuA Complex and Ambivalent Matter
Authors: Charlotte Lofqvist, Marianne Granbom, Ines Himmelsbach, Susanne Iwarsson, Frank Oswald, Maria Haak
Date of publication: 2013 **Volume:** 53 **Issue number:** 6
Name of journal: GERONTOLOGIST
Academic publication - peer-reviewed: Original journal article

Title: Cross-national and multi-language qualitative research: challenges and recommendations
Authors: Maria Haak, Ines Himmelsbach, Marianne Granbom, Charlotte Löfqvist
Date of publication: 2013 **Volume:** 76 **Issue number:** 7
Name of journal: British Journal of Occupational Therapy
Academic publication - peer-reviewed: Original journal article

Publications - Per-Olof Hedvall

Name: Per-Olof Hedvall
Birthdate: 19700123
Gender: Male
Country: Sweden
Doctorial degree: 2009-12-04
Academic title: Associate professor
Employer: Lunds universitet

Scientific publication - peer-reviewed

Original journal article

Title: Design for Me?
Authors: Charlotte Magnusson, Per-Olof Hedvall, Björn Breidegard
Date of publication: 2018-07-13 **Volume:** LNCS 10896 **Issue number:**
Name of journal: International Conference on Computers Helping People with Special Needs
Academic publication - peer-reviewed: Original journal article

Title: The Use of Apps for Health in Persons with Multiple Sclerosis, Parkinson's Disease and Stroke - Barriers and Facilitators
Authors: Cecilia Winberg, Marianne Kylberg, Cecilia Pettersson, Tove Harnett, Per-Olof Hedvall, Titti Mattsson, Eva Månsson Lexell
Date of publication: 2017-07-01 **Volume:** 242 **Issue number:**
Name of journal: Harnessing the Power of Technology to Improve Lives
Academic publication - peer-reviewed: Original journal article

Editorial proceedings

Title: Universal Design 2014: Three Days of Creativity and Diversity [Elektronisk resurs]
Authors: Héctor Caltenco, Per-Olof Hedvall, Andreas Larsson, Kirsten Rassmus-Gröhn, Bitte Rydeman
Date of publication: 2014 **Volume:** **Issue number:**
Name of journal: Assistive Technology Research Series \
Academic publication - peer-reviewed: Editorial proceedings

Conference contribution

Title: Co-Constructing Universal Design in Citizen Science Workshops
Authors: Per-Olof Hedvall, Bitte Rydeman, Sarah Granholm, Malin Andersson
Date of publication: 2018-11-02 **Volume:** 256 **Issue number:**
Name of journal: Studies in Health Technology and Informatics
Academic publication - peer-reviewed: Conference contribution

Other publication including popular science

Title: Kartläggning av kunskapsläge och forskningsbehov inom området delaktighet och funktionshinder, med särskilt fokus på teknik- och designperspektiv
Authors: Per-Olof Hedvall
Date of publication: 2017-09-01 **Volume:** **Issue number:**
Name of journal:
Academic publication - peer-reviewed: Other publication including popular science

Publications - Håkan Jönson

Name: Håkan Jönson
Birthdate: 19640508
Gender: Male
Country: Sweden
Doctorial degree: 2001-04-06
Academic title: Professor
Employer: Lunds universitet

Scientific publication - peer-reviewed

Original journal article

Title: Ethnically profiled nursing home care in Sweden – from culture to lifestyle
Authors: Håkan Jönson, Tove Harnett, Magnus Nilsson
Date of publication: 2018-03-01 **Volume:** 21 **Issue number:** 2
Name of journal: European Journal of Social Work
Academic publication - peer-reviewed: Original journal article

Title: "They are different now" – Biographical continuity and disruption in nursing home settings
Authors: Tove Harnett, Håkan Jönson
Date of publication: 2017-05-01 **Volume:** 42 **Issue number:**
Name of journal: Journal of Aging Studies
Academic publication - peer-reviewed: Original journal article

Title: Framing scandalous nursing home care: What is the problem?
Authors: Håkan Jönson
Date of publication: 2016-11-01 **Volume:** 36 **Issue number:** 2
Name of journal: Ageing & Society
Academic publication - peer-reviewed: Original journal article

Title: Introducing an equal rights framework for older persons in residential care [Elektronisk resurs]
Authors: Håkan Jönson, Tove Harnett
Date of publication: 2015 **Volume:** **Issue number:** Online 22 April, 2015
Name of journal: The Gerontologist
Academic publication - peer-reviewed: Original journal article

Other publication including popular science

Title: Socialt arbete med äldre
Authors: Håkan Jönson, Tove Harnett
Date of publication: 2015 **Volume:** **Issue number:**
Name of journal:
Academic publication - peer-reviewed: Other publication including popular science

Publications - Agneta Malmgren Fänge

Name: Agneta Malmgren Fänge
Birthdate: 19580425
Gender: Female
Country: Sweden
Doctorial degree: 2004-03-19
Academic title: Associate professor
Employer: Lunds universitet

Scientific publication - peer-reviewed

Original journal article

Title: Falls and Fear of Falling among Persons Who Receive Housing Adaptations—Results from a Quasi-Experimental Study in Sweden
Authors: Gunilla Carlsson, Maria H Nilsson, Lisa Ekstam, Carlos Chiatti, Agneta Malmgren Fänge
Date of publication: 2017-09-29 **Volume:** 5 **Issue number:**
Name of journal: Healtcare
Academic publication - peer-reviewed: Original journal article

Title: Negotiating Control: From Recognizing a Need to Making a Decision to Apply for a Housing Adaptation.
Authors: Lisa Ekstam, Agneta Malmgren Fänge, Gunilla Carlsson
Date of publication: 2016-12-12 **Volume:** 30 **Issue number:** 4
Name of journal: Journal of Housing for the Elderly
Academic publication - peer-reviewed: Original journal article

Title: Clients' experiences of housing adaptations: a longitudinal mixed-methods study. [Elektronisk resurs]
Authors: Cecilia Pettersson, Charlotte Löfqvist, Agneta Malmgren Fänge
Date of publication: 2012 **Volume:** 34 **Issue number:** 20
Name of journal: Disability and Rehabilitation
Academic publication - peer-reviewed: Original journal article

Title: The importance of successful place integration for perceived health in very old age: [Elektronisk resurs]
Authors: Maria Haak, Agneta Malmgren Fänge, Susanne Iwarsson, Synneve Dahlin-Ivanoff
Date of publication: 2011 **Volume:** 56 **Issue number:** 6
Name of journal: International Journal of Public Health
Academic publication - peer-reviewed: Original journal article

Title: The Home Environment and Disability-Related Outcomes in Aging Individuals: What Is the Empirical Evidence?
Authors: Hans-Werner Wahl, Agneta Malmgren Fänge, Frank Oswald, Laura N. Gitlin, Susanne Iwarsson
Date of publication: 2009 **Volume:** 49 **Issue number:** 3
Name of journal: Gerontologist
Academic publication - peer-reviewed: Original journal article

Publications - Stefan Olander

Name: Stefan Olander
Birthdate: 19710129
Gender: Male
Country: Sweden
Doctorial degree: 2006-09-15
Academic title: Associate professor
Employer: Lunds universitet

Scientific publication - peer-reviewed

Original journal article

Title: Stakeholder participation for sustainable property development
Authors: Carlos Martinez, Stefan Olander
Date of publication: 2015 **Volume:** 21 **Issue number:**
Name of journal: 8TH NORDIC CONFERENCE ON CONSTRUCTION ECONOMICS AND ORGANIZATION
Academic publication - peer-reviewed: Original journal article

Title: Links between Successful Innovation Diffusion and Stakeholder Engagement
Authors: Kristian Widén, Stefan Olander, Brian Atkin
Date of publication: 2014 **Volume:** 30 **Issue number:** 5
Name of journal: Journal of Management in Engineering
Academic publication - peer-reviewed: Original journal article

Title: A comparative study of factors affecting the external stakeholder management process
Authors: Stefan Olander, Anne Landin
Date of publication: 2008 **Volume:** 26 **Issue number:** 6
Name of journal: Construction Management and Economics
Academic publication - peer-reviewed: Original journal article

Title: Housing deveopers´ perception of the planning process: a survey of Swedish companies
Authors: Stefan Olander, Anne Landin
Date of publication: 2008 **Volume:** 1 **Issue number:** 3
Name of journal: International Journal of Housing Markets and Analysis
Academic publication - peer-reviewed: Original journal article

Title: Stakeholder impact analysis in construction project management
Authors: Stefan Olander
Date of publication: 2007 **Volume:** 25 **Issue number:** 3
Name of journal: Construction Management and Economics
Academic publication - peer-reviewed: Original journal article

Publications - Steven Schmidt

Name: Steven Schmidt
Birthdate: 19670414
Gender: Male
Country: Sweden
Doctorial degree: 2005-07-13
Academic title: Associate professor
Employer: Lunds universitet

Scientific publication - peer-reviewed

Original journal article

Title: Improved housing accessibility for older people in Sweden and Germany: Short-term costs and long-term gains
Authors: Björn Slaug, Carlos Chiatti, Frank Oswald, Roman Kaspar, Steven M. Schmidt
Date of publication: 2017-08-26 **Volume:** 14 **Issue number:** 9
Name of journal: International Journal of Environmental Research and Public Health
Academic publication - peer-reviewed: Original journal article

Title: Lower physical performance in colder seasons and colder houses: evidence from a field study on older people living in the community
Authors: Yukie Hayashi, Steven M Schmidt, Agneta Malmgren Fänge, T Hoshi, T Ikaga
Date of publication: 2017-06-17 **Volume:** 14 **Issue number:** 6
Name of journal: International Journal of Environmental Research and Public Health
Academic publication - peer-reviewed: Original journal article

Title: Perceived home is associated with psychological well-being in a cohort aged 67–70 years
Authors: Maya Kylén, Steven M Schmidt, Susanne Iwarsson, Maria Haak, Henrik Ekström
Date of publication: 2017-04-11 **Volume:** 51 **Issue number:**
Name of journal: Journal of Environmental Psychology
Academic publication - peer-reviewed: Original journal article

Title: Home and health among different sub-groups of the ageing population: a comparison of two cohorts living in ordinary housing in Sweden
Authors: Henrik Ekstrom, Steven M. Schmidt, Susanne Iwarsson
Date of publication: 2016 **Volume:** 16 **Issue number:**
Name of journal: BMC GERIATRICS
Academic publication - peer-reviewed: Original journal article

Title: Exploring public transport as an element of older persons' mobility: A Capability Approach perspective
Authors: Jean Ryan, Anders Wretstrand, Steven Schmidt
Date of publication: 2015 **Volume:** 48 **Issue number:**
Name of journal: Journal of Transport Geography
Academic publication - peer-reviewed: Original journal article

Publications - Björn Slaug

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Original journal article

Title: A new approach for investigation of person-environment interaction effects in research involving health outcomes
Authors: Björn Slaug, Susanne Iwarsson, Jonas Björk
Date of publication: 2018-06-14 **Volume:** **Issue number:**
Name of journal: European Journal of Ageing
Academic publication - peer-reviewed: Original journal article

Title: Life space mobility in Parkinson's disease: Associations with motor and non-motor symptoms
Authors: Merja Rantakokko, Susanne Iwarsson, Björn Slaug, Maria H Nilsson
Date of publication: 2018-04-10 **Volume:** **Issue number:**
Name of journal: The Journal of Gerontology: Medical Sciences
Academic publication - peer-reviewed: Original journal article

Title: Typology of person-environment fit constellations: a platform addressing accessibility problems in the built environment for people with functional limitations
Authors: Bjorn Slaug, Oliver Schilling, Susanne Iwarsson, Gunilla Carlsson
Date of publication: 2015 **Volume:** 15 **Issue number:**
Name of journal: BMC PUBLIC HEALTH
Academic publication - peer-reviewed: Original journal article

Title: Patterns of functional decline in very old age: an application of latent transition analysis
Authors: Björn Slaug, Oliver Schilling, Maria Haak, Merja Rantakokko
Date of publication: 2015 **Volume:** **Issue number:**
Name of journal: Aging clinical and experimental research
Academic publication - peer-reviewed: Original journal article

Title: Unfolding the phenomenon of interrater agreement: a multicomponent approach for in-depth examination was proposed
Authors: Bjorn Slaug, Oliver Schilling, Tina Helle, Susanne Iwarsson, Gunilla Carlsson, Ase Brandt
Date of publication: 2012 **Volume:** 65 **Issue number:** 9
Name of journal: JOURNAL OF CLINICAL EPIDEMIOLOGY
Academic publication - peer-reviewed: Original journal article

Register

Terms and conditions

Register the application: The application must be signed by the applicant as well as the authorised representative of the administrating organisation. The representative is normally the department head of the institution where the research is to be conducted, but may in some instances be e.g. the vice-chancellor. This is specified in the call for proposals.

The signature *from the applicant* confirms that:

- the information in the application is correct and according to the instructions from the Swedish Research Council for Health, Working Life and Welfare,
- any additional professional activities or commercial ties have been reported to the administrating organisation, and that no conflicts have arisen that would conflict with good research practice,
- the necessary permits and approvals are in place at the start of the project e.g. regarding ethical review.

The signature *from the administrating organisation* confirms that:

the research, employment and equipment indicated will be accommodated in the institution during the time, and to the extent, described in the application,

- the institution approves the cost-estimate in the application,
- the research is conducted according to Swedish legislation.

The above-mentioned points must have been discussed between the parties before the representative of the administrating organisation approves and signs the application.