



norden

Nordic Innovation



The **NORDIC INDEPENDENT LIVING CHALLENGE**

SHORT DESCRIPTION OF THE 25 SOLUTIONS CHOSEN FOR STAGE 3 OF THE COMPETITION

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stad



TABLE OF CONTENTS

APPS	3
MobiDent – The Mobile Application for Elderly Home Care in the Context of Oral Health Promotion Admone - En applikation for demente på vej ud af døren Agile Traveller	
ASSISTIVE TECHNOLOGY	4-6
Pilloxa - smart pillbox MOTIview Tramprullstolen Idun AssiStep - the walker in the stairs DAP Design - Clothing Solutions for Differently Abled People Multi Puff Gode Vandvaner – aktiv forebyggelse af dehydrering hos ældre Siren - Sensor Embedded Textiles for the Prevention of Diabetic Foot Ulcers Nytutvecklad duschpall Postkasse 2.0 AbleOn ShowerSystem	
HEALTH AND WELL-BEING	7
Biotherapeutics to accelerate wound healing in patients with diabetes Swallowgel Thermal Winter Garden for Nordic Environment Wundies trosa för kvinnor med lätt och medelsvår inkontinens	
TECHNICAL SOLUTIONS	8-9
E-21 – Safe and Independent Ageing Aura - modular lighting solution Intelligent Trygghetsalarm med Nato godkjent kommunikasjonsprotokoll og GPS Sporing GazeDriver Carecode communinaction platform Neighbourhoods Of Care (NOC) Helping Hands	



APPS

MobiDent – The Mobile Application for Elderly Home Care in the Context of Oral Health Promotion

The aim of the MobiDent is to produce a mobile application for elderly home care in the context of oral health promotion. Development questions are:

1. How home care nurses identify the oral health of elderly clients?
2. How home care nurses promote oral health of the elderly client?
3. How home care nurses aid the elderly client in daily self-care?
4. When the home care nurses consult the oral hygienist or dentist?

Project number:
ILC 153433

Project leader:
Hannu Lampi

Country:
Finland

Admone - En applikation for demente på vej ud af døren

Admone is a personalised reminder tool which purpose is to remind people with dementia of the necessary things to do and remember when leaving their house, e.g. their jacket or medicine, close the windows, and lock the door and to give information about the time of day, weather, and possible appointments. The focus of Admone is on being user centred, intuitive, and easy to use. The idea is to combine an application on a tablet screen placed near the exit door with sensor technology to activate the screen when the user comes near the sensor. Admone is meant to be a tool to self-help with the goal of making the user more independent and likewise giving them a feeling of control when leaving their house and there by not being stressed out about the things they forgot.

Project number:
ILC 153446

Project leader:
Daniel Hansen
Pedersen

Country:
Norway

Agile Traveler

Agile Traveler will be an app that offers real-time information about accessibility and services to the physically disabled, for residents and those traveling in the Nordic countries. The app is different from other solutions because of the tailored information, helping people bypass obstacles for worry-free, easy and fun travels - where they are in control of their own lives.

Project number:
ILC 153493

Project leader:
Ósk Sigurðardóttir

Country:
Iceland



ASSISTIVE TECHNOLOGY

Pilloxa - smart pillbox

Pilloxa approaches the problem of poor adherence to medication from a holistic perspective, combining modern technology and design alongside our focus on usability and interaction. Medicines are kept in a neat pillbox that communicates wirelessly with your cell phone. The phone sends discreet reminders when you fail to take your daily dose. Your list of current medications is always kept up-to date, and you are prompted when pills are about to run out. In addition, the application gives you the opportunity to purchase new medication online. Pilloxa targets modern patients with an active lifestyle, who demand usability and design – so that they can focus on living instead of being ill.

Project number:
ILC 153435

Project leader:
Per Nilsson

Country:
Sweden

MOTIview

MOTIview turns elderly people and people with dementia into dedicated athletes. Thanks to moving pictures and sound, the user can take a cycle trip through familiar surroundings and childhood memories. The system consists of a display unit that shows motivating videos, combined with a user-adapted exercise bike. The display unit provides access to a library of videos of locations throughout Scandinavia that is constantly being updated. The videos include elements that are highly recognisable, and are produced in response to customer requests and suggestions. MOTIview brings memories back to life and inspires by providing the sensory impression of familiar environments.

Project number:
ILC 153440

Project leader:
Jon Ingar Kjenes

Country:
Norway

Tramprullstolen Idun

The revolutionary pedal wheelchair Idun from Dalink helps persons struggling with balance and coordination to have a more active lifestyle. Differing from other conventional wheelchairs, Idun is run with your legs, and you need only one leg to run it. You get greater freedom of movement and independence in addition to a faster rehabilitation and better quality of life. Furthermore, we get cost savings in health care and reduced anxiety among relatives when caring demand decreases. The pedal wheelchair Idun works as a movement and rehabilitation aid.

Project number:
ILC 153441

Project leader:
Mikael Dahlin

Country:
Sweden

AssiStep - the walker in the stairs

The AssiStep is a "walker in the stairs", giving people with mobility issues extra support when climbing stairs. The AssiStep is a simple, non-invasive product that can keep its users on their feet and climbing their stairs themselves. When we make our elderly stop using their stairs and start using elevators or stair lifts instead, we make our elderly lose one of the most important sources of daily exercise. With the AssiStep, more elderly can live at home and still get the best daily exercise we get in our own homes – climbing stairs. The AssiStep consists simply of a conventional handrail with a handle coupled to it that users can slide in front of them to get safety and support while climbing stairs themselves.

Project number:
ILC 153444

Project leader:
Eirik Gjelsvik Medbø

Country:
Norway



DAP Design - Clothing Solutions for Differently Abled People

DAP Design make ergonomically and personalised clothes depending on customers' disability. It is a service with products that help differently abled people access ability in two manners. 1) Enabling getting dressed unassisted 2) Encouraging participation and employment by differently abled people. DAP Design takes existing wardrobes and transform them into adapted solutions. We design according to principles of re-use, re-design and re-energise. DAP Design's vision is to empower differently abled people through enabling environments with an inclusive design process. DAP Design is a social business with the ambition to build a strong community accessing ability through DAP Ambassadors, by including the target group in every step of the design process.

Project number:
ILC 153458

Project leader:
Jeanette Kæseler

Country:
Denmark

Multi Puff

The MultiPuff is a tool use during wound care treatment. The user can rest her leg during the treatment and the nurse can perform the procedure alone. The nurse have all the bandages in the puff easy to reach. Multi Puff will make the treatment more comfortable for the user and more ergonomic correct for the nurse.

Project number:
ILC 153461

Project leader:
Ingvild Vik

Country:
Norway

Gode Vandvaner – aktiv forebyggelse af dehydrering hos ældre

The product concept Good Water Habits helps to solve one of the small, but important everyday challenges – to stay hydrated. For most people it is quite natural to drink water, but for many elderly people it can be a challenge to drink enough. The reasons can be many: most elderly people feel less thirst and some choose not to drink water to avoid going to the restroom too often. Furthermore, some simply just forget to drink water. Our solution is to target the different challenges associated with getting elderly people to drink water – including dealing with the challenges remembering drinking. Good Water Habits is about staying hydrated – one of the basic needs to live a good life.

Project number:
ILC 153467

Project leader:
Tobias
Koefoed-Nordentoft

Country:
Denmark

Siren - Sensor Embedded Textiles for the Prevention of Diabetic Foot Ulcers

Over five percent of the Danish population are diabetic. This number is expected to double within the next ten years. Foot ulcers are one particular complication of diabetes and one of the most costly. If untreated, an ulcer may become infected and in the worst case require amputation. With good foot care, ulcers are entirely preventable. At Siren, we are developing a temperature sensing smart sock which will provide the wearer with an early warning alert when potential foot ulcers are detected. Research has shown that foot temperature can be used to identify inflammation, which is an early sign of ulceration. Our smart socks will reduce the risk of foot ulcers in diabetics and thereby its social-economic costs on the wearer, caregivers and the healthcare system.

Project number:
ILC 153469

Project leader:
Simon Kamronn

Country:
Denmark



Nyutvecklad duschpall

Many elderly fear to fall. My idea is a new designed shower seat, easy to adjust the sitting height and good looking. The ease to adjust sitting height is useful when there are more than one user in the family or in the resident. The seat does not send out signal that the user needs help or assistance in the shower, just that he or she loves good design.

Project number:
ILC 153472

Project leader:
Björn-Åke Sköld

Country:
Sweden

Postkasse 2.0

Postkasse 2.0 will be the funnel that makes it easy for grocery stores, logistics companies and the users to save time by getting their daily diet delivered straight to their home in a safe device without having to worry about it being stolen. There is no service for medical delivery, thus Postkasse 2.0 will be the first to integrate this service together with the healthcare and pharmacies, enabling medicine to be delivered for the convenience of the elderly, disabled or those with special health conditions. Combined with other systems, Postkasse 2.0 can be part of a government program empowering caretakers to monitor and regulate the dietary and medical requirements of those in need.

Project number:
ILC 153489

Project leader:
Marius Fredriksen

Country:
Norway

AbleOn ShowerSystem

AbleOn ShowerSystem facilitates the shower situation so that elderly and others with disabilities can feel safe and have more independence in their everyday lives. AbleOn grows with the challenges and adapts to the user by facilitating a simpler, more effective and safer execution of the shower routine. By integrating solutions that gives an increased degree of self-help, in addition to a simpler, more effective and ergonomically work and everyday routine for care personnel and caregivers, AbleOn enhances performance, security and well-being for its users.

Project number:
ILC 153496

Project leader:
Camilla Strand

Country:
Norway



HEALTH AND WELL-BEING

Biotherapeutics to accelerate wound healing in patients with diabetes

Wounds entail huge discomfort for everyone, even more so if large, painful and chronic. This is especially problematic for people with diabetes. We have designed and produced a range of biotherapeutics (genetically modified probiotic bacteria) that accelerates healing of injured tissue. The technology is unique and derives from decades of academic research. Based on the preclinical verification in multiple murine animal models we submitted a patent application in 2014 covering the different biotherapeutics. We are now working hard to transform the biotherapeutics into products that can be used by humans and are seeking funding to be able to verify the clinical effect on healing of chronic foot ulcers. A company will be started in 2015 by the three founders.

Project number:
ILC 153429

Project leader:
Evelina Vågesjö

Country:
Sweden

Swallowgel

Previsco is developing an innovative and safe product for persons who have difficulties with swallowing to secure and support the taking of medicines. Swallowing pills is a large problem for people of all ages and causes unnecessary stress and worry every time they take medicine. Previsco's Swallowgel can reduce the stress for patients and relatives, and can enhance the medicine treatment through its unique properties that encapsulates the pill and reduce the bitter taste. It is smooth and stimulates saliva, which makes it comfortable to swallow. We have just began developing the project and will soon test the gel's functionality.

Project number:
ILC 153438

Project leader:
Hanna Olvenmark

Country:
Sweden

Thermal Winter Garden for Nordic Environment

After decades of closing off buildings from the outside world starting in the mid-1900s, the benefits of daylight and views are becoming more apparent. "As we have built deeper floor-plate buildings and reduced glazing areas in the name of energy conservation, we have begun to realise the consequences of reduced connection to the outdoors," says Robin Guenther, principal at Perkins+Will and principal author of the Green Guide for Health Care. The defined benefits of nourishment from the sun for all living things have been implemented into health institutions and well-being standards and recognised for ages.

Project number:
ILC 153462

Project leader:
Pordis Hardardottir

Country:
Iceland

Wundies trosa för kvinnor med lätt och medelsvår inkontinens

Wundies is a brand new solution for women suffering from incontinence problems. We offer a product with an innovative and unique, high-tech solution. The design and comfort are superior to similar products on the market. The effect on the environment is highly reduced since you might wash your Wundies at least 100 times without losing shape or function. The absorbent pad has an anti-odour treatment. Our whole idea is to give the user a modern, safe and attractive product to help them live an active and social life. Everyday relief!

Project number:
ILC 153464

Project leader:
Lotta Williams

Country:
Sweden



TECHNOLOGICAL SOLUTIONS

E-21 – Safe and Independent Ageing

The solution supports the quality of life, and can be used to support active and independent living for people suffering from physical and mental impairments. Using an open source architecture, the system will allow for the use of various types of sensors that are attached to the system and can monitor anything ranging from electricity, water and light consumption to medical aspects such as movement and health status.

Project number:
ILC 153436/ ILC 153479

Project leader:
Vidir Stefansson
Nicolai Søndergaard
Laugesen

Country:
Iceland/Denmark

Aura - modular lighting solution

Aura is a modular lighting system for nighttime, creating a navigable route of light through the darkness for the user's individual needs. We want to prevent accidents and give the users more confidence in moving in their homes at night. The system is designed keeping in mind the needs of the elderly and the visually impaired. Aura is wireless, rechargeable and lightweight, and new lights and sensors can be introduced into the system as wanted. Our guidelines are user-friendliness, intuitive operation and functional design.

Project number:
ILC 153452

Project leader:
Lotta Köhler

Country:
Finland

Intelligent trygghetsalarm med NATO-godkjent kommunikasjonsprotokoll og GPS-sporing

We know there is a need for a product to help persons with disabilities to feel safer when being active inside and outside. These are both users with mental disabilities and the elderly. This safety alarm should be easy to use, has two-way speech, good battery life of minimum two days, and alert to both the mobile phone of the caretaker and the monitoring centre. There is also a possibility of locating the triggered alarm. Our motivation and business idea is to develop a product that can make the daily life for people easier, safer, and better. We do believe that this product will do just that.

Project number:
ILC 153455

Project leader:
Steinar Bredesen

Country:
Norway

GazeDriver

GazeDriver is the world's first screenless eye control for wheelchairs. This will give among other things an unobstructed view for the user and significantly lower production costs than for comparable solutions. The product is not tied to one wheelchair manufacturer, but can be adapted to all kinds of wheelchairs. GazeDriver can be used without an assistant, when the user has sufficient cognitive skills, but can also be used as a user-helper system in which an assistant, for instance, can control/stop the wheelchair.

Project number:
ILC 153456

Project leader:
Martin Sølvmoose

Country:
Denmark



Carecode communication platform

We offer healthcare providers a user-friendly web application that allows a multidisciplinary care team to communicate and collaborate. This can be done with real-time video, file sharing or written messages. Our software is currently being used by patients, nurses, doctors, and other professionals in caring for the elderly and disabled. It is built especially for large healthcare organisations taking into account their specific needs. Our team is comprised of medical and engineering professionals, and we are motivated to offer healthcare providers a better tool for making their operations more effective.

Project number:
ILC 153459

Project leader:
Heikki Tarkkila

Country:
Finland

Neighbourhoods of Care (NOC)

Neighbourhoods of Care (NOC) supports independent living of the elderly. Our idea is to re-connect people into communities in a way that is inclusive and developed with an interest of all members of the community – not just those who are experts in technology or socially most active. Neighbourhoods of Care is going to be based on Nifty Neighbour – a map-based, inclusive and community-building Nordic app/web service. With developing this technology and ways of using it, we create NOC, where physical proximity is again a collective resource of wellbeing.

Project number:
ILC 153484

Project leader:
Tanja Jänicke

Country:
Finland

Helping Hands

Helping Hands is a web platform where people can post and undertake smaller jobs like cleaning, grocery shopping, computer help and personal care. The service connects elderly who don't have time or ability to get these kind of jobs done with people who have time and need extra money. Helping Hands provides a SmartPost feature that enables employers to post their job request in just 10 seconds, and employees will get push notifications and can respond immediately. This matching algorithm enables connection and a possibility to communicate and set a time for the job to be done. After the job is completed, payment will be handled securely through the platform. Helping Hands will then be able to provide users with wage and tax information to make sure users avoid paying for undeclared work, and the information users receive can be reported to the government.

Project number:
ILC 153486

Project leader:
Jakob Palmers

Country:
Norway



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Nordic Innovation



CONTACT NORDIC INNOVATION:

If you have any questions about the Nordic Independent Living Challenge or wish to get in contact with any of the participants, please contact:

Mona Truelsen

Senior innovation adviser
m.truelsen@nordicinnovation.org
+47 902 10 822

Arvid Løken

Senior innovation adviser
a.loken@nordicinnovation.org
+47 995 01 646

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