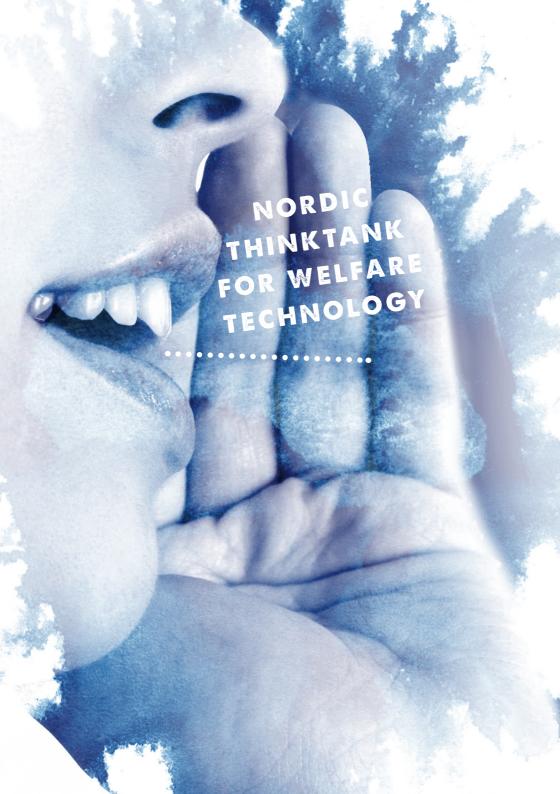


# MAKING IMPLEMENTATION EASIER





# MAKING IMPLEMENTATION OF WELFARE **TECHNOLOGY EASIER**

The Nordic Thinktank for Welfare Technology is run by the Nordic Center for Welfare and Social Issues, an institution under the Nordic Council of Ministers. The Thinktank consists of ten carefully selected experts, two from each of the five Nordic countries. The selected experts are chosen based on their professional knowledge and experience and are all among the leading experts in their country. To maintain an independent thinktank, no experts are connected to the central administration in their home country.

The Thinktank chooses and processes one difficult question per year within the area of welfare technology. For 2014 it was:

#### "What makes implementation of welfare technology so difficult?"

During the Thinktank meetings, the members identified some of the main challenges and barriers for implementing welfare technology. These challenges and barriers were later transformed into the recommendations which can be found in this document.

Please note that the recommendations found in this document are formed in a Nordic context. This means that some recommendations will be more applicable for the individual country then others.

The main findings of the Thinktank were also presented at the annual Velkon Conference in Trondheim in October 2014.

# WHAT ARE THE TOP CHALLENGES FOR LARGE-SCALE IMPLEMENTATION AND **HOW DO WE SOLVE THEM?**

# **CHALLENGE 1:**

The question of how best to engage the public; also, a tentative look at the possibility to increase the level self-/private financing in the desire to see more welfare technology supporting people's daily lives.

Description: Local authorities face severe challenges of both a financial and societal nature in the coming years. Not only does the Nordic region, like the rest of the Western world, face the double demographic challenge of an aging population, with fewer people within working age, but at the same time, local authorities are experiencing a significantly increasing demand for high-level public services. To make matters worse, these challenges are faced in a time of worldwide financial difficulty.

To counter these challenges, local authorities have looked towards welfare technology as part of the solution. While these new technologies will be publicly funded for the most part, a higher degree of private and self-/user financing could both ease the pressure on local authorities and help spread large-scale use of technology faster.

#### The Nordic thinktank recommends:

# More information given to users and their relatives through hands-on testing opportunities - for instance, through living labs and showrooms

This recommendation is built on the idea that information is good but involvement better. When working with welfare technology, demystification is important. If local authorities want citizens to start buying technology themselves, they have to increase the level of information directed at both end users and their relatives. Only when people know what welfare technology truly is and specifically how it can help them individually will they start to embrace it.

It is important to form a clear communication strategy and try and involve users and relatives. If set up properly, showrooms and public living labs can be very effective tools, but as with all communication, quality is key. With a showroom, one has to mean it; a half-hearted set-up will give end users a poor experience, which in turn will seriously diminish their chance of both being positive towards future public initiatives and starting to buy technologies themselves. Too many existing showrooms are of questionable quality.

# Tax write-offs for private purchase of welfare technology

Both Denmark and Sweden have put in place successful tax write-off schemes for ensuring growth and decreasing tax fraud within the area of craftsmanship. Citizens receive a reward for using craftsmen for home renovation.

A similar tax write-off scheme, or simply a subsidy scheme, could be introduced to encourage more private citizens to invest in technology that would allow them to stay independent for longer in their own homes. This would be beneficial for local authorities, who would spend fewer resources on these citizens, and it would be beneficial for the industry, promoting its growth and competitiveness.

# Better structure and organization in local authorities when working with welfare technology

At the Nordic level, we have approximately 1,200 local authorities working on different levels when it comes to welfare technology. It is important for local authorities to learn from each other and to put in place a stronger structure, organization and culture when working with new technology. If we wish to both strengthen the market and promote self-financing, we need more successful implementations to improve the image and get the ball rolling. At a fundamental and general level, throughout the Nordic municipalities, we need to start by changing the "buy and try culture" to a "try and buy culture". Working with welfare technology is not simple and requires the effort of the entire organization, not only the project manager.

# **CHALLENGE 2:**

Increased competence level of professional staff.

Description: Working with welfare technology is demanding for health care professionals. It requires a willingness to adapt to changes, changes that affect both one's daily work environment and the vulnerable people one is treating or taking care of. Furthermore, welfare technology often introduces advanced technology to a group of professions not accustomed to such tools.

New competences are needed, both in general within the profession and also specifically when introducing new technologies.



#### The Nordic thinktank recommends:

A fundamental strengthening of IT competences in health care professionals and the introduction of welfare technology in profession-specific education An introduction or optimization of existing IT classes at the profession-specific education level is recommended. There is a fundamental need for a basic competence level within IT in all health care professions today. IT has become an integral part of modern living and modern workplaces, so it is imperative that we prepare our staff as well as possible.

Furthermore, introducing welfare technology as a subject would ease understanding and attitudes towards the introduction of new technologies. A basic understanding would eliminate the fear of the unknown, increase technical understanding and ease the training needed when implementing technology.

# At least three days of publicly subsidized training a year guaranteed for health and care staff

This would benefit both staff and local authorities in their efforts to implement new technology. Professional health and care staff continuously need to update their competences in order to be able to adapt to a changing workplace. Introduction of new IT and welfare technology, quite simply, requires training of staff to have any chance of succeeding. Making this training publicly subsidized will help local authorities in their efforts to do large-scale implementations of new technology, as training of staff is a very costly affair, which makes the initial technology investment insurmountable for some.

#### Better cooperation between public authorities and academic institutions

A stronger cooperation between public authorities and academic institutions within the area of welfare technology would be beneficial for both parties. Students of, for example, engineering would benefit greatly from involvement in welfare technology projects with access to real data or real users. If welfare technology is to remain an area of interest for future growth, the area needs to be accessible and inviting to students at academic institutions. Engaging students and strengthening attraction to this area could potentially strengthen the market, thus also benefitting the public authorities.

# **CHALLENGE 3:**

## A business model for working with welfare technology.

Description: A general business model or plan for how to navigate the area of welfare technology in general is needed by many public and private actors. The important players, both public and private as well as users and relatives, need to improve cooperation to ensure that more solutions are successfully implemented. Too many products and projects are unsuccessful as a direct result of poor cooperation and lack of mutual understanding.

This problem also translates to the actual procurement of technology, even after the technology has been proven successful in tests.

#### The Nordic thinktank recommends:

# Better and wider use of private-public partnerships (PPP) and private-public innovations (PPI)

Both public authorities and private companies must improve their cooperation. One way of improving relations and gaining a better understanding of the complexities of each other's working environments is engaging in more publicprivate partnerships. This is an area which has received much focus during recent years and is perfectly suited for the area of welfare technology. More partnerships and more common innovation projects will undoubtedly result in more successful products and more successful implementations. The proof is in the pudding, and recent years have seen some very positive examples of PPP and PPI.

# Better and broader cooperation in product development and testing

Interdisciplinary staff and end-user involvement are essential for better product development and product testing.

Welfare technology products are designed to help a certain target group with a given need. A product has a better chance of successfully accomplishing this if end users have been involved in product development. Designing solutions for human beings is very complex, the variables are many and real-world testing is a necessity to gain the required knowledge.

This also applies to public authorities when they test technologies they see as potential new implementations. During these tests, end users and the involvement of staff from various fields of expertise are beneficial for the validity of the test. They also ensure ownership and ease future implementation. Furthermore, feedback to the manufacturer from testing in real settings is crucial for further development and perfection of any welfare technology.

#### Smarter procurement

Many public authorities have run into difficulties procuring welfare technology. Some public authorities simply have had too little knowledge of suppliers and relevant technologies on the market. Similarly, many manufacturers do not have sufficient knowledge about customer/user needs and the complexity of the health care sectors. Thus, there is a basic need to establish a better understanding of the different stakeholders' situations before making hasty conclusions on manufacturers/suppliers or solutions. A general thoroughness is required. Before public authorities select a given manufacturer/supplier, they need to ensure that the manufacturer not only has mastered the technology necessary to deliver the best solution but also understands the context in which the solution will be introduced.

Procurement processes are complex and take a lot of time and resources. So an unsuccessful process will be a significant setback. Furthermore, the timeconsuming process means that having to redo a procurement will most likely mean that new and better products have emerged on the market, which, if you are unlucky, your procurement process will not take into account.

Having to do standard procurement within technology is also complicated in itself. Balancing functionality, quality, innovation and price can be very difficult.

For these reasons, public authorities should look into doing new forms of procurement. Several international projects are currently underway introducing both "smart procurement" as well as "pre-commercial procurement". These new procurement forms are well suited for innovation and technology procurements and will give public authorities and private companies new tools for innovation and R&D within a procurement process in the near future.

# **CHALLENGE 4:**

Improved focus on the importance of proper evaluation.

Description: Public authorities in general need a stronger focus and better competences at creating valid evaluations. Introducing anything new should be done on a valid and informed basis; this is not unique to welfare technology.

Today too many projects and too many implementation attempts fail due to lacking or virtually non-existing testing and evaluation. Creating a valid evaluation requires both time and resources, something it is not always allocated today.

#### The Nordic thinktank recommends:

# A stronger focus on valid evaluation. A common Nordic framework for evaluation would be very beneficial and also increase cooperation among public authorities

Introducing valid evaluation methods across the Nordic countries would undoubtedly reduce the number of failed implementations. Too many products have been bought on too thin a background due to poor or non-existing evaluation. These result in negative stories about welfare technology, something that could have been avoided with proper evaluation models. Public authorities need to set aside the required time and resources to do valid evaluation; this is time and money well spent and will end up saving the public authorities a lot in the end. Furthermore, if public authorities in general were better at performing thorough evaluations, they would also be better at sharing results with each other. Today, everyone is sceptical of each other, worried that others have not done a proper evaluation and therefore dismissive of each other's results - causing everyone to re-invent the wheel.

A common Nordic evaluation framework would both ensure that a valid evaluation process was broadly introduced and ensure comparability among evaluations done by different public authorities.

# **CHALLENGE 5:**

## Operation of welfare technology.

Description: The high focus on participating in projects and trying new technologies, as well as the general lack of experience in large-scale implementation of welfare technology, has in general resulted in a lack of attention to the processes which come after the initial implementation. This means many lack the organization and knowledge required to handle issues like service, support, logistics and reacquisition.

#### The Nordic thinktank recommends:

#### Including more services in the procurement

Many public authorities would benefit from including more services in the procurement process. If a municipality does not have the required set-up, it should, to a larger degree than today, consider procuring more than simply the product, but also a range of services which help the implementation process. These could be services such as service, support and logistics of new welfare technologies.



# WHAT ARE THE TOP BARRIERS FOR LARGE-SCALE IMPLEMENTATION AND **HOW DO WE SOLVE THEM?**

# **BARRIER 1:**

Motivational barriers due to conflicts between public sectors.

**Description**: The Scandinavian sector model has many benefits but can also act as a barrier when it comes to welfare technology. The complexity of current financial models, as well as difficulties in cooperation, often causes welfare technology projects involving patients moving across sectors to stall or fail because of uncertainty about who is paying and who is to gain financially.

#### The Nordic thinktank recommends:

#### A review of the current financial distribution model

The current financial distribution model between sectors may no longer be up to speed. The fast development in organization and treatment methods is often hindered by sector crossing, meaning, for example, that welfare technology does not reach its full potential within this area - much to the detriment of patients. A review of the current financial distribution model should be encouraged to increase flexibility and ensure patient-centred treatment, allowing smoother crossing of sectors.

#### A strong national strategy

Not all Nordic countries have implemented a national strategy for welfare technology. A strong national influence guiding and ensuring continued progress within the area of welfare technology is beneficial for both the cooperation of public authorities and also the continued development of the welfare technology market

# **BARRIER 2:**

Welfare technology generally being seen as an expenditure, not an investment, in most Nordic countries.

**Description**: The Nordic countries are still at different levels when it comes to welfare technology, and in many, welfare technology is still seen as expenditure and not as a potentially cost-effective investment. This perception creates a barrier for many Nordic municipalities, who write off working with welfare technology due to lack of funds.

#### The Nordic thinktank recommends:

#### Public-funded reports on the cost-effectiveness of welfare technology

Not all welfare technologies are good financial investments, of course. Some offer a significant enhancement of delivered quality but at a higher price, while others succeed at both being a sound investment and delivering good service. This knowledge, however, should be nationally disseminated. Nationally funded reports on some of the more successful technologies will help public authorities change their perception of welfare technology. Although an initial investment can seem problematic, a proven cost-benefit analysis showing the profitability of a technology will help public authorities save money on welfare technology while still delivering a high-quality service.

# Publicly funded training of staff to ease the initial investment

Adapting the earlier-mentioned recommendation of publicly funded training of staff would also help change the perception of welfare technology as an expenditure. Training of staff when introducing a new technology is expensive and makes the initial investment seem challenging. Making sure our professional staff are well trained is therefore beneficial for the service we provide our elderly but also helps public authorities to innovative and increase cost-effectiveness. Removing the cost of training staff from the cost-effectiveness analysis will make the initial investment smaller and more manageable as well as improve on the general business case of the given technology.

#### Strengthened national guidance for the municipal and regional level

A strong national strategy on welfare technology can be a strong facilitator, as seen in the case of Denmark. Contents may vary, but national guidance and incentives place welfare technology firmly on the political agenda and help speed up the development of the area. Furthermore, the introduction of a national competence centre that gathers and disseminates knowledge and expertise throughout the country has also been proven beneficial and will act as a strong enabler when it comes to ensuring the success of a national strategy.

#### Increased Nordic cooperation and knowledge sharing

The Nordic countries could benefit from improved national cooperation and knowledge sharing within the area of welfare technology. Sharing nationally validated business cases for technologies which are widely implemented in one country among all the Nordic countries would add to the overall knowledge pool. It would help public authorities to find better solutions in terms of both quality and resources, and it would help strengthen the common Nordic market for welfare technology, as suppliers would be known to procurers in all Nordic countries.

The Nordic region would also benefit from sharing best-practice knowledge of how to implement new technology. The sharing of detailed competences and good examples could serve as inspiration and assistance in other Nordic countries, given our strong similarities within the care sector.

# **BARRIER 3:**

The IT/technical infrastructure.

Description: This is, unfortunately, a general problem across the Nordic countries. For varying reasons in each country, there are dark spots in mobile reception as well as gaps in the delivery of high-speed Internet service. This problem is detrimental to many welfare technology solutions.

#### The Nordic thinktank recommends:

#### The need for national clarifications and strategies

There is a general need for an overall clarification of the necessity of complete mobile and Internet service in each country. Furthermore, national strategies should be implemented, based on the abovementioned clarification, on how to meet national needs. It is imperative that these needs be met within a comparatively short time frame.

# MEMBERS OF THE NORDIC THINKTANK FOR WELFARE TECHNOLOGY



# Inger-Marie Bakken (Norway)

Senior Business Advisor Trøndelag R&D

Inger-Marie works with Implementation of technological solutions in health and care from the perspective of municipalities. She also does testing of technologies still under development.



#### Jarmo Eskelinen (Finland)

President of Forum Virium

Jarmo leads Forum Virium Helsinki, an innovation company building bridges between people and services. Jarmo is also president of "The European Network of Living Laps" (ENoLL) a network of 345 members.



# Sigrun Johansdóttir (Iceland)

Manager of TMF

Sigrun manages TMF, which translated into Technology Media Skills. She has more than 20 years of experience working with technology for people with different needs.



#### Ivan K Lauridsen (Denmark)

Head of department for Welfare Technology Aarhus Municipality. Ivan leads the department for welfare technology at one of the leading Danish municipalities within the area of welfare technology.



#### Claus B Nielsen (Denmark)

Business Development Manager at Delta Claus is one of the leading characters within ICT and Welfare Technology in Denmark, and has contributed to both national and international projects within the area. Claus is also the Vice Chairman of the European working group for Continua Health Alliance.



#### Mikael von Otter (Sweden)

Expert on economic and business policy at Almega Mikael is responsible for the area of welfare technology at Almega and is an expert on the greater societal benefit of using ICT and welfare technology.



# Randi E Reinertsen (Norway)

Research Director and Professor at SINTEF Welfare technology is a strategic initiative at SINTEF and they are involved in several large national projects within the area.



# Eva Sahlén (Sweden)

Director of Social Affairs at Västerås Municipality Eva has spearheaded the success obtained by Västerås Municipality within the area of welfare technology. Västerås is today recognized as the leading municipality in Sweden within this area.



# Hákon Sigurhansson (Iceland)

Managing Director TM SOFTWARE

TM Software is one of the leading companies in software solutions for the healthcare and welfare sector in Iceland. Hákon has been has over 20 years of management experience in the software and health care IT industries.



#### Lea Stenberg (Finland)

Project Manager at Union for Senior Services Lea is project manager on a large project within welfare technology called The KÄKÄTE project. The project aimed to increase the chances of independent living.



#### Dennis C Søndergård (Denmark)

Project Manager at NVC, Nordic Council of Ministers Dennis is responsible for the area of Welfare technology at The Nordic Center for Welfare and Social Issues. He is also responsible for the Nordic Thinktank for Welfare Technology and chairs the sessions







For more information about The Nordic Thinktank for Welfare Technology or about the Nordic cooperation within welfare technology please contact:

#### Dennis C. Søndergård

Project Manager, Welfare Technology Nordic Centre for Welfare and Social Issues Twitter: VelfærdsteknologiNVC (@teknologiDK) Tlf: +46-(0)76 000 35 45 dennis.soendergaard@nordicwelfare.org

www.nordicwelfare.org

