



## WHITEPAPER

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# From walking frame to robots - a report about seniors and technology





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## Foreword

Our ambition at Careium is to help seniors live a better and fuller life. We want people's golden years to be an independent, invigorating and meaningful stage of life. Aging entails major challenges for the individual, relatives and society. According to a study from the UN, there will be 2.3 people of working age for every senior citizen in Europe by 2036. The corresponding figure in 2012 was 4.2. These demographic changes mean that healthcare and medical services are facing substantial challenges in terms of care as the percentage of seniors increases. We are convinced that technology has an important role to play in addressing these challenges. In an effort to increase awareness of how we can be part of the solution, we have studied the attitudes of seniors toward new technology and new smart healthcare solutions and their use.

We have taken a closer look at how seniors in France, Italy, Germany, the UK and Sweden view new technology. This report summarizes the results, which show that many seniors are curious about technology, have a high level of confidence in new digital solutions and are open to trying out new services, such as technology enabled care. We also noted that few seniors currently use technical aids. The interest is there, but the information about new tech-

nology does not seem to get through. In other words, there is a clear discrepancy between what seniors want and the information they have actually received. Steps need to be taken to provide seniors with the knowledge they require and to make information available. These kinds of measures must be made for relatives as well, for they too lack useful information and awareness. Knowledge could spare them unnecessary concern for their loved ones.

The report also shows that many seniors, women in particular, feel insecure in their own homes. Technical aids, including fall sensors, home alarms, social alarms, GPS watches and solutions for smart homes, may provide an answer to help both seniors and relatives feel more secure and allow seniors to live at home for longer, as the majority of them wish to continue living in their own homes for as long as possible.

Seniors should be able to enjoy their lives and do the things they wish to do – new technology can help to make this possible.



# REPORT SUMMARY Five key insights

## ONE-FIFTH

of seniors feel insecure in their own homes.

**SIX OUT OF TEN** state that technical aids make them feel more secure at home.

**NINE OUT OF TEN** seniors say it is important that they are able to continue living at home for as long as possible.

**SEVEN OUT OF TEN TRUST** the aid provided by solutions for smart homes.

**SENIORS ARE CURIOUS** about new technology. Two-thirds have a significant or fairly significant interest in technology.

## 1. A changing world

The global population is growing and living longer. Increasing longevity and decreasing fertility rates mean seniors represent a growing proportion of the global population. These demographic changes are placing new demands on society, particularly in terms of healthcare and social care for the growing proportion of seniors. According to a joint report by the European Commission and the OECD, the sustainability of the European healthcare and medical services system is being challenged by demographic changes, by the fact that more people are suffering from chronic diseases and by pressure to achieve economic efficiency. To meet these challenges, healthcare and medical services must become more efficient and the OECD proposes that new digital technology and e-health solutions may enable improvements. While digitalising the healthcare sector is a complex and costly process, this is offset by the long-term advantages, which could include higher-quality healthcare, better working conditions for personnel, efficiency improvements and better resource allocation.<sup>1</sup>

Although the shift to digital solutions offers major opportunities, it also entails certain requirements. To successfully implement changes, digitalise the healthcare sector and leverage the full potential of new technology, there must be systems in place to support this transition. There are already digital solutions that can simplify everyday situations for patients, the elderly and relatives, and more are being developed. A fundamental prerequisite for using the technology is an internet connection.

In 2017, 87 percent of households in the EU-28 had access to the internet, an increase of a full 32 percentage points since 2007. There are substantial variations between



countries, however, and certain differences can also be seen between urban and rural areas, with residents in urban areas generally having slightly better internet access compared with residents in rural areas.<sup>2</sup>

An earlier study by Doro showed that internet use among seniors over the age of 65 in the UK, France, Germany, Sweden and Italy increased from 73 percent to 76 percent between 2015 and 2017. This indicates that internet penetration is also improving among the elderly population. As many as 60 percent of seniors in the survey use the internet one or more times every day. Seniors in Sweden and Germany are the most frequent internet users, 78 percent and 75 percent, respectively.

<sup>1</sup> [https://ec.europa.eu/health/sites/health/files/state/docs/health\\_glance\\_2016\\_rep\\_en.pdf](https://ec.europa.eu/health/sites/health/files/state/docs/health_glance_2016_rep_en.pdf)

<sup>2</sup> [http://ec.europa.eu/eurostat/statistics-explained/index.php/Digital\\_economy\\_and\\_society\\_statistics\\_-\\_households\\_and\\_individuals#Internet\\_access](http://ec.europa.eu/eurostat/statistics-explained/index.php/Digital_economy_and_society_statistics_-_households_and_individuals#Internet_access)



## 1. Concerned but want to live at home - a mixed picture of everyday life for seniors at home

Life changes as we age. Our joints and muscles become stiffer, our muscle mass decreases, our hair thins and our sight and memory become weaker. Many adopt a slower pace of living and spend more time at home. But what do the elderly think about living at home? Do they want to stay in their own homes? Do they feel secure? As we look at these questions, a fragmented picture of seniors emerges. They enjoy living at home but are also worried and see a number of concerns.

### 2.1 Insecurity and concerns in many homes

The greatest concern among seniors is that they will lack the energy to look after themselves. In Italy, 60 percent stated that they are concerned about this, the highest figure among all countries surveyed. In total, almost half of seniors are concerned that they will lack the energy to look after themselves.

Concerns about falling are also common, with 22 percent of seniors expressing this as a concern. Again, women expressed a greater sense of concern than men. In France, for example, 32 percent of women are concerned about falling, compared with 21 percent of men. The equivalent figures in Italy are 32 percent and 19 percent, respectively.

Falls are on the increase and are one of the most common reasons for hospital treatment among the elderly. In Sweden, 200 people are injured through falls every day, while in the UK, one in three people over the age of 65 and about every second person over the age of 80 fall at least once per year. This results in pain, stress, injury and a loss of self-confidence and independence.<sup>3</sup> In Sweden alone, falls are estimated to cost municipalities and county councils SEK 11.1 billion per year, a figure that does not include the cost of primary healthcare.<sup>4</sup>

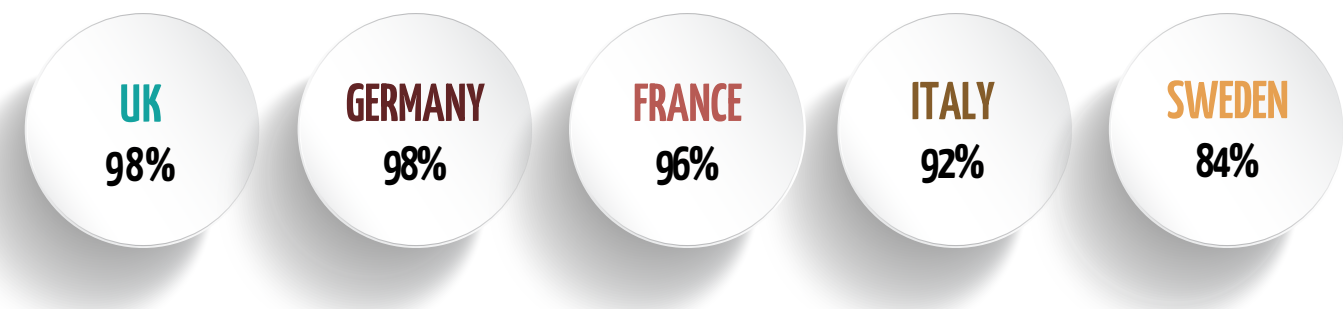
Technology has a key role to play in increasing security in the home. 60 percent of those who use technical aids in the home state that they feel more secure because of these tools. Among people who help a relative with everyday routines, 58 percent state that technical aids help to create a greater sense of security. Technology has significant potential not only to help seniors but also their loved ones to feel more secure. In the UK, 6.5 million people care for a relative, which saves the public sector 132 billion pounds per year. At the same time, these individuals run a very high risk of becoming sick themselves.<sup>5</sup> Their lives could be made easier with the right help.

<sup>3</sup> <https://www.gov.uk/government/publications/falls-applying-all-our-health/falls-applying-all-our-health>

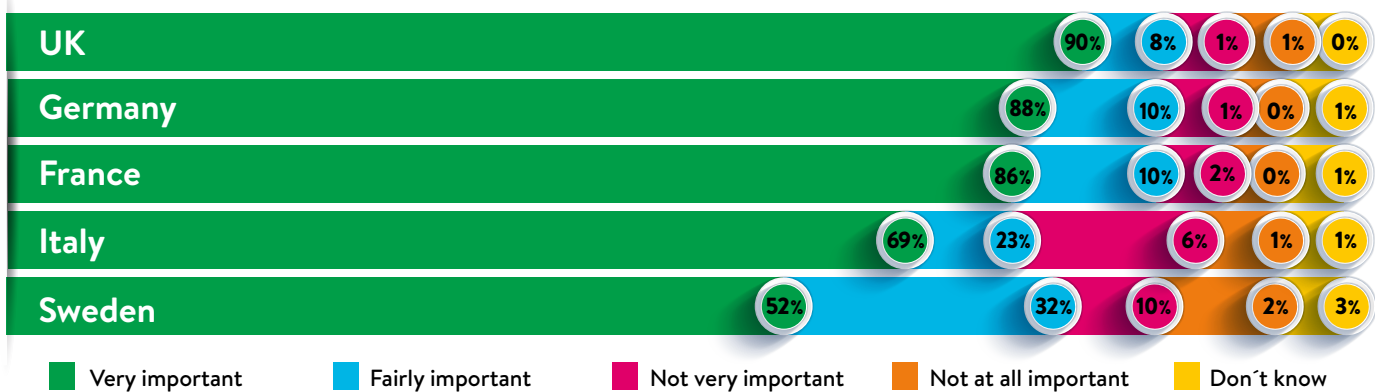
<sup>4</sup> <http://www.socialstyrelsen.se/fallolyckor/statistikomfallolyckor>

<sup>5</sup> <https://www.carersuk.org/news-and-campaigns/press-releases/facts-and-figures>

# How important is it for you to be able to, for as long as possible, live at home?



## VERY/FAIRLY IMPORTANT TO BE ABLE TO REMAIN IN MY OWN HOME



### 2.2 Many want to stay in their own homes

Although some seniors feel insecure in their homes, a majority feel it is very important to continue living at home for as long as possible. Our report shows that nine out of ten seniors believe it is very or fairly important to continue living at home for as long as possible.

It is difficult to say why this is the case, but one possible reason is that Sweden has a different type of welfare system with a long tradition of trusting society, which bears a large share of the responsibility for caring for the elderly, whereas family has had, and still has, a greater responsibility in other countries.

Differences between countries emerge when analysing which groups responded “Very important” to the question of continuing to live at home. Far fewer people in Sweden feel it is important to continue living at home, while the UK is at the other end of the scale with a much higher percentage.

There is a notable tendency in all countries for women to consider it more important to continue living at home. The clearest difference is between Italy and the UK. 74

percent of women in Italy believe this is important, compared with 63 percent of men. The equivalent figures in the UK are 93 percent and 88 percent.

Apparently many seniors want to live at home for as long as possible and this can be made possible using technology that increases security. New products and solutions allows resources to be freed up and invested in other areas. For example, domestic care services save both time and money by using a remote camera at night, resources that can be used to enjoy more quality time with people using the products. Remote monitoring of an illness is another example of how resources can be saved by having the patient visit a health centre when it is actually needed, instead of having unnecessary appointments.

A smart home solution is one option to allow seniors to feel secure and to continue to live at home. In addition to helping individuals, technology has the capacity to help solve societal challenges. Significant public sector savings are possible when more people choose to continue living at home with the help of technology.





## 1. Use of technology by seniors in everyday life

Society, caregivers, relatives and the elderly themselves all benefit from the implementation of new technology and digital solutions. But how substantial is the interest in these services? How interested are seniors in new technology?

### 3.1 Substantial interest in technology among seniors – social media and chat apps increasingly popular

Two-thirds of seniors are very or fairly interested in technology. The most significant interest in technology was noted in France, where 85 percent of respondents say they are very or fairly interested. The least significant interest in technology was noted in the UK, where 50 percent said they were very or fairly interested. In all countries, men stated more often than women that they are very or fairly interested in technology.

In an analysis of how seniors communicate, we see that this interest in technology is manifested in the fact that many seniors use social media and chat apps such as WhatsApp. Telephone calls continue to be the most popular channel for communicating with family and relatives, but many have also added some form of digital messaging service. Certain differences are discernible between men and women and between countries. Women use social media more than men, and women in Sweden stick out in a comparison with other countries. WhatsApp is most popular in Germany and Italy. 54 percent of German and 58 percent of Italian respondents use WhatsApp to communicate with their family.

Based on the type of communication tools used by seniors, the respondents were also asked how often they communicate with their families and relatives. The percentage who communicate with their family every week is generally relatively high. Among those who communicate by telephone, 82 percent commu-

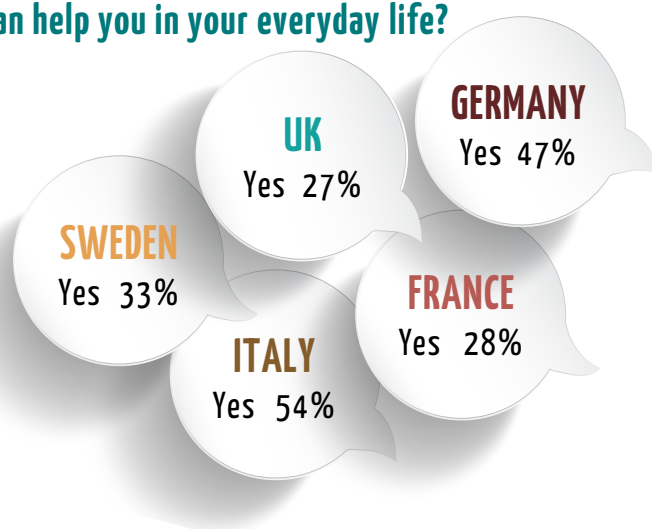
nicate with family and relatives every week. Almost as many, 80 percent, use social media every week to keep in contact with their family. 75 percent of respondents use text messages every week and 86 percent communicate via WhatsApp every week. Slightly fewer, 61 percent, use video calls.

### 3.2 Technical aids still waiting for breakthrough

In general, few seniors use technical aids, with only 14 percent of respondents stating that they use these types of tools. The fact that so few seniors use technical aids may be due to a number of factors. Perhaps there is simply not a need. Or it may be the case that people have a need, conscious or otherwise, but lack the necessary information or access to the aid.

Given that the interest in technology among seniors is so substantial, the use of technical aids in their daily lives should reasonably be higher. This is also reflected in the fact that 38 percent of seniors are curious to learn more about how technical aids can help them in their everyday lives.

### Are you curious about how technical aids can help you in your everyday life?





While there is significant interest and many are curious about new technology, few, only 14 percent, have tested technical aids and digital solutions. When presented with an open-ended question about the type of technical aids that seniors are interested in, the answers varied considerably. Answers included apps, electric bikes, hearing aids, fall sensors, home alarms, stairlifts, robotic vacuum cleaners, walking frames and robots.

The fact that few of the respondents use technical aids but would like to learn more about the options that already exist, such as hearing aids, fall sensors and home alarms, may indicate a discrepancy between demand and what seniors already know and the alternatives they receive information about.

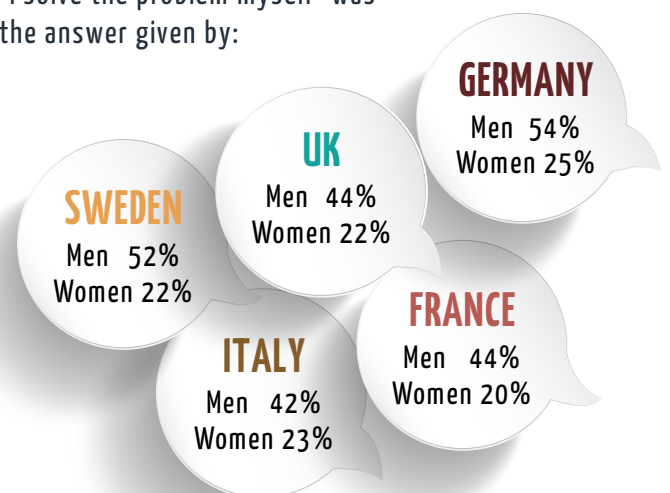
As previously reported, 60 percent of those using technical aids say the technology helps to provide a greater sense of security. Those with relatives who use technical aids also strongly believe that technical aids help to increase security. The fact that only 14 percent of respondents actually use technical aids is alarming. A much more secure life could be offered to seniors if technology were used by more people.

### When technical problems arise

When technical problems arise, the most common solution is to solve the problem oneself, which is the answer provided by just over one-third of respondents. However, men consider themselves to be better problem solvers and are less likely to ask for help.

### *What do you do when you experience technical problems?*

"I solve the problem myself" was the answer given by:







## 4. New technology and digitalisation of healthcare and medical service

Seniors are interested in new technology. They have expanded their range of communication tools and many use digital chat apps to communicate with their families. But how advanced are seniors in terms of digitalisation of healthcare and medical services? Have they tested technology enabled care? What do they think about solutions for smart homes and the digitalisation of healthcare and medical services?

### 4.1 Smart homes and technology enabled care

There is a widespread confidence among seniors when it comes to smart homes, with a full 40 percent saying they would completely trust or mostly trust solutions for smart homes as aids and another 31 percent stating they would partially trust the solutions. This is consistent with the large percentage of seniors who are interested in technology.

However, the scenario changes when it comes to experiences of technology enabled care. The survey shows that very few seniors in all countries have any experience of this type of care. Only 1.6 percent of respondents have tested technology enabled care. Once again, however, many are interested in learning more. Over one-third of seniors, 35 percent, are open to trying such solutions. The greatest interest was shown in Germany, where 44 percent said they would consider trying technology enabled care, while the level of interest in Italy was almost as high at 41%. This indicates a large degree of openness, with 38 percent of seniors indicating that they believe technology enabled care could replace traditional care to some extent.

The high level of people who trust solutions for smart homes as aids and the fact that many people are willing to try technology enabled care, although few have actually done so, provide additional indications that there may be a knowledge gap. While people are interested and trust the solutions, they are not receiving the necessary information and knowledge. In certain cases, the right conditions may also be lacking.

*“Dehumanization,  
no empathy”*

- respondent in Germany

### 4.2 Digitalisation of healthcare and medical services

Seniors also have a positive view of new technology and digital solutions in a broad societal context. A large proportion of respondents, 42 percent, believe it would be very or quite positive if healthcare and medical services were digitalised. Seniors in Italy are most positive toward the digitalisation of healthcare, with 58 percent indicating they are in favour. Nearly half of Swedish seniors, 49 percent, have a positive view of digitalisation, and a large share of seniors in France, 46 percent, also have a positive view. In Germany and the UK, 28 percent and 27 percent, respectively, are of the opinion that the digitalisation of healthcare is very or quite positive, which is significantly lower than in other countries.

*“Elderly people would  
struggle a lot”*

- respondent in UK

However, digitalisation is not altogether positive in the eyes of seniors. They also see a number of uncertainties involved in the digitalisation of the healthcare sector. The reduction in human contact is by far the greatest concern among seniors, 65 percent. 41 percent are concerned that digitalisation may lead to poorer quality healthcare. Far fewer are concerned about taking greater responsibility for their own healthcare, 16 percent, or that the new technology is complex, 12 percent. Nor are seniors particularly concerned about companies collecting data about their digital behaviour, 18 percent.





## 5. A market with substantial potential

It is clear that seniors are interested in and trust new technology, such as solutions for smart homes. While telephone calls remain the most popular communication channel, many use chat apps and social media to communicate with their families. This reinforces the picture that today's seniors are interested in technology and curious about trying new things.

Nevertheless, few seniors use technical aids in their everyday lives, which may be the result of a lack of knowledge and information. The answers to an open-ended question about the type of technical aids that seniors are interested in also suggest a knowledge gap between the products that exist in the market and what seniors actually know. Few appear to be aware of solutions for smart homes, and answers refer instead to traditional aids, such as hearing aids, home alarms, stairlifts and walking frames.

While most seniors want to continue to live at home for as long as possible, we can also see that some seniors feel insecure in their own homes. Technology can offer major opportunities to enable a more secure and safer life. Technology can make seniors feel safer at home and provide extra security for relatives. Once again, it is about offering new technology and digital solutions to everyone who needs them.

Offering digital solutions and technology to seniors can provide substantial benefits. Across Europe, demographic changes represent a major challenge, and we can see that relatives are taking considerable responsibility for the care of their loved ones in many countries. Significant resource gains are available at both a societal and individual level. New technology and digital services have significant potential to relieve the burden on both care givers and relatives and enable seniors to live life to the fullest.

### CASE ÖSTERSUND



In Östersund, Sweden, the municipality has worked hard to make technical aids, such as night vision cameras and GPS alarms, a natural part of the everyday lives of the elderly. Östersund municipality is facing similar challenges to those faced by many municipalities across Europe as the number of senior citizens grows. Care requirements are increasing and it is not easy to find sufficient staff resources.

One aid that is highly appreciated by users in Östersund is the GPS watch, with a positioning alarm and built-in speaker to communicate with the person using the watch.

"We can give the elderly a GPS watch and the security of knowing they can alert us if something happens. The positioning function enables us to locate the person, and we can also phone them. We can only see advantages with this product," says Åsa Trolle, Unit Director at Östersund municipality.

The Doro Secure® 480 GPS watch is helping 250 users in Östersund, a number that is growing rapidly. There are numerous examples of how it has made life easier for both users and relatives. With assistance from the municipality, a couple on holiday in Spain were able to set a new home address in the watch belonging to the husband, who suffers from dementia – to the hotel resort.

"The wife phoned and explained that she had never had such a good holiday and that she could relax the whole time. She was almost crying when she called and explained how good it had been. That's how we know we have found the right solution," says Åsa Trolle.

### ABOUT THE REPORT

The survey used in this report was conducted by Novus on behalf of Doro with the aim of looking at the experiences and attitudes of seniors toward new technology. The survey was conducted in Sweden, the UK, Germany, France and Italy. The target group was seniors between the ages of 55 and 85. A total of more than 1,000 online interviews were conducted in each country between May 28 and June 7, 2018. The results were post-stratified to reflect the overall target group.