
Digitalization
in Danish
Healthcare
Healthcare
Denmark

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# Denmark’s digital healthcare journey

**The extensive digitalization of the Danish healthcare system did not happen overnight and has been propelled by a strong political desire to improve the healthcare outcomes and deliver the most effective and high-quality treatments possible to all Danish citizens.**

Crucially, digital strategies have been designed to support overarching health policy goals — ensuring that digitalization is a means to an end, not an end in itself. That is why, over several decades, changing Danish governments have supported a wide range of digital initiatives, including home treatment options as well as new data and digitalization efforts.

These initiatives have all aimed to promote equality in health and improving healthcare quality, helping to break down distances and ensure that all citizens can access safe, effective care in familiar environments.

It is through a series of digitalization strategies that Denmark has developed its strong digital public sector continuously adding digital solutions that improve patients´ experiences and strengthen the overall level of care.

Building on this strong foundation, the long-standing political commitment to digitalization is also reflected in the most recent National Healthcare Reform of 2024, which sets the direction for the Danish healthcare system for the coming years.

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### National Healthcare Reform of 2024

The reform’s overarching aim is a more equal, closer-to-citizen and coherent healthcare system, where digital health solutions are seen as essential to achieving these goals. Therefore, as part of the reform, a new national strategy for digitalization and health data will be developed further underlining the central role of digitalization in shaping the future of healthcare in Denmark[1].

This new strategy will build on a long tradition in Denmark of developing and implementing ambitious digital health strategies, which have consistently driven progress and created lasting solutions (Ibid).

### Comprehensive Digital Health Solutions

As a result of this sustained digital focus, today’s Danish healthcare sector now benefits from comprehensive solutions developed for the entire public healthcare system. These solutions enable Danish citizens to take an active part in their personal health, offering multiple digital services through which citizens can access their personal health data, such as health records and prescription medications, and thereby interact with the healthcare system.

Denmark's digitalization has progressed through several phases. The first phase began in the mid-90s, when the first strategies in the health sector were drafted to make electronic health records available in hospitals, replacing paper-based patient records.

During this period, Denmark also introduced the early digitalization of message communication between healthcare professionals, enabling secure electronic exchange of referrals, discharge letters, lab results, and other clinical information. This laid the groundwork for a more connected and efficient healthcare system and became a cornerstone for later digital initiatives.

Over the past 20 years, municipalities, regions, and changing Danish governments have agreed to work closely together to build a strong digital infrastructure, which today serves as the foundation for all public services delivered to citizens and private businesses in Denmark.

**To create lasting and durable solutions to the benefit of all citizens, these agreements are based on joint public digitalization strategies, which are cohesive multiannual agreements involving not just the central government, but also regions and municipalities.**

In the 2000s, Denmark set its sights on enhancing and streamlining citizens' interactions with the public sector, while introducing a number of large-scale digital infrastructure solutions.

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Moreover, Denmark gradually transitioned to a mandatory digital self-service at the beginning of the 2010s to strengthen citizen engagement and improve communication between patients and the healthcare system. During the same period, new digital tools were introduced to optimize the sharing of health data between the primary and secondary sectors, creating smoother treatment flows for citizens.

The 2016–2020 digitalization strategy further strengthened information security, a key element in maintaining the high level of trust in the healthcare sector. Building on this, the 2018 "Coherent Health Network for All" strategy introduced 27 initiatives aimed at improving citizen-centric care, and patient engagement, further supporting coherence across the healthcare system.

**Going forward, Denmark is set to increase its ambitions significantly regarding the use of digital solutions to confront both national and global healthcare challenges.**

In 2023, the recommendations of the **"Danish Resilience Commission"**, consisting of 16 healthcare experts and high-level representatives, were officially published.

Regarding digitalization, the commission recommended that Denmark follows a principal of being **"Digital and technological first"** as a mean to free up time and resources in the healthcare system by creating better framework conditions for implementing labor-saving digital solutions, as well as strengthening digital competences in basic healthcare education.

**1990s**
**First digitalization strategies in Denmark**

**2000s**
**Mandatory use of digital self-service**

**2016**
*Strategy*
**"A Stronger and Safer Digital Society"**

**2018**
*Strategy*
**"Coherent Health Network for All"**

**2023**
*Commission*
**Resilience and Health Structure Commissions**

### Resilience Commission

The Resilience Commission's recommendations included 20 proposals across three main themes: Stronger prioritization and smarter task solutions, attractive workplaces and time for core responsibilities, and the right competencies and professional flexibility.

Officially, the Commission was called the Commission for Resilience in the Healthcare System and was established by the previous government in the summer of 2022 and published its recommendations in the fall of 2023.

### Health Structure Commission

Building on the work of the Resilience Commission, the Healthcare Structure Commission was established in March 2023 to propose solutions for a more equitable, preventative, cohesive, and sustainable healthcare system. The commission incorporated the Resilience Commission's recommendations into its analysis and final proposals.

In response to demographic changes, workforce shortages, and regional disparities in access to care, the commission has presented six cross-cutting recommendations along with three models for reorganizing the healthcare system. These proposals focus on areas such as general practice, psychiatry, digitalization, and the allocation of healthcare resources.



DENMARK´S DIGITAL HEALTHCARE JOURNEY

## 2024

*Reform*

## National Healthcare Reform

Building on this, **the National Healthcare Reform of 2024** further underlines the pivotal role of digitalization and health data in shaping the future healthcare system. **Denmark believes that digital solutions and artificial intelligence hold the key to tackling future challenges in healthcare, including some of the most pressing issues related to an aging population, the increase in chronic diseases, and the shortage of healthcare professionals.**

In relation to this, Denmark has high ambitions to bring treatment closer to the patient's home and is exploring a range of home care and AI-driven solutions that can help alleviate pressure on the healthcare system, minimize distances in healthcare, and offer patients high-quality treatment from the comfort of their own homes.

This ambition is underpinned by a political agreement from December 2023, in which the Danish Government, the regions, and municipalities committed DKK 500 million to scale up digitally supported home treatment and remote monitoring across the country, particularly for citizens with chronic conditions. This approach is also central to promoting equality in health **- particularly for the most vulnerable groups. As a result, this ambitious direction places Denmark among the frontrunners in digital health in Europe[2].**

## Multi-public ownership

Since 2001, the digitalization of the Danish public sector has been driven by close and dedicated cooperation between the state, regions, and municipalities. **This is particularly evident in areas requiring cross-sectoral solutions, such as digital communication.**

Shared public strategies have laid the foundation for Denmark's digitalization, resulting in numerous solutions and joint platforms that have become integral parts of daily life for Danes. Notable examples include borger.dk, which provides citizens with digital access to public services and information, and Virk, a portal that allows businesses to interact digitally with public authorities.

Another key solution is the national e-health portal Sundhed.dk, which provides Danish citizens and healthcare professionals with a digital platform to efficiently exchange information, enabling patients to get an overview of correct and updated healthcare information.

Joint ownership also means that there is a shared risk among the involved stakeholders, which, in turn, ensures that everyone has a stake in making the solutions a success. Additionally, most of Denmark's joint public healthcare solutions are owned based on the principle that those stakeholders who benefit the most from the solutions also contribute the most.

### MedCom

MedCom develops, tests, certifies (and helps implement) digital standards that enable systems in the healthcare sector to exchange relevant data securely. These efforts are carried out in close cooperation with all parts of the healthcare system, including IT vendors. For instance, this could involve developing and implementing a new or updated technical communication standard — such as a discharge summary shared by the hospital with the patient's general practitioner, or a rehabilitation plan sent from the hospital to the municipality when a patient transitions from specialized hospital rehabilitation to municipal rehabilitation services. Additionally, MedCom houses national infrastructure for video consultations and supports local implementation through coordination of national initiatives and projects aimed at achieving joint cross-sectoral goals.



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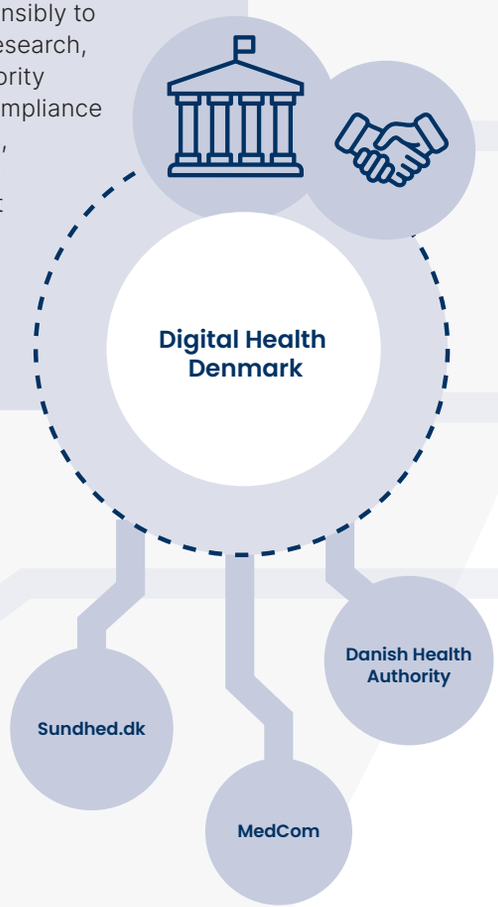
### Sundhed.dk

Denmark's national e-health portal, Sundhed.dk, is a prime example of a successful multi-public solution, enabling citizens to access a wide range of personal health data, including their medical records, information on prescription medications and vaccinations, lab and test results, and more. **In the time of writing, it is estimated that 96% of the Danish population are familiar with the portal, and 2.3 million unique users visit it each month.**

### Danish Health Data Authority

The Danish Health Data Authority plays a central role in Denmark's healthcare system by managing comprehensive national health data. It ensures that data is used securely and responsibly to improve patient care, support research, and foster innovation. The authority provides guidance, oversees compliance with data protection regulations, and helps develop digital health solutions and infrastructure that benefit patients, healthcare professionals, and the broader health sector.



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## Digital Health Denmark

As part of this strengthened national effort, Denmark will establish Digital Health Denmark on January 1, 2027 — a new national entity designed to centralize and coordinate the development of the country's digital and data-driven healthcare system.

The organization will bring together MedCom, Sundhed.dk, the Danish Health Data Authority, and selected digital solutions managed by the regions in one unified structure. **Once established, Digital Health Denmark will be jointly owned by the state, regions, and municipalities, and will be responsible for delivering stable, secure, and coherent digital healthcare services and shared data infrastructure across sectors.**

By gathering these core national competences and infrastructures under one roof, Denmark aims to accelerate the roll-out of digital solutions that can address the healthcare system's most pressing challenges, **including workforce shortages, an aging population, and the rising number of citizens living with chronic conditions.**

The unified approach also supports more equal and seamless healthcare **by making it easier to scale innovations and deliver digital tools — such as telemedicine and home-treatment technologies — that bring care closer to the citizen.**

Building on the legacy and strengths of MedCom and Sundhed.dk, Digital Health Denmark will continue to operate national digital platforms and infrastructure, while also driving the development of citizen-facing services, secure data exchange, and cross-sector interoperability.

This comprehensive consolidation introduces a more coordinated and future-proof governance model. Few countries have taken such a national, system-wide approach, as many healthcare systems remain highly decentralized and driven by regional or provincial priorities. **Denmark's model aims to enhance governance, coordination, and scalability in digital health — ultimately ensuring long-term value for citizens, healthcare professionals, and public authorities.**

# New initiatives

## National Data Platform

The National Data Platform is a key initiative highlighted in **the Danish Healthcare Reform**, and Digital Health Denmark will play a central role in its development. The platform will give citizens and healthcare professionals easy, secure access to relevant health information across the entire healthcare system. **It will enable seamless and responsible sharing of health data for patient care, while respecting data protection rules.**

A comprehensive pre-study conducted during 2025-2026 will form the basis for deciding on the platform's implementation, focusing on integrating decentralized data sources into a unified and accessible system.

## Digital front door

**The Danish Healthcare Reform also encompasses a vision of a Digital Front Door – an idea that citizens should be able to have their first point of contact with the healthcare system through simple and flexible access to digital healthcare services and information.** As part of the reform, the introduction of a patient right to access certain digital health services – such as video consultations, digital rehabilitation, and remote monitoring – is being considered, with plans to expand digital offerings as technology and needs evolve.

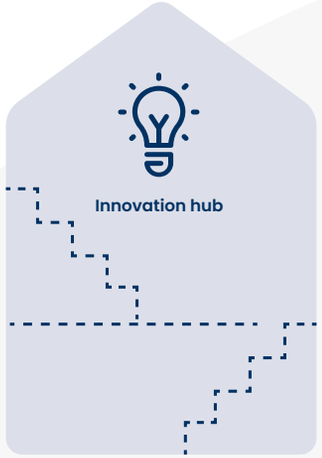
The Digital Front Door will empower citizens to navigate the healthcare system more effectively, access their health data, and utilize digital tools for self-care, while ensuring inclusivity for all digital skill levels. This approach aims to improve healthcare accessibility, increase patient engagement, and optimize resource allocation by offering digital options where clinically appropriate.





## National Center for Health Innovation

To accelerate innovation and foster collaboration between public healthcare providers, private companies, and research institutions, the Danish government is in the process of establishing the National Center for Health Innovation in Odense. **A center that aims to serve as a national hub for identifying, scaling, and promoting breakthrough healthcare technologies that improve efficiency, patient care, and the healthcare system across sectors.**




The center is an independent entity but anchored in Digital Health Denmark to ensure stronger execution capacity and greater coherence in the implementation of innovative healthcare solutions, digitalization, and IT development, as well as to support better utilization and dissemination of existing innovations within the healthcare system.

Positioned at the forefront of digital health transformation, the National Center for Health Innovation embodies the country's commitment to modernizing healthcare delivery and addressing future workforce challenges through technology.

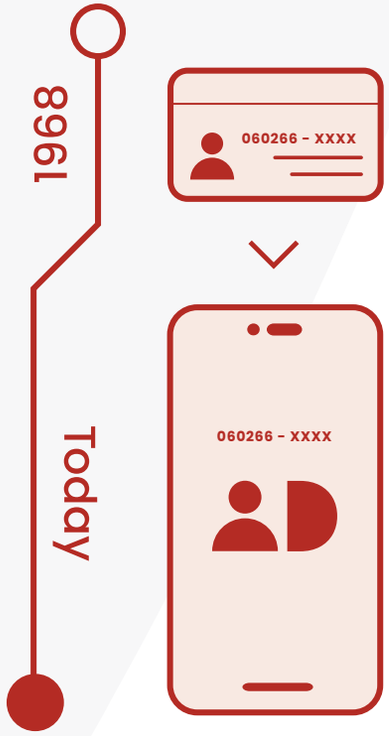
# Infrastructure

The Danish healthcare sector has a vast and well-developed digital infrastructure, covering the entire healthcare system, both at a primary and secondary level. With the increasing challenges concerning staff shortages and a growing number of elderly people and citizens living with chronic diseases, the demand for digital solutions and the effective utilization of health data are set to increase substantially.

For decades, Denmark has paved the way for the implementation of digital solutions across the Danish healthcare sector. **In 1968, Denmark implemented a unique Civil Registration Number, which is issued to all Danes at birth, making data linkable across data sources.**

In 2010, the first nationwide single sign-in solution, NemID, was introduced, giving citizens secure access to public self-service solutions. **NemID has since evolved into MitID, a digital ID system that continues to provide citizens with convenient, secure access to almost all public digital services.**

Specifically for healthcare, the digital infrastructure has given Danes the opportunity to see who has accessed their healthcare data, restrict access to their data, and grant relatives access to their information, among other things. The extensive collection of data across the public sector, and specifically in the healthcare system, is founded on a high level of trust from the population.




INFRASTRUCTURE

**The Danes' trust in the secure and responsible handling of their health data — and in the public digital infrastructure in general — remains a cornerstone for the success of digital health initiatives.** Recent national surveys show that a clear majority of Danes trust public digital solutions: in a 2024 survey conducted by the Danish Agency for Digital Government, 82% of the population reported that they have confidence in public digital services such as MitID, Digital Post, sundhed.dk, and borger.dk — an increase compared with previous years.

This trust is supported by transparent data governance practices, strict security standards across the health sector, and citizens' ability to control who accesses their health records. Such stable confidence enables large-scale data use, supports patient engagement, and underpins widespread adoption of digital health services.

**82%**
**Of Danes trust Public Digital Services**

## Current digital infrastructure

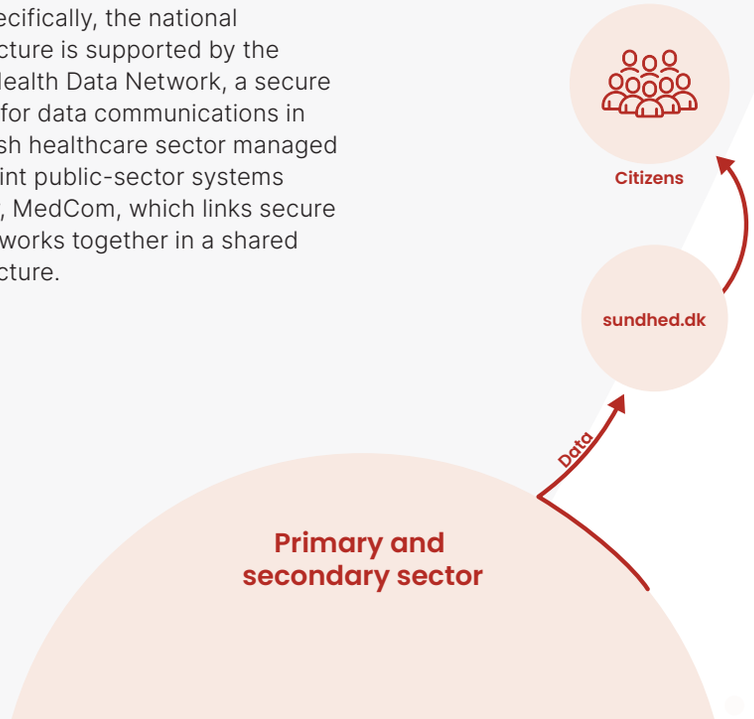
Today, all workflows are digital in the Danish healthcare sector, including at the GPs, hospitals, and municipalities. Each part of the healthcare sector has its own system, but all of them are connected through a common infrastructure.

**The fact that data are collected across both the primary and secondary sectors and accessible through one national e-health portal, Sundhed.dk, means that citizens can access a complete overview of their healthcare data and prescription medications as well as see all touchpoints and communications that they have had with different parts of the healthcare system.**

More specifically, the national infrastructure is supported by the Danish Health Data Network, a secure network for data communications in the Danish healthcare sector managed by the joint public-sector systems manager, MedCom, which links secure local networks together in a shared infrastructure.

Denmark provides healthcare professionals with access to a broad range of key health registers through the National Service Platform, which enables the use of these registers and services directly in patient care.

Through the National Service Platform, healthcare professionals across the primary and secondary healthcare sectors can access registers such as the Danish Civil Registration System and the Authorization Register, as well as national services like the Shared Medication Record — an IT solution offering a complete electronic overview of citizens' prescription medications and vaccinations.








## Health appointment overview

Recent efforts have focused on the program **"A Shared Patient Overview,"** which includes various digital solutions and concepts designed to improve coordination and collaboration among hospitals, GPs, and municipal care. The initiative provides citizens with access to an overview of their upcoming healthcare appointments via Sundhed.dk or the app MinSundhed [MyHealth], helping patients keep track of interactions across multiple healthcare providers.

The program also supports healthcare professionals by offering insight into patients' appointments with other healthcare entities, facilitating more efficient scheduling and care planning. The initiative is a collaboration between the Danish Ministry of the Interior and Health, Local Government Denmark (KL), Danish Regions, the Danish Organization of General Practitioners (PLO), the Danish Health Data Authority, the Danish Agency for Digital Government, and MedCom, with the Danish Health Data Authority leading the project.

## The Shared Medication Record

This pioneering system allows for real-time updates, communication, and information sharing between hospitals, GPs, municipalities, and pharmacies by ensuring that information about the citizen's current medication is always available to the citizen and the healthcare staff treating the patient.

This innovative system supports patient safety by using the cross-sectoral overview of the citizen's medication to notify healthcare professionals before prescribing medication that could lead to adverse drug interactions. Finally, it is important to note that doctors and other healthcare professionals may only look up the citizen's medication record when they have the citizen in treatment.

# Collection and sharing of healthcare data

Since implementation of its unique **Civil Registration Number for all citizens in 1968**, Denmark has worked to create an entire ecosystem for health data, known worldwide for its high data quality. The ecosystem is supported **by strong national standards and reporting guidelines**, which ensures an unambiguous use and interpretation of healthcare data.

Moreover, the reporting requirements apply to all healthcare professionals, which means that clinically valid and high quality of data is ensured. Coupled with a high degree of **transparency regarding algorithms and calculations, this enhances trust** in the healthcare data and the system collecting and presenting it.



Importantly, these comprehensive data collections are not only used to support patient care but also serve as a foundation for **research and quality development**, enabling continuous improvements across the Danish healthcare system. Denmark's decades-long approach to gathering and structuring health data has created a rich resource for evidence-based healthcare innovation.

Denmark's strong digital traditions, innovative healthcare data ecosystem, and high level of trust among its citizens allow for an efficient utilization of technological advancements to create solutions supporting healthcare areas such as **cross-sector collaboration, clinical research, and citizens' interactions with the healthcare system.**



COLLECTION AND SHARING OF HEALTHCARE DATA

### Nationwide health data initiative enhances patient care across regions

The Danish Clinical Quality Program (RKKP) is a joint initiative across the country's five regions - which following the healthcare reform will soon become four - ensuring high-quality care using nationwide health data. RKKP oversees 85 national clinical registries across various disease areas and is developed and maintained in collaboration with clinicians who form part of steering committees. These registries offer detailed insights into treatment efficacy, complications, treatment according to guidelines or best practice, and mortality rates. Finally, clinicians are able to access daily updates and annual reports from these registries.

### Vision for better use of health data

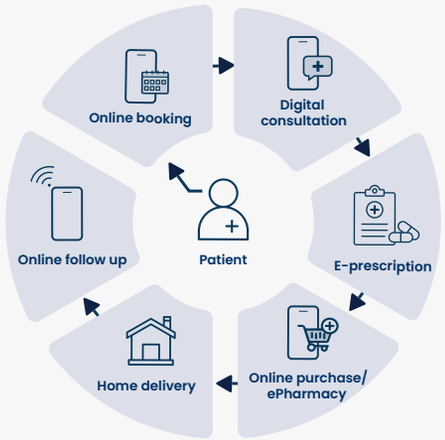
Denmark's ambitious approach to digitalization is exemplified by the Vision for Better Use of Health Data[3], presented as part of the Danish Government's Life Science Strategy towards 2030. The vision represents a shared ambition among multiple stakeholders — including the Danish Health Data Authority, research institutions, and public healthcare organizations — to ensure that health data creates value for patients, healthcare professionals, research, and innovation.

A central goal of the vision is to simplify and accelerate application and approval processes, while providing researchers with secure, unified access to Danish health data regardless of where the data is stored. The initiative also emphasizes strengthening shared data services and maintaining high standards of data security and transparency.

# **CASE** *Digital pathways from consultation to treatment and follow-up care*

Denmark's digital healthcare infrastructure enables patients to move seamlessly from consultation to patient support and follow-up care - often without requiring a physical visit to the GP. Patients can book and attend mail or video consultations directly with their general practitioner (GP) through a secure system in the My Doctor (Min Læge) app. From the consultation, a prescription for medicine can be issued digitally and the patient can redeem it through a physical or online pharmacy.

All medication prescribed in Denmark is automatically registered in the national Shared Medication Record (Fælles Medicinkort, FMK).




The system is a nationwide digital infrastructure developed and operated by the Danish Health Data Authority and used across the healthcare sector to ensure that healthcare professionals have access to updated medication information across sectors. This allows pharmacies across Denmark to access and dispense medicines.

The Danish Medicines Agency authorizes pharmacies that sell medicines online and through apps, ensuring that online pharmacies comply with the same regulatory requirements as physical pharmacies. As a result, both over-the-counter and prescription medicines in Denmark can be obtained either at physical pharmacies or through licensed digital pharmacies offering online or app-ordering and home delivery.

The combination of national digital infrastructure, strong regulatory oversight, and coordinated public governance enables safe and efficient digital pathways from consultation to treatment across the Danish healthcare system.





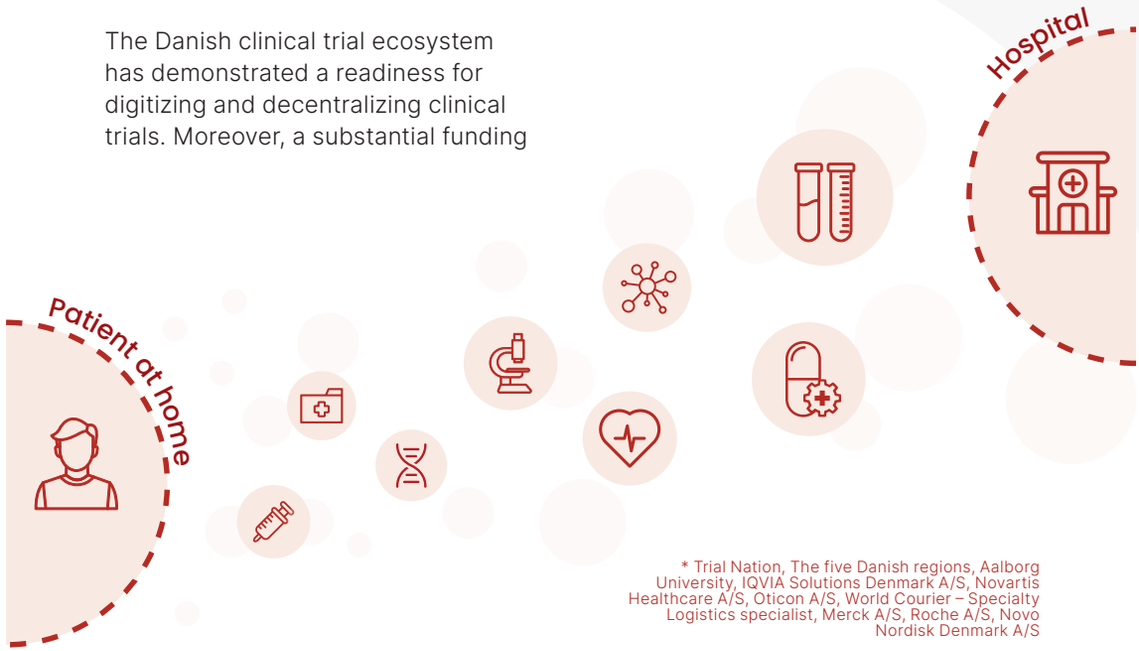
# **CASE** *Bringing clinical trials closer to the citizen*

The ever-evolving technological landscape provides new opportunities to bridge the gap between traditional research sites and participants in clinical trials, ensuring a more personalized experience. **Furthermore, incorporating digital technology, processes and services supports remote interaction with patients and enables them to engage in trials from the comfort of their own home or in the local community.**

The objective is to increase equity in healthcare, as patients regardless of mobility and physical distance to the hospital are able to participate in trials.

The Danish clinical trial ecosystem has demonstrated a readiness for digitizing and decentralizing clinical trials. Moreover, a substantial funding decision by Innovation Fund Denmark has enabled a powerful consortium of Danish life science stakeholders* to innovate and develop Denmark as the leading nation for decentralized clinical trials (DCTs).

The €5M PACT project (patient-centered decentralized clinical trials) – which runs from 2022-2026 - creates a public-private framework that supports implementation of patient-centered decentralized clinical trials in Denmark, by creating and implementing operational setups and logistics for general use of digital and decentralized elements in clinical trials.




* Trial Nation, The five Danish regions, Aalborg University, IQVIA Solutions Denmark A/S, Novartis Healthcare A/S, Oticon A/S, World Courier – Specialty Logistics specialist, Merck A/S, Roche A/S, Novo Nordisk Denmark A/S

# **CASE** *Reduced calls secure more focus and a stronger cross-sector collaboration*

Today, healthcare systems face increased pressure due to the growing number of elderly citizens and a general shortage of healthcare professionals. **To tackle this challenge, it is crucial to focus on building a more comprehensive and coordinated healthcare service.** This requires better interaction and cooperation between the healthcare sectors, which can only be achieved with easy access to complete and real-time health data.

To address this issue, Systematic has developed Columna Axon: An innovative solution that empowers healthcare professionals with easy access and insights into patients' data through seamless data retrieval from the healthcare record system.

With Columna Axon, healthcare professionals across sectors can access the information they need – whether it is municipal staff viewing hospital records or hospital staff understanding patients' home care situations – creating a truly connected healthcare system.






## Professional-focused information = 50% fewer calls

In a pilot project, Columna Axon has been tested by Herning Municipality and The Regional Hospital in Gødstrup. The aim was to provide municipal healthcare professionals with better insights into citizens' medical record data from the hospital, enabling them to offer more effective care to citizens.

**The pilot project showed that healthcare professionals in the municipality could reduce the number of calls made to the hospital between 25-50%** by accessing relevant information. The remaining phone calls were still necessary but became more focused and efficient as both parties had access to the same information.

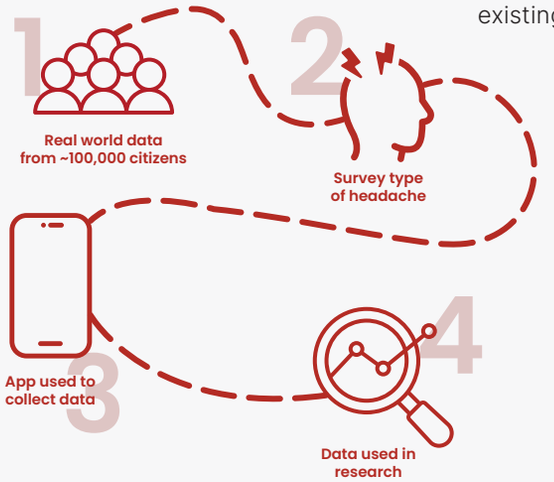
Sharing information across sectors is pivotal in fostering a truly collaborative healthcare system. The outcome of using Columna Axon serves as a testament to the transformative impact of data sharing among healthcare professionals, emphasizing the importance of seamlessly integrating sectors in the patient's best interest.

> **I have saved 1 out of 3 calls, and the other calls I made were of higher quality. It is a time-saving solution because I do not need to call the hospital, and if it turns out that I need to call, I also know exactly who to contact at the hospital**
>
> **Healthcare professional,**
> Herning Municipality

# **CASE** *App-based study to improve migraine and headache treatment*

In Denmark, migraines and frequent headaches afflict nearly 18% of adults, significantly impacting their daily lives. To address this, the Danish Knowledge Center on Headache Disorders and Lundbeck have launched the public-private research project, HEADWINd®, which aims to explore the daily challenges encountered by individuals suffering from these conditions where the symptoms are not often visible to others, and thereby risking isolating people with migraine due to lack of understanding and acceptance from others.

100,000 randomly selected citizens have been invited to participate in a survey about their symptoms of migraines and headaches.




Upon completing the survey, all participants are invited to use a tailored app - a product of collaboration between Lundbeck, the Danish Knowledge Center on Headache Disorders, Monsenso, and patient associations – to record their migraine and headache symptoms in real-world scenarios over a three-month period. To ensure continuous active participant engagement, patient associations have created informational content and videos for the app which is expected to enhance data collection and elevate the quality of results.

This initiative is a testimony of how the Danish Knowledge Center on Headache Disorders and Lundbeck in partnership drive science through innovative digital solutions. The incorporation of the app data with existing register data is projected to generate new insights and evidence on the societal and personal costs of living with migraines and headaches.

This knowledge could pave the way for improved treatment options and strategies, and ultimately, this research holds the potential to significantly improve the quality of life for those affected by migraines and headaches.





# **CASE** *Data-driven prevention in night-time care*

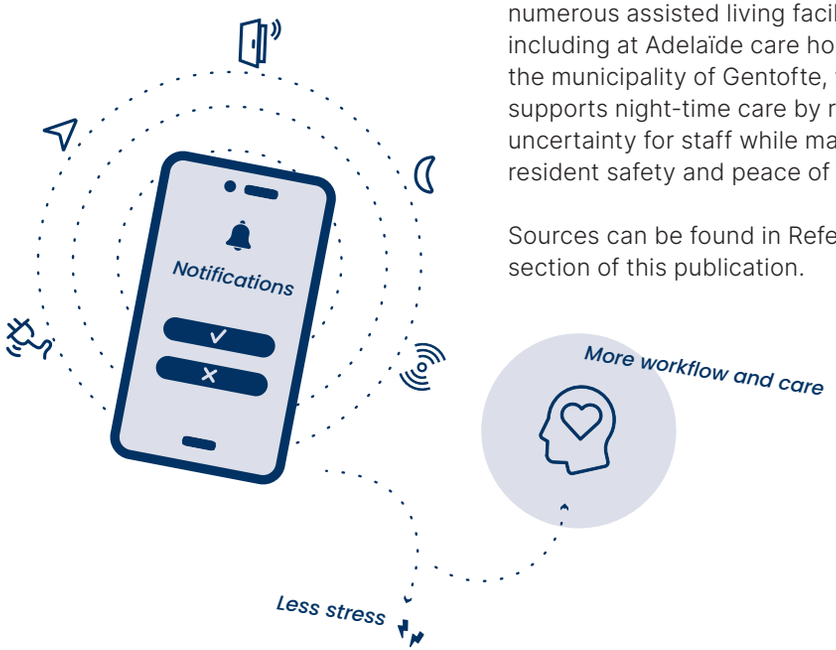
Night-time care is often marked by uncertainty. Residents may need help unexpectedly, while limited staffing makes it difficult to maintain awareness without frequent checks that can disrupt sleep. Nemlia supports care staff in working more proactively at night by turning this uncertainty into clear, actionable insight.

Using privacy-preserving acoustic sensors, the solution monitors care environments and detects early signs of risk, such as restlessness or calls for help, before situations escalate. Rather than relying on routine or unnecessary night rounds, caregivers receive relevant alerts and insights in real-time, enabling earlier, targeted interventions, fewer disruptions for residents, and better prioritization of staff time.

As a result, night shifts become calmer, more predictable, and less reactive. Nemlia integrates seamlessly into existing care workflows and requires minimal training, allowing staff to focus on care rather than technology. This also strengthens documentation, supports better coordination across teams, and enables more informed decision-making.

The solution is implemented in numerous assisted living facilities, including at Adelaïde care home in the municipality of Gentofte, where it supports night-time care by reducing uncertainty for staff while maintaining resident safety and peace of mind.

Sources can be found in References section of this publication.



# Patient-oriented digital technologies

The Danish approach to healthcare emphasizes the evolving role of citizens in their own treatment, highlighting the need for them to become active partners. With an aging population and the prevalence of chronic illnesses, there is a push towards empowering patients and their families to manage their health more proactively. This includes facilitating their engagement with digital health tools to ensure they have comprehensive access to their health data across various health services.

The digitization of healthcare aims to streamline patient pathways and provide more personalized care through tools such as telemedicine and patient-reported outcomes.

These innovations are intended to reduce unnecessary hospital visits and enable more targeted, and effective healthcare delivery. By enhancing independence and enabling more treatment at home, digital technologies pave the way for more comfortable interactions benefiting both citizens and healthcare personnel.





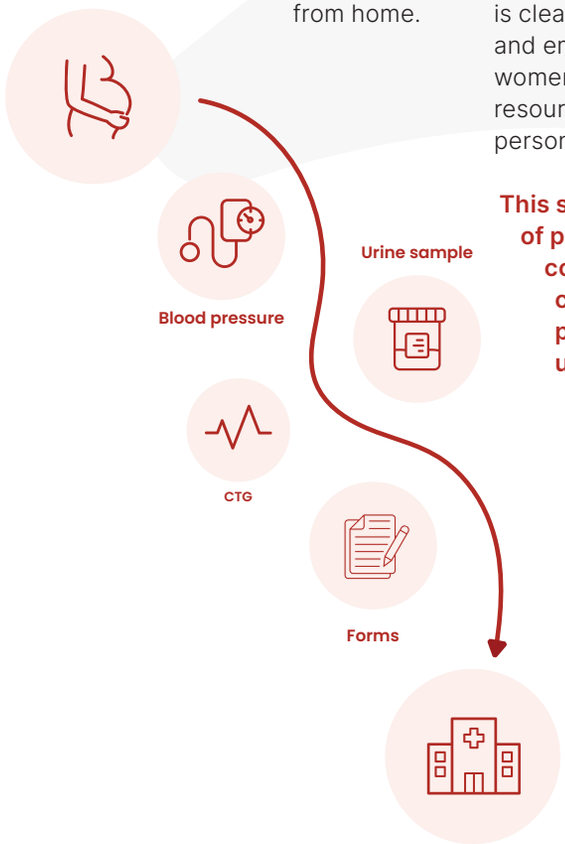

## **CASE** *Remote monitoring for pregnant women with complications*

With The Health Innovation Centre of Southern Denmark as the project leader, the five Danish Regions have completed a cross regional tender which have secured a telemedicine solution for pregnant women with complications. This innovative approach ensures not only increased security and flexibility but also better management of the pregnancy directly from home.

By introducing remote monitoring, pregnant women can now monitor both their own condition and the condition of their fetus and send measurements directly to the hospital, reducing the need for repeated visits to the midwife. This arrangement has already shown positive results and is currently in use in maternity wards across Denmark.

The vision with the remote monitoring is clear: to promote independence and empowerment among pregnant women, and to optimize staff resources so they can focus more on personal care and support.

**This solution represents the future of prenatal care, where quality, comfort, and cost-effectiveness come together to support pregnant women through their unique health journeys.**



# **CASE** *The Digital Health Centre - Digital solutions for health promotion and prevention*

The Digital Health Center is a partnership of 37 municipalities across Denmark, regional actors and patient organizations. The center provides digital services within health promotion and prevention by developing and integrating digital solutions in the municipalities' health centers. Besides being publicly funded, the partnership also gained financial support by private funds.

The actual product consists of an app "My Life - My Health" made in cooperation with a private company in which citizens can gain knowledge and support.

Based on user-centered design, health professionals are involved in creating the professional content. Likewise, the citizens participate in co-creation workshops, testing, and in evaluation of the programs.

The digital services provide possibilities for citizens to become more empowered and self-reliant. This has the potential to free up time and resources in the municipal health centers, with the possibility of full scalability across the Danish healthcare system.

**The digital solution does not replace the physical meeting with healthcare professionals. But it provides flexibility, closeness, and support to citizens who, for various reasons, cannot make use of traditional services.**

**It is also a way to reduce health inequality and to meet people where they are, in their everyday lives.**

**Anja Lund,** Chair of the Committee for Digitalisation and Innovation, Region of Southern Denmark





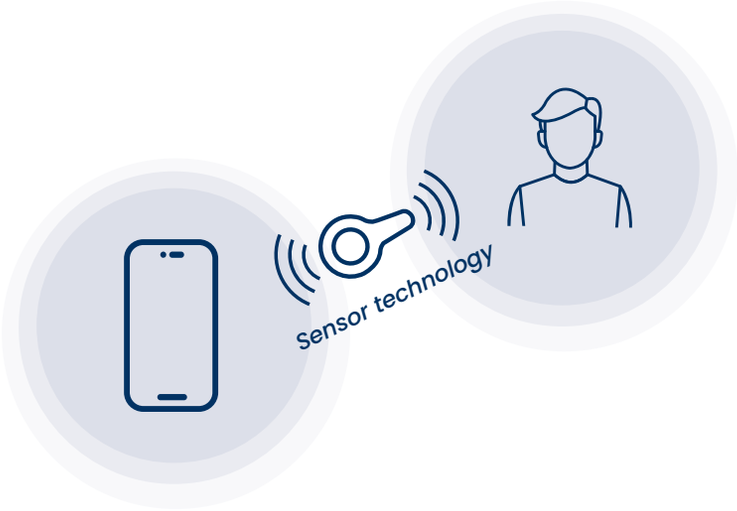

# **CASE** *Enhancing patient confidence through technology*

Having a stoma created can come with a high mental burden: in the first year following stoma surgery, mental health diagnoses and sleep disorders increase among people with a stoma by 15% and 48%, respectively[10]. These emotional challenges are not exclusive to new patients; 36% of people who have had a stoma for five or more years report that they are neutral towards or dissatisfied with their quality of life post stoma surgery[11].

One of the primary factors contributing to these emotional challenges for patients is the fear of leakage from the stoma.

**Overall, 92% of people with a stoma say they worry to some degree about leakage, while 39% worry to a high or very high degree[12]. Meanwhile, 76%[13] of people with a stoma experience leakage under the baseplate at least once a month and 26%[14] have experienced leakage onto their clothes during the last month.**

To counter the challenge, Coloplast has created Heylo™, which uses cuttingedge sensor technology to detect leaks under the baseplate. Through a user-friendly app, patients receive prompt warnings about imminent leaks, enhancing their confidence and security.



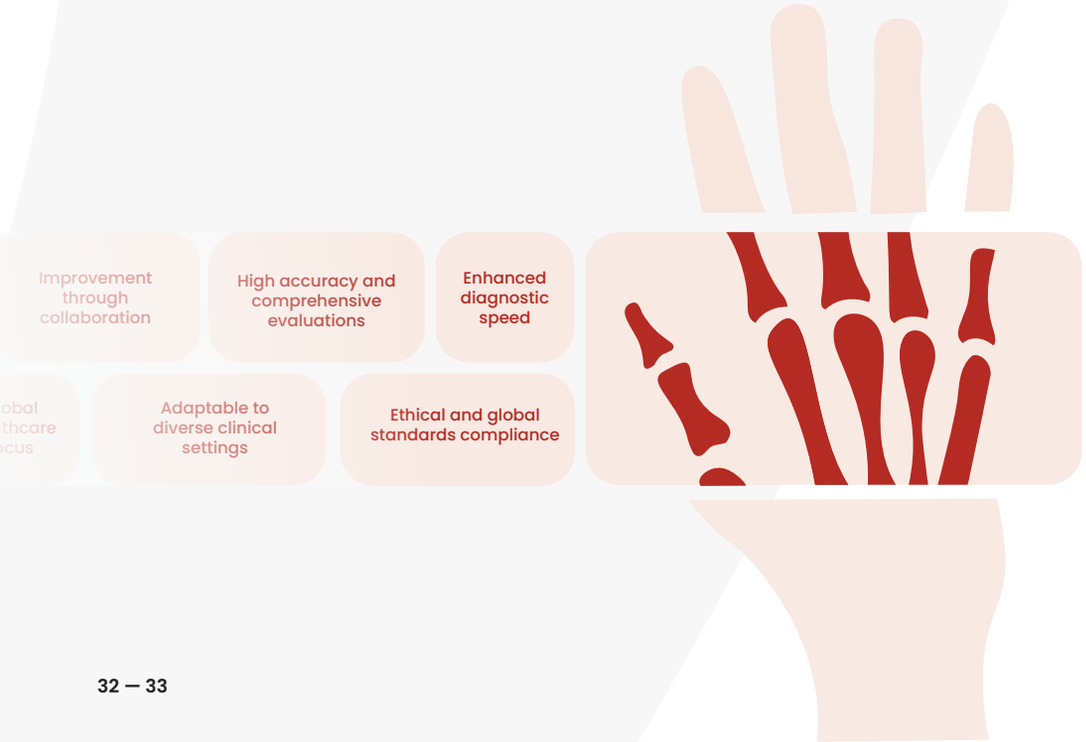
# **CASE** *AI-driven solutions to improve radiological analysis*

Radiobotics' flagship product, RBfracture, detects fractures, effusions, and lipohemarthrosis with unparalleled accuracy, trained on a dataset of over 300,000 images from the US and Europe. **This technology expedites diagnosis, ensures comprehensive evaluations, and adapts to diverse clinical settings.**

RBfracture addresses traditional radiology challenges by providing clinicians a sophisticated tool for precise radiographic interpretation.

Powered by advanced algorithms, the project accelerates the diagnostic process and enhances treatment outcomes. Its cross-cultural training dataset reflects a global healthcare commitment.

By fostering collaboration, constantly refining technology based on clinician feedback, Radiobotics aims to revolutionize radiological diagnostics, ushering in a new era of precision medicine.








# **CASE** *Home-based digital rehabilitation to enhance patient empowerment*

Five Danish municipalities and a hospital in Region Zealand have partnered with the company Icura in a project aimed at enhancing cancer rehabilitation through technology and early patient engagement.

Utilizing an app and motion sensor, Icura provides highly motivational digital exercise technology that monitors home exercises and daily activity. The app reduces travel time and the need for physiotherapy sessions to be conducted in person, while still offering therapists insights into the patient's actual capabilities and progress at any given time, thereby freeing up time to accommodate more patients.

The project engages patients in their rehabilitation by introducing the solution in the early stages of cancer treatment. The objective is to mitigate side effects and functional loss and to increase participation in rehabilitation programs as part of addressing disparities in cancer care.

Icura accompanies the patient throughout, aiding in the patient's retention of new exercise and activity habits. The project is co-funded by the European Union and the Danish Board of Business Development.

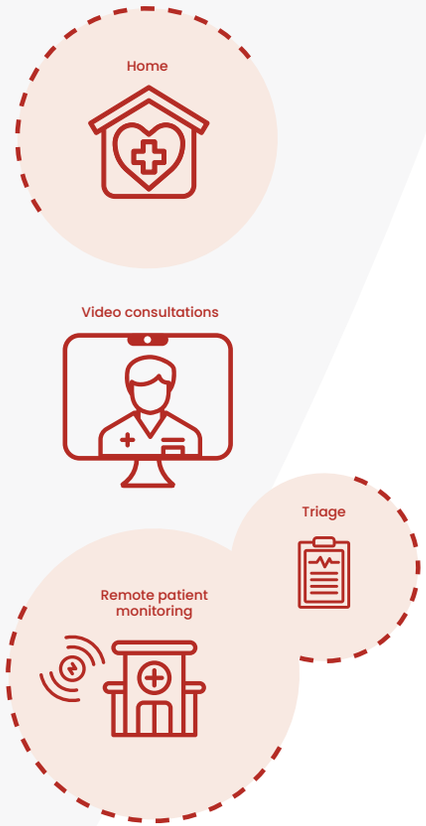

**With successful implementation in 30 Danish municipalities and hospital-based clinical projects, Icura is at the forefront of transforming healthcare delivery.**

# **CASE** *Health Care Closer to Home*

Health Care Closer to Home is a patient-centered digital care model designed to support older citizens with chronic conditions and complex care needs. Frail patients are often hospitalized due to limited access to timely medical advice - especially outside of office hours.

The model enables medical assessment and treatment in familiar surroundings, reducing stress, physical strain and disruption to everyday life. It combines remote patient monitoring with a clinical advisory and treatment hotline. Through structured triage, digital monitoring and video consultations, patients receive timely and appropriate care without the need for hospital transport.

At the same time, municipal care staff gain immediate access to specialized clinical expertise, provided by the emergency department staff, supporting faster and safer treatment decisions on site. The solution reduces avoidable hospitalizations, strengthens care quality, and supports more efficient use of healthcare resources across sectors.




**The project is a collaboration between Region Zealand, selected municipalities and ImagineCare ApS, a digital health company contributing expertise in remote patient monitoring (RPM) solutions and data-driven care models. A Proof of Concept (POC) in early 2026 will test clinical workflows, cross-sector collaboration, and scalability potential.**





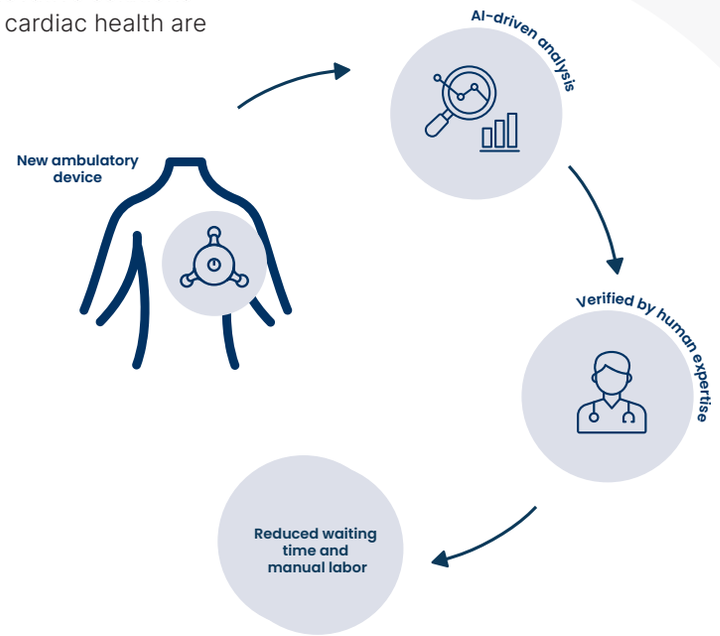
# **CASE** *No waiting time for cardiac patients thanks to AI and human expertise*

Cardiovascular diseases are the leading cause of death worldwide. They place an immense burden on global health systems, with annual costs projected to reach €1,000 billion by 2030. For most conditions, prevention is critical to keep costs in check and improve patients' quality of life – and cardiovascular diseases are no exception.

The challenge emerges when the prevention efforts meet the current and anticipated shortage of healthcare staff. Already today, waiting times for cardiac care can stretch for months. To address this challenge, new ways of working and innovative solutions that enable better cardiac health are needed.

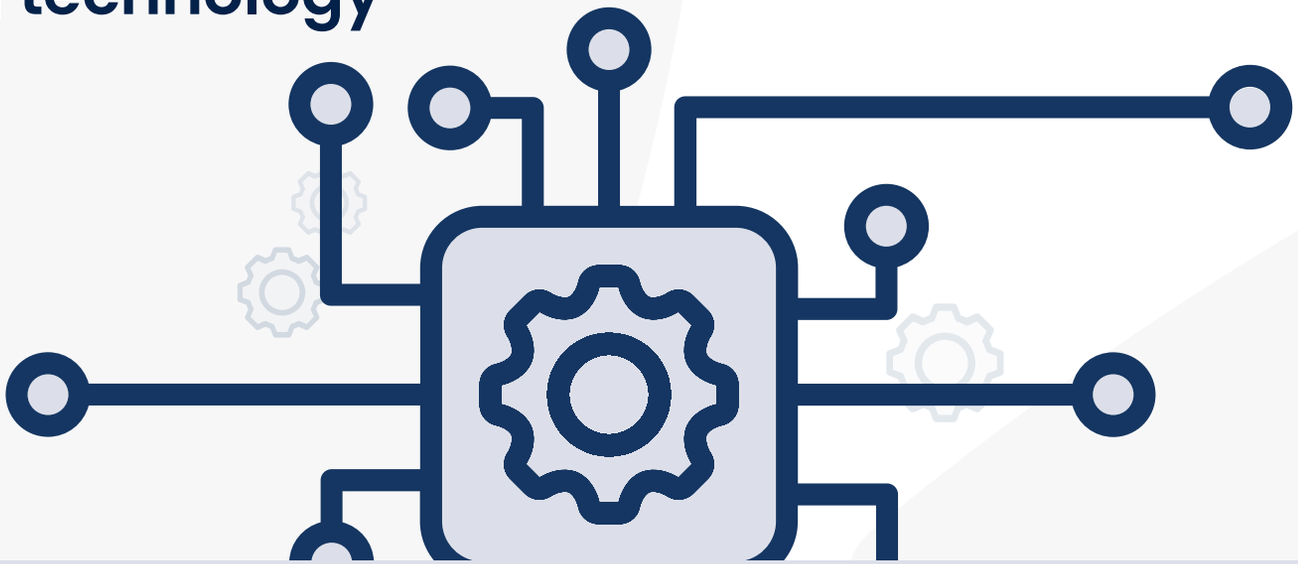
Cortrium addresses this challenge by combining AI-driven analysis with human clinical expertise for every diagnosis to alleviate the pressure on healthcare resources and reduce waiting times for patients.

**The company enables efficient, high-quality cardiac assessments at scale. The solution supports more than 3,000 physicians in 21 countries in delivering timely diagnoses and subsequent treatments to over 250,000 patients annually.**



LABOR-SAVING TECHNOLOGY

# Labor-saving technology



Throughout the healthcare system, there is widespread acknowledgment that healthcare technology and digital solutions are essential prerequisites for addressing the challenges confronting the healthcare system.

According to analyses conducted by the Danish IT industry, the implementation of mature and user-friendly technologies within the healthcare system could potentially free up to 3,000 healthcare workers, enhance patient processes, and improve decision-making and workflows.

The Resilience Commission (2023) highlighted the potential of technologies such as home care, sensor systems, and data sharing to enable more care to be provided in patients' homes, supporting efficient use of resources and improving patient outcomes.

Furthermore, research shows significant potential in transitioning physical healthcare interactions and treatments to digital formats, conducted remotely from patients' homes.

Odense University Hospital boasts the world's largest database of evidence-based telemedicine across 24 medical specialties. Of the 500-plus studies in this database, an impressive 98% demonstrate that telemedicine either improves patient conditions or maintains them unchanged.

Consequently, the Commission expects that more healthcare consultations and decisions will be automated in the future, with employees receiving increased support from digital assistants. Furthermore, technology enables a reduction in outpatient visits through self-monitoring and digital access to medical consultations.

Both regions and municipalities have conducted analyses highlighting mature technologies that can be rapidly implemented and utilized across the healthcare system to great advantage. Municipalities, for instance, have compiled a catalogue of case studies featuring time-saving technologies with proven efficacy.

Additionally, they have developed a tool that evaluates the maturity of various technologies currently available in municipalities. Similarly, regions have created case catalogues highlighting mature technologies aimed at streamlining labor processes.

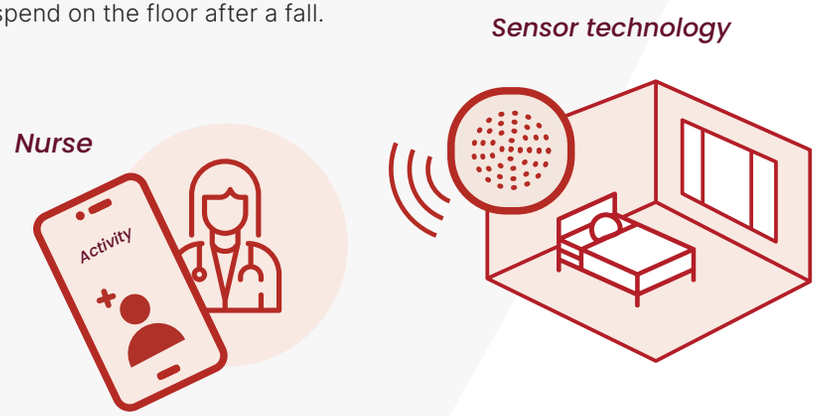
# **CASE** *AI-powered sensor technology enhances patient safety and frees up time for care*

Teton.ai provides an intelligent sensor technology and data platform, which gives healthcare staff instant access to patient movement patterns, falls, and changes in breathing. Their solution helps nurses and care staff prevent incidents, prioritize tasks, and respond faster when patients or residents need assistance. The system combines a ceiling-mounted sensor with edge-based AI analysis to continuously track activity, falls, sleep, respiration, and staff presence.

The AI interprets movements, postures, and behavioral changes in real-time, enabling early detection of risk situations such as attempts to get out of bed, unsteady mobility, or an imminent fall. Danish and international hospital and care home deployments have shown reductions in fall incidents of up to 83%, 95% faster staff response times, and 80% decrease in the time residents spend on the floor after a fall.

Beyond improving safety, the solution streamlines operations. By automating routine checks and documentation, care staff gain more uninterrupted time for direct patient care. Evening and night shifts experience fewer unnecessary disturbances and an improved ability to oversee multiple patients simultaneously.

Teton is deployed across more than 15 municipalities and multiple hospital systems in Denmark, spanning four regions and several specialized wards, offering high clinical value while meeting strict privacy and security requirements. All AI processing occurs locally on the device, and only anonymized event data leaves the room, ensuring a privacy-by-design architecture aligned with national regulations and the digital ambitions of the Danish healthcare system.








# **CASE** *AI helps reduce waiting time in emergency departments*

In emergency departments across the North Denmark Region, an AI solution has been implemented to automatically read X-rays and identify fractures, aiming to reduce waiting times for patients with orthopedic injuries.

The AI solution enables faster "clearance" of injuries that do not involve fractures and therefore do not require further hospital treatment. Patients whose injuries are cleared experience reduced unnecessary waiting time in the emergency department. The project has focused on implementation and on ensuring that the solution meets the same diagnostic quality currently provided by clinical staff.

The solution benefits both patients and staff in all emergency departments in the North Denmark Region where trauma X-rays are performed and assessed for fractures. Approximately 45,000 X-ray examinations of injury patients are performed annually in the region, the majority of whom present with suspected orthopedic injuries.

The AI solution has been in use since June 2023. Within the past year, approximately 4,000 patients have been discharged directly from injury X-ray examinations without waiting time in the emergency department, as their X-rays were assessed by the AI solution as showing no fractures. Further data on the overall effects of the solution is pending.

**Within the past year, approximately**

**4,000**

**patients have been discharged directly from injury X-ray examinations without waiting time.**

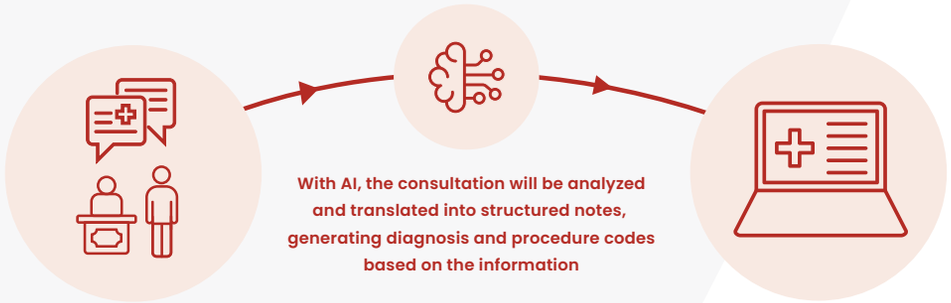
# **CASE** *Private hospital revolutionizes patient consultations and documentation with cutting-edge AI technology*

Denmark's second largest private hospital, Capio Private Hospital, was faced with challenges related to increasing costs and decreasing revenue, which made them look at innovative solutions that could help solve this challenge.

Partnering with private company Corti, the hospital aimed to improve patient consultations and documentation both of which are crucial for compliance and billing. Traditionally, medical secretaries have handled documentation, often struggling with deciphering rushed or unclear notes.

This led to slow progress, inaccuracies, and incomplete invoicing. Corti's AI solution changed this process profoundly by automatically translating consultations into structured notes, analyzing them for relevant text, and generating diagnosis and procedure codes based on this information.

Moreover, the new system's accuracy and flexibility have enabled faster processing, greater accuracy, and enhanced control for doctors over patient treatment journeys at Capio's hospitals.



**With AI, the consultation will be analyzed and translated into structured notes, generating diagnosis and procedure codes based on the information**





# **CASE** *Optimizing workflows and efficiency through AI-powered roster planning*

PDC specializes in roster planning solutions that optimize workflows and increase efficiency in the healthcare system. The PDC Plan system is based on an expertise in workforce management, union agreements, work rules, and payroll administration, and provides the healthcare system with solutions that optimize the use of its most valuable assets: its employees.

The system is an all-in-one solution used across all staff groups and in all phases from planning and distribution of shift plans to daily operational management and salary calculation.

The purpose of the system is to ensure fair, uniform, compliant, and transparent shift planning. **At the same time, the system helps lower labor costs and increases productivity while also minimizing administration costs and strengthening talent attraction and employee retention.**

PDC Plan is already in use at all the hospitals in the Central Denmark Region, handling the complexity of satisfying the need for staff with various skills, while also complying with work regulations. A more personal involvement of employees in shift planning provides greater accountability, commitment, and loyalty among staff members, which in turn often results in reduced sick leave.

AI-supported self-service tools empower shift planners by offering intelligent suggestions and greater flexibility in the planning process.

**+200,000**

Employee schedules are created using PDC-plan

Available in 8 languages

**+50,000**

Users of the employee app

2,000 planners and 30,000 employees in largest installation

# **CASE** *Choosing Denmark - an exemplary hub for public-private partnerships*

Every year, the Danish life science sector welcomes foreign companies that decide to settle in Denmark due to its robust ecosystem, characterized by innovative and research-heavy companies, a knowledge-intensive workforce, and strong cooperation between the public and private sector. Other factors include Denmark's extensive research and science community and a strong tradition for public-private partnerships.

In 2023, the New York-based patient safety company, Surgical Safety Technologies, formed a strategic alliance with Copenhagen University Hospital, Rigshospitalet.

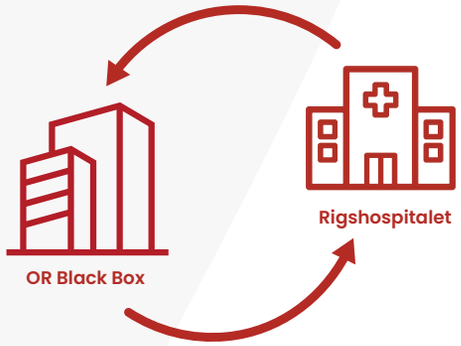
The alliance aims to enhance surgical safety and patient outcomes through the deployment of four OR Black Box systems that record operating room activities to minimize risks and improve patient outcomes.

**Denmark was chosen for this partnership due to the collaborative nature of its healthcare system and Rigshospitalet's reputation for worldclass health research.**

In addition, Denmark's public-private partnership model facilitates innovation and the partnership with Surgical Safety Technologies helps Rigshospitalet gain fresh perspectives.

### Invest in Denmark

Invest in Denmark, a part of the Ministry of Foreign Affairs of Denmark, provided tailored support to the company throughout the process, facilitating introductions, network, benchmark analysis and fact-based country and sector insights.







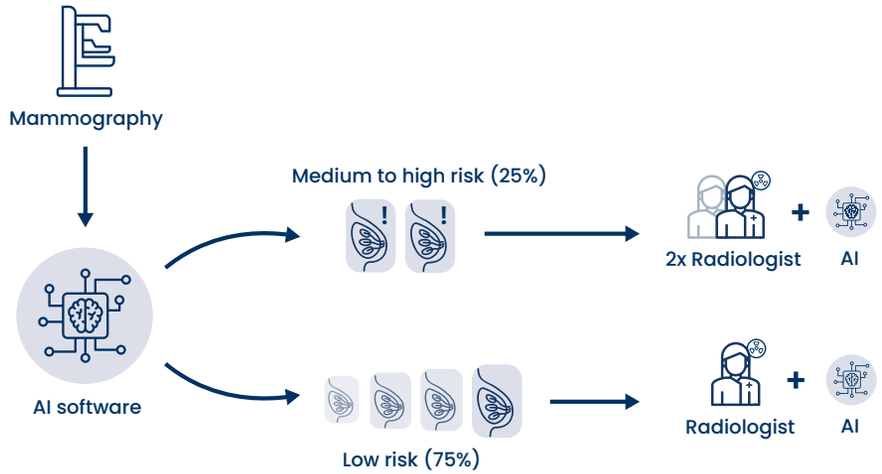

# **CASE** *AI in breast cancer screening delivers faster results, higher quality, and significant workload reduction*

Women aged 50 to 69 in Denmark are offered a mammography examination every two years to detect breast cancer at an early stage. In the Capital Region, approximately 75,000 women are screened annually. Each screening includes four X-ray images, traditionally assessed by two radiology specialists in a "double review."

In recent years, the Capital Region has introduced AI solutions to optimize clinical workflows and address shortages of specialist staff. In 2021, the Region partnered with the Danish company Human Bytes to implement Transpara AI, an algorithm trained on more than one million mammograms.

The tool assigns a risk score from 1 to 10, allowing radiologists to focus attention where it is most needed. Today, around 70% of screenings are reviewed by a single experienced radiologist, while high-risk images continue to undergo double review[15].

The AI solution has been used in routine screening for nearly three years with positive results. The Region has achieved a 35% faster turnaround time and a 35% reduction in radiologists' workload[16]. Screening quality has improved, with the AI system detecting 12 additional breast cancer cases per 10,000 screenings and reducing unnecessary recalls by 20%.



# **CASE** *Digital incontinence care frees up time for patient-centered care*

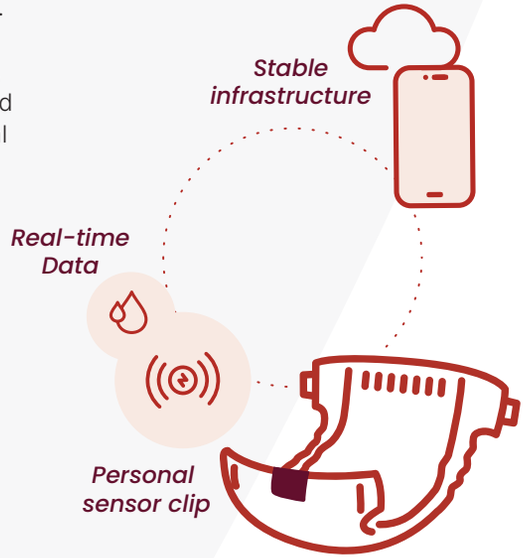
As Denmark's population ages and staff shortages persist across the care sector, there is a growing need for solutions that safeguard quality of care while easing the workload for care professionals. A Danish study conducted in 2025 by ABENA in collaboration with Diakonissestiftelsen (The Deaconess Foundation) shows how digital incontinence care can deliver measurable efficiency gains without compromising residents' dignity or safety[17].

The study is based on the use of ABENA Nova, a digital incontinence system that uses sensor technology to continuously measure moisture levels. Notifications are sent to care staff via a personal clip when a product is wet, enabling timely, needs-based care and supporting patient safety, professional quality, and ethical practice.

**Using ABENA Nova, sensor-based monitoring reduced the number of incontinence product changes by 30–45% and cut handling time by 40–50%, corresponding to a time saving of approximately 2–3 hours per resident per week.**

The solution also reduced the need for manual product checks, lowering physical strain for staff. This was particularly evident during night shifts, as residents no longer required routine checks without indication, resulting in fewer disturbances and improved rest.

Access to real-time data supported better planning across shifts and smoother workflows. Overall, the study illustrates how digital incontinence care can support more efficient use of staff resources and enable higher-quality, patient-centered care within the Danish care sector.








# **CASE** *Redefining mobility in hospital bed transport*

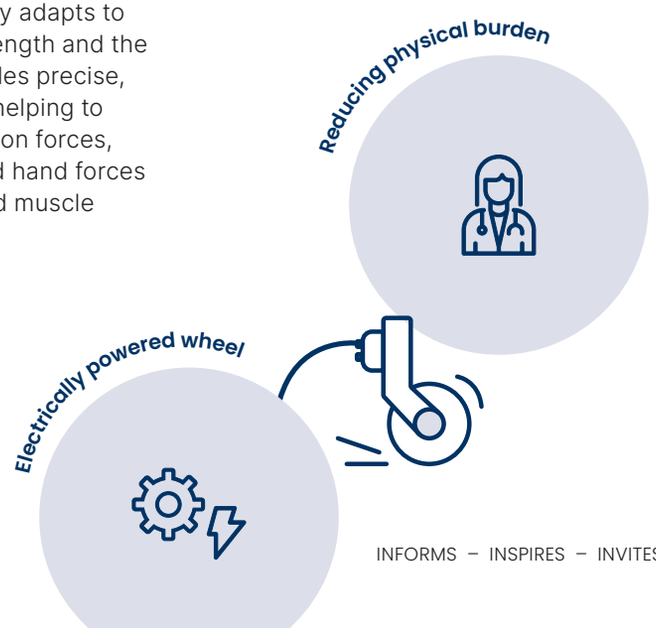
To reduce the physical burden on healthcare workers during bed transport, TENTE and LINAK have developed the electrically powered wheel WeAssist™, designed to replace one of the four castors on a hospital bed. **The wheel is an innovative mobility solution based on the e-bike riding principle: the bed is maneuvered and pushed manually, while WeAssist™ provides assistance and the necessary support.**

The solution responds to the caregiver's movements and provides assistance during forward motion, stopping and incline navigation, ensuring a smoother, more ergonomic experience.

At the heart of WeAssist™ is advanced software that intelligently adapts to the caregiver's push strength and the surroundings. This enables precise, effortless control while helping to reduce spinal compression forces, trunk inclination, exerted hand forces and activity on examined muscle groups.

The impact of the solution has been documented in an independent study conducted by FH Münster University of Applied Sciences, which found a significant reduction in caregiver workload during bed transport.

Specifically, the study showed that motorized assistance can reduce hand forces by up to 45% and spinal compression forces by up to 36%. In addition, muscle activity in the shoulders, neck, and back was significantly reduced, with muscle relief up to 67% in the examined muscle groups. Finally, perceived exertion was reduced by 69%, and usability was rated as "excellent".



# **CASE** *Scaling clinical automation to address workforce shortages*

Facing growing workforce shortages and increasing care demand, Aarhus University Hospital has adopted a structured and scalable approach to clinical automation. Rather than deploying isolated digital solutions, the hospital focuses on organizational capabilities, governance, and reusable automation components.

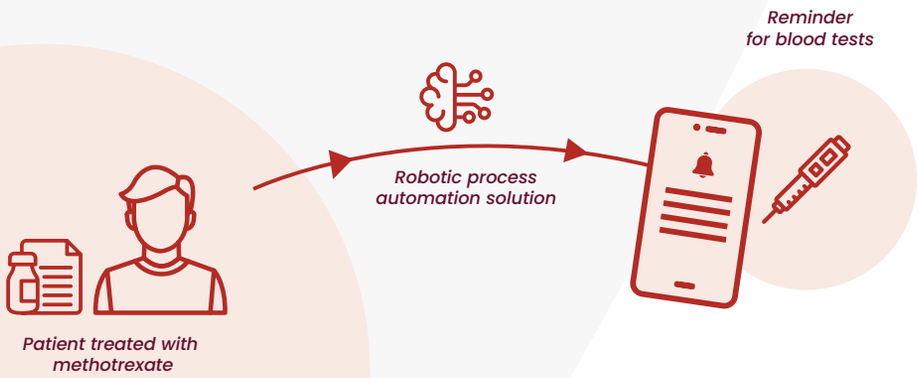
**One example is a robotic process automation solution in rheumatology care supporting mandatory blood test monitoring for patients treated with methotrexate.**

Developed by the IT departments at Horsens Regional Hospital and Aarhus University Hospital, the solution uses data from the hospital's business intelligence systems to automatically identify patients overdue for safety blood tests and send reminder letters without manual clinical follow-up.

More than 95% of patients respond, reducing administrative workload for nurses while improving patient safety and compliance.

The solution is implemented at the Clinic for Rheumatic Diseases in Horsens and the Clinic for Joint and Connective Tissue Diseases at Aarhus University Hospital with further implementations underway across the region.

Over seven years, this scalable automation approach has released more than 180,000 clinical working hours and generated a pipeline of over 250 automation initiatives, demonstrating how automation can support workforce sustainability while maintaining quality of care and clinician trust.




FUTURE PERSPECTIVES

# Future perspectives

We are living in a revolutionary age where technology is evolving rapidly and reshaping societies and public services. Denmark stands on a robust digital foundation, and it is important that we leverage this strong starting point to ensure a resilient healthcare sector for the benefit of citizens.

The challenges facing the healthcare system – including demographic changes, rising demands, and labor shortages – call for a high level of ambition and require a strategic focus on strengthening the primary sector and bringing care closer to citizens' everyday lives.

These ambitions are reflected in the Danish health reform adopted in November 2024, which sets a new structural direction for the healthcare system. Digitalization and the effective use of health data are key enablers of the reform, supporting stronger coherence across the healthcare system, more citizen-centered care pathways, and a more sustainable use of resources.

A central objective of the reform is to strengthen the primary sector and improve coordination between municipalities, general practice, and hospitals.

This increases the importance of shared digital infrastructure and seamless data flows across organizational boundaries to ensure continuity of care, patient safety, and better clinical and managerial decision-making.

The reform also places greater emphasis on proximity and flexibility in healthcare delivery, including expanded treatment and follow-up outside hospital settings.

This reinforces the role of digital solutions in supporting new forms of care delivery, while underlining the need for strong joint governance, common standards, and interoperability across the healthcare system.

Digital development inherently transcends national borders. Denmark therefore remains actively engaged at the EU level and closely follows the European Commission's work on the proposed regulation for a European Health Data Space (EHDS), which aims to enable secure and responsible sharing of health data across Europe.

# References & credits

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# Do you want more information, inspiration, or an invitation for dialogue?

Healthcare Denmark arranges roundtables, webinars and delegation visits and represents Danish life science and healthcare at conferences and meetings abroad.

**We look forward to hearing from you.**

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