



**MINISTRY OF FOREIGN AFFAIRS  
OF DENMARK**  
*Office of Denmark's Tech Ambassador*

# **PIONEERING RESPONSIBLE TECHNOLOGY DEVELOPMENT**

*Case Studies From Denmark*

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# INTRODUCTION

**D**igitisation stands out as one of the defining mega-trends of our time, having already reshaped societies, industries, and the lives of countless individuals.

In line with many other countries, Denmark is on an ongoing digitisation journey. A key priority here is the responsible integration of technology.

Through fruitful collaboration between public and private entities, digital public services are now largely safe, inclusive, and easy to use for Danish citizens and businesses alike.

Consequently, Denmark has emerged as a leading digital frontrunner, receiving recognition in several rankings conducted by the UN, OECD, and EU. These accolades specifically acknowledge Denmark's achievements in areas such as democracy, sustainability, and ease of doing business.

Denmark's ongoing journey to become a digital society has yielded valuable lessons that we are eager to share.

This catalogue thus serves as a platform to share Danish insights accumulated through decades of trial and error – and inspire others to embrace a holistic approach to the development and use of technology.

The hope is to showcase how responsible technology stems from a combination of innovative technological solutions and the political will to make digital service benefit all citizens.

The examples vary in scope and scale and originate from both the public and private sector. Some refer to concrete technical solutions while others point towards ways of thinking about design processes and policymaking.

The catalogue does not aim to provide definitive answers; rather it seeks to inspire the embracing of joint good practices through the presentation of specific case examples.

The foundation upon which the Danish responsible solutions emerge is the public digitalisation effort alongside the national innovation and business promotion system.

For more than 20 years, public entities across central, regional, and local government have collaborated on public digitalisation.

The Agency for Digital Government under the Ministry of Digital Government and Gender Equality plays a central role in this effort.

The inclusion of the private sector within the development of digital solutions for the public sector has created a solid understanding of the special requirements from the public sector amongst the involved Danish IT companies.

In 2020, the Danish government along with Local Government Denmark and Danish Regions launched the AI Signature Projects.

The aim of the project is to test AI technology in areas where there is potential to raise quality and capacity through scaling the technology.

Currently the fund has supported 40 AI Signature Projects in the health and welfare sector as well as in the public administration, some of which will be highlighted in this catalogue.

As key tools in Denmark's innovation and business promotion system, 13 national business clusters serve as neutral platforms that facilitate collaboration and boost partnerships, and accelerate knowledge-based innovation across small enterprises and large corporations, research institutions, and other relevant stakeholders in their eco-system.

An overview of the national business clusters is available through Cluster Excellence Denmark.

Other relevant entities within the national innovation and business promotion system include the business lighthouses, which aim to foster innovation and create the strongholds of tomorrow: the business houses that offer advisory services to Danish companies a cross sectors, and the marketing consortia that promote the Danish strongholds.

Digital Hub Denmark is the marketing consortium for the digital eco-system and actively works toward positioning Denmark as a global leader in the digital arena by connecting relevant stakeholders, attracting international talent, and sharing knowledge.

To stay updated on the latest developments in Danish digital solutions and explore more case examples than those highlighted in the catalogue, we encourage you to explore the industry cluster's websites and Digital Hub Denmark's website.

## A SUSTAINABLE FUTURE WITH GREEN TECH

Using digital technologies to contribute to the global fight against climate change and fulfill the objectives of the Paris Agreement.

## A HUMAN-CENTRIC DIGITAL TRANSITION

Empowering inclusion, accessibility, and participation through user-centred digital solutions that prioritise the needs and experiences of individuals.

## ENHANCING TRUST THROUGH DIGITAL SECURITY

Building trust in digital solutions by ensuring data security, IT security, and regulatory compliance, promoting a secure and reliable digital environment.

# 1 WORKING TOWARDS A SUSTAINABLE FUTURE WITH GREEN TECH

**Digital technologies play a crucial role in the overall green transition, with green tech companies and projects providing sustainable solutions in areas such as energy efficiency, renewable energy, water conservation, waste reduction and recycling, sustainable transportation, agriculture, and green building.**

As outlined in its national climate law, Denmark aims to reduce CO2 emissions by 70% by 2030. Efforts like these have led to significant business and export opportunities for green tech companies. Notably, the energy technology sector has made a significant contribution to the Danish economy, with exports in this sector rising by more than 35% since 2010.

State of Green serves as a one-stop shop for understanding Denmark's ambitious green journey. This not-for-profit public-private partnership connects global and Danish players to drive the global transition to a sustainable, low-carbon and resource-efficient world. For more case examples, visit State of Green and the respective industry clusters websites.

As a part of the government's strategy for investments in green research, technology, and innovation Innovation Fund Denmark has created four 'innomissions' to accelerate four particular areas of sustainability.

Each of the missions bring together universities, clusters, marketing consortia, industry partners, investors, and entrepreneurs to provide solutions for sustainability challenges, all of which solutions have technological advancement at their core.



## CASES

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ASSET MANAGEMENT SOFTWARE

**CASE:**

# THE CLIMATE COMPASS

**Companies worldwide, spanning various industries, are facing significant challenges in measuring their CO2 emissions.**

**The Danish Climate Compass** is an online assessment tool specifically designed for companies – primarily SMEs – to evaluate their carbon footprint within the company and across their value chain.

The need for a Climate Compass was highlighted by both the private and the public sectors in Denmark.

The voluntary tool helps companies kickstart the process of calculating and understanding their climate impact.

By sharing the calculated carbon footprint with relevant stakeholders throughout the value chain, companies establish a baseline that enables them to implement targeted climate reduction activities.

In the Climate Compass, companies can input data on their Co2-emitting activities, which is then used to calculate their carbon footprint according to the international Green House Gas Protocol Corporate Standard.

These carbon footprint calculations are based on an extensive set of emissions factors that are updated annually by the Danish Energy Agency.

Just six months after its launch, more than 1,500 companies had already registered as users of the Climate Compass.

With broad recommendations from multiple industry organisations, the number of registered users of the Climate Compass is expected to continue growing in the coming years.



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**CASE:**

# GREEN DATA & DATA CENTERS ON SUSTAINABLE ENERGY

**Danish green energy production is at an all-time record high, highlighting the critical need to increase global green energy production. Expanding green energy production not only reduces Co2 emissions but also presents a myriad of profitable opportunities for companies.**

With continued exponential growth in data volume and the emergence of new technologies, the demand for energy in data storage has increased. Consequently, companies are increasingly seeking green solutions to meet their data storage needs.

This trend has attracted numerous large enterprises and European tech startups to invest in and construct data centres in Denmark, capitalising on the country's substantial green energy production. Data centres use large amounts of energy and produce a lot of surplus heat.

To leverage and contribute to the Danish green energy system, data centres have been seamlessly integrated into the local energy infrastructure.

A notable example is the Apple datacentre in Viborg municipality, which relies on energy generated by offshore wind along the Danish west coast. In addition, the plan is for the Apple datacentre to supply excess heat to the district heating network, resulting in lower heating costs for the local residents.

The Danish Government's objective of achieving complete reliance on renewable energy by 2050, along with its comprehensive policies on green data centres in the country, highlights the abundant opportunities associated with sustainable energy.

Such high demand has propelled the projected growth of the green data centre market, which is expected to reach 55.18 billion USD by 2028, according to Arizton's 2022 Global and Forecast report.



**CASE:**

# VERTICAL FARMING

**The global food system, encompassing production, post-farm processes such as processing and distribution, undeniably contributes significantly to CO2 emissions.**

Nordic Harvest has taken some of the very first steps towards what could potentially become the future of produce and food production.

Driven by a mission to establish sustainable vegetable production while returning farmland to its natural state forest and biodiversity, Nordic Harvest is revolutionising Danish agriculture with one of the largest vertical farm in Europe.

This innovative approach enables production on a much smaller area, ultimately reducing agricultural CO2 emissions.

Their innovative methods include using energy-efficient LED-lights for photosynthesis as a symbiosis with excess electricity from off-shore windfarms, and implementing water circulation systems that undergo regular testing to ensure clean water and preserved mineral content throughout all 14 vertical farming levels.

These methods have enabled Nordic Harvest to completely eliminate the need to use harmful chemicals in its production.

A vital aspect of its process involves the regular testing of the humidity, fertiliser, CO2 content in the air, nutrients, lights, and temperature. By leveraging data from these tests, Nordic Harvest creates optimal conditions for its vegetables to flourish.

Nordic Harvest has achieved success in streamlining the distribution and transportation of its products by consolidating all of its farming in one location. This centralised approach significantly reduces CO2 emissions associated with transportation.

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*Nordic Harvest has achieved success in streamlining the distribution and transportation of its products by consolidating all of its farming in one location. This centralised approach significantly reduces CO2 emissions associated with transportation.*

**CASE:**

# FOOD WASTE APP

**One-third of all food produce is lost in the supply chain, whether during production, processing – or later at the restaurant and supermarket level, where it is needlessly discarded.**

**Too Good to Go** has made a remarkable impact by saving 250 million 'Surprise Bags' of food.

Too Good To Go is a certified B Corp social impact company on a mission to inspire and empower the world to unite against food waste.

The company's dynamic marketplace connects a community of individuals with a shared purpose – to rescue unsold food from a multitude of business partners: supermarkets, shops, restaurants and manufacturers.

The price of the food listed on the app is reduced by up to 75% of the original price to ensure the sale of surplus stock that would have otherwise been thrown away. Customers are presented with a list of food outlets within a chosen distance and time range.

The app offers a wide range of food options, including bread and pastries from bakeries, freshly cooked meals from restaurants, breakfast from hotels, buffet food, and groceries from supermarkets.



Customers can order and pay for a 'Surprise Bag' through the app, and are given a time window for claiming the bag at the restaurant or supermarket.

With its innovative business model, Too Good To Go tackles the global issue of food waste while also helping consumers save money.

[READ MORE](#) 

**CASE:**

# AI OPTIMISING ENERGY EFFICIENCY IN BUILDINGS

**In the quest to expand renewable resources, it is sometimes ignored that energy efficiency is often the most affordable way to reduce emissions.**

Currently, emissions from buildings account for 28% of global CO2 emissions, but with increasing digitalised monitoring of our utilities in homes, offices, and production facilities comes a vast amount of data that can be used to train algorithms that can optimise our energy consumption.

The Aarhus-based AI start-up Ento Labs has developed a virtual energy counsellor that proposes energy efficiency measures based on its algorithms that draw on energy consumption, weather data, and other relevant information about the specific building.

Following implementation, the virtual energy counsellor will monitor energy consumption and calculate savings.

Results from large clients within public sector, banking, and retail show that companies can save up to 20% on their energy consumption in shops and offices by implementing simple measures proposed by the virtual energy counsellor.

One of Denmark's largest supermarket chains, with 700 shops managed, to save two million euros on electricity in just six months after using Ento Labs software.

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**CASE:**

# ASSET MANAGEMENT SOFTWARE

**To meet the growing demand for energy and address climate change, significant investments in renewable energy and the electricity grid are expected in the coming years.**

In order to optimise the forecasting, planning, operation, and maintenance of our increasingly complicated utility systems, data-driven solutions can help deliver significant savings and in turn speed up the green transition.

What will happen when thousands of new electric vehicles, heat pumps, solar panels or other distributed energy resources are connected to the grid? Which grid assets will be impacted – and when?

If the load on assets is just temporary, would it be feasible for utilities to offer end customers flexibility to 'peak shave' the grid load rather than reinvest in grid expansion? Or if reinvestments are unavoidable, when is the optimal timing for investments?

These are some of the questions that the Danish AI company **Utiligize** is trying to address.

Utiligize has developed an advanced software solution that provides utility companies with a tool to monitor the energy system in order to identify issues, increase flexibility, and reveal critical areas where maintenance or reinvestment are recommended.

Utiligize's tool also includes lifetime and risk models that monitor the electric utilities.

In 2023, Utiligize was awarded Energy Cluster Denmark's prize for most innovative project based on its flexibility heat grid project on Bornholm.

Utiligize's Forecast & Investment tool managed to reduce network losses in the district heating by 11%, resulting in lower heating bills for the citizens and reduced emissions.

Utiligize has already provided its software solutions to several Danish utility companies and government agencies and has recently expanded to Norway.

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# 2 ENSURING A HUMAN-CENTRIC DIGITAL TRANSITION

**Human-centric digital solutions and infrastructure should embody the three key elements of inclusivity, transparency, and ease of access in their design, use, and functionality.**

It is essential to not only interpret the needs of users but also provide a platform for them to express their needs, ensuring that these needs are at the core of policies and service design.

This empowers inclusion, accessibility, and participation through digital solutions. Digitisation has been a driving force behind the creation of a coherent, accessible, and citizen-centred public sector in Denmark.

This favourable position has brought opportunities for both businesses and citizens alike, fostering the development of numerous public-private sector solutions that benefit all Danish citizens.

This has not only promoted transparency, but also significantly reduced transaction costs while delivering efficient and well-functioning public services.

In Denmark, nine out of 10 citizens actively use public digital solutions to access various services, from their bank accounts to secure communication with authorities and businesses.

The public digital solutions in Denmark have successfully gained the trust of 77% of surveyed Danish citizens .



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**CASE:**

# THE NATIONAL eID

**A digital identity serves as the foundation for the digitisation of the public sector. In Denmark, every citizen or person can acquire the national eID, known as MitID, to access digital services. MitID is offered to citizens from the age of 13, and can be used for digital public services from the age of 15.**

MitID provides secure access to all digital public services. Currently, more than five million users have a MitID - this is more than 99% of the MitID-eligible Danish population.

MitID is primarily used as an app, but there are also physical authenticators such as a code-display and a code-reader.

With MitID, citizens can access their personal user accounts across all public and most private self-service platforms conveniently and securely.

The integration of MitID extends as an authenticator to various self-service solutions, including online banking, access to health authorities' digital platforms, and communication with public agencies.

The implementation of MitID has made it possible for the public sector to offer improved services to citizens, and for businesses to securely authenticate their users, while massively enhancing administrative efficiency across both the private and public sector.

The development of MitID has been a collaborative effort, organised through a public-private partnership involving the Danish financial sector, and public sector (represented by the Agency for Digital Government).

Organising the partnership as a combined private-public partnership ensured that the needs of both the public and private sector could be met, and ensured the creation of a national eID, which is universally used in Denmark across all sectors.

Furthermore, MitID rests on a strong joint governmental partnership that created a framework for dialogue at all levels of government.

Both banks and the municipalities played a crucial role in assisting citizens with the migration to MitID.

The authentication app is designed with a user-centred approach. The MitID app offers a simple and intuitive interface, supported by a modular architecture that allows continuous adaptation to new technologies and future needs.

As an example, an update to the app allows family members or friends to validate a citizen's identity on their own phone when signing up for MitID, which can be used if the citizen's phone lacks the capability to complete the validation of their identity.

Updates are continuously developed with both usability and high security in mind. For Danish companies, associations and public authorities that need to utilise specific functions of the national eID, the MitID Erhverv provides a dedicated eID-solution, enabling separation from the citizen's personal eID.

In order to ensure continuous user satisfaction, the developers behind MitID place usability and ethics at the core of its design processes.

[READ MORE](#) 



**CASE:**

# SAFEGUARDING DEMOCRATIC VALUES IN ALGORITHMIC SOCIETIES

**In 2021, a 10-year cross-university project called *Algorithms, Data, and Democracy (ADD)* was launched with the purpose of conducting research, spreading information, and spurring dialogue regarding the democratic challenges arising from the increasingly data-driven and automated society.**

The ambition is to make Denmark a frontrunner when it comes to digital awareness among the population and safeguarding of human and democratic values in the development of algorithms and data-driven decision making.

The project is funded by the Velux Foundation and anchored at Roskilde University (research) and the Think Tank Mandag Morgen (outreach).

As part of the research, the ADD project seeks to understand how algorithms are increasingly informing our opinions and decisions, but also accelerating tendencies like populism and polarisation, in turn damaging trust in our democratic values.

ADD seeks to turn this trend around by identifying alternative avenues where algorithms and data can strengthen our democracy and society instead.

A data-driven society depends on trust, but in order to gain the trust of citizens, transparency is necessary.

The ADD project gathers researchers from humanities, social sciences, and computer science to explore practices within health, finance, and public administration to answer the question of how to organise data and algorithms for the greater public good.

In addition to the research project, ADD also includes an outreach part seeking to influence the actual public agenda and discussions about digitalisation, and to engage all parts of Danish society in developing a responsible and inclusive digital future.

Through the outreach project, a cross-sectorial and cross-organisational alliance has been formed with over 80 partners now from NGOs to businesses, unions, public sector, and culture.

The outreach part of the ADD project hosts conferences, policy labs, and workshops, and publishes different kinds of analysis about digital life and the Danish people, children's digital life, and the use of surveillance in the labour market.

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**CASE:**

# THE DIGITAL ETHICS COMPASS

**The Danish Design Centre is committed to fostering a moral imperative in society, where ethics are an integral part of digital solutions and infrastructure. In pursuit of this mission, it has developed the [Digital Ethics Compass](#), a digital toolkit that assists companies in making ethical design choices.**

The compass has empowered numerous businesses in the financial, health, and mobility technology sectors to develop ethical solutions that prioritise human values over technological advancements. It also aids companies in qualifying for the Danish D-seal, a recognition of their commitment to data security and responsible practices.

The compass operates in two ways. Firstly, it provides a practical tool, The Navigator, in the form of an ethical checklist that guides companies to address ethical considerations throughout the development and design process within data, automation, and behaviour design. Secondly, a series of workshop formats help them discover additional ethical design solutions.

At the core of the Digital Design Centre's philosophy is the belief in raising awareness among CEO's, product developers, and digital designers about the potentially damaging effects of their solutions, such as data collection biases and the spread of misinformation.

The Digital Ethics Compass specifically targets small and medium-sized enterprises (SMEs) as its primary audience.

In just one year since its inception, the Digital Ethics Compass has been embraced by numerous companies and organisations, including one of Denmark's largest banks, several media companies, municipalities, and numerous SMEs, as they strive to incorporate ethics into their digital solutions.

Toolkits and initiatives like the Digital Ethics Compass play a crucial role in keeping digital developers mindful of the impact their solutions can have.

[READ MORE](#)

**CASE:**

# THE NATIONAL CITIZEN'S PORTAL

**Ensuring inclusion, participation, and democracy through digital solutions requires placing the individual and their needs at the core of development.**

This principle guided the creation of the **National Citizen Portal** in 2007, a collaboration between the Ministry of Higher Education and Science and Local Government Denmark. The portal was established in response to citizens' demands for improved digital interactions with Danish authorities, seeking a concise overview of services and increased self-service options.

The portal aims to provide citizens with a comprehensive and user-friendly platform for managing their matters related to public administration. It empowers citizens by giving them control over their cases and direct access to track the progress of their ongoing matters. Today, the portal has become an essential tool for Danish citizens, streamlining important administrative tasks such as change of address, childcare enrollment, application for child support, claiming state pension, and more.

The portal also provides each resident with a personal page on borger.dk called My Overview where they can log in using their national eID, MitID, to access some of the information public authorities hold on them in one place.

The development of My Overview is part of a joint public-political vision for creating transparency for residents, and better and more coherent provision of digital services across the public sector.

Letters and general communication with Danish authorities are also conveniently facilitated through the portal's Digital Post function. This feature allows all communication with public authorities to take place in one centralised digital space, giving citizens full control and a comprehensive overview.

Through this platform, data and personal information are kept secure, as access is granted solely through the national eID's authentication system. Out of 4.8 million eligible citizens required by law to receive official letters digitally, 4.6 million have an account for Digital Post.

To ensure optimal functionality and meet the evolving needs of citizens, an annual user satisfaction survey is conducted. The latest survey, which involved more than 5,000 citizens, revealed a satisfaction rate of 91%.

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**CASE:**

# DIGITAL PERSONAL TAX ASSISTANCE

**Digital personal tax assistance is made easier with TaxHelper, a digital tool that helps individuals understand their tax deductions and efficiently report them. With TaxHelper, the burden of communication and reporting to tax authorities is lifted from the citizen, reducing their workload and simplifying the process.**

When using TaxHelper, individuals are only required to answer a series of generic questions to identify underlying potential deduction factors.

Additionally, they grant TaxHelper permission to report the deductions on their behalf. TaxHelper takes on the responsibility of locating relevant documentation, such as contracts, and submitting these to the tax authorities.

By combining customer-service software and a no-win-no-fee approach, TaxHelper offers a convenient and accessible way for individuals to claim the tax benefits they are entitled to.

Providing a better understanding of their financial rights, TaxHelper helps individuals optimise their finances and make informed decisions for the future.

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**CASE:**

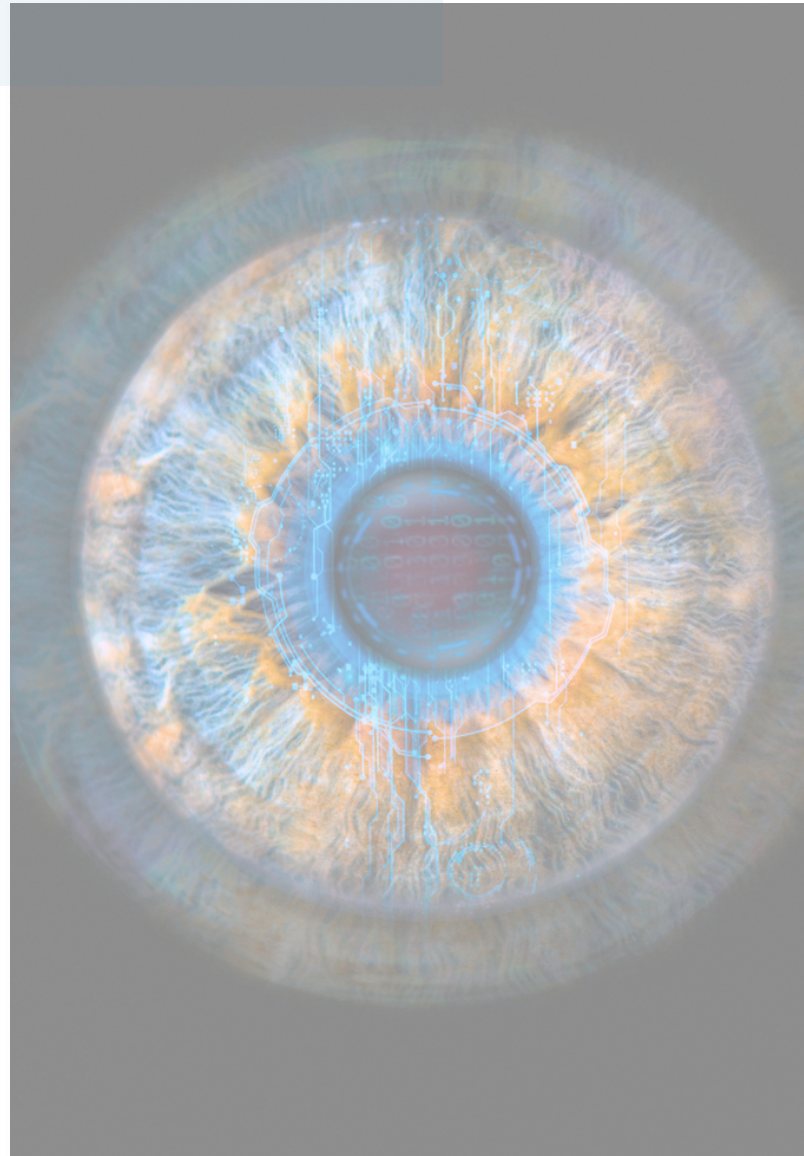
# DIGITAL ASSISTANCE FOR VISUALLY IMPAIRED PEOPLE

**Be my Eyes is a free mobile app with one main goal: to make the world more accessible for the 250 million blind and low-vision people worldwide. The app connects the largest online community of blind and low-vision individuals with sighted volunteers and companies through a live video call.**

Through the app, visually impaired users can initiate a video livestream, sharing their view through their phone's camera and one of the almost seven million volunteers on the platform can join the call and lend their eyes to help with tasks ranging from operating household appliances and checking expiration dates on food to navigating through an airport.

With the recent introduction of its new visual input capability powered by GPT-4, Be My Eyes has developed a Virtual Volunteer that can provide an equivalent level of context and understanding as a human volunteer. This advancement further enhances the app's capability to assist and empower people who are blind or have low vision.

Be My Eyes also offers enterprise products allowing companies to assist their blind and low-vision customers quickly and at scale with personalised, accessible support. The video calls serve those customers fast, efficiently, and with high levels of customer satisfaction, and are used today by Microsoft, Google, Sony, Procter & Gamble and many others.



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**CASE:**

# DIGITAL PATIENT CONSULTATION

**Corti is an advanced artificial intelligence (AI) tool designed to support medical workers throughout the consultation workflow.**

Corti was first proven in the emergency medical services (EMS) space. Through the use of voice recognition and natural language processing, Corti analyses emergency calls made to healthcare services.

The AI is trained to detect speech patterns and identify words and phrases that may indicate a life-threatening situation.

Working alongside the dispatcher, Corti provides real-time feedback and prompts to ask specific clarifying questions that aid in identifying the nature of the healthcare inquiry.

Now Corti augments the entire consultation workflow for emergency and non-emergency encounters: providing real-time support and automating documentation and coding during the consultation as well as augmenting the work of quality assurance and best practices developed after the fact.

Currently, Corti is successfully utilised in nurse advice lines, emergency dispatch, and ambulatory clinics. It is also being deployed by companies and organisations in several countries, including Germany, the Netherlands, the United Kingdom, and the United States.

The implementation of Corti has demonstrated improved outcomes for patients by reducing diagnosis and treatment time.

[READ MORE](#) 

**CASE:**

# CHAT- AND VOICEBOT IN CITIZEN'S SERVICES

**One of the AI Signature Projects between the Danish Government, Local Government Denmark, and Danish Regions is the chat- and voicebot Kiri in Roskilde municipality. Kiri is both a digital chatbot and a voicebot that allows citizen's in need of service to skip the long telephone queue or save them a trip to the municipal office.**

Through the municipal website, citizens can access the chatbot and ask it questions. Asked questions vary from information on new passports and driver's licenses to address change and garbage sorting.

Through the AI technology, the chatbot is able to analyse certain key words or phrases in the question and then proceeds to find the right answer to the inquiry or, if unable to answer the question, encourages the citizen to call the municipality.

The chatbot has provided correct and adequate answers to 95% of the inquires.

Additionally, citizens calling the municipality are able to receive the efficient help of Kiri as they are automatically greeted by the voicebot when they call, and are then able to ask the voicebot their question.



The voicebot analyses the inquiry and proceeds to find the right answer to the question.

The citizen is then asked whether their question is adequately answered or if they want to be transferred to a citizens' service manager.

This particular function has had great support from citizens, as it has increased inclusivity for the citizens lacking digital competence or those who have difficulties accessing and using digital devices.

# ENHANCING PUBLIC TRUST THROUGH **DIGITAL SECURITY**

**In an increasingly interconnected world, the generation and collection of vast amounts of individual and personal data have become pervasive.**

However, this reliance on data also brings risks, including biases based on personal information, as well as potential fraud and criminal activities.

These risks can be mitigated through data protection regulations and responsible use of personal and sensitive data. Prioritising data responsibility through ethical data guidelines will not only promote public trust but also strengthen companies' position in the market.

Both the Danish private and public sectors recognise the strong business case for complying with laws on personal data protection.

The Danish Government has proactively taken numerous steps to support businesses and citizens in achieving legislative compliance, protecting personal data, preventing misuse, and encouraging companies to develop and deliver data-secure services and products.

Amid concerns about surveillance and the misuse of personal data, public and private entities in Denmark have taken steps beyond the General Data Protection Regulation (GDPR) to ensure the safeguarding of personal data.



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DANISH D-SEAL

CYBER-SECURING DIGITAL OPERATIONS

RESPONSIBLE AI & AI GOVERNANCE

ENCRYPTED COMMUNICATION

AI IN PUBLIC DOCUMENT-ACCESS PROCESSING

**CASE:**

# DANISH D-SEAL

The **Danish D-seal** is a voluntary labelling program for IT security and the responsible use of data and AI.

By obtaining the D-seal, companies can demonstrate their commitment to data security, privacy, and trustworthy AI, thereby establishing trust in their use of digital technologies and gaining a competitive advantage in terms of digital accountability.

The objective is to generate value for companies and foster consumers' trust.

While the D-seal is an organisation-wide certification, the specific criteria that companies must meet vary and are tailored to factors such as company size, data usage, and digital technology implementation.

These criteria are based on established frameworks from international, European, and national councils, committees, and task forces. Consequently, the D-seal is applicable to organisations of all sizes, ranging from small independent firms to large corporations with thousands of employees.

We believe that initiatives like the Danish D-seal inspire companies to continually strive for enhanced data security and responsible use of digital technology in their operations.

The D-seal provides users with the ability to identify whether a company's data practices and overall IT security have been approved to receive the Danish D-seal, thus fostering and enhancing trust.

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**CASE:**

# CYBER-SECURING DIGITAL OPERATIONS

**Logpoint** is dedicated to safeguarding the digital heart of every company or organisation.

It offers cyber-security solutions designed to protect the digital infrastructure and operations of organisations.

Its vision is to enhance the capabilities of security teams, enabling them to make confident, safe, and informed decisions while optimising efficiency in protecting their organisations using AI technology and automation.

Logpoint provides SIEM, SOAR, and UEBA solutions that support cybersecurity, IT operations, business analytics, and compliance with key regulations and standards such as GDPR, NIS2, and ISO27001.

They provide services ensuring privacy and personal data protection; for instance, in the public sector and healthcare.

Here, their solutions play a crucial role in safeguarding patient data and other sensitive information. Logpoint firmly believes that ensuring data safety is a foundation stone in today's digital society.

Additionally, Logpoint's solutions are designed to help organisations defend against external and internal threats, preemptively detecting data staging and exfiltration and preventing unauthorized access to privileged information.

By addressing cybersecurity risks, Logpoint contributes to enhancing overall data security and reducing vulnerabilities for its customers.

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**CASE:**

# RESPONSIBLE AI & AI GOVERNANCE

**2021.AI plays a significant role in leveraging artificial intelligence (AI) to enhance human decision-making by supporting implementation of AI technology across multiple industries worldwide.**

It achieves this by providing ready-to-use AI solutions, offering infrastructure for building AI systems, and providing add-on capabilities specially focused on the responsible use of AI and AI governance to ensure compliance with current and future legislations and best practice ethical guidelines.

This also includes, at a more detailed level, such features as detection and mitigating bias, and protecting personally-identifiable information.

Within 2021.AI's AI Platform *Grace*, it is possible to develop, deploy, maintain, and additionally validate AI models to ensure they align with legal prerequisites and ethical guidelines.

Grace stores all data from the start of AI projects until they are in production as well as all output generated by the AI models in production.

It allows for setting up rules, limitations, and risk management for the models' usage.

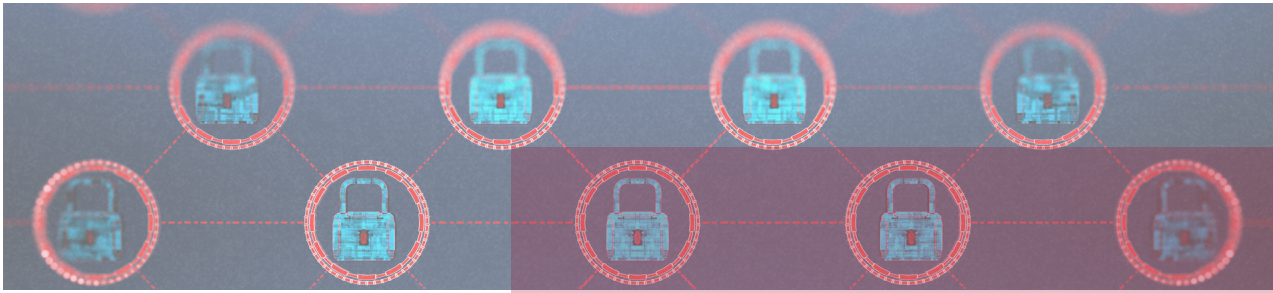
This ensures that the models operate within specified legal frameworks and ethical guidelines.

As regulatory attention on emerging technologies continues to increase, companies can anticipate more requirements and a greater need for more transparency.

Numerous SME's and larger enterprises across various industries, as well as municipalities and hospitals, have leveraged 2021.AI's GRACE platforms to streamline case handling, enhance data-driven sales with real-time predictions, forecast market prices, and protect sensitive information.

These solutions play a crucial role in ensuring data security and enhancing public trust in digital solutions and companies in general.

[READ MORE](#) 

**CASE:**

# ENCRYPTED COMMUNICATION

**Dencrypt's mission is to enable everyone to communicate in confidence. By combining advanced encryption technology with user-friendly operation, our solution safeguards sensitive personal information and empowers individuals to communicate with confidence.**

The Dencrypt Connex app allows users to make secure voice calls, video calls, and send encrypted messages, ensuring end-to-end protection of all data.

The use of regular smartphones and computers makes the app highly scalable for large organizations, compared to communication tools that rely on the purchase of special hardware devices.

The Dencrypt Server System serves as a platform for secure user management, call and message routing, and authentication. The solution can also be delivered as an Enterprise solution, where the Dencrypt Server System is installed in the customer's own IT environment.

This gives the customer full control of the system, including all user information.

Whether the solution is cloud or enterprise based, a roll-out to thousands of users can be done quickly and with great flexibility. Dencrypt Connex features Dynamic Encryption, a proprietary and patented encryption technology that offers unmatched protection.

Dynamic Encryption adds a dynamic encryption layer to the well-known AES-256 encryption.

This means that all conversations and messages are encrypted with a different encryption algorithm, making it impossible to decrypt without the proper encryption keys.

Dencrypt caters to the specific needs of the public sector, developing and delivering encryption solutions tailored to organizations such as NATO and the Danish defense, to protect classified information and communication.

[READ MORE](#) 

**CASE:**

# AI IN PUBLIC DOCUMENT-ACCESS PROCESSING

**Under the *AI Signature Projects* and in a public-private sector collaboration, Fredensborg, Sønderborg, and Vejen municipalities, along with AI company Aktio, have created a public document-access platform to assist in public document-access cases.**

When the public administration receives a request for document access by journalists, private persons or companies, the platform's NLP model helps identify personal and sensitive data in the requested documents.

The platform then assists in removing suggested information before the documents are shared with the requestee.

The employee is responsible for determining which data can be left out by referring to existing legislation.

To ensure compliance with GDPR, the municipalities carry out controls as identified and described in the Data Protection Impact Assessment.

This is supervised by the Danish Data Protection Agency.

By including AI in document-access cases, municipalities can deliver a more data-secure and transparent case processing.

At the same time, citizens and the general public stand to gain as they are ensured quality-assured case processing as well as increased legal certainty.

Public-private solutions like these contribute to overall data security.

[READ MORE](#) 

# CHARTING THE PATH FORWARD

*A word from the Tech Ambassador of Denmark,  
Anne Marie Engtoft Meldgaard*

In recent decades, Danish society has embraced the digital revolution with a clear focus on sustainability, economic growth, and human rights.

Denmark recognises that this journey is not exclusive to our borders, and with this catalogue seeks to initiate a global conversation about advancing a responsible tech development rooted in concrete examples. As technology continues to advance, new opportunities and challenges will emerge.

The crucial question remains: How can we harness the potential of these opportunities while proactively addressing the challenges? Denmark's approach is centred on digitisation that delivers value to citizens, businesses, and society as a whole.

At the same time, it is our societal responsibility to ensure that technological advancements benefit the many, not just the few.

To put it simply, Denmark has already overcome numerous challenges on our digitisation journey and our society is a living proof of how digitalization can create economic opportunities, improve welfare, and strengthening democracy.

However, we humbly recognise that we are still at the beginning of a greater endeavour, where new technologies like advanced AI and a ubiquitously connected society will demand continued commitment to shape a responsible technological future.

We are excited to share our experiences with you, but also to listen and learn from you. We eagerly anticipate engaging in a dialogue on how we together forge a responsible technological future that empowers individuals, fosters inclusivity, advances innovation and economic growth, while safeguarding privacy and ethical considerations.



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