More time for what truly matters

Vision for the roll-out and use of artificial intelligence in the public sector

Contents

Foreword

A well-functioning public sector is the cornerstone of the Danish welfare society.

Denmark's security, freedom and prosperity rest on citizens and businesses having access to high-quality public services.

The conditions for delivering good public service to Danes are changing. With an ageing population on the horizon, we will need more resources in the welfare society. Expectations for the quality of public services typically increase as we become more prosperous. At the same time, we face an uncertain situation globally. Massive investments must be made in our shared Danish and European security, as well as in the green transition.

This tightens the conditions for the Danish economy and the ability to deliver good public services to citizens and businesses. We need to rethink how we prepare for the future, and artificial intelligence must play a central role in this process. It's a technology with huge and transformative potential. A technology we need to use to develop and improve welfare while reducing the need for resources.

However, adopting artificial intelligence is not straightforward. For example, it can be difficult to know what you can and cannot do under the current legal framework. Technology evolves faster than legislation. Many government agencies are well on their way to utilising artificial intelligence, but many are inventing it themselves and are often left to solve legal challenges on their own. Going forward, local initiatives need to be complemented by unified direction and large-scale joint efforts across government agencies to overcome obstacles together and roll out technology effectively. This way, we are stepping up the pace and ambition.

That is why we have established a Digital Task Force for Artificial Intelligence in the Public Sector, which is already underway with its work. With the Task Force, we aim to move the fence posts of public services and utilise technology to free up resources, enhance efficiency and improve quality in the public sector. This includes areas where there will be an increased need for labour in the future. Artificial intelligence will help ensure that we continue to have *time for what truly matters* in the future.

The Government, Local Government Denmark and Danish Regions

More time for what truly matters

The public sector needs to innovate and rethink its business processes with the help of artificial intelligence. Developing and improving the public sector through new technologies also boosts Denmark's productivity and competitiveness. Innovating and rethinking the public sector must be pursued so that future welfare needs can be met.

The technology can predict diseases and identify more effective rehabilitation programmes and resources for citizens who need them. It can help care home staff detect if a resident has fallen out of bed at night. It can also increase productivity by improving workflows and helping to streamline administrative tasks across all government agencies. There is a demand for it. It will reduce time spent on recording and documentation, among other things, which will free up labour and thereby ensure more time for the core task and human presence.

Digital Task Force for Artificial Intelligence in the Public Sector

The Government, Local Government Denmark and Danish Regions have established a *Digital Task Force for Artificial Intelligence in the Public Sector* to set an ambitious common direction for the roll-out of artificial intelligence in the public sector. The Task Force will promote leadership and collaboration in the use of artificial intelligence, helping to free up labour and increase quality in the public sector. This will be achieved by supporting the removal of barriers to technology use, gathering and sharing knowledge about tools and best practices and identifying existing and new specific solutions that can be implemented on a large scale.

Many government agencies in Denmark and Europe are already using artificial intelligence solutions in their everyday work. Good solutions exist locally, but they need to be rolled out much more widely. At the same time, there must be continued motivation to develop new solutions and learn from previous experiences.

Denmark is well placed to capitalise on the potential of artificial intelligence in the public sector. Denmark's unique collaboration across government agencies and the private sector on well-functioning digital solutions and infrastructure puts us in a strong position. However, several prerequisites must still be in place for artificial intelligence solutions to be widely rolled out in society. The Task Force will help clarify the legal framework and ensure that legislation is up to date with the aim of using the technology not only for testing or research, but also for deploying effective solutions throughout the public sector. Clarifying the legal framework and ensuring that legislation is up to date cannot be solved by individual government agencies, but calls for joint action.

It is also crucial that artificial intelligence is used ethically and responsibly, so that citizens, companies and employees have confidence that it helps support good public service and legal certainty. This is necessary to maintain a high level of trust in the public sector in the future. The public sector must utilise artificial intelligence in a manner that safeguards individual rights while supporting technological competitiveness and sovereignty in Denmark and Europe.

The Task Force will operate in accordance with a set of guiding principles for the use of artificial intelligence in the public sector.

Guiding principles
for the use of
artificial intelligence
in the public sector

Value creation

Artificial intelligence must be used to create tangible value for citizens, businesses, employees and the public sector as a whole.

Cost efficiency

Artificial intelligence must be used based on an overall assessment of costs and benefits.

Accountability

Artificial intelligence must be used ethically and responsibly, transparently and in a manner that protects the fundamental rights of citizens and businesses.

Safety and security

Artificial intelligence must be used responsibly with measures that effectively safeguard against misuse, data leaks and cyberattacks.

Sustainability

Artificial intelligence must be used with an eye for the overall resource impacts the technology can have, such as water and energy consumption.

Future-proofing

Artificial intelligence solutions must be developed, procured and used in a way that ensures economic and security robustness, minimises dependence on selected suppliers and remains relevant as technology evolves.

Vision and goals for 2030

The Task Force has been tasked with defining goals for the roll-out of artificial intelligence in the public sector by 2030. Where do we stand in terms of using artificial intelligence in 2030, and what have we gained from it?

Vision

More time for what truly matters

Through the use of artificial intelligence, employees, citizens and businesses can free up more time for what truly matters.

Goals

1 An efficient and innovative public sector

Using artificial intelligence in our work and organisation ensures that resources are used where they provide the most value and that new solutions and services are continuously developed. This will free up resources, among other things, where there is a labour shortage.

2 Customised and easy interaction with government agencies

The use of artificial intelligence in our work and organisation makes citizens' and businesses' encounters with the public sector easier, simpler and more personal.

3 Enhanced professionalism and focus on the core task

Using artificial intelligence in our work and organisation enhances the professionalism of public employees and supports, among other things, more time for citizen- and business-oriented tasks.

Specific goals
for 2030

In addition to the vision and goals, the Government, Local Government Denmark and Danish Regions have a joint political ambition to fulfil five goals by 2030 and 2035.

1. Rolling out artificial intelligence in government agencies frees up at least 50 million hours, equivalent to at least 30,000 FTEs, across the public sector by 2035. A significant part of this will be fulfilled by 2030.

The freed-up resources will need to be utilised where they provide the most value. Sometimes to solve labour shortage challenges in a specific area, sometimes to improve the quality of public services in a specific area, and sometimes to support the reprioritisation of resources. Unlocking resources on such a large scale requires addressing the barriers that currently challenge the adoption and scaling of artificial intelligence in the public sector, including unclear and outdated legal frameworks. This ambition should be viewed in light of the fact that the parties are committed to addressing these barriers, and that work on initiatives on prerequisites will therefore be a key priority for the Task Force.

2. No more than 20% of government agencies cite unclear and outdated legal frameworks as a significant barrier to using artificial intelligence in areas where the technology can create value for the benefit of citizens and employees.

3. By 2030, at least 80% of government agencies use artificial intelligence in their operations where it makes sense and adds value.

4. Citizens and businesses find that interaction with the public sector has become easier and simpler as a result of the use of artificial intelligence.

5. Public employees experience that they are supported in their work as a result of the use of artificial intelligence.
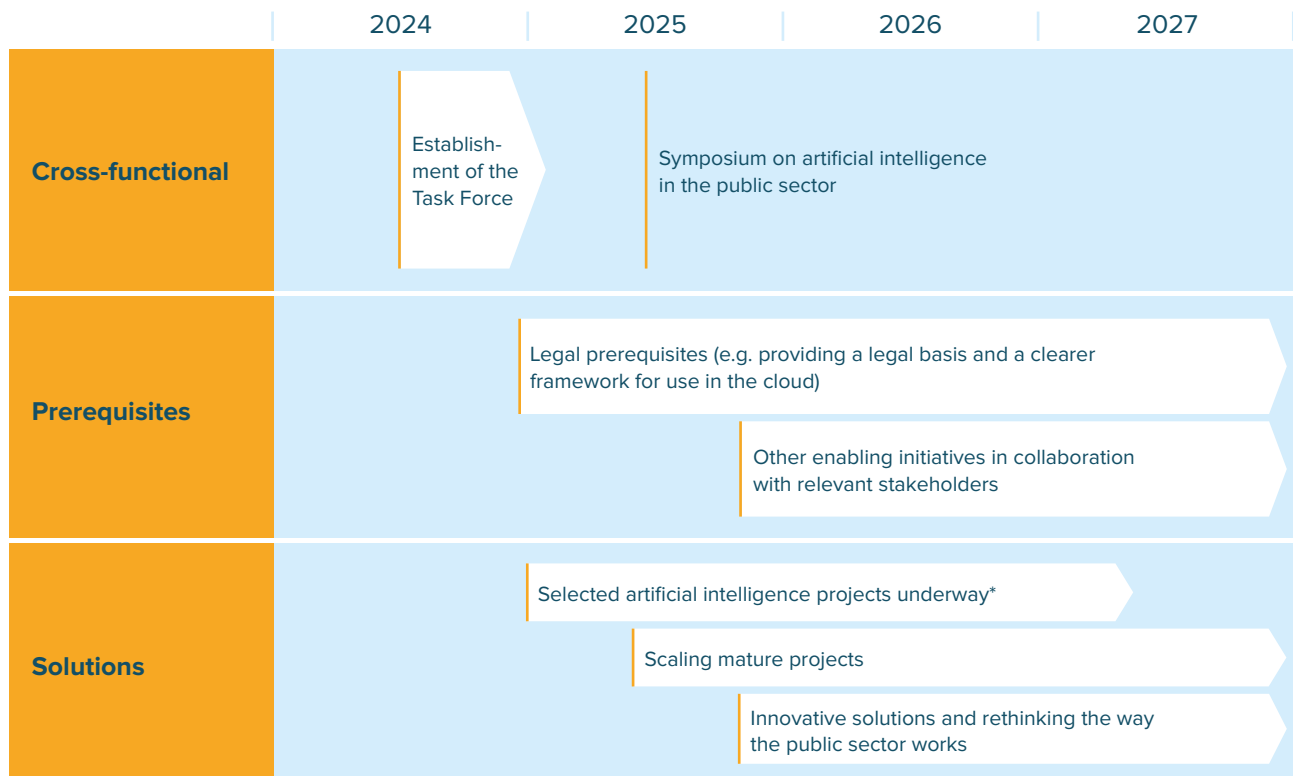
Task areas where the Task Force will prioritise the roll-out of specific solutions

The Task Force will base its work on deploying artificial intelligence solutions in the public sector on a firm foundation. It will focus on establishing prerequisites for the use of artificial intelligence, disseminating existing and new solutions and sharing knowledge about tools and best practices. When working on specific solutions, the Task Force will focus on scaling and deploying mature solutions in the short term, while later prioritising the deployment of more immature solutions. When selecting solution tracks, the Task Force will assess areas where there is significant potential for utilising artificial intelligence, where there is a solution or a solution can be developed that works, and where the prerequisites for implementing the solution are present or can be provided.

The Task Force is expected to initially prioritise areas and tasks that are administrative in nature. For instance, documentation tasks, resource optimisation and operations. The Task Force will continuously expand its focus to include areas and tasks that are closer to the everyday lives of citizens and businesses. For example, in the interaction that citizens and businesses have directly with the public sector.

The Task Force focuses on gathering input from experts and stakeholders in its work on deploying existing and new artificial intelligence solutions.

	2024	2025	2026	2027
Cross-functional	Establishment of the Task Force	Symposium on artificial intelligence in the public sector		
Prerequisites		Legal prerequisites (e.g. providing a legal basis and a clearer framework for use in the cloud)		
			Other enabling initiatives in collaboration with relevant stakeholders	
Solutions		Selected artificial intelligence projects underway*		
		Scaling mature projects		
			Innovative solutions and rethinking the way the public sector works	

* DKK 40.6 million allocated to three projects: Artificial intelligence for bone fractures; routing and scheduling in healthcare and elderly care; speech-to-text in healthcare and elderly care.
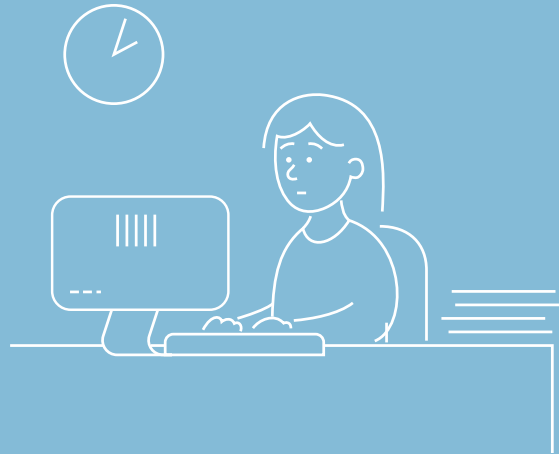
FACTS

40%
administration

On average, public sector employees estimate that more than 40% of their working time is spent on administrative tasks and coordination.

Wilke and the Confederation of Danish Industry
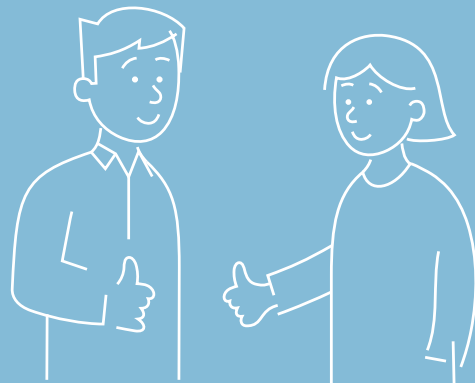
10%
aged over 80

Today, the over-80s make up around 5% of the population. After 2047, around 10% of citizens are expected to be over 80 years old.

Statistics Denmark

74%
of citizens

74% of citizens agree to some or a high degree that the public sector should use artificial intelligence wherever it can benefit citizens or authorities.

Rambøll and Dansk IT

Goals

1 An efficient and innovative public sector

2 Customised and easy interaction with government agencies

3 Enhanced professionalism and focus on the core task

1

An efficient and innovative public sector

It is a key political priority for the Government, Local Government Denmark and Danish Regions to improve efficiency, reduce administration and free up resources and time for what is important. Artificial intelligence and technology will play a significant role in this.

To increase productivity and free up resources, artificial intelligence solutions must be deployed across the public sector. Among other things, the freed-up resources can be used to address tasks of greater value to citizens and businesses, and can also be allocated to other political priorities, ensuring that every penny creates more value.

Innovation is necessary to ensure that the public sector can continue to meet the expectations of citizens and businesses for public services in the future. That is why artificial intelligence must support innovation in the public sector by paving the way for entirely new solutions and services.

The development must take place in close collaboration between government agencies, Danish companies, research environments and civil society. This will ensure well-thought-out solutions and support responsible Danish technology development.

Artificial intelligence will be utilised for a wide range of purposes across the state, regions and municipalities. This can be achieved by reducing the time spent on documentation and streamlining tasks such as meeting minutes, note-taking and journal writing, which are part of everyday life in courts, hospitals and municipal practices.

Artificial intelligence can also be used in the performance of other tasks in the public sector. For example, healthcare professionals could potentially be assisted in documenting and recording the services provided during home visits to citizens more efficiently, or caseworkers could be supported by technology in accessing documents or participating in consultation processes effectively. It will support efficient work processes across the public sector.

In areas such as healthcare and elderly care, administrative tasks, including documentation and planning, consume a significant portion of the daily work. By utilising artificial intelligence to automate documentation tasks, healthcare and elderly care professionals can allocate more time to patient care and presence. This could potentially be achieved by utilising technology to record observations during ward rounds, for example, which are then automatically noted down and summarised in medical records. This streamlines the documentation process, allowing healthcare professionals to spend less time in front of their computer afterwards.

In its efforts to support the adoption of artificial intelligence within government agencies, **the Task Force** will focus on scaling existing solutions while also rethinking task execution, aiming for a more efficient and innovative public sector.

Artificial intelligence to support access to information cases

Artificial intelligence can help employees handle access to information cases. In a municipal collaboration, a solution has been developed that first utilises RPA technology to collect relevant files and then employs artificial intelligence to redact information, such as personal data, that should be omitted regarding access to document cases. It streamlines the processing of access requests, which are typically time-consuming and consist of repetitive and semi-routine actions.

TENDER

DKK 1,912

TENDER

DKK 1,913
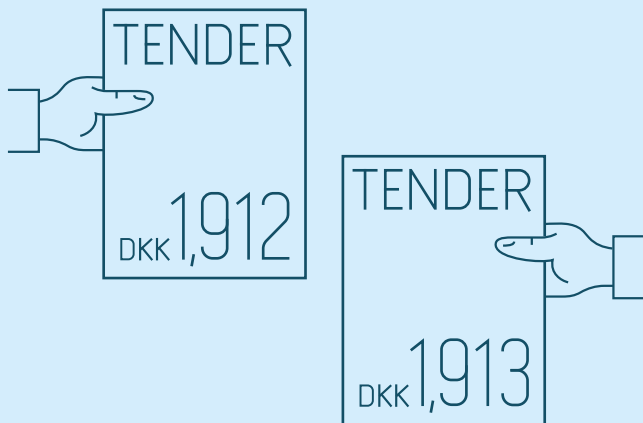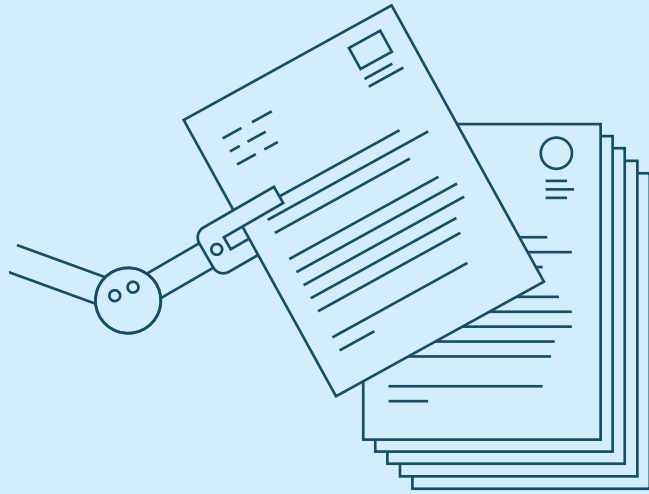
Artificial intelligence can help identify cartels

The Danish Competition and Consumer Agency utilises a screening tool to identify suspicious patterns in tenders submitted in public tender processes. The tool employs several methods, including machine learning, to detect signs of potential cartelisation in large volumes of tender data. The solution enables efficient screening of multiple markets. This streamlines administration and provides a better opportunity to control and prevent possible cartels.

Customised and easy interaction with the public sector

Good public services are essential for citizens in all walks of life. From enrolment in daycare centres to dignified care for the elderly, the public sector must support an easy and safe everyday life for citizens.

Citizens should feel that their situation and needs are at the centre of their interaction with the public sector. They should experience this both in their day-to-day communication with government agencies and in the actual service provided. Using artificial intelligence can create the basis for a more person-alised and flexible service where, for example, dialogue with government agencies or access to useful knowledge is made more accessible and understandable for everyone.

The technology can help government agencies and employees provide more proactive help to citizens across various life situations. For example, so that citizens are more likely to have offers and assistance that suit their individual situation.

At the same time, technology is an evolving factor in welfare. In healthcare, technology can already help diagnose and analyse test results or determine if a citizen has broken bones, for example. These opportunities will only continue to grow and improve in the future. In this way, technology can help predict and treat illnesses, as well as change the way citizens experience welfare and public services.

Opportunities can unfold in many areas in the interaction between citizens and government agencies. Public services, laws and regulations can be complex and difficult to understand for many citizens and businesses. What rules apply? Where can you get help? Artificial intelligence can make it easier to understand and therefore easier to interact with the public sector. With artificial intelligence, communication can be targeted to the individual, which increases accessibility and equality in the service that citizens and businesses experience. At the same time, it will free up resources across the public sector.

In higher education, artificial intelligence could potentially be utilised in future guidance services, tailoring guidance to an individual's unique path through a broad educational system. Among other things, this can contribute to more informed educational choices.

The Task Force will work to ensure that citizens and businesses experience better and more personalised public services through artificial intelligence and that their encounters with government agencies become simpler.

Better imaging and continuity of care

Artificial intelligence can be used to assess images for breast cancer screening. It is currently used in the Capital Region of Denmark, where the solution improves the accuracy of breast cancer risk assessment. With the help of technology, one of the two specialist doctors who currently assess the images can also free up time. This helps support radiologists, who are in high demand in the healthcare service. The solution also helps patients receive a quick and accurate diagnosis, allowing them to move faster through the treatment system.

Chatbots and voicebots can give citizens quick answers and help

Several municipalities utilise intelligent chatbots and voicebots as an extended service to provide citizens with prompt answers to their questions. The chatbots can find answers quickly, and in many cases, citizens can get immediate answers to questions around the clock, such as parking rules or booking an appointment for a new passport. A number of municipalities are already using these chatbots today.

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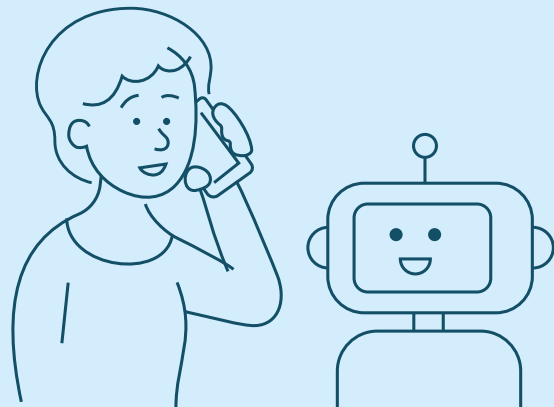
Enhanced professionalism and focus on the core task

Skilled employees are essential for the public sector to succeed. Without the professionalism and commitment of employees, the public sector cannot deliver high-quality services to citizens and businesses.

Artificial intelligence can change the way people work in the public sector. If done wisely, it can make public sector jobs even more attractive. Artificial intelligence can, among other things, provide more time for the core task while also helping to enhance the individual employee's professionalism and well-being.

Many employees work in the public sector because they are driven to contribute to the welfare society and provide good service to citizens and businesses. However, some employees also spend time on tasks that are not necessarily directly related to the everyday lives of citizens and businesses, such as recording and documentation. Artificial intelligence can support the performance of some routine documentation tasks and enhance the quality of documentation, ultimately benefiting citizens and businesses. This allows employees to focus more on aspects such as service presence.

Artificial intelligence can also support employees' professionalism, for example by being an integral part of the task solution. For instance, technology can aid in the creation of specific products, such as the initial draft of an analysis or a roster.

The technology can also eventually act as a digital sounding board, helping employees make informed decisions by quickly processing large amounts of data. For example, by supporting employees in professional assessments or by summarising and identifying key documents in the case management of construction and environmental cases.

In its work to roll out artificial intelligence in the public sector, **the Task Force** must focus on ensuring that the solutions are perceived as supportive and empowering for employees.

# Artificial intelligence can help predict workloads in the healthcare service

In the Region of Southern Denmark, artificial intelligence is being used to help predict patient arrivals in emergency departments, which makes it possible to ensure the right staffing levels. The solution generates both short-term and long-term forecasts for emergency department workloads. The short-term forecast predicts the workload hour by hour, while the long-term forecast predicts it several months ahead. The solution supports better scheduling, reduces unnecessary costs and improves working conditions for healthcare professionals in emergency departments.
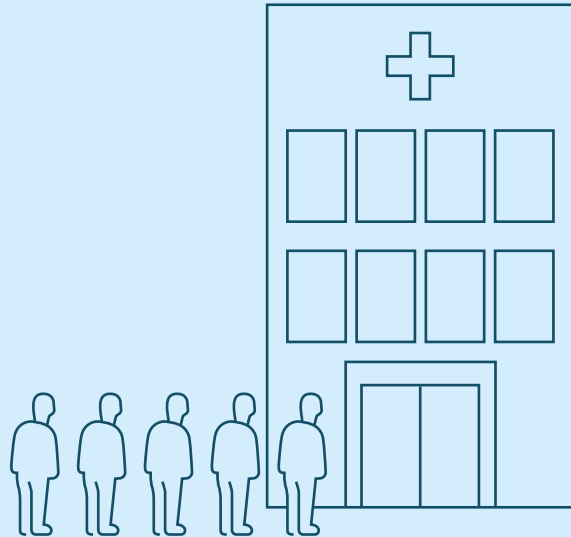
Artificial intelligence to help with rosters and route planning

In municipalities, care personnel travels many kilometres on the road when visiting people in their own homes. It can be a significant planning task to organise the driving routes so that employees can spend the most time with citizens and ensure that the same employees continuously visit citizens.

In Varde and Lemvig municipalities, for example, artificial intelligence supports the planning task and suggests the most efficient driving routes that take into account citizens' desire for continuity and employees' desire to have time to spend with citizens. There is potential to roll out these solutions across the country.
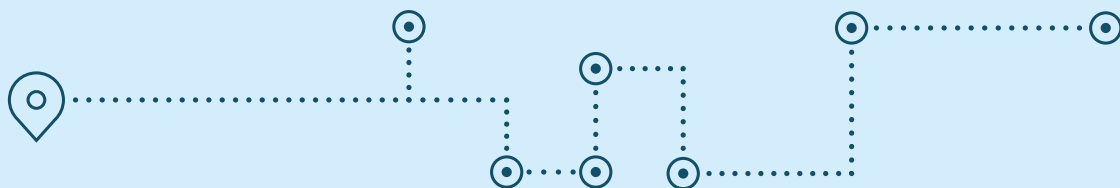
Prerequisites for the roll-out of artificial intelligence

The effective and responsible use of artificial intelligence in the public sector on a large scale requires key prerequisites to be in place. Therefore, it is a priority to create the necessary conditions and ensure that essential nuances and dilemmas are taken into account, including the protection of citizens' and businesses' fundamental rights.

Legal framework

Many government agencies today encounter legal ambiguities and legislation that does not take into account the dilemmas that arise when government agencies use artificial intelligence. The legal framework becomes outdated when there are no clear answers on how government agencies can responsibly use artificial intelligence. This prevents artificial intelligence from being deployed where it could otherwise benefit citizens, businesses and employees. Furthermore, there may be challenges in interpreting legislation differently across government agencies, and uncertainty around interpretation can be a barrier to the effective use of artificial intelligence.

Lessons learnt from previous artificial intelligence projects show that government agencies must have a clear legal framework for implementing and deploying artificial intelligence solutions that take into account the rights of citizens and businesses, among other things.

Therefore, the Task Force will focus on ensuring that the framework of the current legislation aligns with regulations and the potential applications of artificial intelligence. Among other things, the Task Force will initiate efforts to establish authorisations for the use of artificial intelligence in the public sector. The Task Force will also work to increase clarity on the rules that currently apply and those that will apply in the future.

Data and infrastructure

Another key prerequisite for the effective use of artificial intelligence is access to high-quality data and an up-to-date, well-functioning and robust infrastructure, such as cloud infrastructure. Poor data quality, missing data or a lack of standardisation of data across the public sector limits the ability to develop and implement successful artificial intelligence solutions.

It may make sense to establish common solutions that better ensure access to the right data and ensure consistent common standards. The Task Force will continually assess whether there is a need to initiate cross-functional initiatives that create prerequisites for data and infrastructure.

Organisational framework, trust and competencies

For artificial intelligence to be effectively deployed in the public sector, government agencies must have the courage to develop and implement artificial intelligence solutions. This requires that the ambitions for the deployment and use of artificial intelligence be considered in conjunction with other strategic change processes and reforms that continuously characterise the public sector. The Task Force will have a supporting role in this.

To maintain confidence in the public sector, it must also be ensured that the professionalism and quality of the public sector are maintained, and that managers and employees have insight into the opportunities and challenges of technology, as well as the skills to use artificial intelligence safely and responsibly. This doesn't mean that all public sector employees need to be experts or be able to program, but relevant employees need to have a basic understanding of technology and its implications.

In the years ahead, this will be a task of change for organisations, managers and skilled employees alike. Just as it has been in the past, in line with the increasing digitisation of public administration. It is a shared responsibility across the Danish labour market to support this transition. The Task Force will also focus on this in its work on rolling out artificial intelligence.

Background on the Task Force

Digital Task Force for Artificial Intelligence in the Public Sector is tasked with:

Guiding and facilitating the roll-out of existing and new artificial intelligence solutions at scale in the public sector. The aim is to realise the great potential of technology in a responsible and value-creating way.

In its work to roll out specific artificial intelligence solutions, the Task Force will focus on the tasks where the technology can create the greatest value. With an analytical and needs-driven approach, the Task Force will ensure that artificial intelligence is implemented as a real catalyst to streamline and free up resources, and prioritise time for what is important. The selection of solutions is based on knowledge of potentials, prerequisites and barriers, which are compared with other societal challenges and considerations.

Expert group, stakeholders and partnerships

The Task Force cannot do the work of rolling out artificial intelligence in the public sector on its own. Continuous input from the outside world, including the Task Force's expert group, the research community and stakeholders such as social partners, is essential. Continuous input should support a high level of ambition and speed of work. That is why the Task Force has already held a number of dialogue meetings with leading experts, stakeholders and professional organisations in its initial work. Similar dialogue meetings will be repeated on an ongoing basis to ensure balanced input to the work of the Task Force. At the same time, an expert group has been established to provide ongoing advice to the Task Force on both the strategic direction of the work with rolling out artificial intelligence and on specific solutions. The Task Force also anticipates partnering with government agencies and experts on various projects.
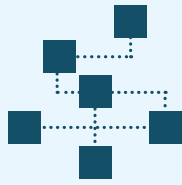
Dialogue meetings on the strategic direction of the Task Force's work

In the preparation of the Task Force's vision, a number of dialogue meetings have been held to include knowledge and views from the outside world on the roll-out of artificial intelligence in the public sector:

- Dialogue meeting concerning employee perspectives on the deployment of artificial intelligence in the public sector, with participation from key professional organisations

- Dialogue meeting concerning the current and future technological possibilities for rolling out artificial intelligence in the public sector, with the participation of a number of researchers and suppliers

- Dialogue meeting concerning citizens' perspectives on rolling out artificial intelligence in the public sector, with the participation of key civil organisations

- Dialogue meeting concerning the prospects for increasing productivity in the public sector through the use of artificial intelligence, with the participation of key business organisations and think tanks

Organisation of the Task Force

The Task Force is a joint public collaboration across the state, Local Government Denmark and Danish Regions, and is organised in a political committee consisting of the Minister of Digital Affairs, the Minister of Finance and the chairs of Local Government Denmark and Danish Regions, as well as a board and a secretariat consisting of the Ministry of Digital Affairs, the Ministry of Finance, the Ministry of Justice, the Ministry of Industry, Business and Financial Affairs, the Ministry of the Interior and Health, the Ministry of Climate, Energy and Utilities, the Ministry of Foreign Affairs as well as Local Government Denmark and Danish Regions.
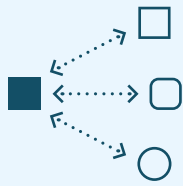
Expert group for the Task Force

To support the Task Force in its work, an expert group has been established with representatives from the public sector, industry and the research community. The expert group provides professional and strategic support to the Task Force, fostering a high level of ambition in the work, with a clear objective image and specific solutions. The members of the expert group are:

- **Haktan Bulut**, Executive Vice President, Digital Solutions and Chief IT Officer at ATP

- **Henrik Udsen**, Professor and Head of Centre at the Faculty of Law, University of Copenhagen

- **Jan Damsgaard**, Professor at CBS, Department of Digitalisation

- **Katrine Winding**, Director General of the Danish Business Authority

- **Klaus Larsen**, Program Director at the Danish Health Data Authority

- **Kristian Hjort-Madsen**, Director of Technology at Norlys A/S

- **Kristina Skovdal**, Director of Group IT at the City of Copenhagen

- **Martin Østergaard**, City Director at the City of Aarhus

- **Mette Modvig Nielsen**, Director, Head of Digital & Project Excellence at the Novo Nordisk Foundation

- **Mikkel Flyverbom**, Professor at CBS, Department of Management, Society and Communication

- **Nicolaj Gudbergsen**, Head of GenAI, Senior Vice President, Technology & Services at Danske Bank

- **Serge Belongie**, Professor and Director of Pioneer Centre for AI

- **Sine Zambach**, Assistant Professor at CBS, Department of Digitalisation

- **Stine Breiner Andersen**, Director of Products, Data and Customer Service at PFA Pension

We must act — even if we don't know all the answers

As we roll out artificial intelligence in the public sector, we must harvest the low-hanging fruit by implementing what works now, while also thinking big and innovating.

We can't just rely on the solutions that are already proven and ready to use. It's essential that we also look to the future. The field of artificial intelligence is advancing at a rapid pace, and what is not possible today may become possible soon.

We consider this to be a compulsory task. Standing still and not moving our public sector into the technological future is not an option.

We don't know all the answers today. Therefore, we also need to try things out and make choices, even if it involves the risk of mistakes and wrong priorities. It's crucial that we continuously recognise the opportunities and challenges and adjust our work and expectations accordingly.

We believe that with the responsible use of artificial intelligence, we can help lead the way in the public sector and show how good service and quality can be supported by technology. We will use artificial intelligence to secure the public sector of the future, supporting a well-functioning and efficient welfare society.