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The AI opportunity for eGovernment

The opportunity for the Norwegian government to scale the benefits of AI across its public administration

Implement Consulting Group • July 2025

Generative AI has significant potential to enhance productivity in public administration in Norway, creating 10% more value for money, equivalent to an annual contribution of NOK 26 billion – a quarter of the transport budget.

AI in public administration is a good place to start. This report explores the substantial potential of generative AI in Norway's public administration, which is well suited for early AI benefits with low risk.

Early AI adoption by the government can accelerate AI uptake across the economy by setting an example within existing regulations. Furthermore, the government plays a crucial role in clarifying and simplifying the regulations governing AI use in Norway.

What is eGovernment?

The European Commission defines eGovernment as:

"Effective digital public services which can provide a wide variety of benefits. These include more efficiency and savings for governments and businesses, increased transparency, and greater participation of citizens in political life.

[…] eGovernment involves more than just the tools: it involves rethinking organisations and processes and changing behaviour so that public services are delivered more efficiently to people.

Implemented well, eGovernment enables citizens, enterprises and organisations to carry out their interactions with government more easily, more quickly and at lower cost."

The government must overcome five key barriers …

Fragmented decision-making

Fear of breaking the rules

Ensuring public support

Regulatory uncertainty

Risk of vendor lock-in

Make the AI potential executable…

Think ‘task-based’

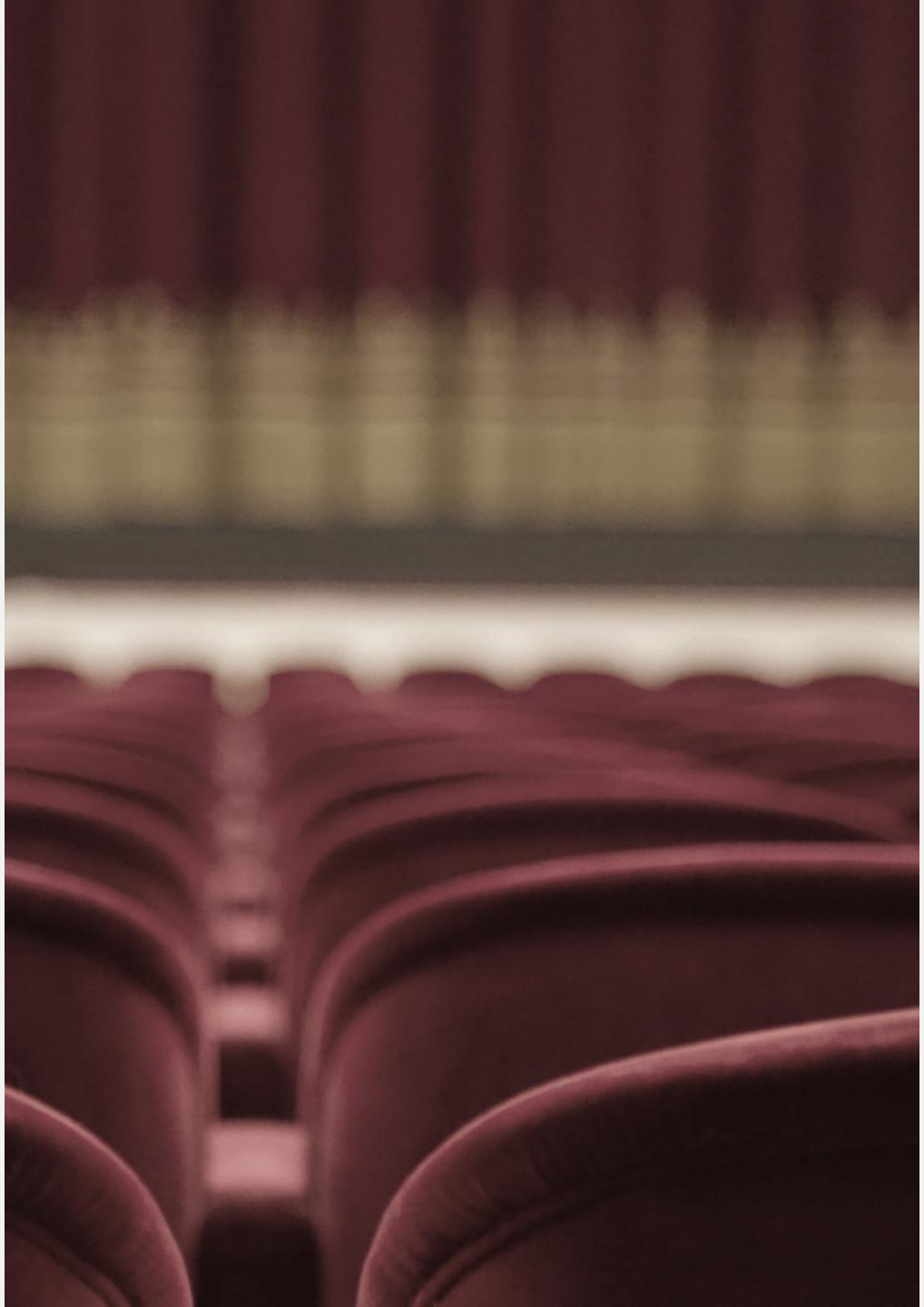
Cross-cutting tasks underpin most jobs in public administration. The top five tasks represent 75% of the economic potential. However, fragmented decision-making leads to many pilots without scalable impact. The government should focus on key cross-cutting tasks to achieve economies of scale while addressing local needs. This requires a cross-institutional AI procurement plan with clear roles and responsibilities to ensure alignment and scalability.

Think ‘risk-conscious’

Low-risk, internal AI applications constitute 20% of the economic potential. The fear of breaking rules in a complex regulatory environment is slowing AI adoption. Therefore, the government of Norway should begin with the low-risk applications and gradually move to user-sensitive, externally-facing applications to unlock the remainder of the potential.

Think ‘impact-oriented’

The implementation of AI solutions should be motivated by the needs of citizens and businesses, improving the user experience and reducing the time and hassle in their interactions with the public administration. Generative AI can reduce the administrative burden for small and medium-sized businesses in Norway by NOK 1.8–2.0 billion.



Note: The term *public administration* in this report refers to the administration of public institutions, including the organisation and administration of public services and legislation, while **not** including health and education of the public sector.

Get critical enablers in place…

Create cloud clarity

A secure and competitive cloud infrastructure is crucial for cost-efficiently implementing advanced AI at scale. However, misconceptions about on-premises systems prevent public institutions from adopting cloud infrastructure. The government should establish a framework for secure and compliant cloud adoption, enabling public actors to innovate while safeguarding transparency and sovereignty.

Make smart procurement choices

Governments must carefully assess the risk of vendor lock-in and ensure an interoperable AI procurement framework. Vendor lock-in risk leads to suboptimal, inefficient and costly AI solutions in the public administration. 60% of surveyed government agencies in various EU countries report experiencing vendor lock-in effects.

Implement an ambitious AI strategy

To fully harness the potential of AI, Norway should develop a tangible plan with clear milestones to achieve the 80% adoption target already set by the current digitalisation strategy. Norway should launch a dedicated national AI initiative that links central strategies with local needs and enables scalable, cross-sector implementation – ensuring measurable progress toward the 2030 public sector adoption target in the National Digitalisation Strategy 2024–2030.

Introduction

A large and untapped potential

To realise the AI potential in its public administration, Norway must overcome five key barriers

[We] have set a goal that 80 percent of the entire public sector shall use artificial intelligence by 2025… AI is the tool we need for better, safer and simpler services

Digitalisation Minister Karianne Tung, 2024

AI can enhance the efficiency and quality of public services benefitting citizens, businesses and employees

The National Digitalisation Strategy in Norway highlights the potential for AI to …

Automate routine tasks

AI can perform repetitive tasks to increase efficiency and free up time for employees, for example transcribing, writing meeting minutes, captioning, and interpreting.

Solve societal challenges

Artificial intelligence is a groundbreaking technology with the potential to solve major societal challenges, increase productivity, and improve the welfare state.

Optimise resource allocation

AI can predict needs and thereby optimise resource usage, for example by planning personnel requirements and improving resource allocation in hospitals and clinics.

Support decisions

AI can analyse large amounts of data and provide insights that help decision-makers and contribute to faster and more informed decisions. For example, in the health service, it can expedite the detection of fractures.

Customise services and information

AI can aggregate data from multiple sources, which can provide a better user experience and more efficient services, for example, personalised information in integrated services or during life events.

To realise these benefits, this analysis addresses five key barriers and outlines how to unlock the AI potential.

Note: Quotes have been translated by Implement Consulting Group.
Source: Implement Economics based on Norwegian Ministry of Digitalisation and Public Governance (2024)

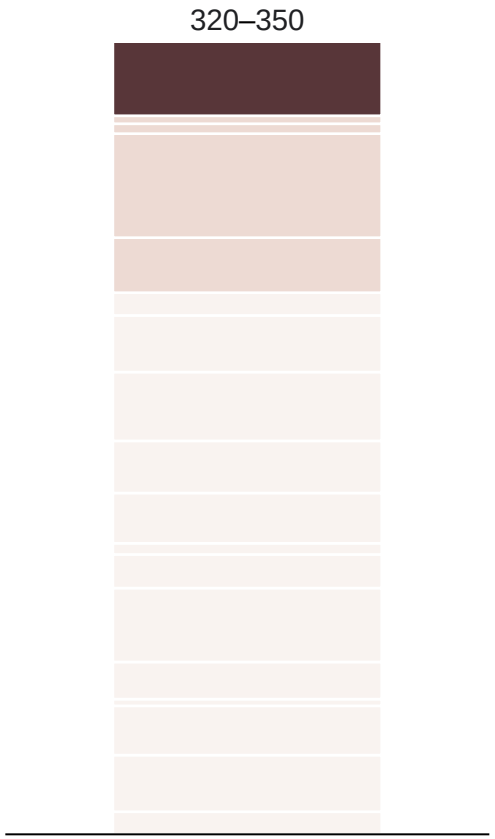
The Norwegian government could get 10% more value for money by adopting generative AI

Generative AI presents a significant economic opportunity for Norway, potentially contributing 9% (NOK 320–350 billion) to GDP annually in ten years.

In public administration, generative AI could significantly enhance productivity and drive cost-efficiency. Widespread adoption of generative AI in public administration could create NOK 26 billion in gross value added with the same resources. The potential is equivalent to 1.2% of public expenditure or a quarter of Norway's national transport budget.

Demonstrating successful AI use in public administration will be key for unlocking the full economic potential of generative AI across sectors.

Economic potential of generative AI in Norway
NOK billion at widespread adoption



10% more value for money, equivalent to **NOK 26 billion** annual contribution

Note: The economic potential in public administration is measured in terms of gross value added (GVA). GVA is the standard measure of economic value at sector level and is a major part of the gross domestic product (GDP), which also includes net taxes. See appendix for details. Public expenditure based on 2022 data. Public administration refers to '13050 Government employees' in the Standard Industrial Classification (SIC), corresponding to 'Sector O: Public administration and defence; compulsory social security' in the NACE Rev. 2 nomenclature. This sector comprises activities related to the administration of the state and the economic and social policy of the community, but not health, education and activities performed by private organisations, voluntary associations, or businesses providing similar services.
Source: Implement Economics based on Regjeringen.no, Statistics Norway (SSB), O*NET, and Briggs and Kodnani (2023).

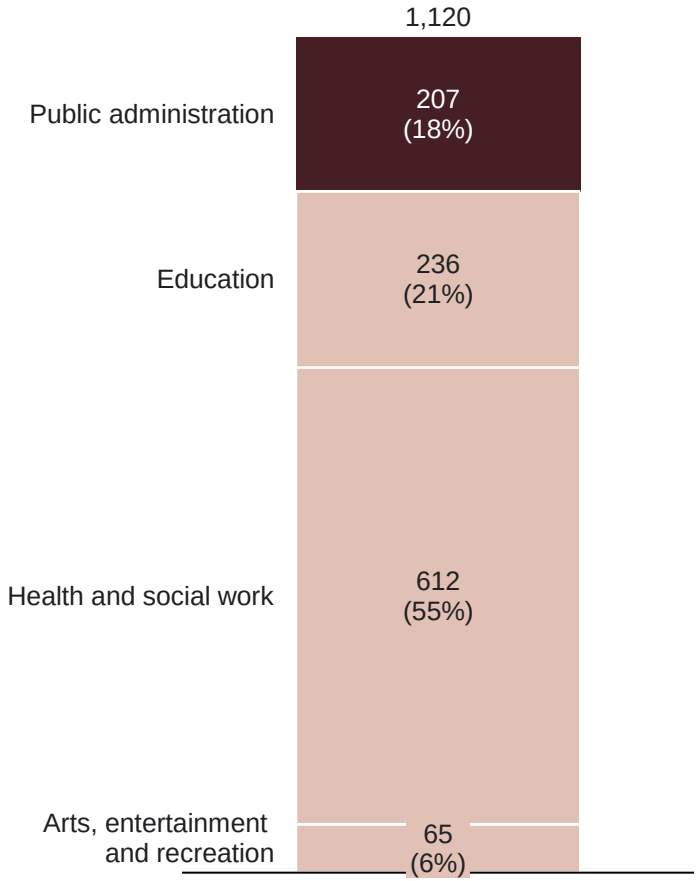
Administration forms the backbone of the public sector in Norway

The public sector is an important part of Norway's economy and society, and public expenditure is equivalent to 42% of Norway's GDP. Further, the public sector accounts for around 38% of all jobs and delivers services benefiting citizens and businesses.

Public administration makes up 18% of public sector jobs. Their work has characteristics that allow it to benefit from generative AI, such as text-heavy work, repetitive tasks and complex analysis.

Public administration includes all levels of government and forms the administrative backbone of the public sector.

Employment in the public sector in Norway
Thousand employees, 2023



The public administration is the focus of this report. It provides value through key functions such as:

- **Citizen advisory**: Providing guidance on government services, legal rights, and administrative procedures.
- **Individual case handling:** Processing citizen applications for public services.
- **Finance and budgeting:** Managing public funds and disbursing benefits, subsidies and aid.
- **General governance and regulation:** Drafting, evaluating and implementing policies to address societal needs.

Note: Employment figures based on latest available data for this level of sectoral disaggregation from Eurostat (2023).
Source: Implement Economics based on Norwegian Ministry of Local Government and Modernisation (2020) and Eurostat.

Most public administration jobs can be complemented by generative AI

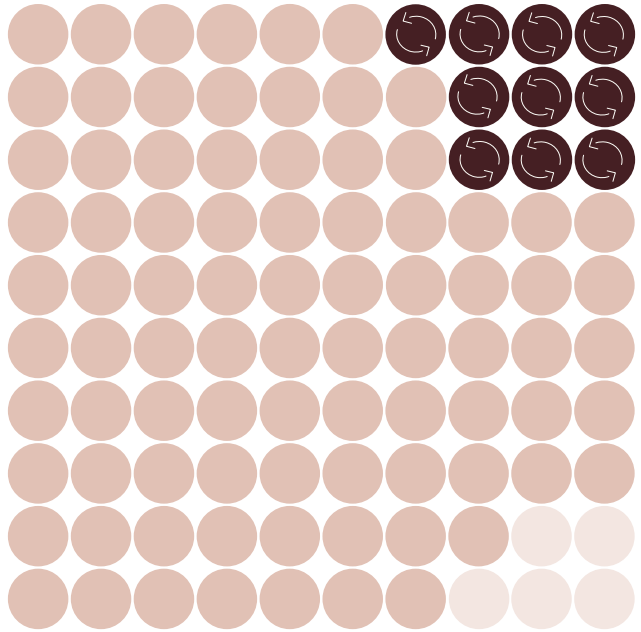
Exposure to automation by generative AI in public administration in Norway
% of jobs in public administration

Partial or full displacement | AI as a complement | No automation

85% or ~175,000 jobs are likely to be augmented by generative AI.

The technology will play an integral role in their daily work, making them more productive and freeing up time for other value-creating activities. This allows resources to be reallocated to areas within the public administration or other parts of the public sector where they are more needed.

Jobs include social workers, urban planners and general office clerks.



10% or ~21,000 jobs are estimated to be highly exposed to generative AI, leading to some job transitions.

These workers may experience a shift in responsibilities as generative AI automates over half of their tasks, with tools such as citizen-facing chatbots handling general inquiries automatically, for example. This improves the speed and quality of administrative tasks, saving resources for the central and local governments.

Jobs include citizen service functions, lawyers, and budget analysts.

5% or ~11,000 jobs in public administration face little or no automation from generative AI.

These workers carry out manual or human-to-human work, including physical maintenance of public infrastructure and on-site inspections to ensure compliance and safety in public spaces.

Human agency is central to AI adoption in the public sector. In Norway, initiatives such as Elements of AI equip civil servants with essential AI skills, covering fundamentals, applications, ethics, and digital transformation. While these programmes strengthen expertise, further efforts are needed to navigate the challenges and opportunities of generative AI.

Source: Implement Economics based on detailed O*NET mapping to detailed STYRK level 4 employment data for Norway equivalent to ISCO-08 at the same level.

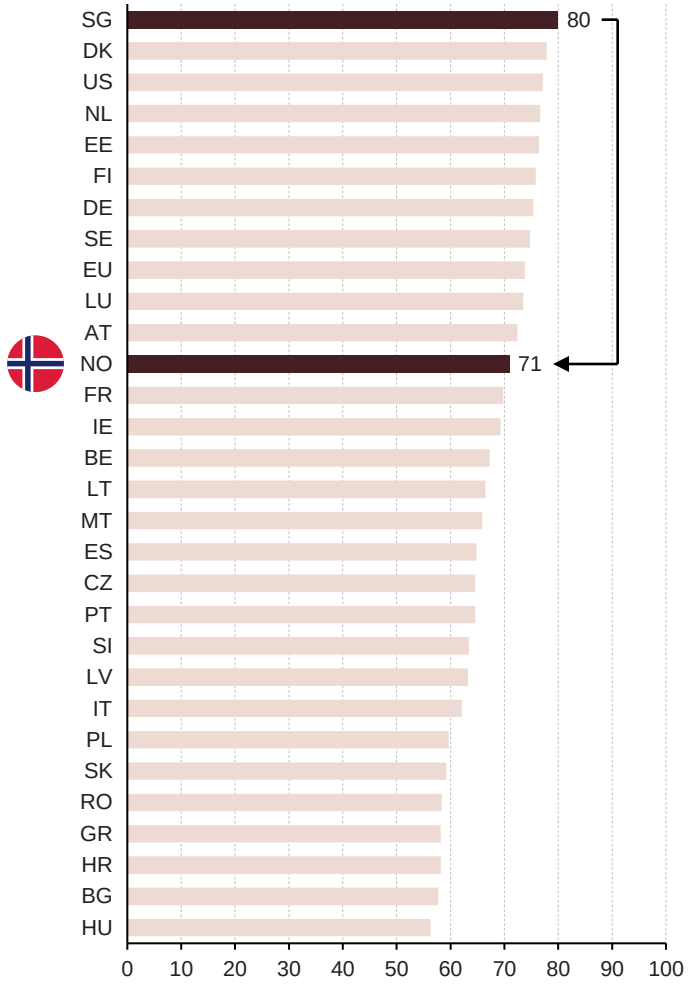
The Norwegian government is AI-ready but lags behind Nordic peers

Norway ranks 5th in the European DESI Ranking. Additionally, the country ranks 12th globally in the IMF AI Preparedness Index.

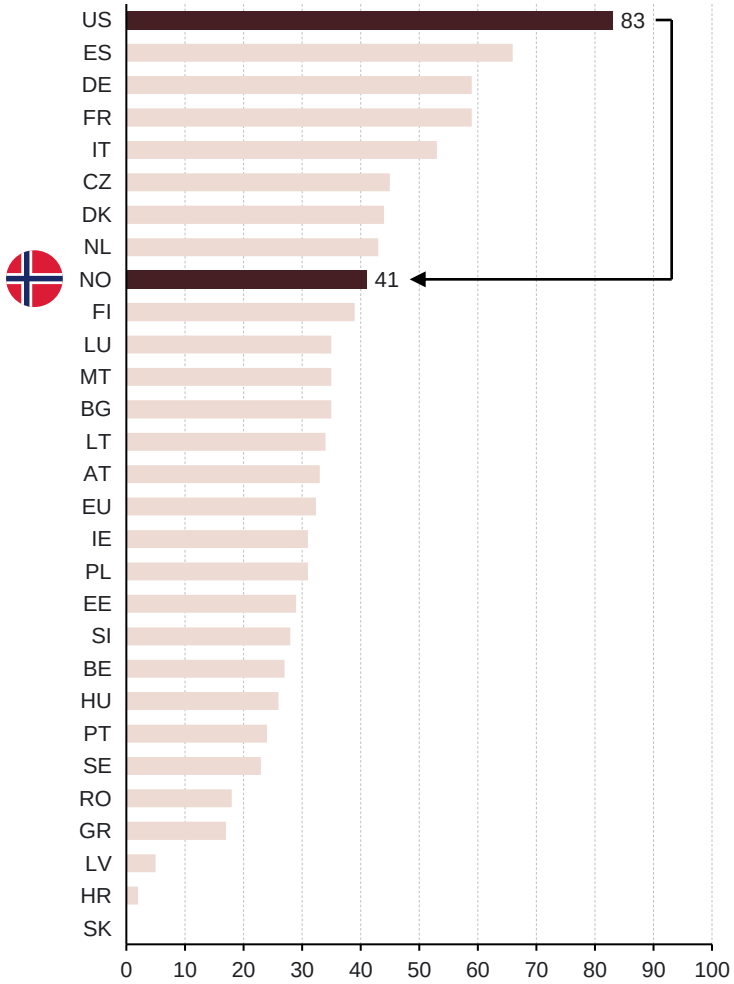
The country also ranks highly in the Tortoise Government Strategy index but is still outranked by Nordic peers. The index measures the depth of commitment from national governments to AI, based on investigating spending commitments and national strategies.

To strengthen its position and close the gap with Nordic peers, Norway should launch a coordinated national AI initiative that aligns government strategy with local implementation, supports cross-sector scaling, and ensures measurable progress toward its 2030 public sector adoption goals

AI Preparedness Index
IMF, April 2024 (Index max = 100)



AI Capacity Index, Government Strategy
Tortoise, 2024 (Index max = 100, global leader)

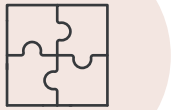


Source: Implement Economics based on the European Commission (2024), Norwegian Ministry of Local Government and Modernisation (2020), IMF (2024) and Tortoise Media Global AI Index (2024).

Five key barriers hamper progress in Norway

This report draws on research from Norway, leading Nordic countries, and the European Commission to identify five key barriers to be overcome for AI adoption to be successful:

PART I
Making the potential executable



Lack of coordinated effort

Lack of a central public generative AI effort leads to many pilot projects without scalable results

Fear of breaking the rules

Public institutions struggle to use advanced AI tools due to strict regulation and EU compliance requirements

Ensuring support

Implementation of AI solutions in public administration requires support by citizens and employees

PART II
Getting the critical enablers in place

Regulatory uncertainty

Public institutions hesitate to adopt AI tools due to regulatory uncertainties related to cloud computing

A risk of vendor lock-in

Vendor lock-in can cause significant hidden costs for public institutions

This report details solutions to each of the above-mentioned barriers

Think ‘task-based’

Think ‘risk-conscious’

Think ‘impact-oriented’

Create cloud clarity

Make smart procurement choices

Source: Implement Economics based on the European Commission (2024), Norwegian Ministry of Digitalisation and Public Governance (2024) and National Audit Office of Norway (2024).

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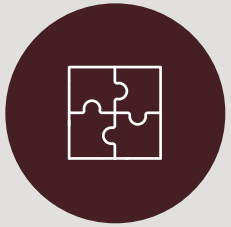


Think ‘task-based’

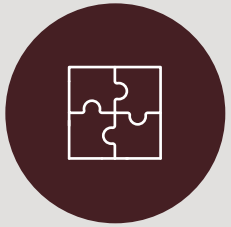
Think ‘risk-conscious’

Think ‘impact-oriented’

PART I

Making the potential executable

In designing an enhanced national AI effort, the government of Norway should think ‘**task-based’, ‘risk-conscious’** and ‘**impact-oriented’** to realise the potential of generative AI in public administration.



PART I

Think ‘task-based’

- Adopt a task-based framework to achieve scalability in AI solutions.

Lack of a central effort in implementing AI in the public sector results in uncoordinated pilot projects without scalable outcomes

Despite great opportunity to benefit from AI use in public administration, a lack of centrally focused efforts presents three main challenges:

Fragmented governance and isolated investments

Norway's decentralised governance model, where authorities operate independently, has led to fragmented decision-making and uncoordinated investments. Without clear national leadership or a central strategy, resources are diluted across numerous isolated pilots. This approach prevents authorities from leveraging shared successes and scaling AI solutions across the public sector.

Absence of common infrastructure

The lack of shared infrastructure for AI development has forced authorities to work in silos, choosing isolated solutions that are often incompatible with broader systems. This fragmentation is further exacerbated by the absence of open standards and APIs, which could otherwise facilitate interoperability between solutions. Without a unified platform for AI experimentation and deployment, collaboration and resource optimisation remain unattainable.

Barriers to data sharing

Norway possesses abundant data resources, but legal uncertainties and outdated technical infrastructures significantly impede its effective exchange among authorities. Complex privacy regulations and fragmented standards limit data sharing, preventing agencies from fully capitalising on their data to drive AI-powered innovation.

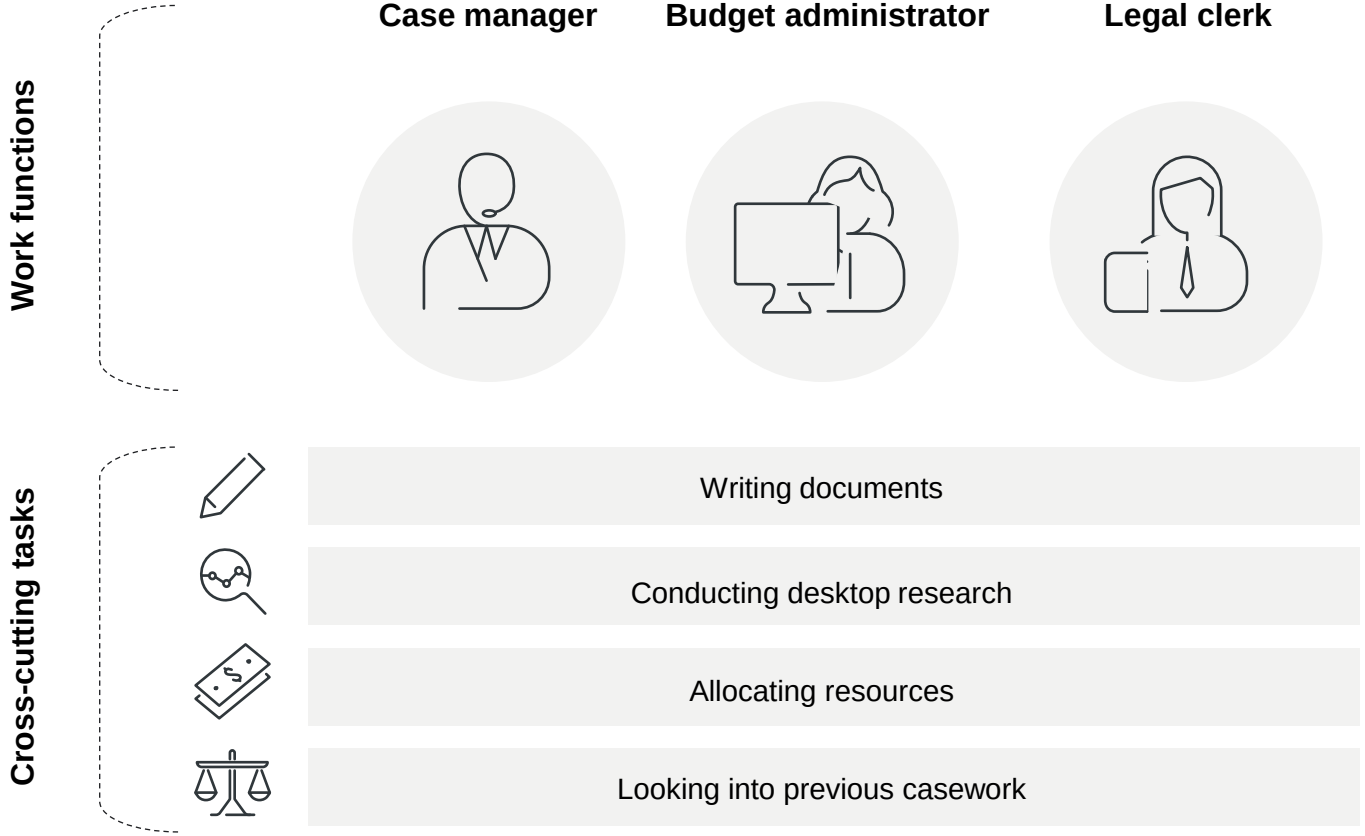
Source: Implement Economics based on National Audit Office of Norway (2024).

Cross-cutting tasks form the basis of most public administration jobs

The public sector is the largest employer in Norway, accounting for about 38% of Norwegian jobs, with public administration employees making up around a 5th of the sector. Despite the diversity of the roles and fields of these employees, they carry out similar key tasks that follow comparable processes.

For example, tasks such as case handling are carried out by employees with varying job titles across multiple institutions.

To effectively implement AI in public administration, using a task-based framework that focuses on shared processes is essential for achieving scalable solutions.

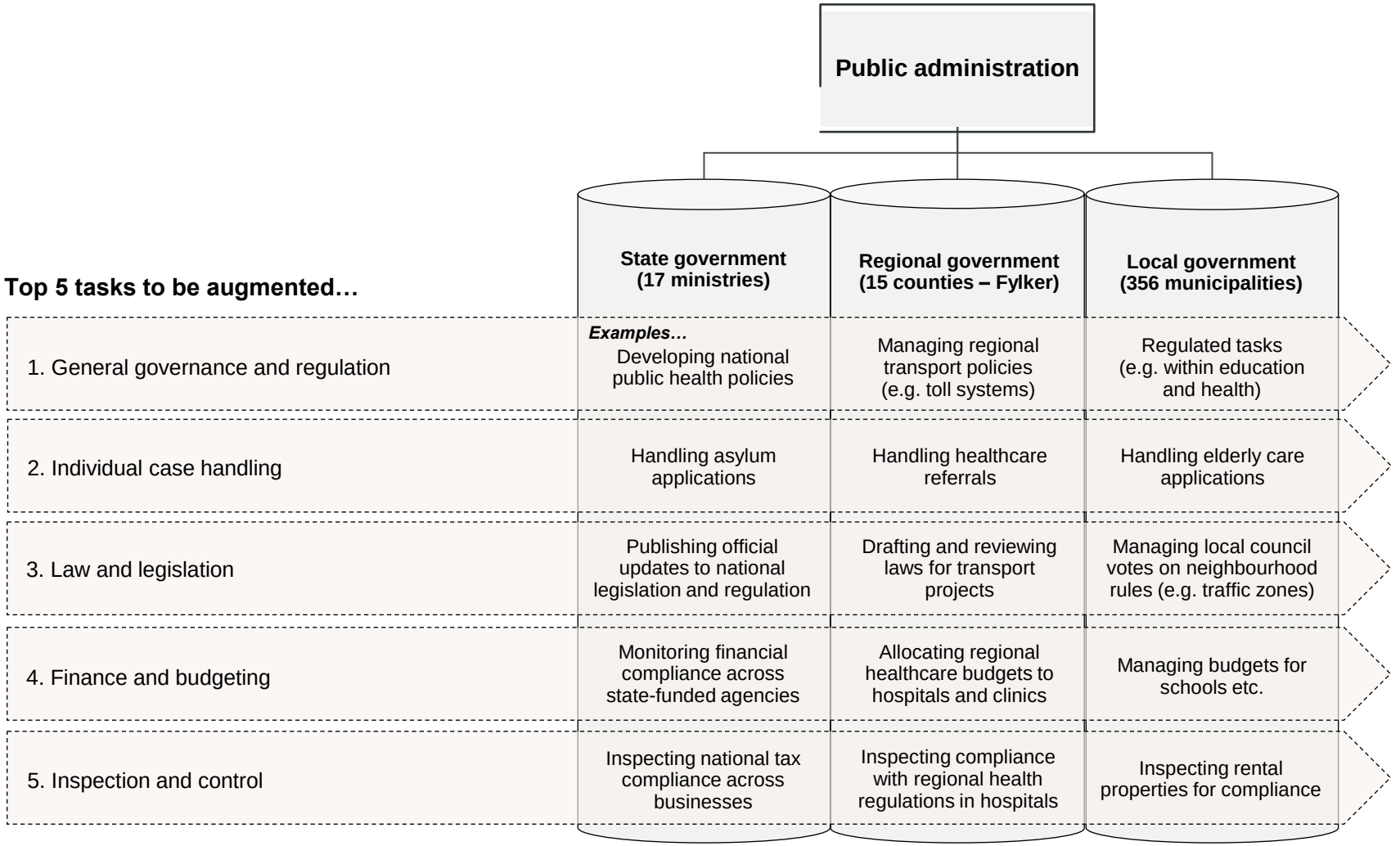


Generative AI has the potential to augment tasks performed across all public institutions in Norway

The Norwegian public administration spans 17 ministries, 15 regional counties and 356 local municipalities. Within the public sector, public administration makes up ~200,000 employees.

The tasks in public administration hold a large degree of similarity, creating an ideal opportunity to implement scalable AI solutions that can simultaneously benefit multiple public institutions, enhancing efficiency and collaboration.

Structure of the public administration in Norway



Source: Implement Economics based on Norwegian Ministry of Finance, Norwegian Ministry of Local Government and Modernisation, O*NET, Statistics Norway and Eurostat.

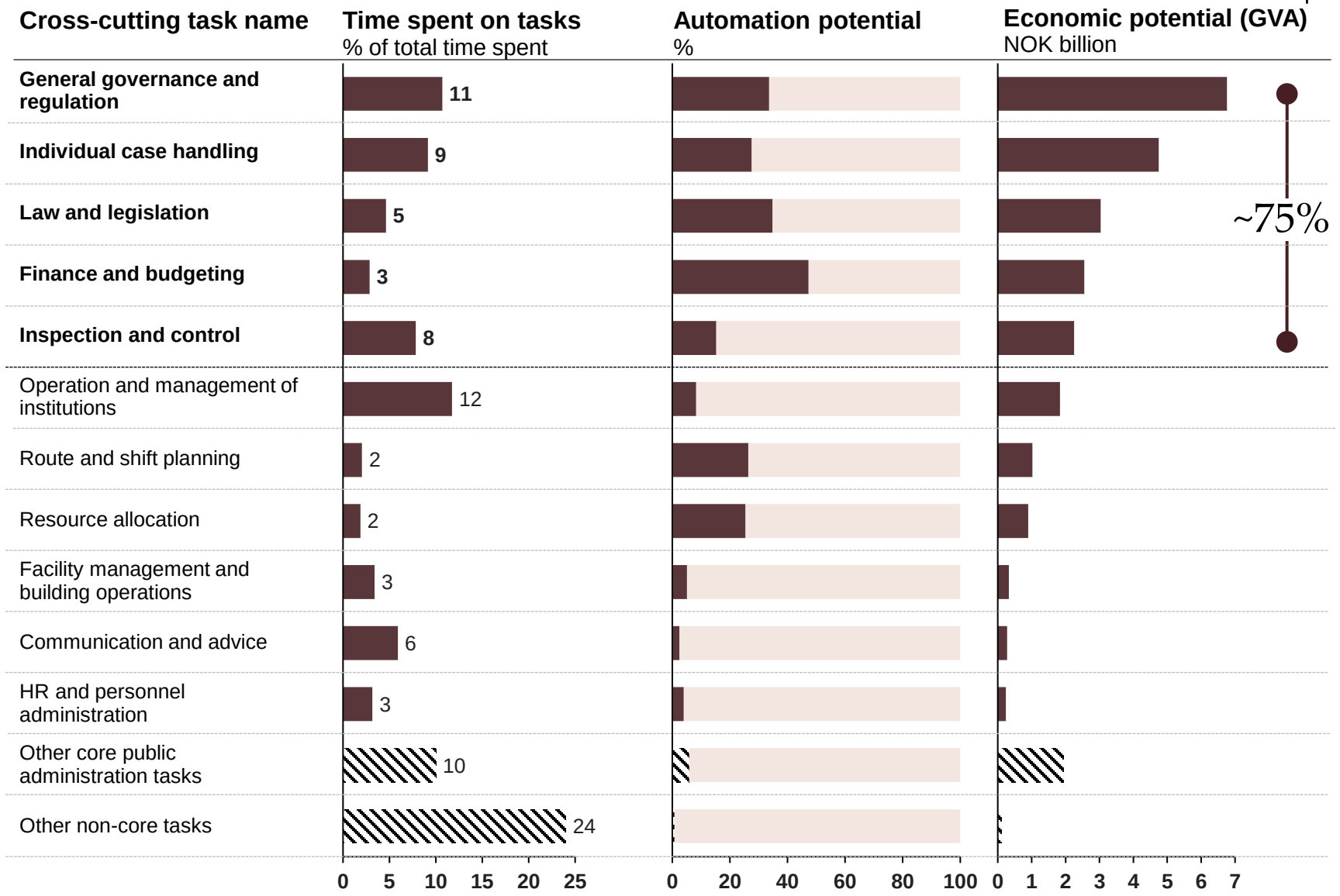
Focusing on the top five cross-cutting tasks could realise 75% of the potential

Implement Economics has analysed the potential of generative AI within public administration on a task level using employment data from the Norwegian statistical authority and detailed occupation descriptions.

We find that the lion's share of the potential in public administration is found within five major cross-cutting tasks:

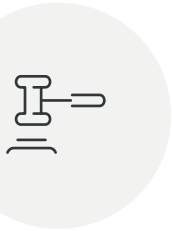
- General governance and regulation
- Individual case handling
- Law and legislation
- Finance and budgeting
- Inspection and control

Although these tasks are estimated to make up around 35% of time spent by Norwegian civil servants, they account for about 75% of the economic potential due to the high degree of automatability.



Note: Percentages may not sum to 100 due to rounding. There is much uncertainty around the capability and adoption timeline of generative AI. The estimation of the potential of AI across key cross-cutting tasks is based on an augmentation of Briggs and Kodnani (2023) with Norwegian employment data and an expert-assessed, exhaustive framework of the task composition within public administration, which is mapped to the rich database of task descriptions within O*NET. Our estimate is the isolated potential of generative AI at widespread adoption. The estimated boost from generative AI may not be fully additive to growth projections. The automation potential of cross-cutting tasks may vary from country to country due to the occupation composition of the workforce carrying out the tasks. Estimates are based on the most detailed employment data available for sector O in Norway at the STYRK 4-digit level, corresponding to ISCO-08 at the same level.
Source: Implement Economics based on O*NET, Briggs and Kodnani (2023), Eurostat and Statistics Norway.

Generative AI can complement cross-cutting tasks in several aspects



General governance and regulation

Generative AI can automatically compare proposed rules against existing legislation to spot potential conflicts or compliance gaps, as well as compiling relevant legal precedents to help agencies stay consistent with governance standards.

Individual case handling

Generative AI can review application forms for missing documentation, pinpoint follow-up questions that need input from the applicant, and route cases directly to the relevant department.

Law and legislation

Generative AI can assist in drafting legal texts, analysing legislative proposals, and identifying potential legal conflicts, helping lawmakers craft precise and well-aligned policies.

Finance and budgeting

Generative AI can detect budget overruns, identify potential cost-saving measures, and forecast revenue shortfalls, helping public administrators prioritise spending, optimise resource allocation, and maintain transparent financial oversight.

Inspection and control

Generative AI can identify anomalies, flag potential violations, and optimise inspection schedules based on risk. By analysing historical and real-time data, it helps inspectors focus on high-risk cases, streamlining compliance checks and enhancing regulatory enforcement.

Five cross-cutting tasks hold 75% of the economic potential

Achieving scalability while balancing local needs

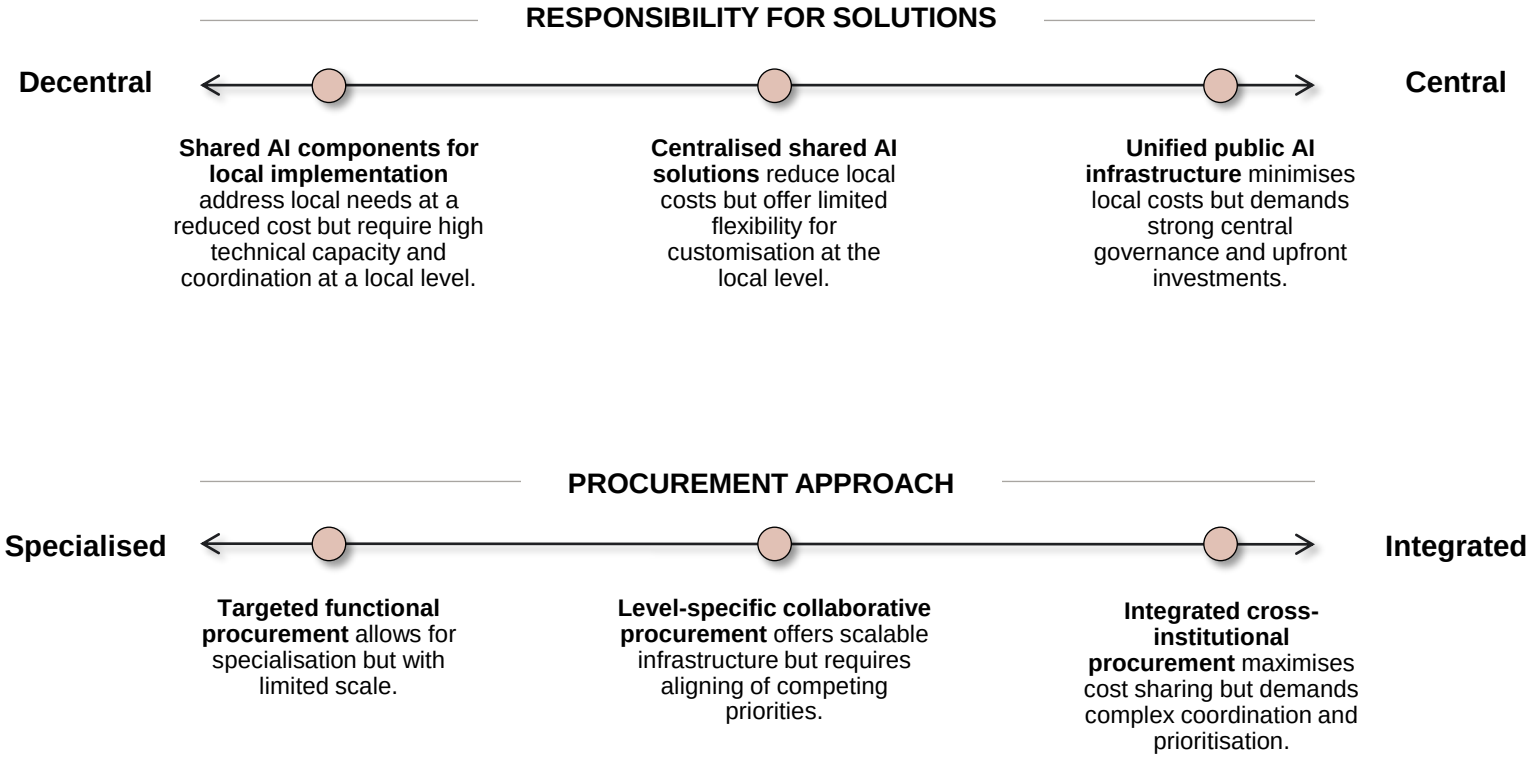
Approximately 75% of the potential lies in the top five key tasks shared across institutions. However, AI solutions must also address local needs to remain effective.

To maximise impact, public administrations should prioritise scalable solutions that avoid duplication, while ensuring flexibility to meet local requirements.

The government should clearly define roles and responsibilities across levels of government, to ensure alignment with users while also ensuring scalability.

To address the lack of a central generative AI effort and reduce inefficiencies caused by siloed AI investments, strategic decisions should focus on cross-institutional AI procurement.

Strategic dimensions in public AI procurement



Source: Implement Economics based on National Audit Office of Norway (2024).

PART I

Think ‘risk-conscious’

- Low-risk and internally-oriented use cases can realise 20% of the total AI potential in public administration in Norway.

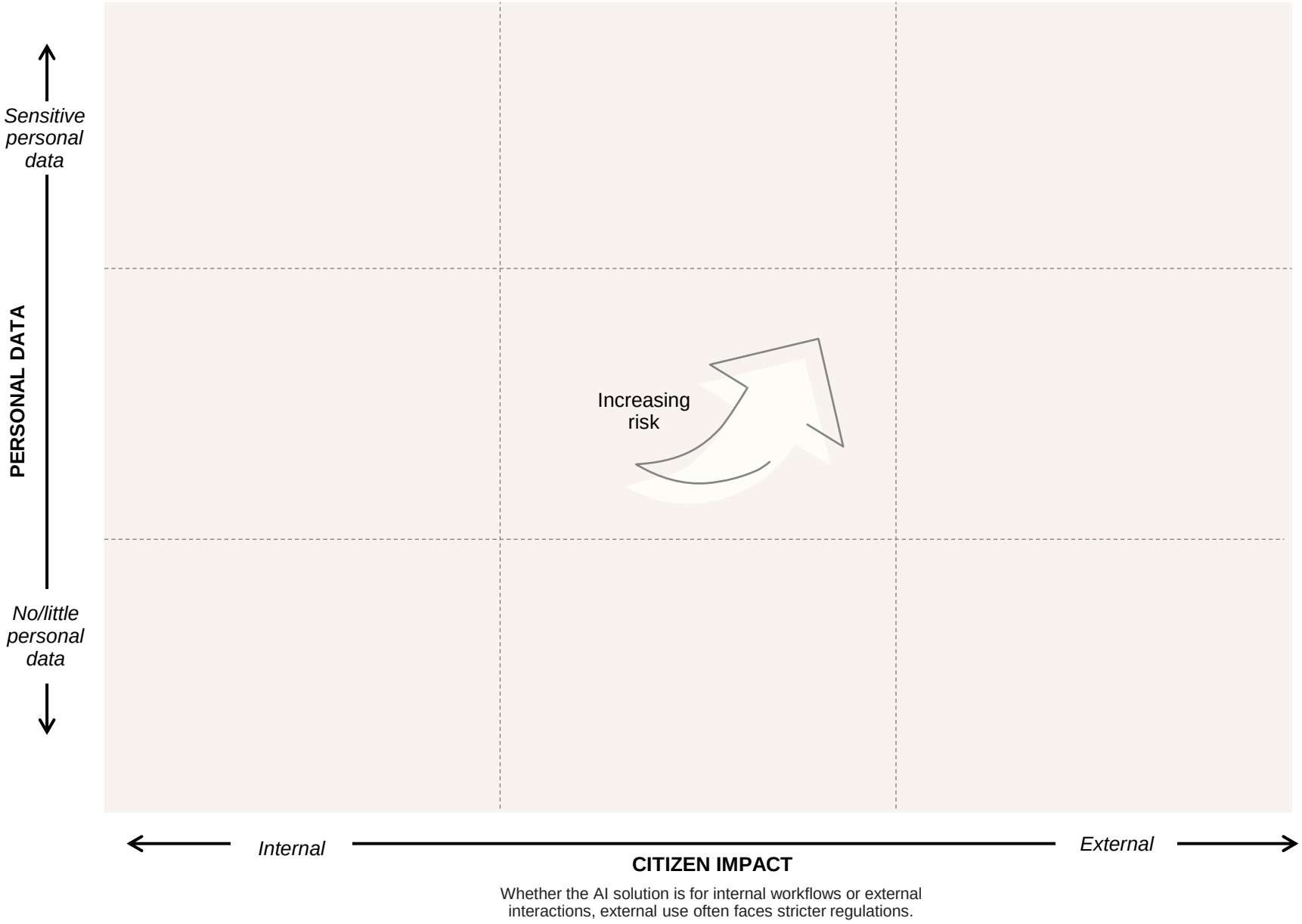
Public institutions are risk-averse and face a complex regulatory landscape

Implementing AI in public institutions is complicated by the existence of overlapping regulations, such as GDPR, the AI Act and the AI Code of Practice, which can create uncertainty and inaction.

Leaders in public administration are aware of the risks. However, being overly risk-averse or failing to assess risks properly can lead to inaction.

A handful of low-risk applications of AI that do not use personal data and are internally-oriented exist. These are a good place to get started with tangible adoption of generative AI applications, prior to addressing those that both use personal data and are externally-facing.

The regulatory challenges can be understood in terms of two dimensions of risk



Whether the AI solution is for internal workflows or external interactions, external use often faces stricter regulations.

Source: Implement Economics based on GDPR EU.

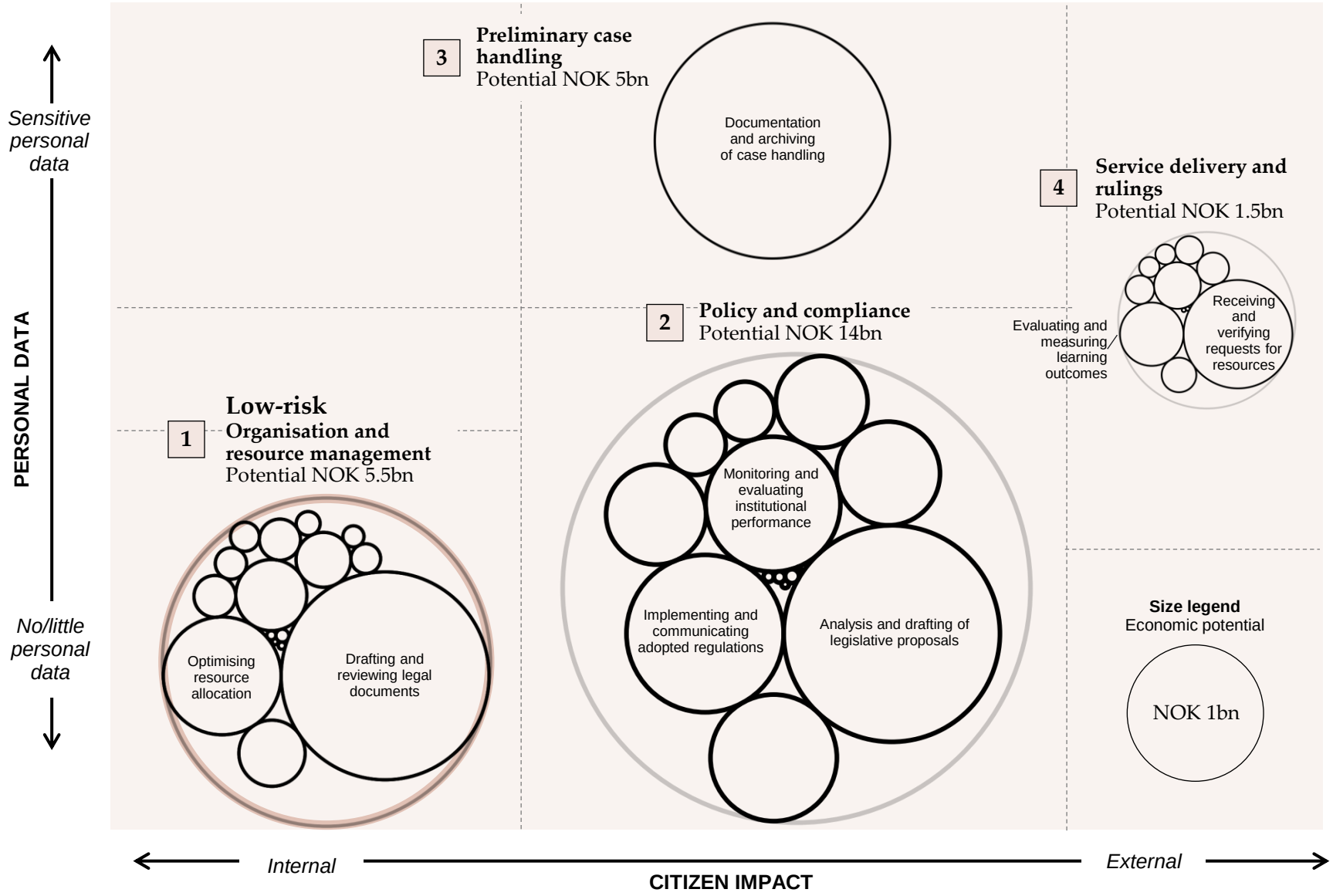
Low-risk AI applications account for 20% of the potential in public administration

The risk of key cross-cutting tasks is mapped across two dimensions:

- The degree of citizen impact (internally- vs. externally-oriented AI applications)
- The sensitivity and use of personal data

This mapping produces four clusters of potential AI applications that can be used as a roadmap towards AI adoption in public administration:

1. **Organisation and resource management** applications, which are very low-risk and should be addressed in the coming years. Our analysis shows that **NOK 5.5 billion**, equivalent to 20% of the economic potential, lies in these low-risk, internal tasks.
2. **Policy and compliance** applications that use some personal data but are not completely externally-oriented.
3. **Preliminary case handling,** which uses considerable sensitive data but is not directly citizen- and business-facing.
4. **Service delivery and rulings**, which are directly citizen- and business-facing and use considerable personal data.



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Source: Implement Economics based on O*NET, Briggs and Kodnani (2023), Eurostat and Statistics Norway.

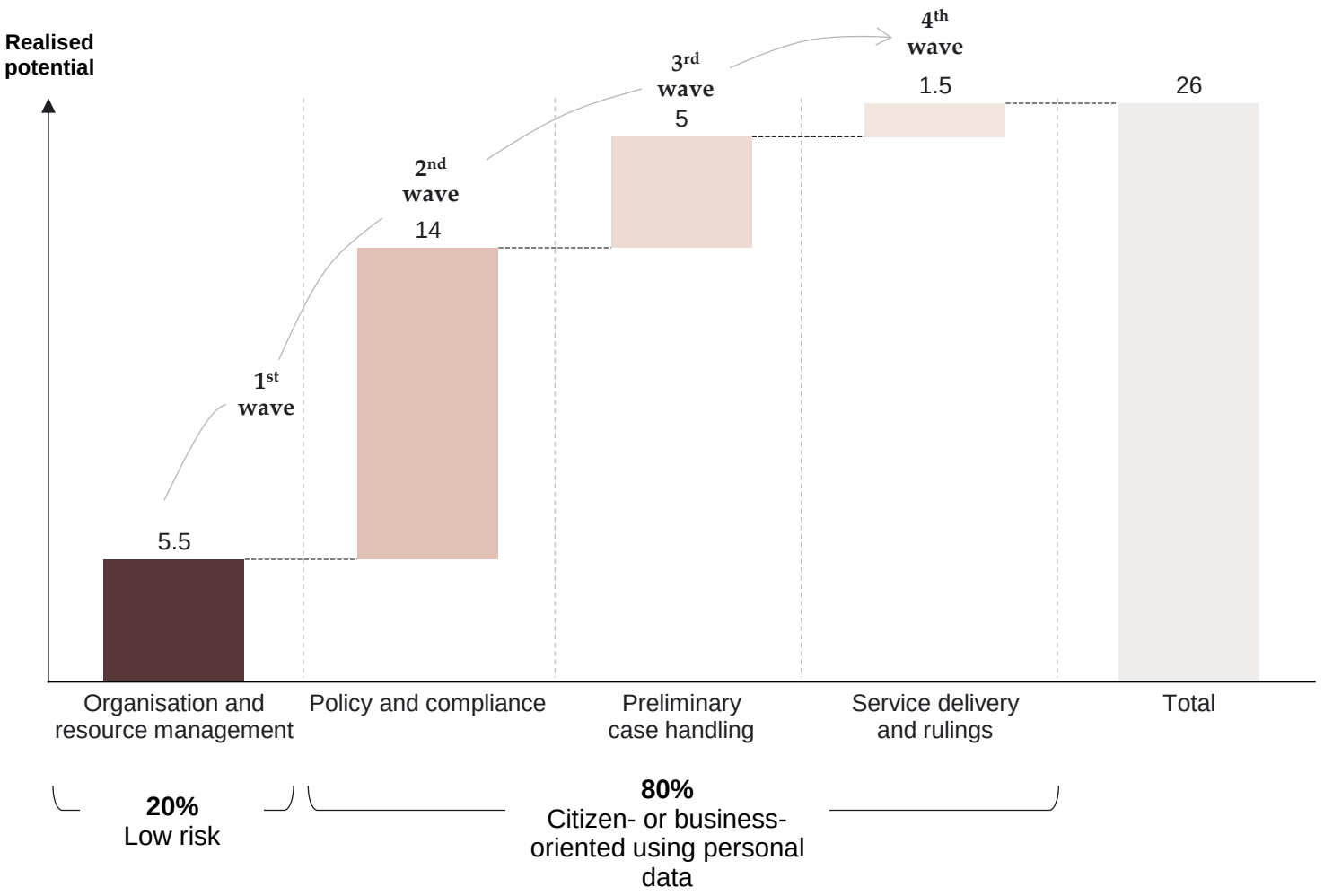
Start with the lowest risk and advance to tasks with high citizen impact

In a first wave, public authorities could consider implementing low-risk, internal AI applications that do not involve sensitive data. These initiatives offer valuable learning experiences and develop AI capabilities needed for more complex, external-facing solutions.

Simultaneously, the central government should ensure that critical enablers are in place to begin adoption of the 2nd and subsequent waves of advanced AI applications, which make up the remaining ~80% of the potential.

While the greatest immediate potential for AI in public administration lies within internal administrative processes, the broader application of AI in citizen- and business-facing services holds transformative potential for the public sector as a whole.

Potential value creation from generative AI in public administration in Norway
NOK billion increase at widespread adoption



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Source: Implement Economics based on O*NET, Briggs and Kodnani (2023), Eurostat and Statistics Norway.

PART I

Think ‘impact-oriented’

- Use cases directly or indirectly impacting citizens or businesses constitute 80% of the AI potential in public administration

> *AI can pose challenges for equality and non-discrimination, but the technology can also be used to include – for example through text-to-speech, speech-to-text, and image description, and in programs that support dyslexics with writing.*
>
> **National Digitalisation Strategy 2024–2030**

The Norwegian government must ensure support for AI from their employees and citizens

Around half of Norwegian citizens support the use of AI in public administration to enhance productivity.

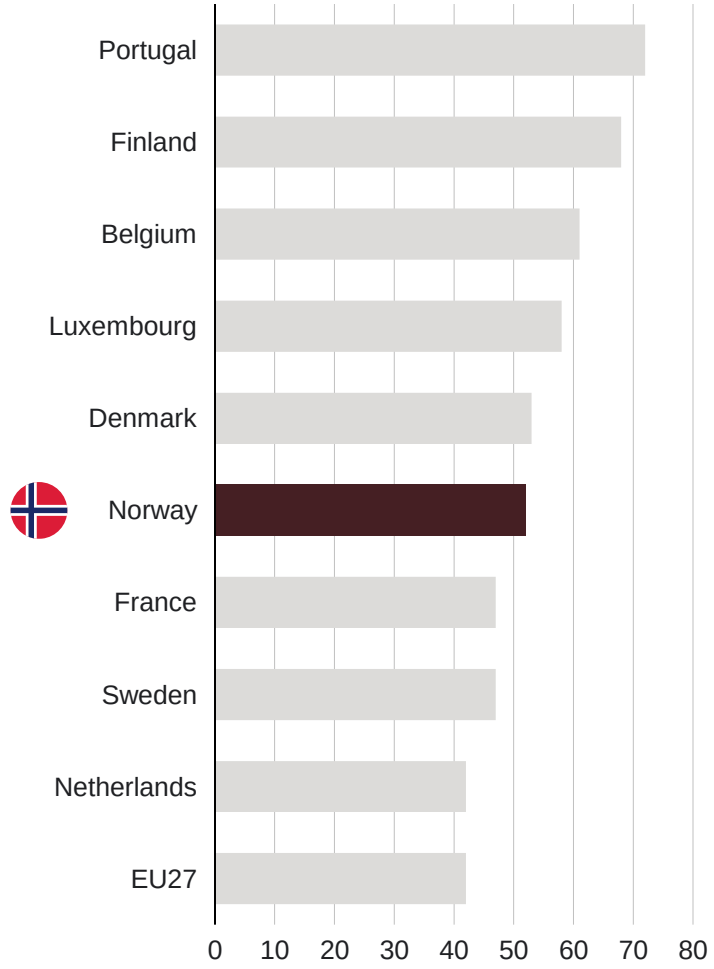
Workers are, in general, optimistic about the effects of generative AI on their productivity. 84% of Norwegian workers believe AI will increase their productivity.

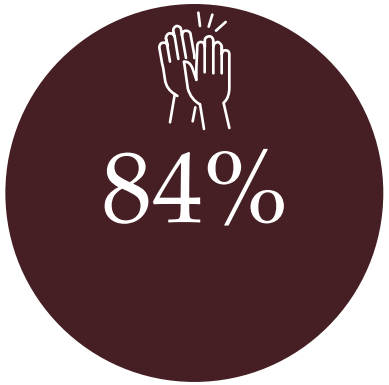
However, only around a third of the population expect to use generative AI in their job within the next five years.

To realise the economic potential of generative AI, the Norwegian government needs to ensure successful implementation in Norwegian jobs.

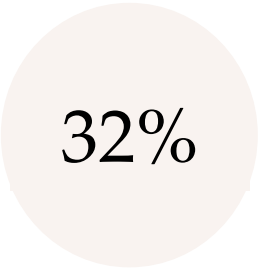
To maintain and increase public support for AI in government, it is crucial to implement AI applications with clear benefits for citizens and businesses, in contrast to technical and narrow cost-cutting benefits.

Support in the use of AI to improve government processes
%





… of Norwegian workers think that generative **AI tools will help them be more productive.**



… of Norwegian workers think they **will be using generative AI** in their job within the next five years.

Note: The respondents were asked whether they support AI tools being used to help process government and customer service requests faster.
Source: Implement Economics based on survey data from Public First on behalf of Google.

Generative AI can save time and hassle for citizens when interacting with public administration

By integrating generative AI into public administration, services can become faster, smarter and more accessible for citizens

Citizens

Examples of interactions	Examples of how generative AI can improve interactions
Applying for personal identification documents – e.g. passport, ID cards or driving licence.	Generative AI can guide citizens through the application process, providing personalised instructions and automatically pre-filling forms.
Registering life events – e.g. births, deaths, marriages or changes in civil status.	Generative AI can help streamline data entry by auto-updating civil registries across systems, reducing delays for citizens.
Accessing social benefits – e.g. applying for unemployment benefits, pensions or housing assistance.	Generative AI can evaluate applications faster by analysing eligibility criteria, ensuring quicker benefit payouts.
Paying taxes – e.g. managing property and income tax payments or filing annual tax returns etc.	Generative AI can generate clear and tailored tax explanations as well as pre-filled tax forms based on historical data.
Enrolling in public education – registering children for day care, schools or applying for student loans.	Generative AI can create tailored school recommendations, efficiently analysing applications and citizen needs, and optimising capacity.
Address changes or housing permits – e.g. notification of move or applying for building permits.	Generative AI can pre-fill forms and create suggestions for required documentation, reducing citizen effort.
Voting and civic participation – registering to vote, casting ballots or attending public hearings.	Generative AI can summarise election materials and help citizens register easily.
Resolving disputes or fines – e.g. appealing decisions, paying traffic fines or addressing legal issues.	Generative AI can process and draft legal documents, reducing wait times for citizens seeking resolution.

Generative AI can simplify businesses interactions with public administration

By assisting in documentation, reporting and application processes, generative AI can save time and money for businesses when interacting with public administration

Businesses

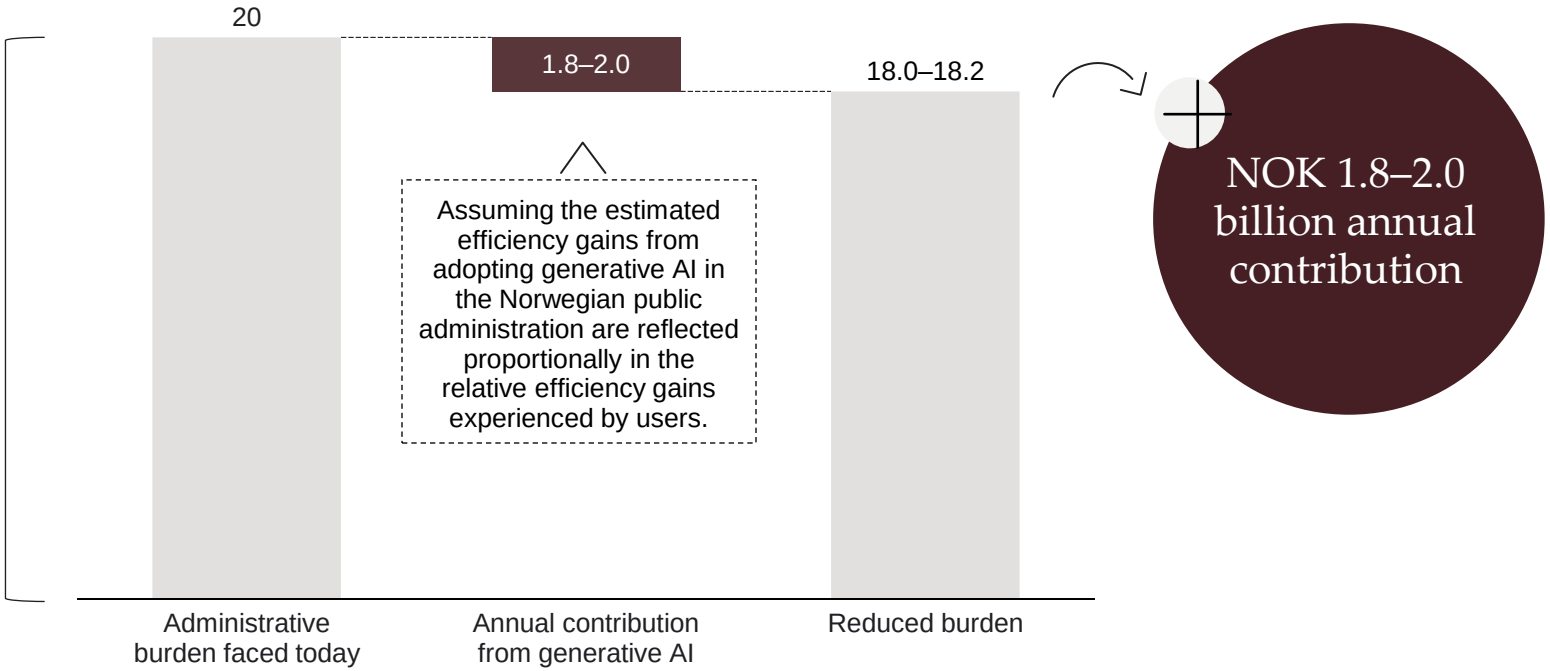
Examples of interactions	Examples of how generative AI can improve interactions
Applying for government contracts – e.g. submitting tenders or meeting compliance criteria.	Generative AI can provide tailored templates and compliance checklists to streamline bid preparation.
Obtaining or renewing permits – e.g. applying for operating licences, construction permits, or health and safety certifications.	Generative AI can act as a virtual assistant, guiding users through form completion.
Applying for financial support – e.g. grants, subsidies, innovation funding, or support programmes.	Generative AI can streamline funding applications by suggesting tailored inputs and ensuring alignment with programme criteria.
Claiming financial rebates – e.g. claiming tax refunds or rebates.	Generative AI can analyse receipts and flag eligible expenses, helping businesses maximise their rebate potential.
Filing regulatory compliance reports – e.g. submitting required reports for business operations or audits.	Generative AI can automate report creation, transforming raw data into polished submissions.
Collaboration with employment services – e.g. accessing pool of jobseekers and participation in subsidised upskilling programmes.	Generative AI can bridge the gap between businesses and jobseekers by matching skills to needs.
Navigating pre-qualification processes – e.g. completing steps to demonstrate eligibility for specific programmes or services.	Generative AI can simplify eligibility checks, offering step-by-step guidance and pre-screening data for quick approvals.
Submitting applications for certifications – e.g. applying for professional, compliance, or operational certifications.	Generative AI can help businesses assemble the perfect submission, identifying key documents and formatting tips.

Generative AI can reduce the administrative burden for small and medium-sized businesses by NOK 1.8–2.0 billion

Norwegian companies face a significant administrative burden, defined as the effort required to supply mandatory information under national and European Economic Area (EEA) regulations. Generative AI has the potential to significantly reduce this burden.

Administrative burden faced by small and medium-sized businesses in Norway
NOK billion at widespread adoption

0.4%
of GDP
Estimated administrative burden for Norwegian SMEs



Perspective

Beyond administrative cost savings, generative AI in public administration is expected to bring additional business impacts, such as:

- Freeing up resources for other value creating tasks.
- More efficient allocation of resources.
- Increased speed and flexibility in company processes.

Note: There is much uncertainty around the capability and adoption timeline of generative AI. The estimation of the potential of AI across key cross-cutting tasks is based on an augmentation of Briggs and Kodnani (2023) with granular Norwegian employment data and an expert-assessed, exhaustive framework of the task composition within public administration, which is mapped to the rich database of task descriptions within O*NET. Our estimate is the isolated potential of generative AI at widespread adoption. The estimated boost from generative AI may not be fully additive to projections.
Source: Implement Economics based on Eurostat, Tilvækstverket, Plan.be, mkb, Valtiontalouden tarkastusviraston, NHO, O*NET and own calculations.

Case: Norwegian municipalities transform citizen service with Kommune Kari

The challenge

- Answering over 6,000 common topics manually was inefficient and prone to inconsistencies across multiple municipalities.
- Municipal staff were overloaded handling repetitive citizen questions about rubbish collection or office hours.

The solution

- NLP-powered chatbot launched across municipalities.
- Answers over 6,000 topics across municipalities.
- Mobile app adds 24/7 access and notifications.

The impact

- Handles over 500,000 chats yearly in Norway.
- Traffic rose 44% after COVID-19 lockdown.
- Frees staff to focus on complex cases.

Note: Most use cases implemented are supported by other initiatives, an important consideration when evaluating their overall impact.
Source: Implement Economics based on Prokom

Case: In Belgium, 92% of users are satisfied with the service from an AI-powered recruitment solution improving job matching and saving time for citizens

The challenge

- Skills gap between workforce and employers' needs.
- Traditional recruitment process is time-consuming and resource-intensive.
- Lack of personalisation and customisation in job suggestions.

The solution

- AI generated suggestions for upskilling and training.
- Map out where there is the highest probability of finding work.
- Extensive personalisation and pre-filling of questionnaires.

The impact

- 92% of citizens are satisfied with their contact with the job centre.
- 80% reduction in time spent on job match questionnaires.

Note: Most use cases implemented are supported by other initiatives, an important consideration when evaluating their overall impact.
Source: Implement Economics based on VDAB annual report (2023) and Superlinear and VDAB reinvent orientation test with Artificial Intelligence.

Case: Digital case handling has reduced waiting time on building permits for companies and citizens by more than 40% in Denmark's Municipality of Copenhagen

The challenge

- Long waiting times on building permits.
- Complex legislation.
- Rising stock of unhandled cases.

The solution

- An AI assistant is used to navigate complex legislation.
- Documents drafted for case handlers using generative AI.
- Robots automatically execute parts of the case handling.

The impact

- Waiting time reduced by 4.5 months (more than 40%).
- Backlog of unprocessed cases reduced by more than 70%.
- Released time to spend on guiding applicants in the most complex cases.

Note: Most use cases implemented are supported by other initiatives, an important consideration when evaluating their overall impact.
Source: Implement Economics based on Københavns Kommune (2023).

Case: Estonia has a bold vision for generative AI, and currently citizens and companies can use Bürokratt, a network of virtual assistants providing six different services across eight institutions

The ambition

- 90% of citizen requests should be handled by virtual assistants in 2026.
- 70% reduction of citizens' administrative burden by 2030.
- Digital government should be cloud-native by 2030.

The solution

- A network of virtual assistants built on a scalable architecture.
- Modular development based on continuous citizen feedback.
- Data security and privacy by design using a common data infrastructure.

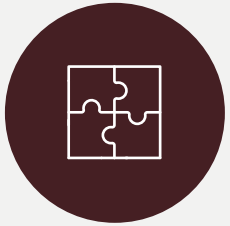
The impact

- Six different services across eight institutions.
- Multichannel virtual assistants can be accessed via voice and text.
- Private developers can integrate and extend Bürokratt's capabilities.

Note: Most use cases implemented are supported by other initiatives, an important consideration when evaluating their overall impact.
Source: Implement Economics based on Estonia's Ministry of Economic Affairs and Communications (2024).

Summary of part I

In designing an enhanced national AI effort, the government of Norway should think …



‘Task-based’ > Prioritise cross-cutting tasks to achieve economies of scale while addressing local needs. Implement a cross-institutional AI procurement strategy with clear roles and responsibilities across government levels to ensure user alignment and scalability.

‘Risk-conscious’ > Start with low-risk, internal AI solutions and gradually move on to more user-sensitive, external AI applications to realise the bulk of the potential.

‘Impact-oriented’ > Concentrate on AI applications with real user impacts, i.e. solutions that reduce the time and hassle of citizens’ and businesses’ interactions with public administration.

Create cloud clarity

Make smart procurement choices

PART II

Getting the critical enablers in place

Public administrations need to address critical barriers to enable the opportunity of generative AI

To benefit from state-of-the-art AI solutions, public administration relies on …

Smart regulations

AI adoption at scale requires simplified rules and harmonised implementation

- **Simpler, light, faster.** Simplified rules and legal certainty are key enablers of AI adoption, as highlighted by the Competitiveness Compass.
- **Ethical guidelines.** AI systems must adhere to principles of transparency, fairness, and accountability to maintain public trust.
- **Interoperability standards.** Harmonised rules across jurisdictions ensure AI solutions can be implemented seamlessly at scale.
- **Focused on outputs.** Regulation should target AI outputs, ensuring quality while preventing harm.

Data

AI needs data and the ability to combine data from different sources

- **High-quality data is essential** for developing and running high-performing AI models.
- **Workflow data must be accessible** to support employees in their daily operations.
- **Data-sharing frameworks.** Mechanisms should facilitate safe and efficient data exchange across government entities and private partners.

Infrastructure and tools

AI builds on large models, tailored tools, computing power and data storage

- **Computing resources.** Cloud services providing computing power and storage capacity to develop and run AI models.
- **Advanced AI models.** Large language models that are released at regular intervals, for example Gemini from Google or Open AI's GPTs.
- **AI platforms and tools.** These are often developed from the large language models. These enable public administrations to integrate AI into their processes and services.
- **AI applications.** Ready-to-use cloud solutions delivered via platforms.

Skills

AI works with humans, and public employees need the skills to work effectively with AI

- **Broad AI competencies** are essential for civil servants to understand when and how to use AI. From a management perspective, effective change management is crucial for successful adoption.
- **Specialised expertise and cross-disciplinary teamwork.** Building capacity for AI roles such as data scientists and ML engineers while fostering collaboration between IT, legal, and policy to ensure effective AI integration.
- **IT procurement competence.** Strong capacity of procurement professionals to navigate the complexities of AI and multi-cloud technologies.

… yet two key barriers must be overcome to enable effective generative AI adoption in public administration:

Regulations create uncertainties around data usage and cloud computing

Specialised IT requirements lead to a risk of vendor lock-in

These two barriers are addressed on the next pages.

Source: Implement Economics based on the European AI Commission (2024) and Draghi (2024).

PART II

Create cloud clarity

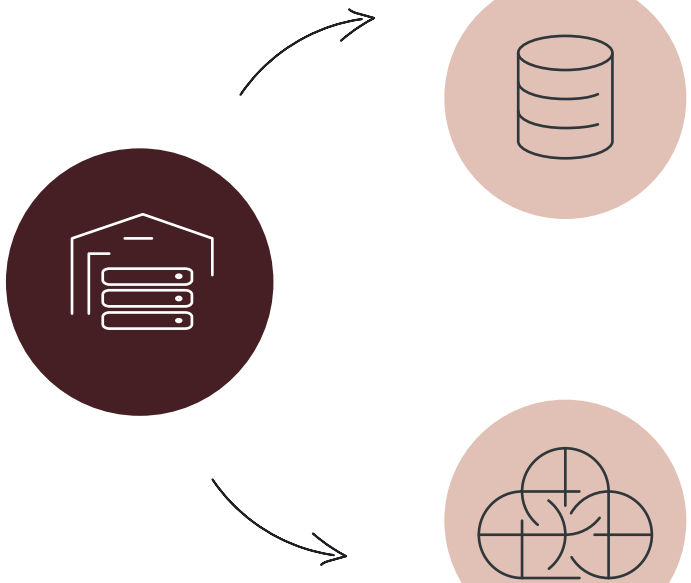
- Privacy and security concerns can lead to a misconceived preference for on-prem solutions.

> *The National Audit Office of Norway notes that there is disagreement about the best approach for establishing a national cloud solution, partly because several state agencies have already invested in commercial cloud services.*
>
> **The National Audit Office of Norway (2024)**

Public authorities face uncertainty in AI adoption due to conflicting EU data and cloud regulations

The EU enforces strict regulations to safeguard privacy and protect individual rights in AI and data usage …

EU regulations, such as GDPR and the AI Act, are designed to safeguard citizens' rights by enforcing strict compliance on personal data protection and ethical AI use, ensuring transparency, accountability, and fairness in digital systems.



… however, the complexity of these rules creates uncertainty, hindering public authorities from adopting AI solutions

Lack of clarity around data usage. The lack of clear guidelines on data use and inter-agency sharing creates hesitation, delaying innovation, and contributes to a fragmented AI landscape.

Uncertainty around cloud-based solutions. Fragmented and complex rules with unclear interpretations make it difficult for authorities to know whether widely used cloud infrastructure meets legal obligations. This lack of clarity often results in hesitation, costly delays, and the adoption of suboptimal solutions.

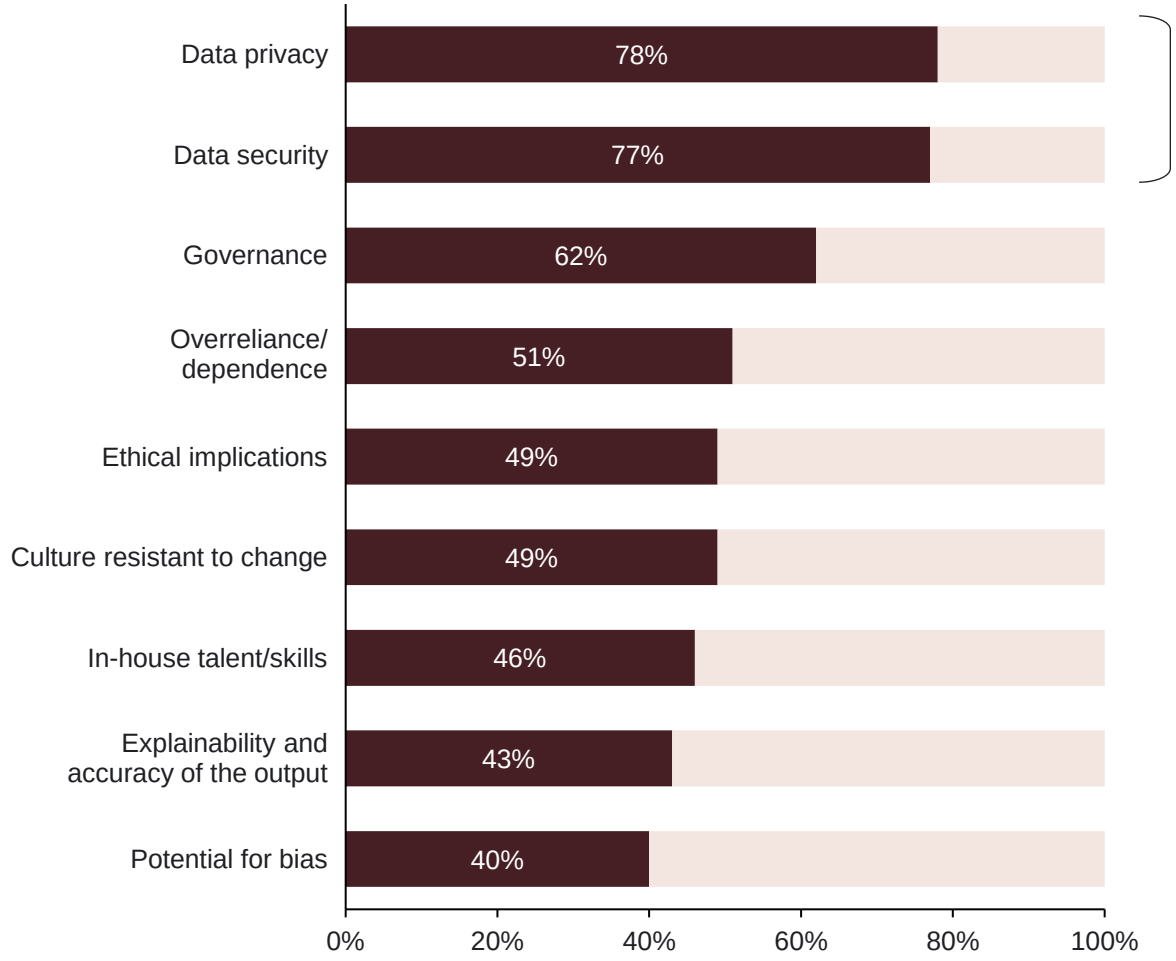
Source: Implement Economics based on the European Commission (2024).

Authorities hesitate to adopt AI tools due to concerns over data privacy and security

European organisations are concerned about leveraging cloud-based AI tools and sharing data across multiple stakeholders due to stringent data privacy and security regulations.

However, sovereign cloud solutions can address these challenges by ensuring data, operational, and software sovereignty, enabling secure data collaboration while maintaining compliance with European standards.

What are your concerns regarding the usage of generative AI in your organisation?
% of respondents among government leaders globally



This highlights the critical role of AI infrastructure and tools in scaling generative AI solutions, and emphasises the need for proactive strategies to ensure responsible use.

Note: The survey was conducted by Coleman Parkes from February to April 2024, targeting 1,600 decision-makers in generative AI strategy or data analytics across government organisations and other key sectors globally. The results shown specifically reflect responses from government organisation respondents.
Source: Implement Economics based on SAS Institute (2024).

A secure and competitive cloud infrastructure is crucial for AI use at scale

AI infrastructure for public sector must be:

- **Efficiently scalable** to accommodate new solutions and fluctuations in demand.
- **Adaptable** to integrate emerging leading technologies and capable of operating on a multi-cloud level.
- **Secure,** ensuring data privacy and leveraging best-in-class cybersecurity capabilities to protect against the evolving threat landscape.
- **Interoperable**, enabling seamless collaboration and data exchange between authorities.

Given the high computational and specialised hardware requirements for state-of-the-art AI, adapting on-premises supercomputers is both prohibitively expensive and inefficient.

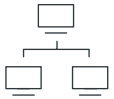
Widespread AI adoption in public administration depends on a secure, robust cloud infrastructure that meets these unique demands. Therefore, the most cost-efficient and scalable solutions are best sourced from specialised suppliers.

To achieve scalability, adaptability, security and interoperability, the AI infrastructure must provide:

Compute capacity

Leading AI models

Data storage and pipelines



Network and connectivity

AI tools and applications

Security measures and monitoring

In a review of public AI efforts from 2024, the National Audit Office of Norway emphasises that key prerequisites for widespread public AI adoption – such as legal clarity, sufficient infrastructure, and computing power – are not yet in place. The report raises concerns about the fragmented use of foreign cloud services and recommends coordinated efforts and consideration of a national cloud solution to support responsible and scalable AI use in the public sector.

This setup should ensure flexibility and interoperability by enabling the use of multiple cloud solutions, thereby strengthening digital sovereignty, safeguarding data protection, and supporting secure and resilient public services.

Source: Implement Economics based on National Audit Office of Norway (2024).

Cloud provides a cost-effective AI infrastructure adaptable to technological advancements

To effectively use generative AI in public administration, substantial computing resources are needed. On-premises infrastructure demands significant upfront investment and risks becoming outdated before costs are recovered, locking institutions into current technology levels.

To ensure future-proofing and cost efficiency, Norway should expand its cloud strategy to include private sovereign cloud solutions that provide continuous AI compute capacity, lower initial costs, and rapid adaptation to emerging AI technologies

160%

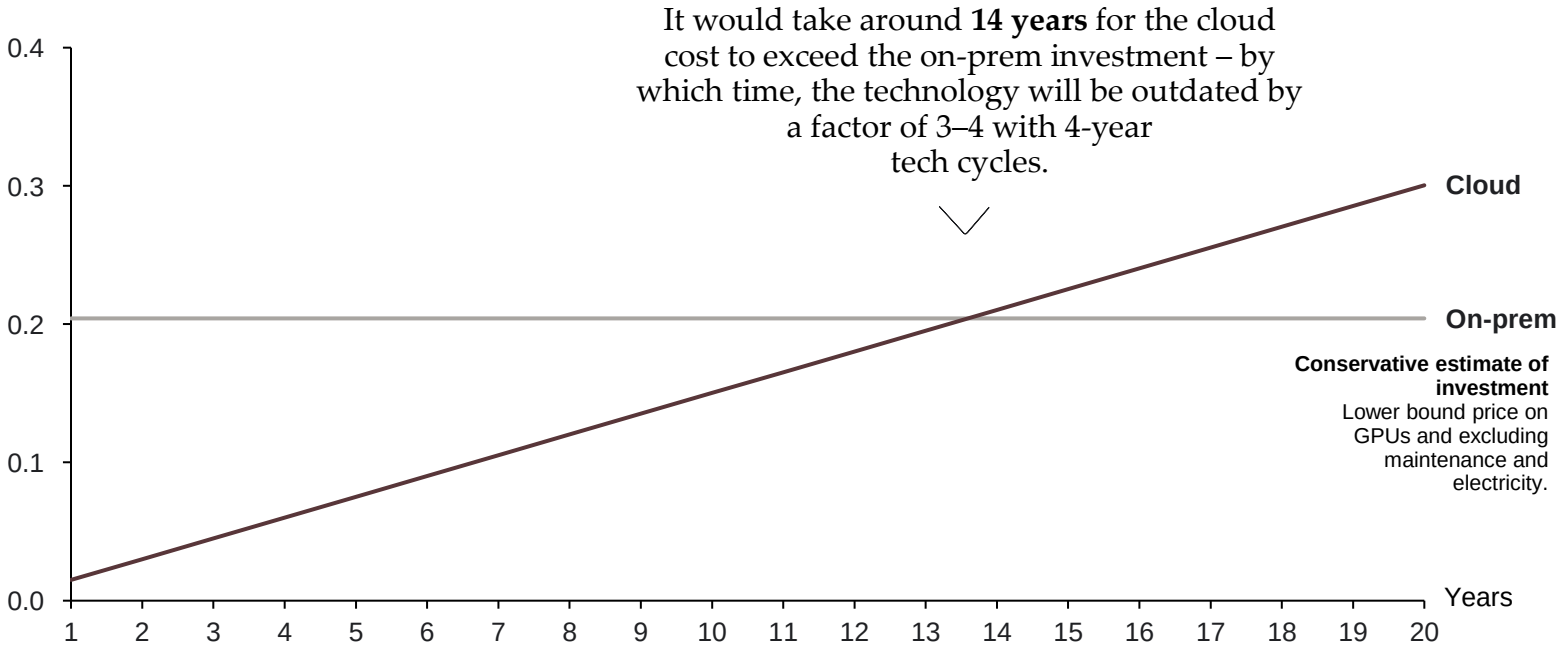
Computer performance has improved by 160% in around two years, and AI is a fast-evolving technology that will require constant updates to compute capacity.

Example Norwegian Tax Chatbot

~1.8 million citizen inquiries handled by the Norwegian Tax Authority each year. These could be automated by an AI-based chatbot, either in the cloud or on premises.

~20 GPUs are needed to handle the average flow of requests, costing around of NOK 2.5 million for on-prem investment, compared to an average annual cost of NOK 0.18 million for a cloud service.

Accumulated costs for chatbot implementation (illustrative)
NOK million



Note: Inquiries are assumed to be evenly distributed across 16 hours a day and every day of the year, resulting in a constant load throughout the year. Each inquiry is estimated to average 750 words, with approximately two tokens per word, leading to a total of approximately 2,700 million tokens based on an annual volume of 1.8 million inquiries. For cloud-based deployment, the cost is estimated at NOK 180,000 per year, derived from token processing and computational resource usage. For an on-premises setup, it is assumed that 200,000 inquiries per year translate to an average of 5 active conversations per minute, assuming an even distribution 16 hours a day every week. Each active conversation requires four GPUs, and the estimated cost per high-end GPU, including VRAM and hardware, is NOK 116,000. This brings the total on-premises cost to approximately NOK 2.5 million. Achieving adequate performance for Norwegian-language processing would require a large language model, such as Llama70B, which demands 123 GB of VRAM per GPU for effective operation.
Source: Implement Economics based on OpenAI and Llama.

The cloud provides the flexibility to scale with fluctuating demands

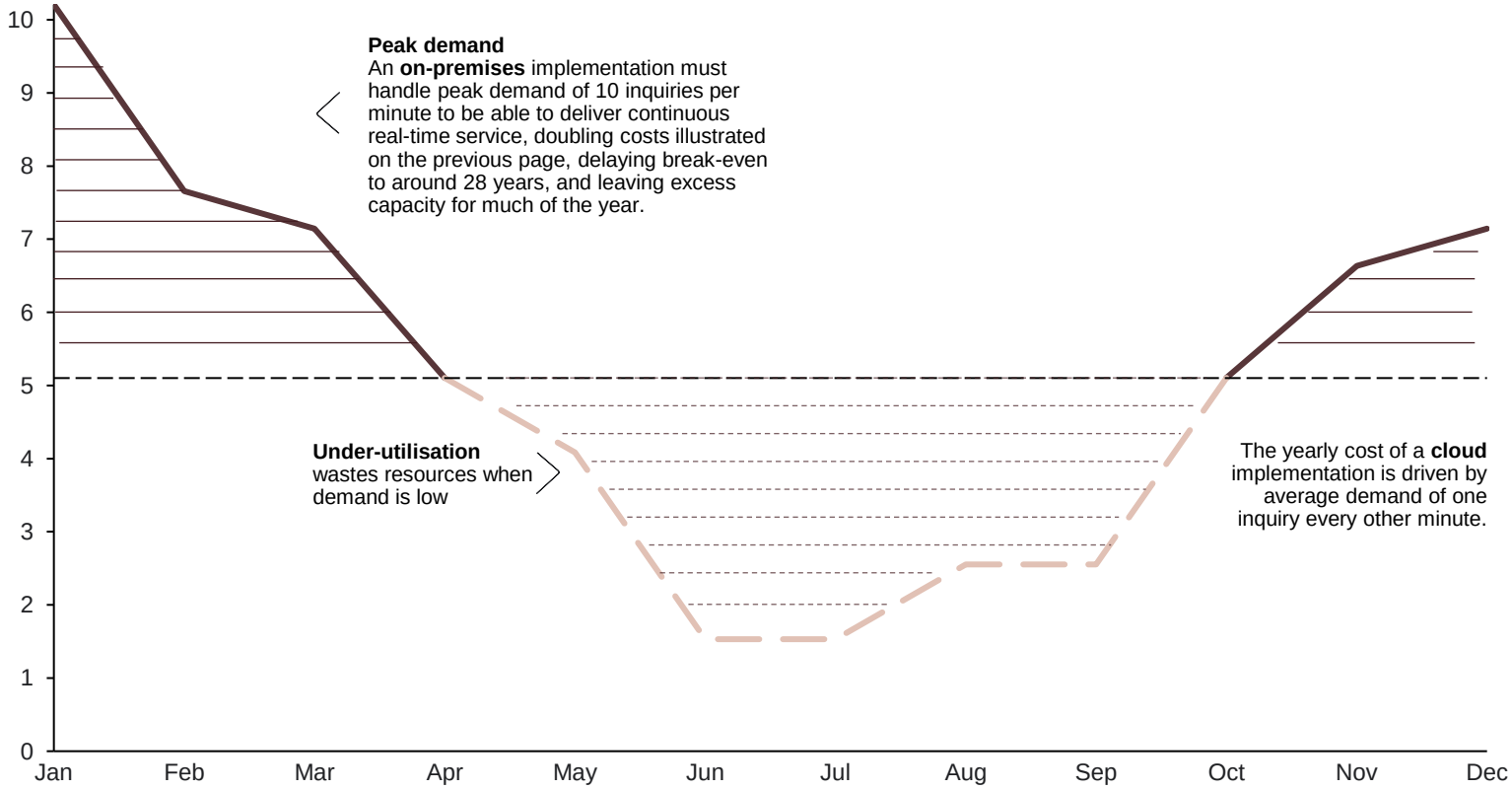
The demand for public AI applications varies significantly throughout the day and year. During peak periods, a high volume of tasks must be handled simultaneously, placing substantial pressure on AI infrastructure.

Cloud solutions offer flexible scalability, with costs tied to actual usage.

In contrast, an on-premises setup requires investment not only for average demand but also for peak capacity to avoid bottlenecks.

Example Norwegian Tax Chatbot

Inquiries per month (illustrative)
Average inquires per minute



Establish clear regulatory guidance and procurement practices for data sharing and using cloud-based tools to unlock the AI potential

The Norwegian government has articulated a clear ambition in its AI strategy: to be a leader in the ethical use of artificial intelligence within the public sector. However, according to Riksrevisjonen, key prerequisites for broad AI adoption are still lacking. A common framework for cloud procurement is therefore needed to ensure that providers meet security requirements while allowing for a flexible and scalable setup. Such a framework, shared across central and local authorities, should safeguard digital sovereignty, business continuity, and data protection in the adoption of cloud-based tools.

Implement a centralised cloud strategy. Adopt a cohesive nationwide cloud policy applied consistently across all government levels, including local and decentralised entities. Centralised procurement guidance will ensure that security and compliance standards are universally applied.

Ensure flexibility and resilience. Central government should adopt flexible procurement strategies to avoid overreliance on any single cloud provider. It should define robust contract terms – including exit strategies, data portability, encryption, and audit rights – to protect critical public services. Monitoring subscription and licence costs is key to maintaining resilience and prevents paying for unnecessary functionalities.

Safeguard digital sovereignty, interoperability, and resilience. The current Government Cloud Service Policies should enforce robust standards for data exchange and interoperability, ensuring that critical public services remain continuously available. By clarifying data localisation requirements while encouraging cross-border collaboration, Norway can safeguard sovereignty, foster innovation, and protect national interests.

Conduct and update risk assessments. Mitigate risks through government-wide risk assessments, evaluating sovereignty, service continuity, data protection, cost, and innovation. Regularly update assessments for all cloud services, adapting to evolving risks.

Source: Implement Economics based on Netherlands Court of Audit (2025) and Norwegian Ministry of Digitalisation and Public Governance (2024), Digir (2024), Norwegian Board of Technology (2024) and National Audit Office of Norway (2024).

PART II

Make smart procurement choices

To adopt AI at scale, the Norwegian government needs to re-invent the way they procure digital services to ensure flexibility, innovation and competition

Restrictive licensing terms hold back vendor switching

Public institutions frequently use specialised IT systems designed for specific needs, which limits their flexibility and makes adopting new technologies such as generative AI difficult. Vendor lock-in occurs when institutions rely on a few suppliers, restricting adaptability and causing high costs due to technology dependence.

Restrictive contractual terms make cloud switching and multi-cloud adoption more costly or even unviable. Several studies have examined this:

In a recent survey of +1,200 IT decision-makers across five European countries, Savanta, a data intelligence company, finds evidence of restrictive licensing and other activities that inhibit market competition.

> *Licensing issues in the public sector are also rife, with 6 in 10 organisations that have considered switching saying that a key reason why they didn't change IaaS providers was due to existing licensing terms.*

The Competition & Markets Authority in the UK *provisionally found* that restrictive licensing **harms competition** in cloud services.

In the EU, the Commission is currently considering investigating restrictive software licensing.

> *We have also provisionally found that there are technical barriers and commercial barriers in the form of egress fees to switching and multi-cloud that harm competition in cloud services in the UK by locking customers into their initial choice of provider which may not reflect their evolving needs.*

In a recent study, the German think tank ZnT finds that restrictive licensing imposes a significant financial burden, with transferring existing software licenses to third-party cloud services potentially costing up to 25% of annual expenditure.

> *… restrictive licensing practices by dominant software and cloud providers are creating a financial burden, limiting choice, and hindering innovation.*

60%

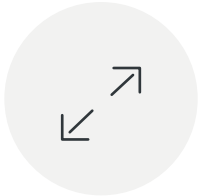
of surveyed IT decision-makers in the public sector cited licensing restrictions as a key barrier to switching.

Note: Survey results for Social Market Foundation, Savanta Survey (respondents comprise N=1,241 IT decision-makers across UK, France, Germany, Netherlands and Spain – here summarised as representative for the EU27). The reports mentioned here further provide insightful estimates on the financial burden caused by vendor lock-in. However, these calculations rely on a number of assumptions, making them unfit for direct conclusions.
Source: Implement Economics based on Jenny, F. (2023), CMA (2025), SMF (2024), ZNT (2025) and Savanta (2024),

Ensure flexibility and hybrid capabilities to meet evolving needs in public procurement

Governments must prioritise flexible procurement strategies to mitigate the risk of overreliance on a single provider, emphasising open data standards and interoperability to ensure long-term competition and adaptability. An AI procurement strategy should ensure that vendors meet key criteria, including:

Guarantee data security and compliance, ensuring adherence to national and EU laws (e.g. GDPR) while maintaining strict security protocols.



Offer scalable and flexible infrastructure, capable of adjusting resources based on the changing needs of public administration, while ensuring reliable performance.

Align with public sector ethical standards, ensuring AI solutions promote fairness, transparency, and mitigate risks such as algorithmic bias.

Provide clear service level agreements with accountability, ensuring defined performance metrics, uptime guarantees, and fast response times for addressing service failures**.**

Ensure interoperability with existing systems, enabling seamless integration with current government IT infrastructure to reduce disruption and implementation costs.

Provide carbon footprint data using state-of-the-art data on the hour-by-hour carbon-free energy for the operational emissions of the data centre.

Summary of part II

To address critical enablers, the government of Norway should …

Create cloud clarity

- Harmonise department policies and mitigate risks through government-wide risk assessments.
- Consider factors such as sovereignty, service continuity, data protection, cost, innovation and required skills.

Make smart procurement choices

- Optimise AI and cloud procurement by ensuring flexibility, scalability, and alignment with open standards to avoid vendor lock-in.
- Strengthen the government's position by monitoring subscription costs, purchasing only necessary functionalities, and enforcing ethical, secure, and sustainable practices in contracts with vendors.

PART III

A bold vision for the government of Norway

Set ambitious targets and develop a strategic national AI effort

The National Digitalisation Strategy for 2024–2030 sets ambitious targets for the ethical use of artificial intelligence in public administration and emphasises the need for a national AI infrastructure.

A specific goal outlined in the strategy is **that all state agencies should use AI in their operations by 2030.**

However, the strategy does not address the fragmentation within the public sector that often prevents AI solutions from scaling and becoming widely adopted. To ensure real impact, a distinct strategic national AI effort should be developed – one that bridges centrally driven initiatives with local and sector-specific needs.

Furthermore, a dedicated task force should be established to identify, test, and scale cross-cutting AI use cases across administrative levels, ensuring consistent and effective implementation throughout the public administration.

High-level roadmap for capturing the AI opportunity within public administration

1 — Establish an AI task force and address the five key barriers

1–2 years

- Adopt a task-based framework for, and approach to, the implementation strategy.
- Establish clear key performance indicators (KPIs).
- Establish clear regulatory guidance and procurement practices for cloud-based tools.
- Prioritise flexible procurement strategies to avoid overreliance on a single provider, focusing on open data standards and interoperability to ensure long-term competition and adaptability.

2 — Use risk and impact measures to prioritise

3–5 years

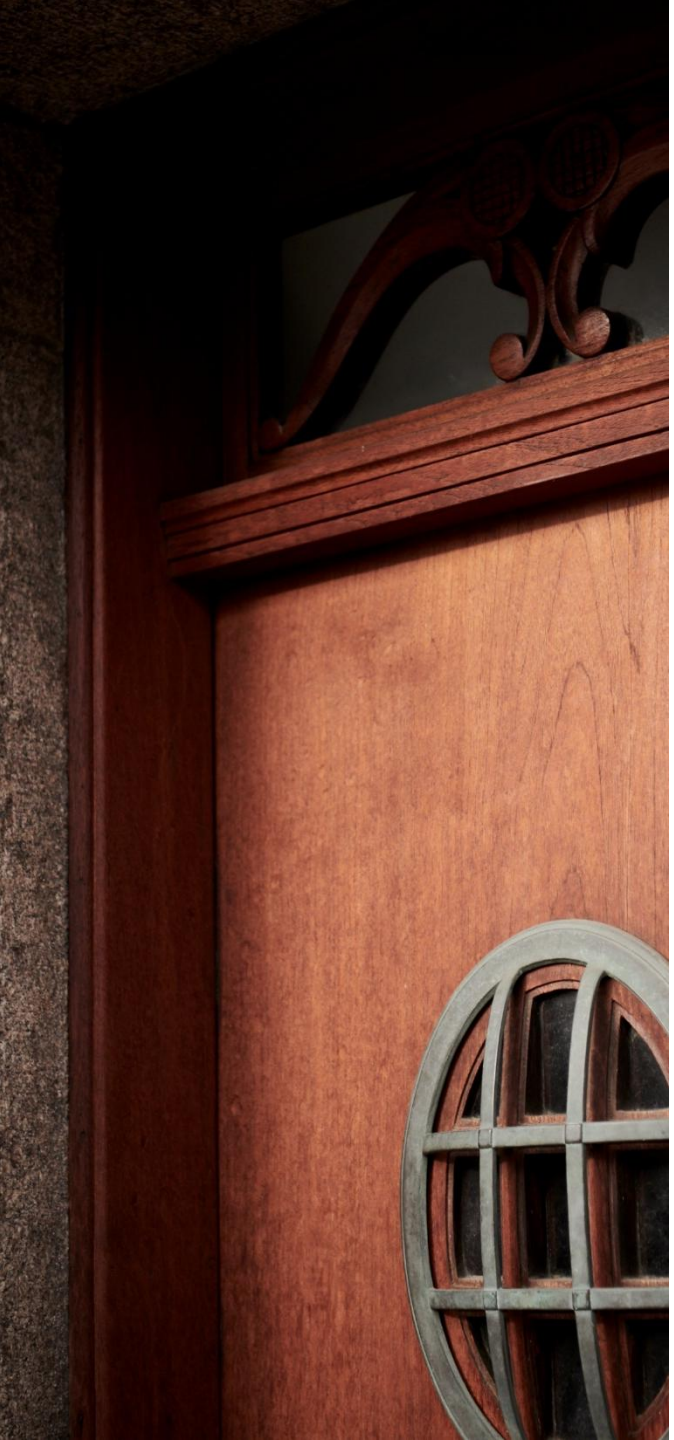
- Allocate funds toward executable and scalable applications.
- Implement scalable solutions and anchor them with cross-cutting tasks.
- Set targets for services with high citizen and business impact.
- Ensure critical enablers are in place.

3 — Scale successful applications

7–10 years

- Scale successful applications across tasks, making sure knowledge and experience are shared between institutions.
- Ensure public administration employees retain key skills to fully capture the augmenting effects of AI.

Source: Implement Economics based on Digital Norway and OECD (2021).



Appendix

Modelling the potential impacts of AI on public administration

Overview of the methodological approach to calculating the exposure to and productivity impact from generative AI

1. **Automation potential of work activities:** The exposure to generative AI is calculated by breaking down the automation potential of unique task descriptions and their associated general work activity in the occupational task database O*NET. In line with Briggs and Kodnani (2023), the methodology assumes that 13 of 41 overall work activities (e.g. getting information, performing administrative activities etc.) can potentially be automated by generative AI, and in the base scenario we assume that tasks with a difficulty up to level 4 on the O*NET-defined scale can be automated.

2. **Mapping automation potential of work activities to occupations:** First, the 41 work activities for 900 US occupations are mapped using importance-average activities for each occupation, providing an estimate of the share of each occupation's total workload that AI has the potential to automate. Secondly, this number is projected from US to European occupations through the European Commission's crosswalk between ESCO and O*NET and finally compiled into aggregated occupations (using the sub-occupation employment). This leaves us with the three shares that describe how big a share of the work activities each occupation is expected to see: No automation, AI complement and Likely replacement. For public administration, we map detailed ISCO level 4 employment data in NACE sector O to the above-mentioned taxonomy.

3. **Quantifying productivity gains in public administration:** Generative AI is assumed to affect the productivity of the work activities for each occupation as follows: The 'No automation' share of work activities is assumed to be unaffected by generative AI. 'AI complement' work activities experience a productivity boost from automation. 'Likely replacement' is the share of work activities in a sector that is expected to be entirely automated/replaced. These workers are expected to be re-employed in slightly less productive jobs. The three effects are calculated in public administration in Norway and scaled by the sector's value added to determine the full productivity potential/generation of new jobs from generative AI. Only part of the total long-run productivity increases from generative AI is expected to materialise in the economy during the initial ten-year period of technology adoption following an S-curve adoption trajectory.

4. **Mapping the potential to cross-cutting tasks:** The calculated potential is distributed across cross-cutting tasks within public administration by mapping detailed work activities to an expert-assessed and exhaustive framework that encompasses the work carried out within this sector.

- The method in this paper is in line with the methodology developed by Briggs and Kodnani (2023) in 'The Potentially Large Effects of Artificial Intelligence on Economic Growth'.
- The estimation of the potential of AI across key cross-cutting tasks (step 4) is based on an augmentation of Briggs and Kodnani (2023) with employment data and an expert-assessed, exhaustive framework of the task composition within public administration, which is mapped to the rich database of task descriptions within O*NET.

Note: Methodology is based on Briggs and Kodnani (2023).
Source: Implement Economics based on the European Commission, Statistics Norway, Eurostat, O*Net and Briggs and Kodnani (2023).

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