

# The AI opportunity for eGovernment in the Netherlands

The opportunity for the Dutch government to scale the benefits of AI across government institutions

May 2025

**Generative AI has significant potential to enhance productivity in public administration in the Netherlands, creating 10% more value for money, equivalent to an annual contribution of EUR 6 billion.**

**AI in public administration is a good place to start.** This report explores the substantial potential of generative AI in the Netherlands' public administration, which is well-suited for early AI benefits with low risk. The [government-wide position](#) on generative AI, which encourages civil servants to make greater use of the technology to enhance citizen services, highlights this potential.

**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 the Netherlands.

#### 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



Lack of public support



Regulatory uncertainty



Vendor lock-in risk

Think task-based



**Cross-cutting tasks underpin most jobs in public administration. The top five tasks in the Netherlands represent 80% of the 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 joint 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 total potential.** The fear of breaking rules in a complex regulatory environment is slowing AI adoption. Therefore, the Dutch government should begin with the low-risk applications and gradually move to user-sensitive, externally-facing applications to unlock the full of the potential.

Think impact-oriented



**The implementation of AI solutions should be motivated by the needs of citizens and businesses,** to improve the user experience and reduce the time and hassle in their interactions with the public administration. Generative AI can reduce the administrative burden for businesses in the Netherlands by EUR 2-3 billion.





#### Create cloud clarity

**A secure and competitive cloud infrastructure is crucial for cost-efficiently implementing advanced AI at scale.**

However, misconceptions about on-premise systems prevent public institutions from adopting cloud infrastructure. The government should establish a unified framework for secure and compliant cloud adoption, enabling public stakeholders to innovate while safeguarding digital sovereignty, business continuity and data protection.



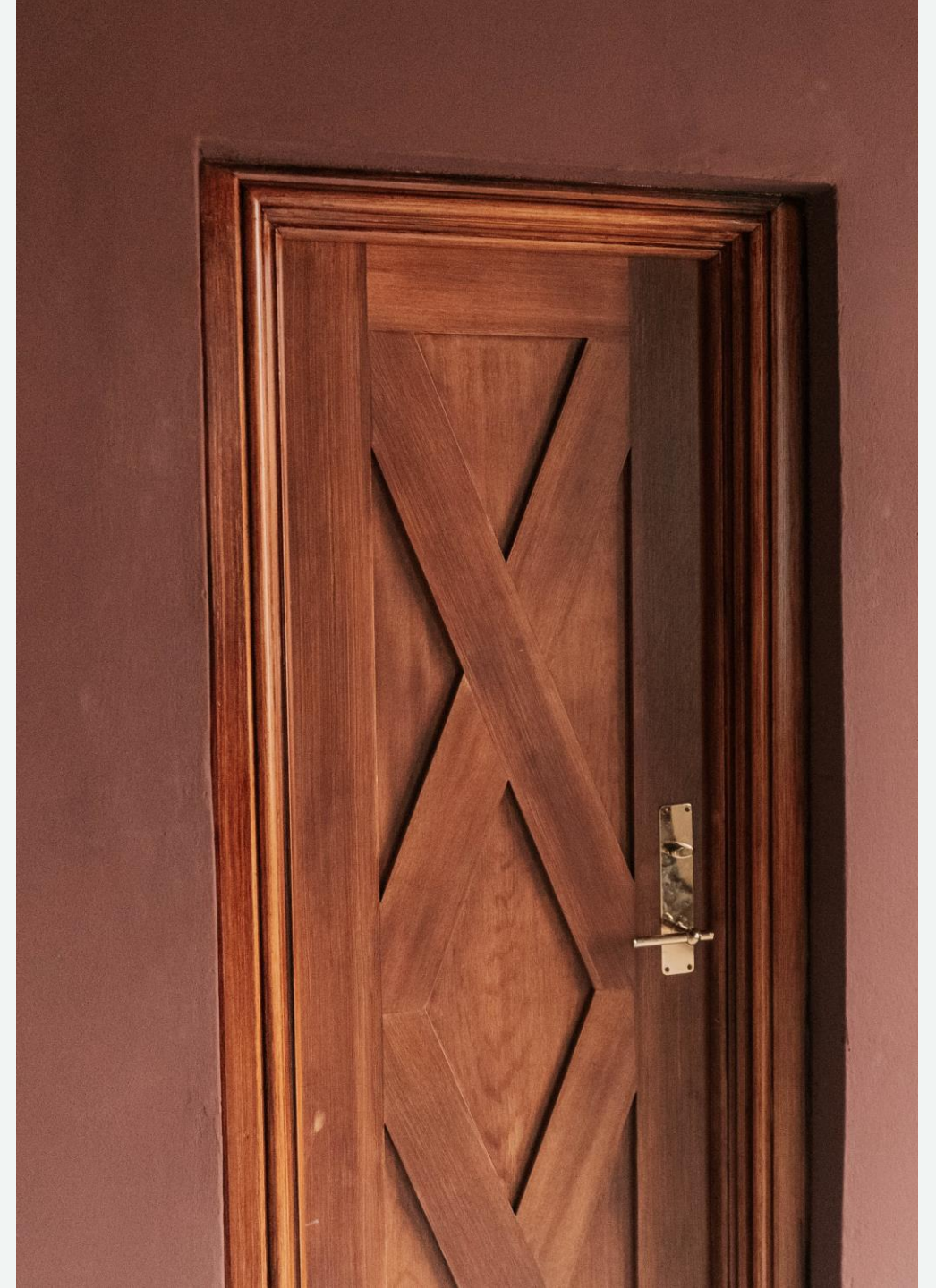
#### Make smart procurement choices

**Governments must carefully assess the risk of vendor lock-in and ensure an interoperable AI procurement framework.** Across Europe, 60% of surveyed IT decision makers in the public sector cited restrictive licensing as a key barrier to switching. Vendor lock-in can lead to suboptimal, inefficient and costly AI solutions in the public sector.



#### Implement an ambitious AI strategy

**In the upcoming Dutch Digitalisation Strategy, the government should set ambitious targets and provide an actionable roadmap** to realise most of the AI potential within five years and fully within ten. The strategy should build on the new [government-wide position](#) on the use of generative AI and further address risks and potentials that are common across different authorities.





# Introduction

Large and untapped potential

- > To realise the AI potential in the public administration, the Netherlands must overcome five key barriers



*Government can also benefit from generative AI as a production tool. It provides the public sector with opportunities to enhance processes, improve overall government functioning and optimise provision of services to citizens.*

[The Government of the Netherlands \(2024\)](#)

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

According to the Government of the Netherlands, AI could...



## Tackle social issues



*The government wants to use generative AI to help benefit its citizens and employees. This technology offers ample opportunities to tackle social issues and improve service provision.*



## Strengthen decision-making processes



*Generative AI can play a role in data-driven policy making and evaluation by rapidly analysing large amounts of data, generating training materials, and simulating policy scenarios. It also offers opportunities for internal knowledge development.*



## Improve services for citizens



*Government can also benefit from generative AI as a production tool. It provides the public sector with opportunities to enhance processes, improve overall government functioning, and optimise provision of services to citizens. For instance, by improving communication with inhabitants.*



## Break down language barriers



*Generative AI also has the potential to make government information more accessible to everyone by providing language level adjustments. In this way, technology can contribute to clear and inclusive communication with citizens.*



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

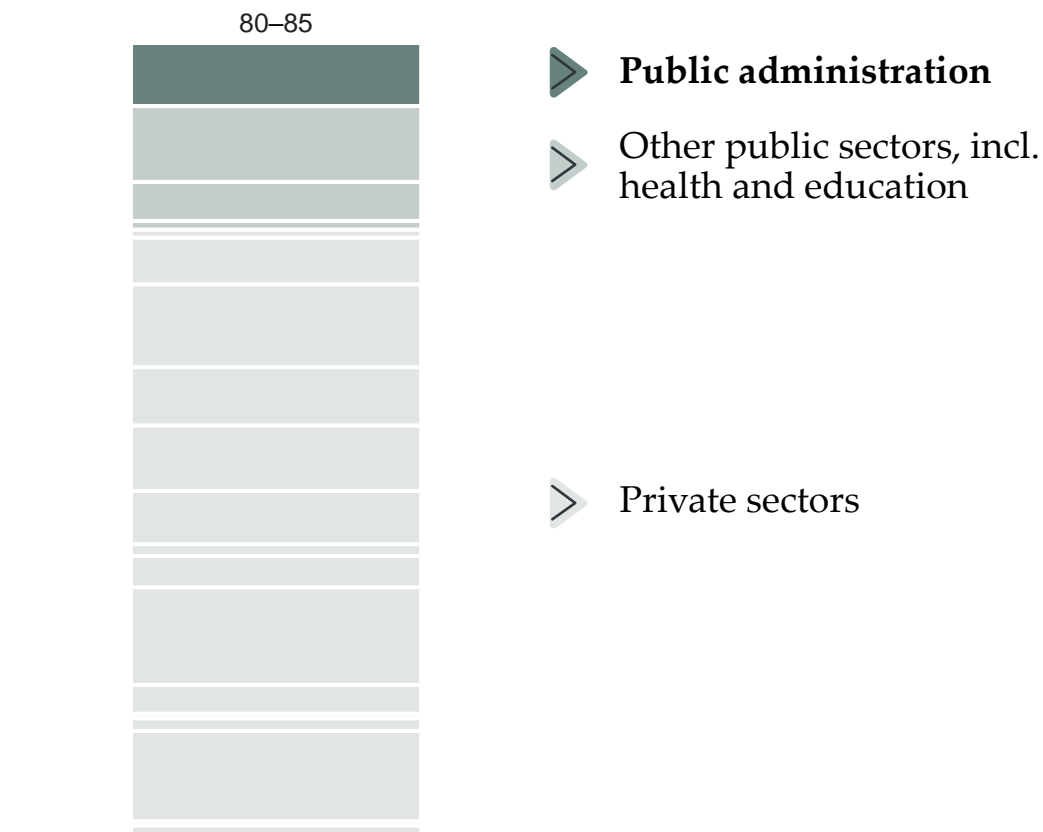
# The Dutch government can get 10% more value for money by adopting generative AI

Generative AI presents a significant economic opportunity for the Netherlands, potentially contributing 9% (EUR 80–85 billion) to GDP annually over ten years.

In public administration, generative AI can significantly enhance productivity and drive cost-efficiency. Widespread adoption of generative AI in public administration can create EUR 6 billion in gross value added with the same resources. The potential is equivalent to 1.3% of public expenditure.

By showcasing a successful impact, the implementation of AI in public administration will be key to realising the economy-wide potential of generative AI.

## Economic potential of generative AI in the Netherlands EUR billion with widespread adoption



10% more value for money, equivalent to **EUR 6 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 the 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 2023 data. "Public administration" refers to NACE sector O (Public administration and defence; compulsory social security) and 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 [Statistics Netherlands](#), Eurostat, O\*NET, Briggs and Kodnani (2023).

# Public administration is the backbone of the public sector in the Netherlands

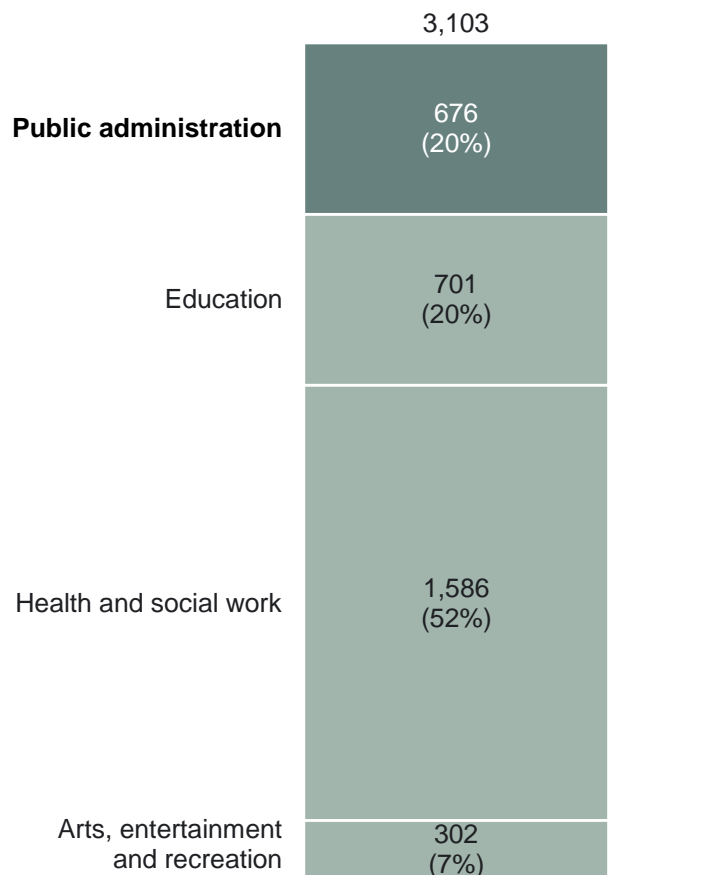
The public sector is an important part of the Dutch economy and society. Public expenditure is equivalent to 44% of the Netherlands' GDP. Further, the public sector accounts for around 30% of all jobs and delivers services benefiting citizens and businesses.

Public administration makes up 20% of public sector jobs. Their work has characteristics that allow it to benefit from generative AI, such as work with text, repetitive tasks and complex analysis.

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

## Employment in the Dutch public sector

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.



# Most public administration jobs can be complemented by generative AI

## Exposure to automation by generative AI

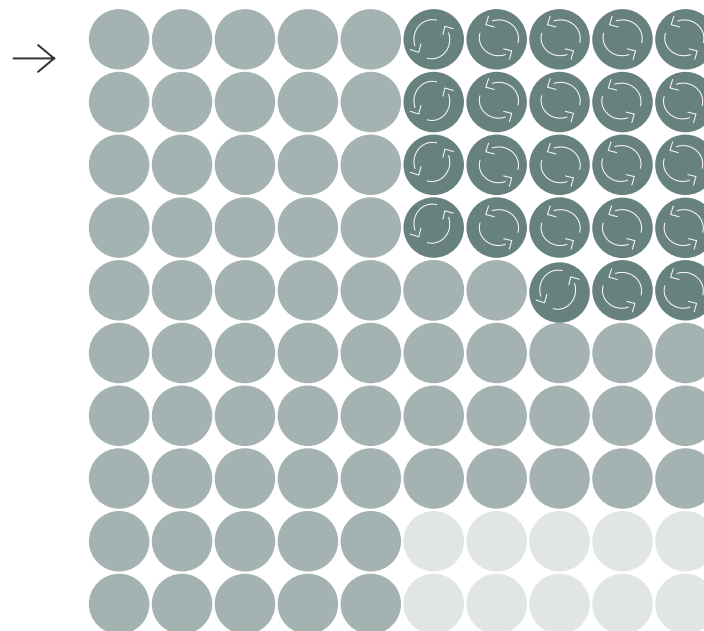
% of jobs in public administration

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

**67% or ~450,000 jobs are likely to be augmented by generative AI.**

These workers will see the technology play an integral role in their daily work, increasing their productivity while 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.

Such jobs include social workers, urban planners and general office clerks.



**23% or ~155,000 jobs are estimated to be highly exposed to generative AI, leading to some job transitions.**

These workers may experience a shift in responsibilities when tools—such as citizen facing chatbots handling general inquiries—automate over half of their tasks. This will improve the speed and quality of administrative tasks, saving resources for the central and local governments.

Such jobs include citizen service functions, lawyers, and budget analysts.

**10% or ~70,000 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.



It is essential to keep human agency at the centre of AI adoption to maximise societal benefits. In line with the new [government-wide position](#) for the deployment of generative AI, civil-service employees must be adequately informed about effective and responsible AI use through training and guidelines designed to build AI literacy. Beyond basic literacy, the position explicitly calls for further training to unlock the optimal value of each generative AI application—ensuring teams can both assess risks and fully harness generative AI in service of citizens

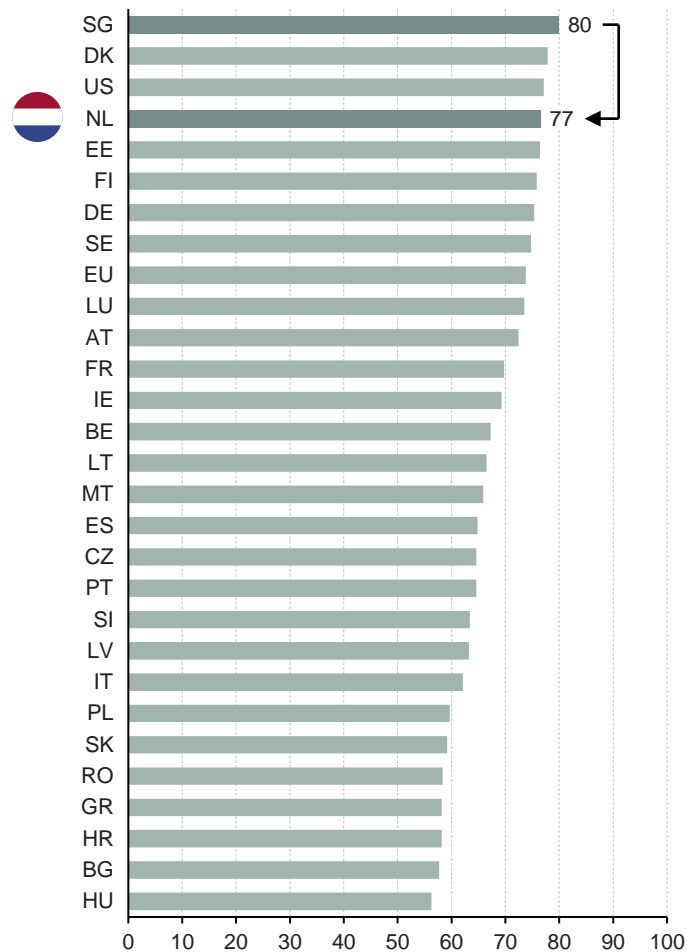
# The Netherlands is well prepared to make use of AI

The Netherlands ranks high on multiple indicators for AI capacity. As of 2022, the Netherlands ranks 3<sup>rd</sup> in the [European DESI Ranking](#). Further, the country ranks 4<sup>th</sup> globally in the IMF AI Preparedness Index.

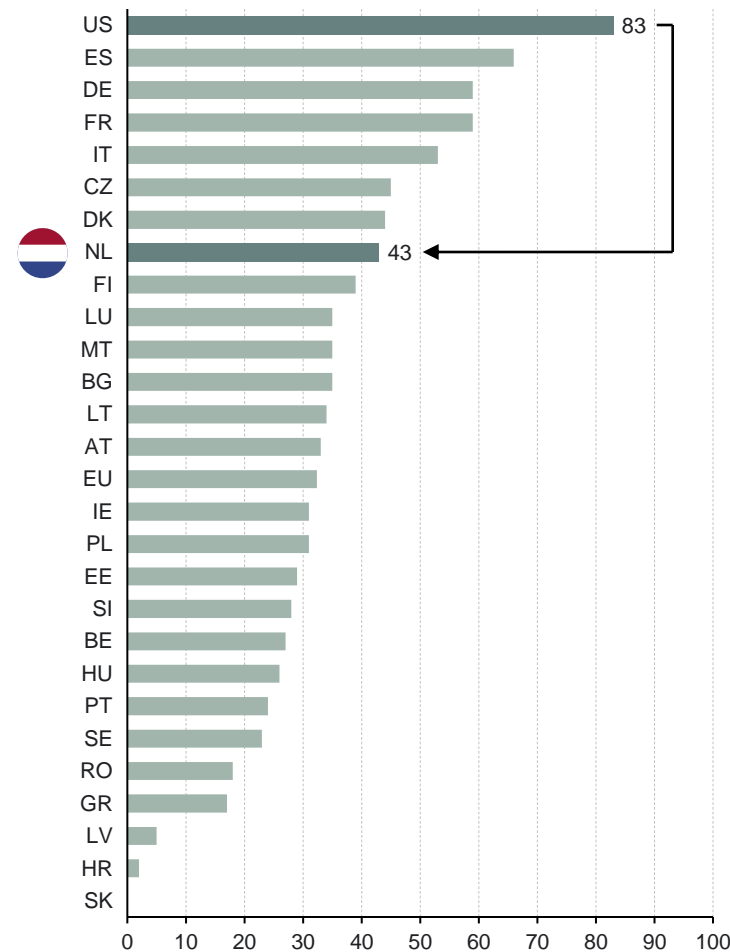
The Netherlands also ranks high in the [Tortoise Government Strategy](#) index but is still outranked by European peers. The index measures the depth of commitment from national governments to AI, based on investigating spending commitments and national strategies.

With the recent publication of a [government-wide position](#) and [practical guideline](#) on generative AI, the Netherlands has taken a concrete step toward strengthening AI implementation and alignment.

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

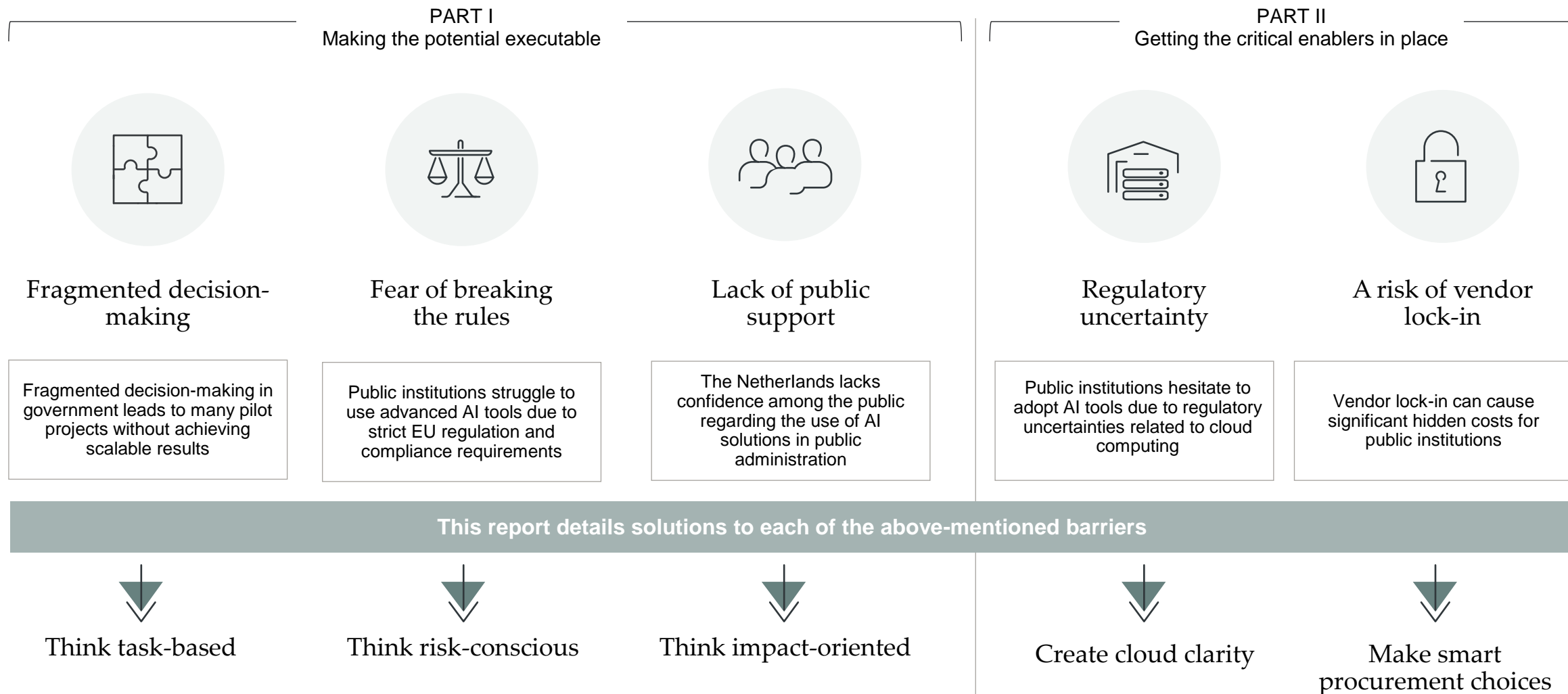


**AI Capacity Index, Government Strategy**  
Tortoise, 2024 (index max = 100, global leader)

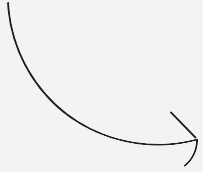


# Five key barriers hamper progress in the Netherlands

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



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Think task-based



Think risk-conscious



Think impact-oriented

# PART I

## Making the potential executable

- 
- > In designing a new national AI strategy, the Dutch government 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.



*Share best practices regarding how to scale up AI experiments together. Use existing bodies such as the Public Services working group of the NLAIC, and networks of VNG and IPO. In addition, it is important that these bodies join forces and collaborate.*

TNO (2024)

# Fragmented decision-making across government levels leads to numerous pilots without scalable impact



Despite there being great opportunity to benefit from AI in public administration, fragmented decision-making presents three main challenges:



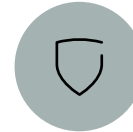
## Fragmented governance and isolated investments

The Netherlands' decentralised governance model can result in fragmented decision-making and uncoordinated investments, as public funding is distributed across multiple regional and municipal entities, each with its own focus and priorities. This can hinder 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 can result in authorities 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, good collaboration and resource optimisation remain unattainable.



## Barriers to data sharing

The Netherlands has extensive data resources, yet significant legal and technical barriers hinder their accessibility and exchange. GDPR, national privacy laws and inconsistencies in systems and standards create barriers to data sharing between authorities. As a result, authorities struggle to harness data effectively for AI-driven innovation.

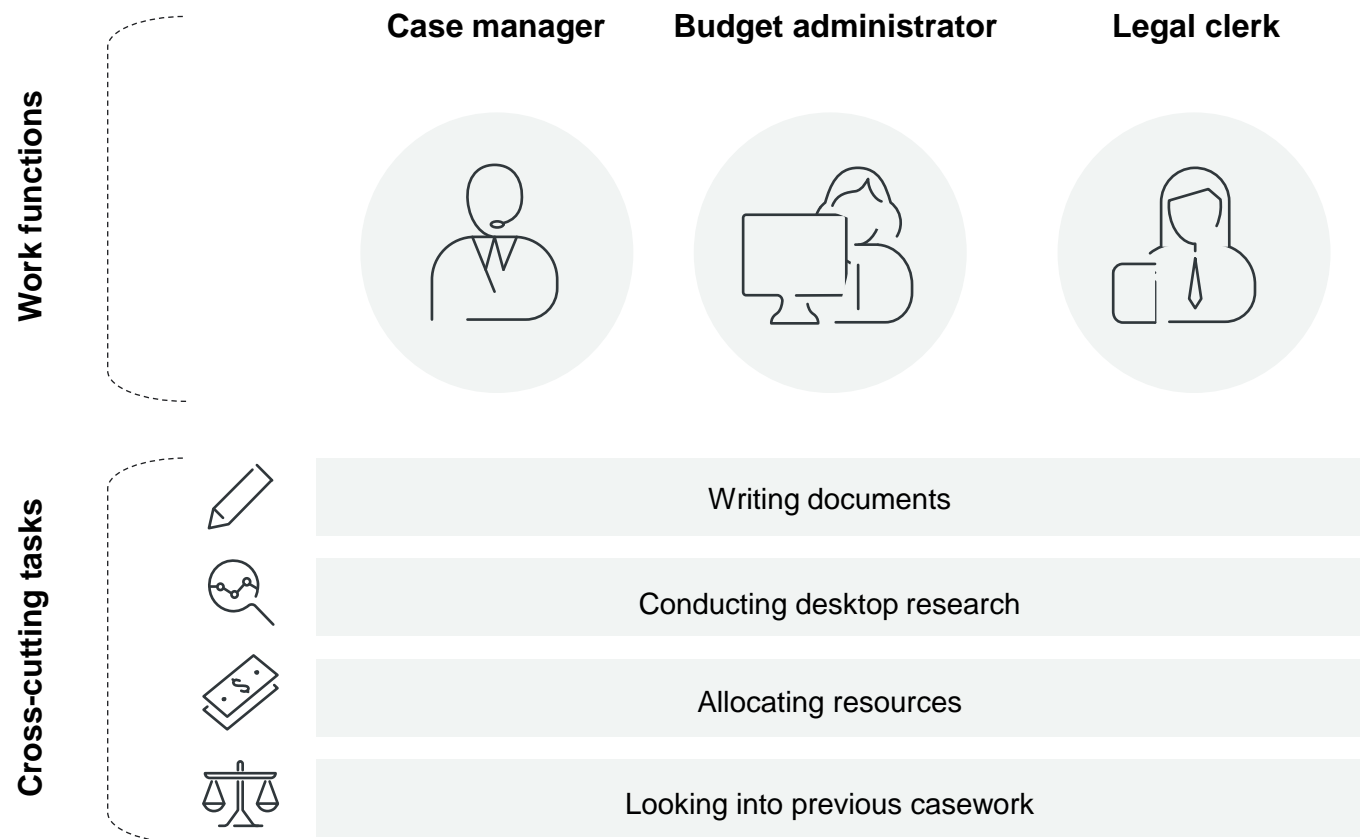
# Cross-cutting tasks form the basis of most public administration jobs

The public sector is the largest employer in the Netherlands, with public administration employees making up around a fifth 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.

## Examples of work functions and cross-cutting tasks in public administration

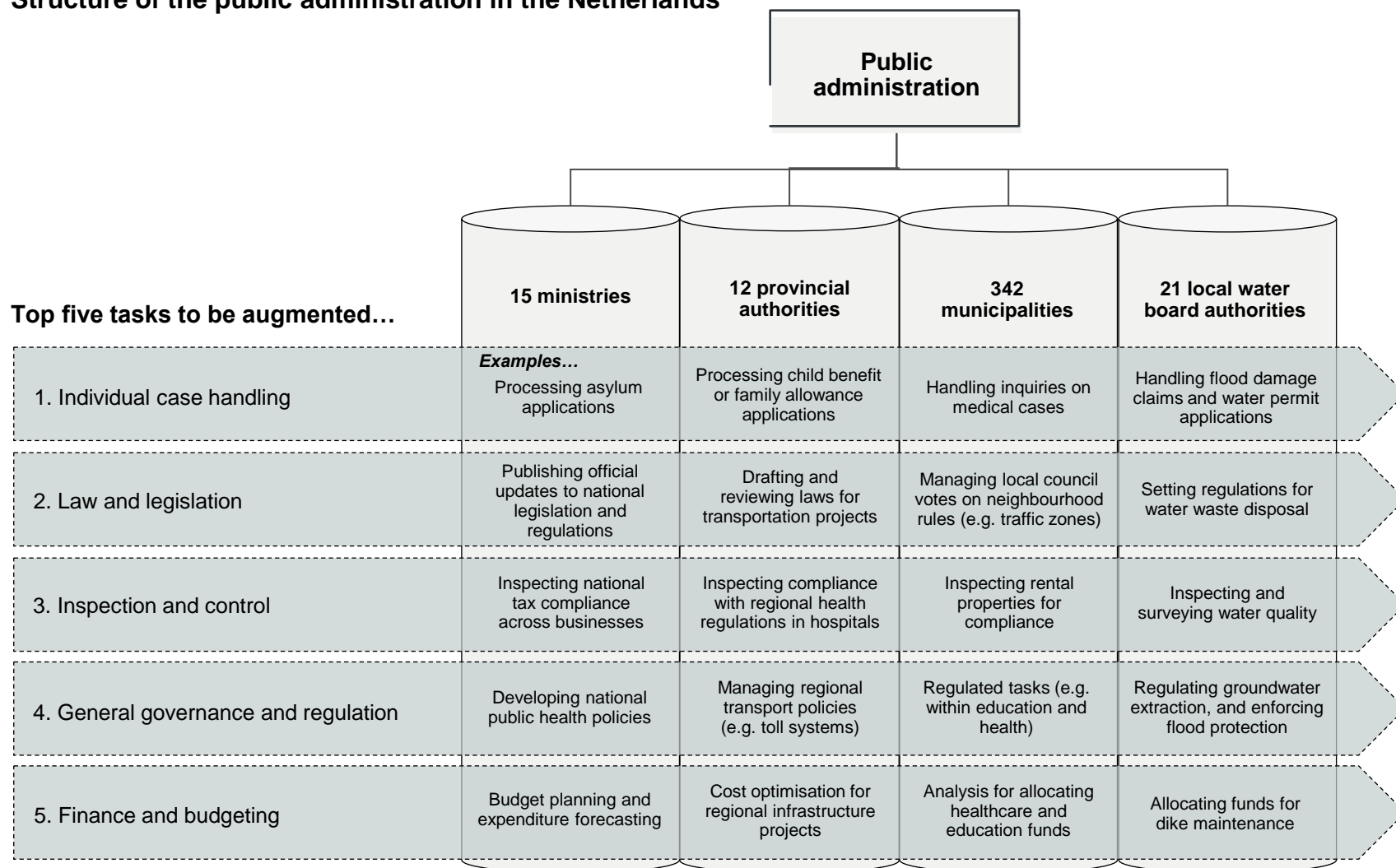


# Generative AI can augment tasks performed across all public institutions in the Netherlands

The Dutch public sector consists of the federal state, provincial authorities and municipalities. Further, the Netherlands comprises 21 water board authorities.

Many public administration tasks overlap, making them ideal for scalable AI solutions. Implementing AI can streamline operations, boost efficiency and improve collaboration across public institutions.

## Structure of the public administration in the Netherlands



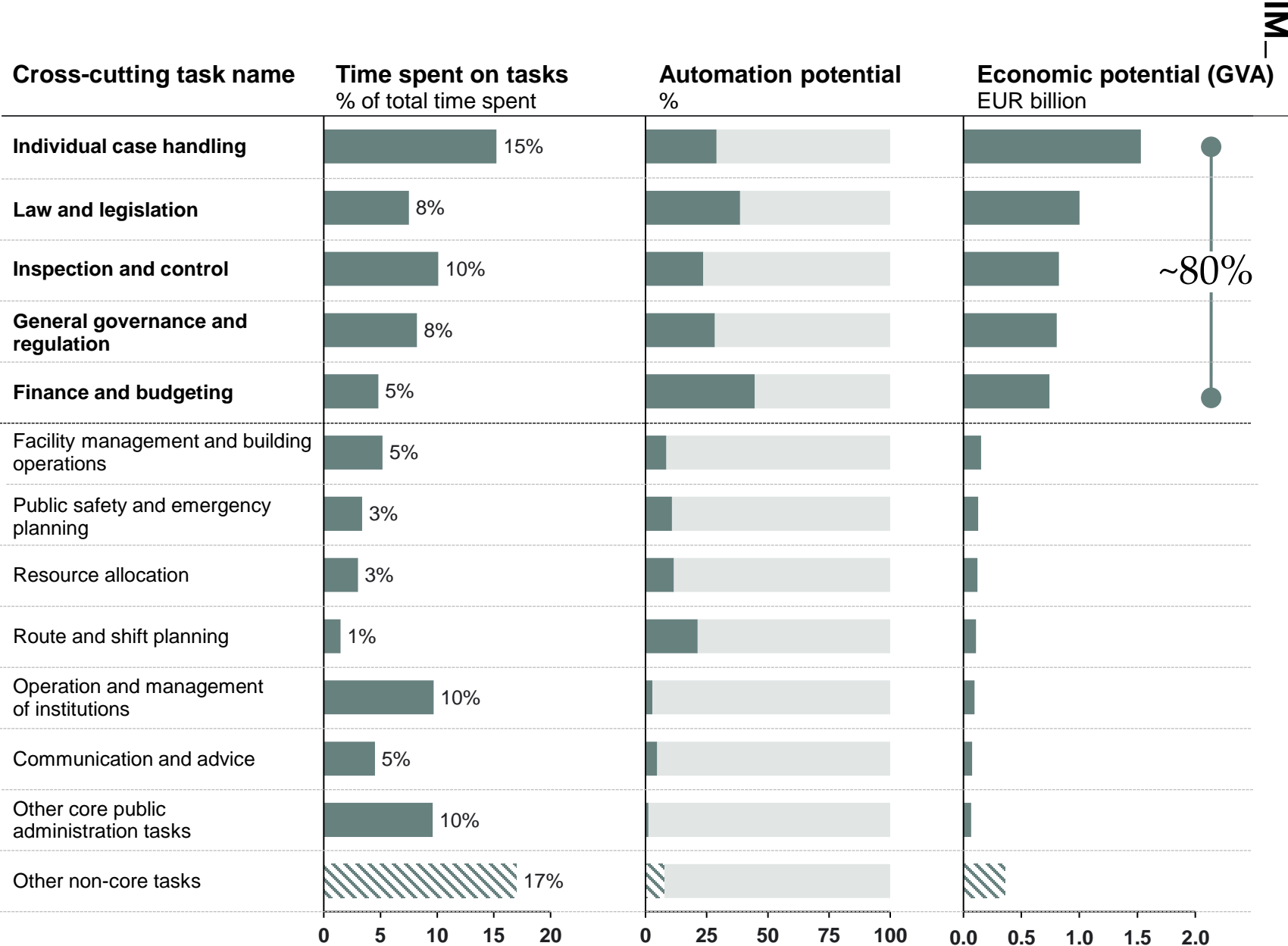
# Focusing on the top five cross-cutting tasks could realise ~80% of the potential

Implement Economics has analysed the potential of generative AI within public administration at the task-level using granular employment data from the Dutch statistical authority and detailed occupation descriptions.

We identified that most of the potential in public administration is found within five large cross-cutting tasks:

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

Although these tasks are estimated to make up around 46% time spent by Dutch civil servants, they account for about 80% of the economic potential due to the high degree of automatability.



Note: There is considerable uncertainty regarding 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 & Kodnani (2023) with granular Dutch 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 upon 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.

Source: Implement Economics based on O\*NET, Briggs & Kodnani (2023) and Statistics Netherlands.



## Generative AI can complement cross-cutting tasks in several aspects



### 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, thereby helping lawmakers craft policies.



### 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.



### 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.



### Finance and budgeting

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



Five cross-cutting tasks have 80% of the economic potential

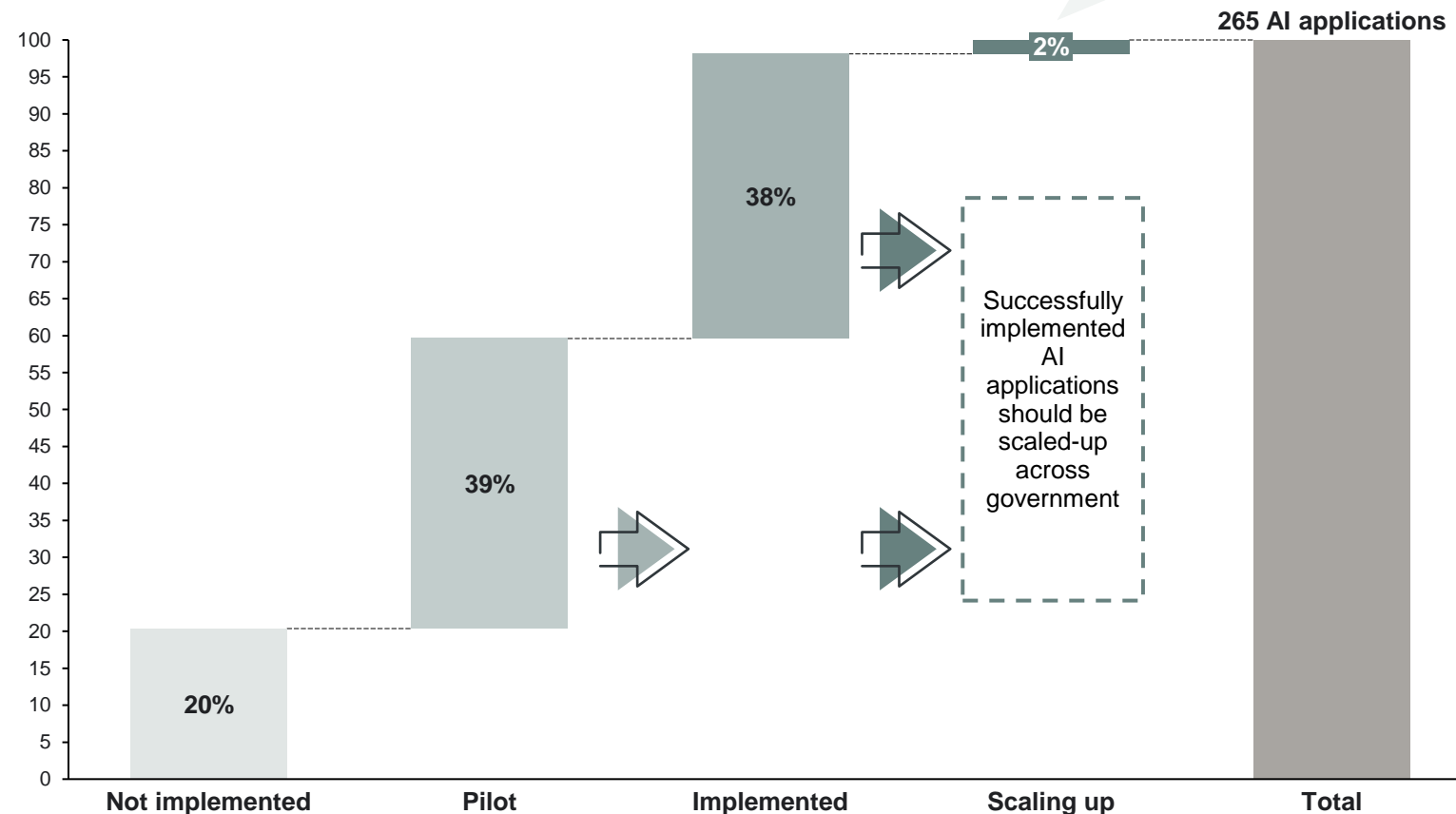
## Over 260 AI applications have been tested in the public sector, but only a few on a large scale

As of 2024, more than 260 AI applications had already been tested across Dutch public administration, according to a report from [TNO](#).

Out of these, only 2% had been scaled-up across public administration.

This gap between experimentation and full-scale implementation highlights the persistent challenges of integrating AI into government operations. Bureaucratic complexity, siloed decision-making and the need for cross-agency coordination often slow down adoption, even when pilot projects demonstrate clear benefits.

**Public AI applications**  
Number of cases by project status



# Achieving scalability while balancing local needs

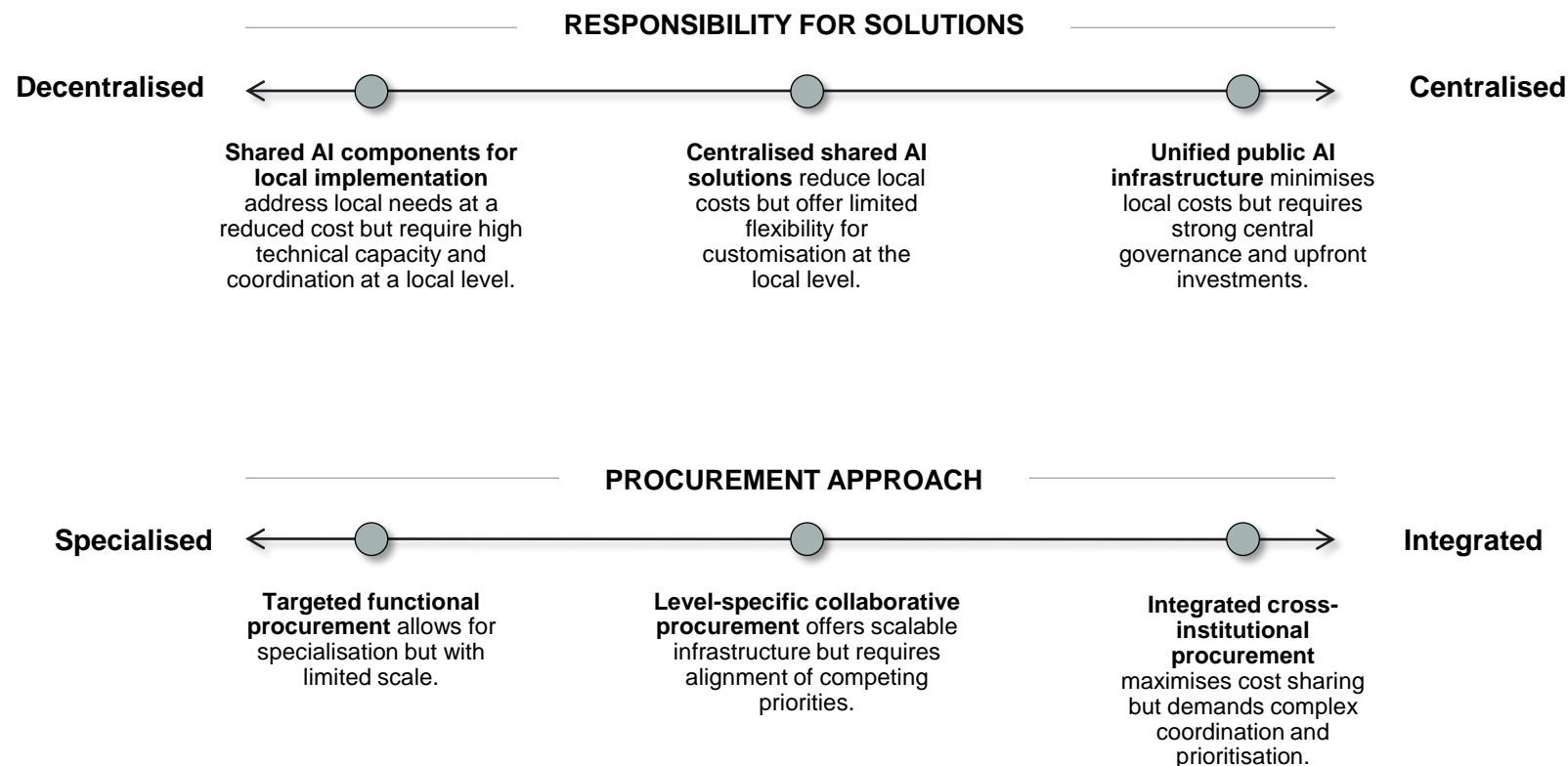
Approximately 80% of the potential lies in the top five key tasks shared across institutions. This calls for central anchoring. However, AI solutions must also address local needs to remain effective.

To maximise impact, public administration should prioritise scalable solutions that avoid duplication while ensuring the 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 fragmented decision-making and reduce inefficiencies caused by siloed AI investments, strategic decisions should focus on cross-institutional AI procurement.

## Strategic dimensions in public AI procurement





## PART I

# Think risk-conscious

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

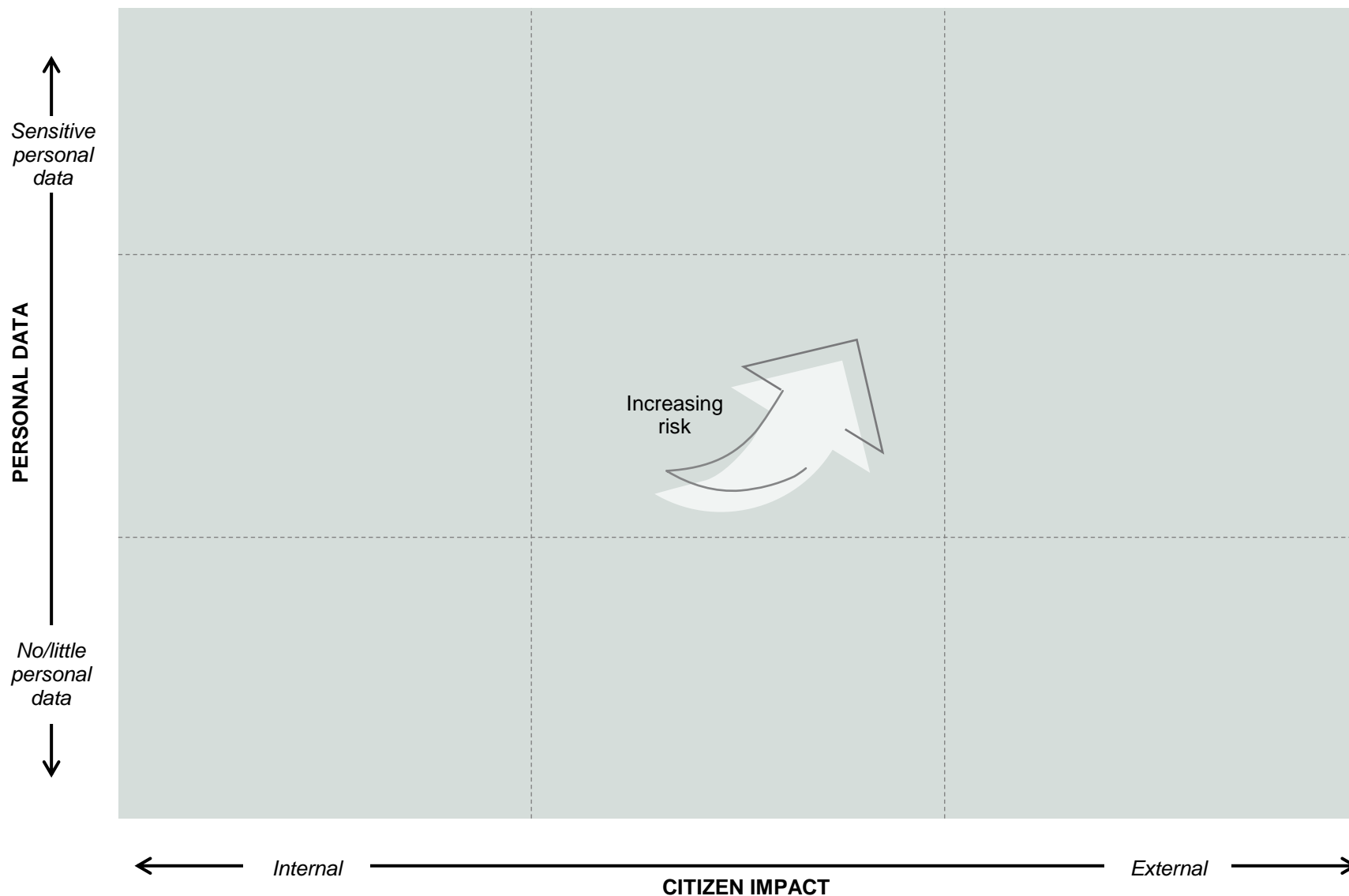
# Public institutions are risk-averse and face a complex regulatory landscape

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; this creates uncertainty.

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 the tangible adoption of generative AI applications prior to addressing those that both use personal data and are external-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.



# 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:

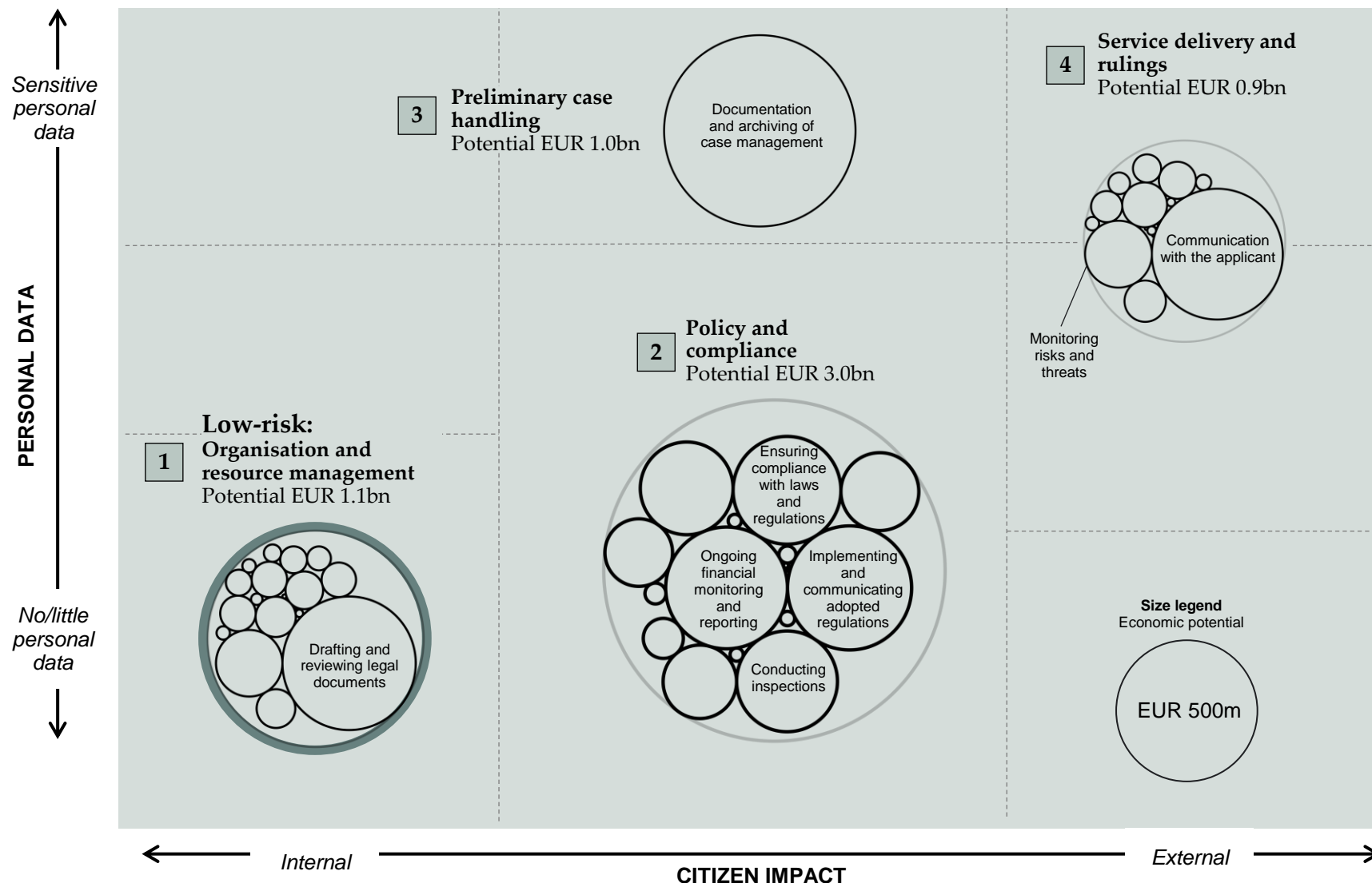
- The degree of citizen impact (internally- vs. externally-oriented AI applications)
- The sensitivity and use of personal data

This mapping produces four clusters of potential AI, which can be used as a roadmap for 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 **EUR 1.1 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 amounts of 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 amounts of personal data



Note: The estimation of the potential of AI across key cross-cutting tasks is based on an augmentation of Briggs & Kodnani (2023) with granular Dutch 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.  
Source: Implement Economics based on O\*NET, Briggs & Kodnani (2023) and Statistics Netherlands.

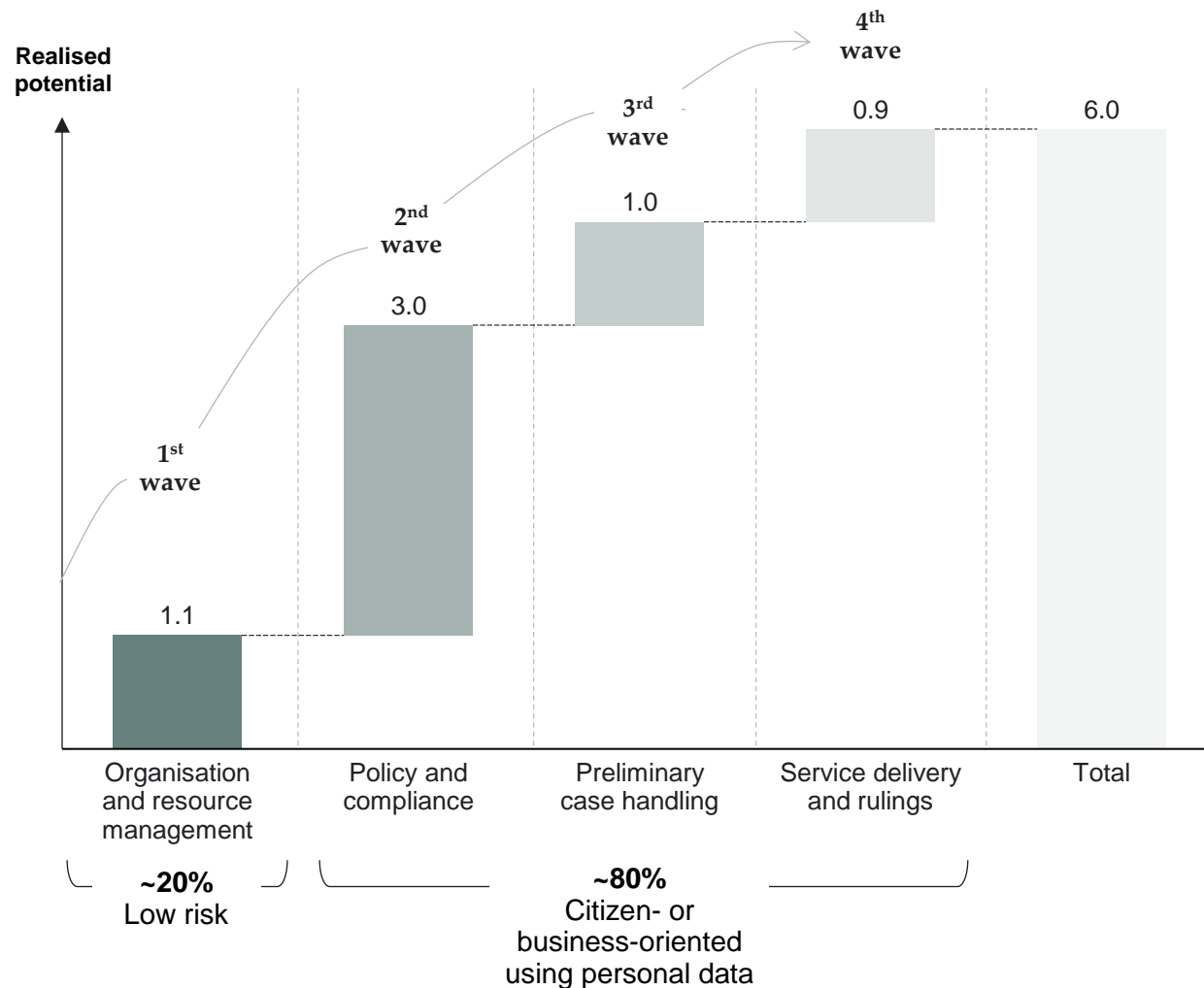
# Start with the low-risk applications and work up to tasks with high citizen impact

In a first wave, public administration could consider implementing low-risk, internal AI applications that do not involve sensitive data. These initiatives offer valuable learning experiences and develop the 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 2<sup>nd</sup> 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 the Netherlands EUR billion with widespread adoption



Note: There is considerable uncertainty regarding 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 & Kodnani (2023) with granular Dutch 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 upon widespread adoption. The estimated boost from generative AI may not be fully additive to growth projections. Source: Implement Economics based on Statistics Netherlands, O\*NET and Briggs and Kodnani (2023).



## PART I

# Think impact-oriented

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



*Given the expected impact of generative AI, policy gaps could have major implications for people, the economy and society. [...] This requires the government to have a proactive and open-minded approach, as well as vision and courage.*

[The Government of the Netherlands \(2024\)](#)

# The Dutch government must ensure public support in the AI transformation

AI is being used to improve government services in various ways such as to make systems more secure and shorten review times.

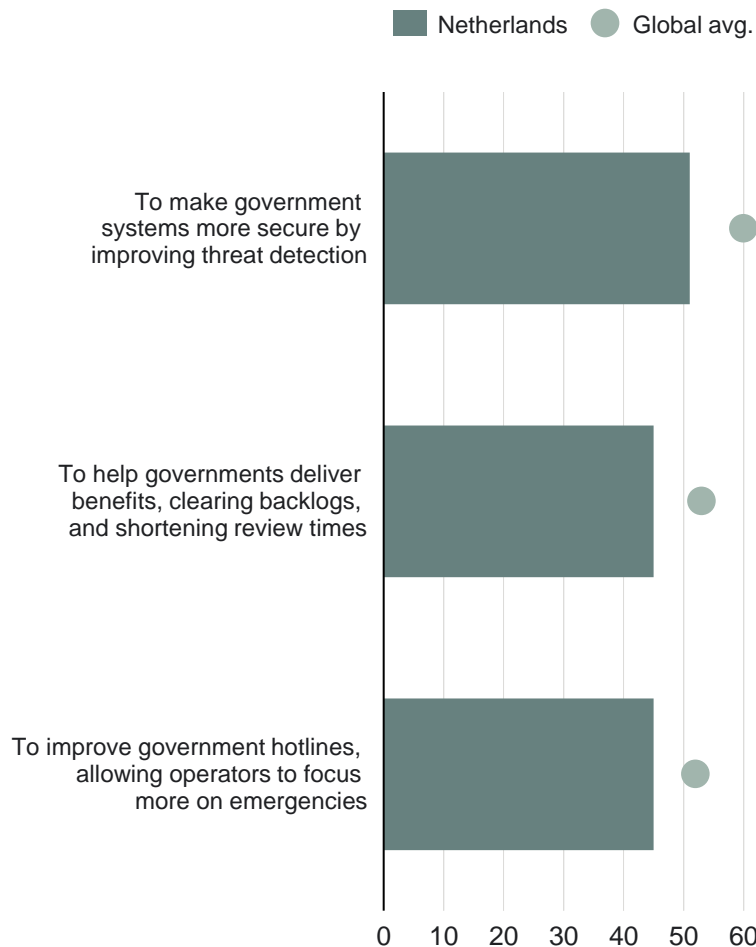
Recent survey data from Ipsos show that most respondents view these AI applications as important for society, with particularly strong support for areas like security.

However, [research](#) shows that only 20% of the Dutch trust public administration to ensure AI serves the public interest, while 45% express distrust.

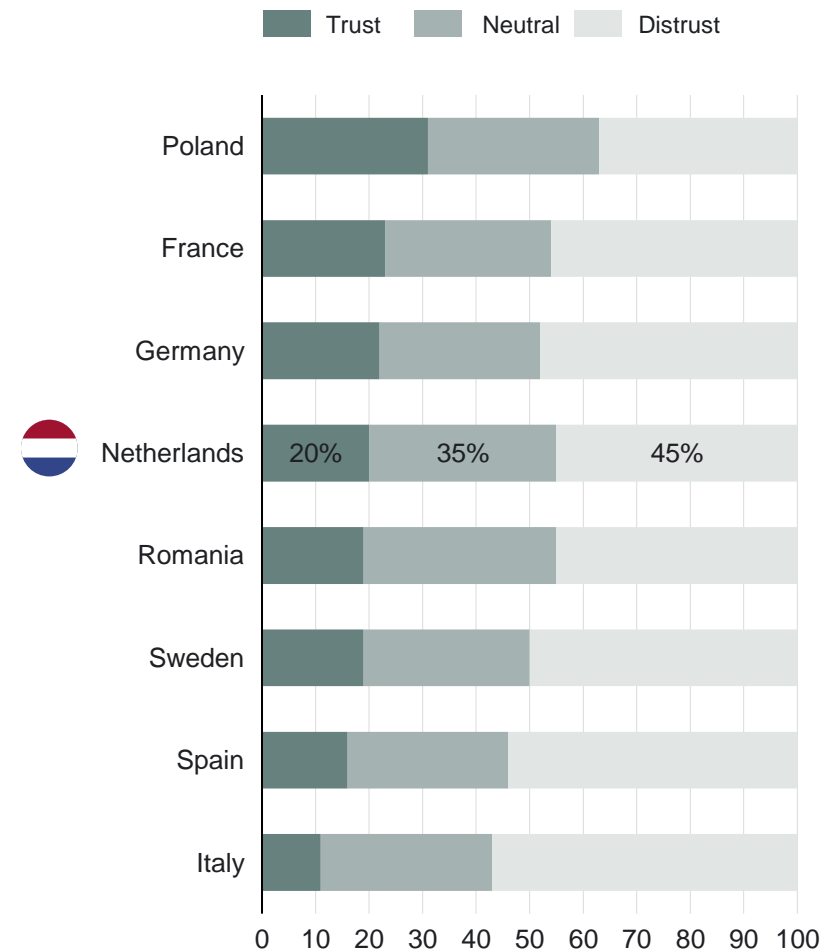
To increase public support for AI in government, it is crucial to implement AI applications with clear benefits for citizens and businesses, in contrast to technical and narrow cost-cutting benefits.

## Public support in AI usage areas

Percentage of respondents who consider each AI application to be “important” for society (%)



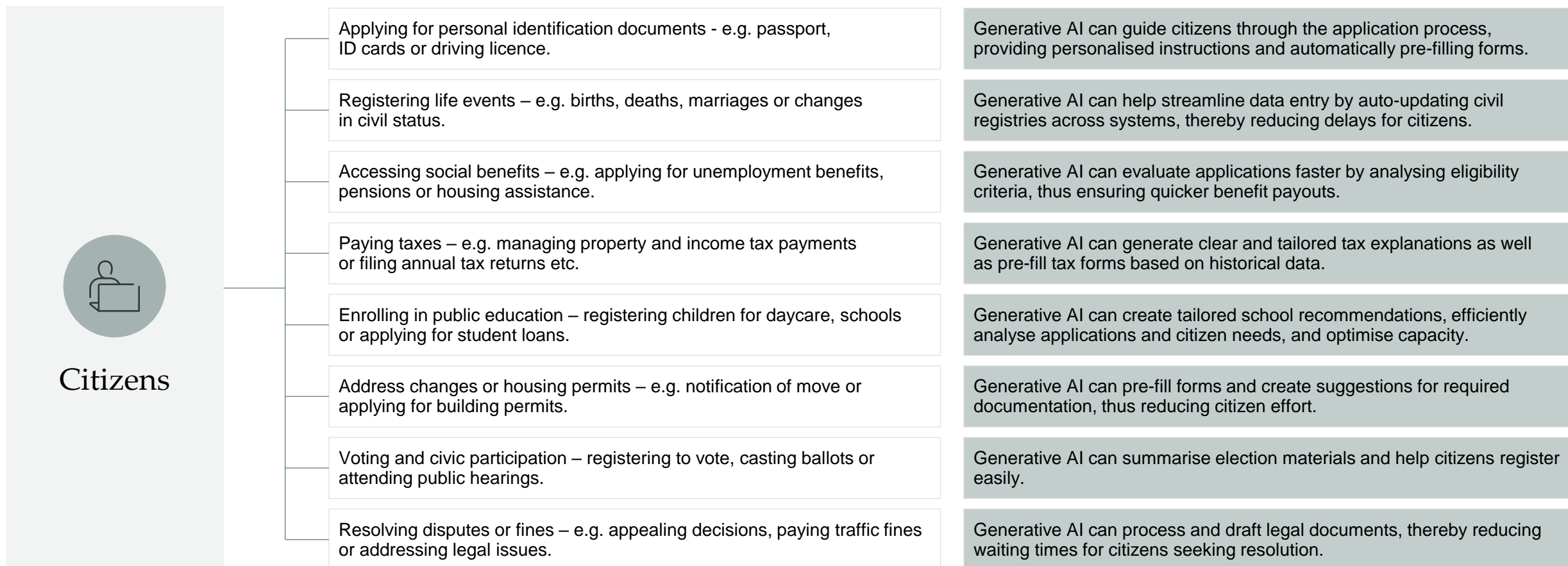
## Trust that national governments will ensure that AI is in the best interests of the public



Note: The respondents were asked the questions ‘Here are some ways AI is being used. Please indicate how important, if at all, you think each one is for society’ (left figure) and ‘How much do you trust national governments and public administration to ensure that AI is in the best interests of the public?’ (right figure). ‘Global average’-sample consists of 21,043 adults in a representative list of countries. ‘Netherlands’-sample consists of n=318 respondents (left figure). N = 4,006 (right figure).  
Source: Implement Economics based on survey data from [Scantamburlo et al. \(2023\)](#), Ipsos on behalf of Google and Public First.

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

➤ **By integrating generative AI into public administration, services can be made faster, smarter and more accessible for citizens**





# Generative AI can simplify interaction with public administration for businesses



**By providing assistance with documentation, reporting and application processes, generative AI can save time and money for businesses when interacting with public authorities**

## Examples of interaction

Applying for government contracts – e.g. submitting tenders or meeting compliance criteria.

Obtaining or renewing permits – e.g. applying for operating licences, construction permits or health and safety certifications.

Applying for financial support – e.g. grants, subsidies, innovation funding, or support programmes.

Claiming financial rebates – e.g. claiming tax refunds or rebates.

Filing regulatory compliance reports – e.g. submitting required reports for business operations or audits.

Collaboration with employment services – e.g. accessing pool of jobseekers and participating in subsidised upskilling programmes.

Navigating pre-qualification processes – e.g. completing steps to demonstrate eligibility for specific programmes or services.

Submitting applications for certification – e.g. applying for professional, compliance or operational certifications.

## Examples of how generative AI can improve interaction

Generative AI can provide tailored templates and compliance checklists to streamline bid preparation.

Generative AI can act as a virtual assistant, guiding users through form completion.

Generative AI can streamline funding applications by suggesting tailored inputs and ensuring alignment with programme criteria.

Generative AI can analyse receipts and flag eligible expenses, thereby helping businesses maximise their rebate potential.

Generative AI can automate report creation, transforming raw data into polished submissions.

Generative AI can bridge the gap between businesses and jobseekers by matching skills to needs.

Generative AI can simplify eligibility checks, thus offering step-by-step guidance and pre-screening data for quick approvals.

Generative AI can help businesses assemble the perfect submission by identifying key documents and giving formatting tips.



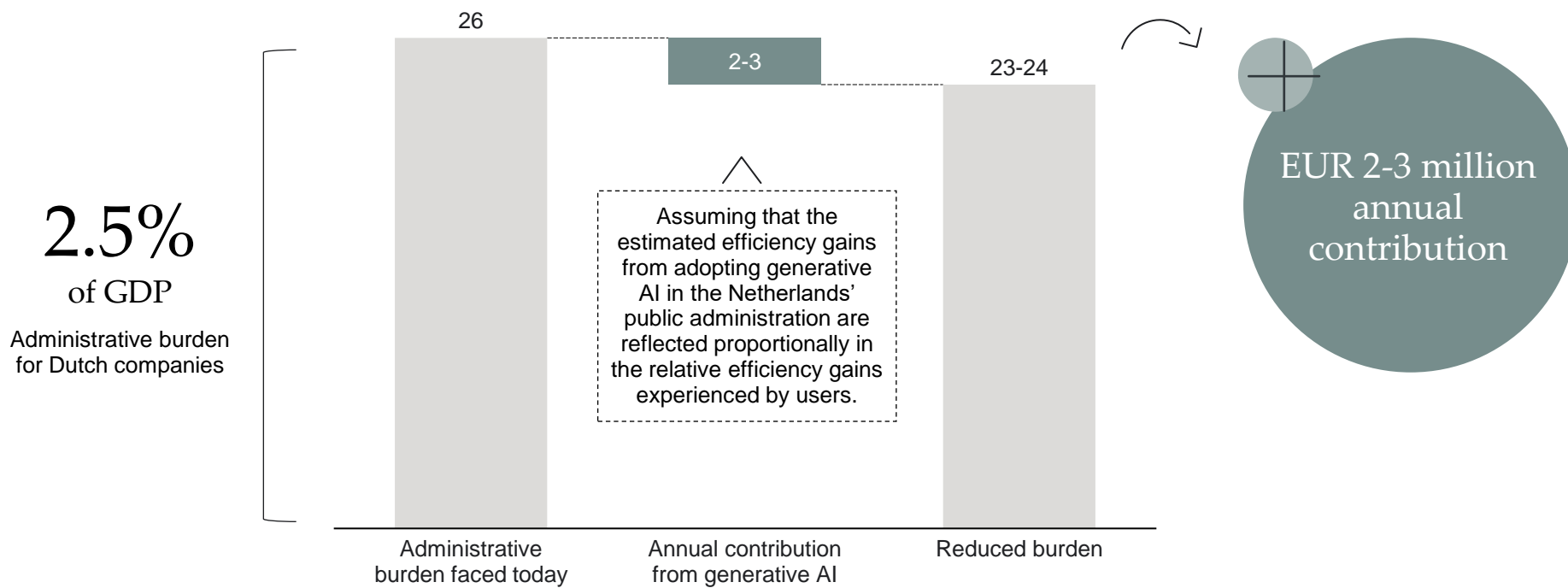
Businesses

# Generative AI can reduce Dutch companies’ administrative burden by EUR 2-3 billion

Dutch companies are facing a significant administrative burden defined as the effort required to supply mandatory information under national and EU laws and regulations. Generative AI has the potential to significantly reduce this burden.

## Administrative burden faced by Dutch companies

EUR billion upon widespread adoption



## Perspective



In addition to administrative cost savings, generative AI in public administration is also expected to provide 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 considerable uncertainty regarding the capability and adoption timeline of generative AI. MKB reports an estimated excess of EUR 20bn of administrative burden costs for SMEs every year, which is level-corrected to match current GDP levels. The estimation of the potential of AI across key cross-cutting tasks is based on an augmentation of Briggs & Kodnani (2023) with granular Dutch 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 upon widespread adoption. The estimated boost from generative AI may not be fully additive to projections. Source: Implement Economics based on Eurostat, [MKB](#), O\*NET and own calculations.

## Case: The Netherlands uses Codi, an AI-driven virtual policy assistant, to handle parliamentary questions efficiently across ministries



### The ambition

- Reduce the workload of civil servants, who answer 3,000+ parliamentary questions each year.
- Accelerate response times with quick, comprehensive data retrieval and strengthen transparency and accountability with data-based replies.



### The solution

- AI-based assistant, Codi, which analyses policy documents, previous answers and reports that are relevant for replying to a parliamentary question.
- Connected to 350+ official sources and searching through more than 10 million government documents.



### The impact

- Less manual searching, more focus on policy decisions.
- Instant insights based on similar questions, previous answers and relevant data.
- A successful inter-ministerial pilot fosters AI interoperability.



**Case:** The Swedish Tax Agency has reduced the waiting time for business registration by 3.5 days, and an AI-powered chatbot is handling about 50% of its conversations outside opening hours



### The challenge

- Long waiting times on phone and email.
- Citizens and businesses could only call during the opening hours 9am – 3 pm.
- Bottlenecks around tax return and payment deadlines.



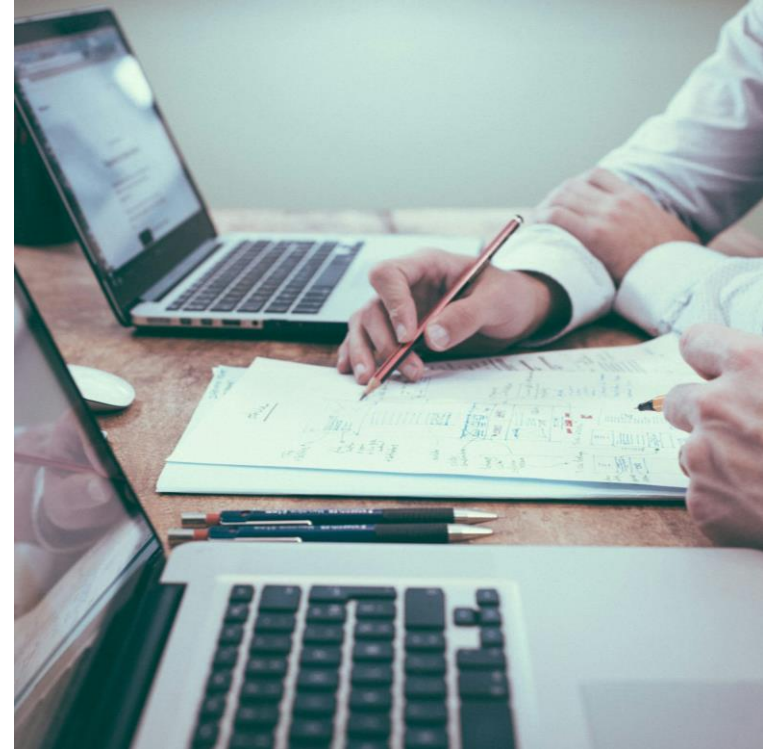
### The solution

- Almost 30 AI services deployed.
- AI chatbot answering tax and personal record questions.
- 24/7 service to assist citizens and businesses at any time.



### The impact

- Chatbot handling ~500,000 conversations annually.
- ~50% of chatbot conversations answered outside opening hours.
- Waiting time for business registration reduced by ~3.5 days.



## Case: In Belgium, 92% of users are satisfied with the service provided by an AI-powered recruitment solution that improves job matching and saves time for citizens



### The challenge

- Skills gap between workforce and employer needs.
- Traditional recruitment process is time consuming and resource intensive.
- Lack of personalisation and customisation regarding 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 (VDAB).
- 80% reduction in time spent on job match questionnaires.





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



### The challenge

- Long waiting times for building permits.
- Complex legislation.
- Rising volume of unhandled cases.



### The solution

- An AI assistant is used to navigate complex legislation.
- Documents are 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%).
- Volume of unhandled cases reduced by more than 70%.
- Time that is saved can be spent on guiding applicants through the most complex cases.



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



### The ambition

- 90% of citizen requests should be handled by virtual assistants by 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 that can be accessed via voice and text.
- Third party developers can integrate and extend Bürokratt's capabilities.



# Summary of part I

In designing a new national AI strategy, the Dutch government 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



Begin with low-risk, internally-facing AI solutions and gradually move on to more user-sensitive, externally-facing AI applications that can 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 involved in citizens and businesses interacting with public administration.





Create cloud clarity



Make smart  
procurement choices

# PART II

Getting the critical enablers in place

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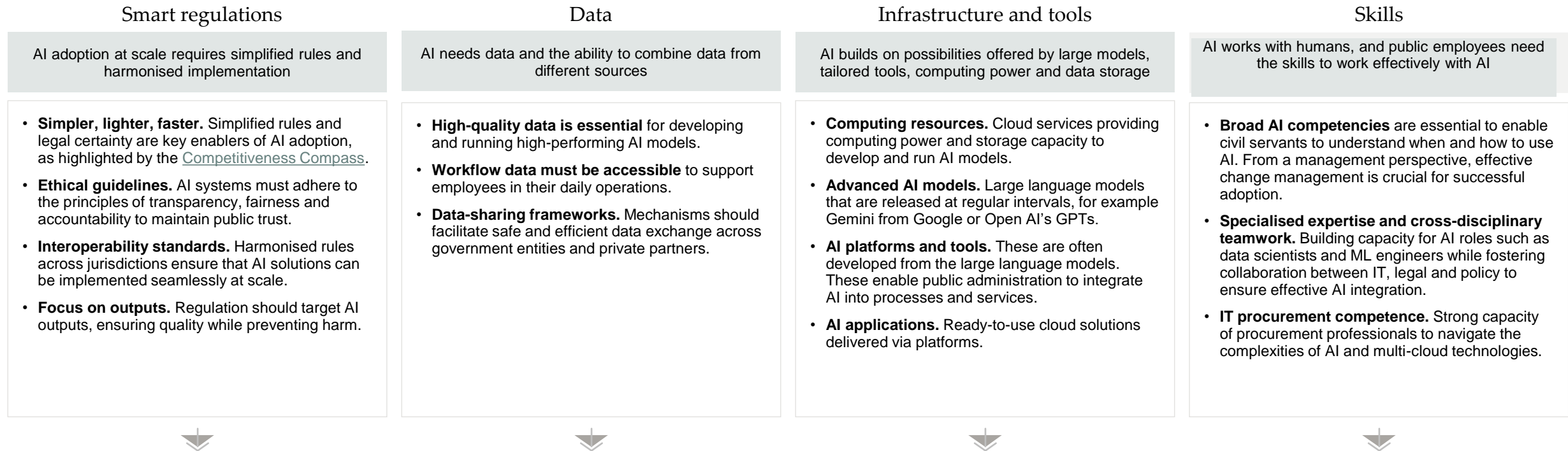


*The use of AI in government services and public services is my top priority. A good balance between regulation and innovation is crucial. Technology is developing at a rapid pace. This means that we as governments must move forward. Action is needed. With care, but also with courage. The opportunities that lie ahead of us are enormous. We have no time to lose.*

Zsolt Szabó, Minister for Digitalisation

# Public administration needs to address critical barriers to utilise the opportunity provided by generative AI

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



...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.



## PART II

# Create cloud clarity

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



*The Netherlands has a strong AI ecosystem [...] but access to compute power and high-quality knowledge and data remain points of concern.*

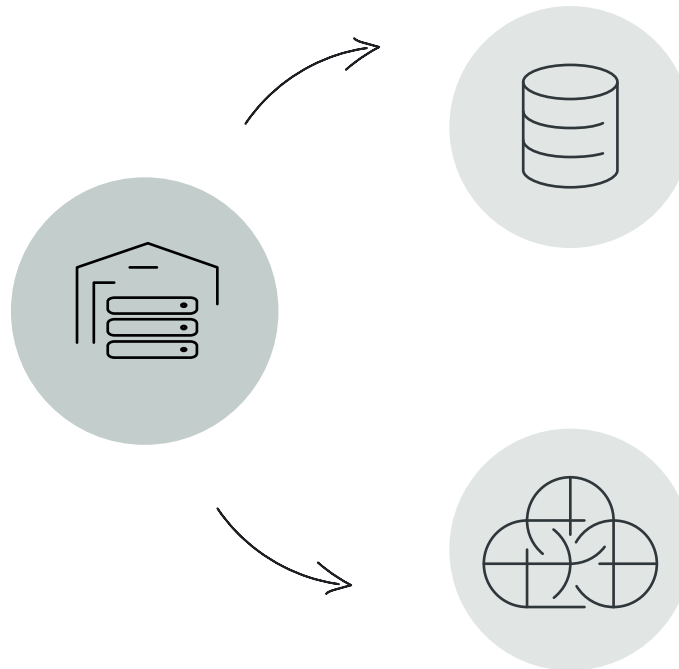
**Minister Beljaarts (EZ), Minister Bruins (OCW) and State Secretary Szabó (Digitalisation and Kingdom Relations) in [Letter to Parliament 2025](#)**

# Public administration faces 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...

...however, the complexity of these rules creates uncertainty, hindering public administration from adopting AI solutions

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



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

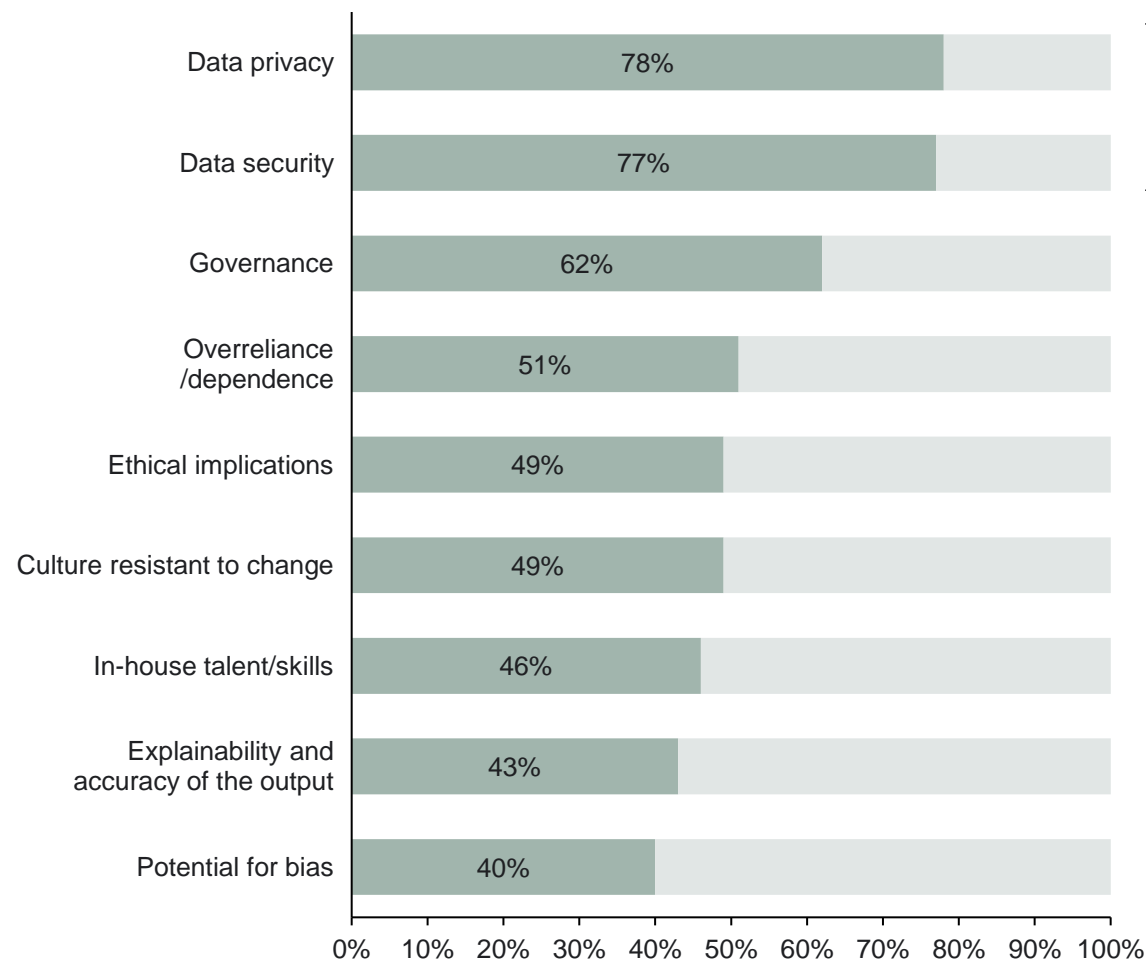
**Uncertainty regarding cloud-based solutions.** Fragmented and complex rules with unclear interpretations make it difficult for authorities to know whether widely used cloud infrastructure meets legal obligations. This lack of clarity often results in hesitation, costly delays, and the adoption of suboptimal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

## 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 like [Google Cloud](#) can address these challenges by ensuring data, operational and software sovereignty, thus 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.

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

## AI infrastructure in the 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** to ensure data privacy and leverage best-in-class cybersecurity capabilities to protect against the evolving threat landscape.
- **Interoperable** to enable seamless collaboration and data exchange between authorities.

Given the high computational and specialised hardware requirements for state-of-the-art AI, adapting on-premise 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:



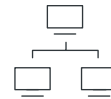
Compute capacity



Leading AI models



Data storage and pipelines



Network and connectivity



AI tools and applications



Security measures and monitoring



[The Netherlands Government Cloud Service Policies \(2022\)](#) provide general guidelines for cloud adoption, but lack a unified framework for consistent implementation across all ministries and agencies. As a result, individual government entities must manage cloud procurement, risk assessments and compliance largely on their own, leading to inefficiencies, fragmented policies and hesitation. According to [Netherlands Court of Audit \(2025\)](#), a centralised and structured approach should improve coordination, while strengthening digital sovereignty and ensuring business continuity and robust data protection for public use of cloud services.

## 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-premise infrastructure demands significant upfront investment and risks becoming outdated before costs are recovered, locking institutions into current technology levels.

In contrast, cloud infrastructure offers flexibility, lower initial costs and scalable usage, thus allowing continuous adoption of new technologies.

These developments reflect the price of modern, high-end computing power and the increasing computing needs of LLMs – prior to these developments, the long-term viability of on-premise computing may have exceeded those of cloud.

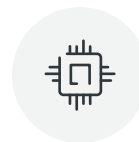
160%

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.

### Illustrative example Dutch Tax Chatbot



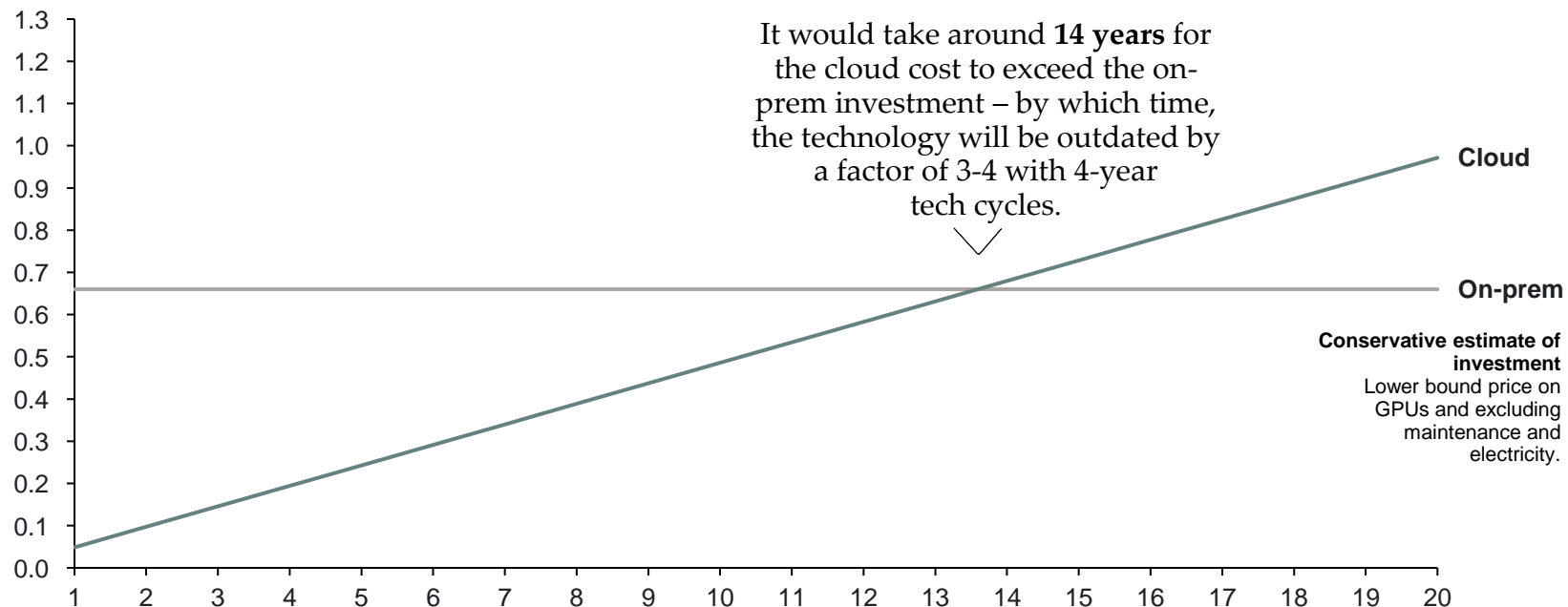
**5.8 million citizen enquiries** assumed handled by the Dutch Tax Authority annually. These could be automated by an AI-based chatbot, either in the cloud or on-premise.



**~66 GPUs** are needed to handle the average flow of requests, costing around of EUR 660,000 for on-premise investment, compared to an average annual cost of around EUR 50,000 for a cloud service.

### Accumulated costs for chatbot implementation (illustrative)

EUR million



Note: Enquiries 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 enquiry is estimated to average 750 words, with approximately two tokens per word, leading to a total of approximately 9 billion tokens per year based on an annual volume of 5.8 million enquiries. For cloud-based deployment, the cost is estimated at EUR 50,000 per year, derived from token processing and computational resource usage. For an on-premise setup, it is assumed that 5.8 million enquiries per year translate to an average of 16.5 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 EUR 10,000. This brings the total on-premise cost to approximately EUR 660,000. Achieving adequate performance for Dutch-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](#).

# Cloud provides the essential 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.

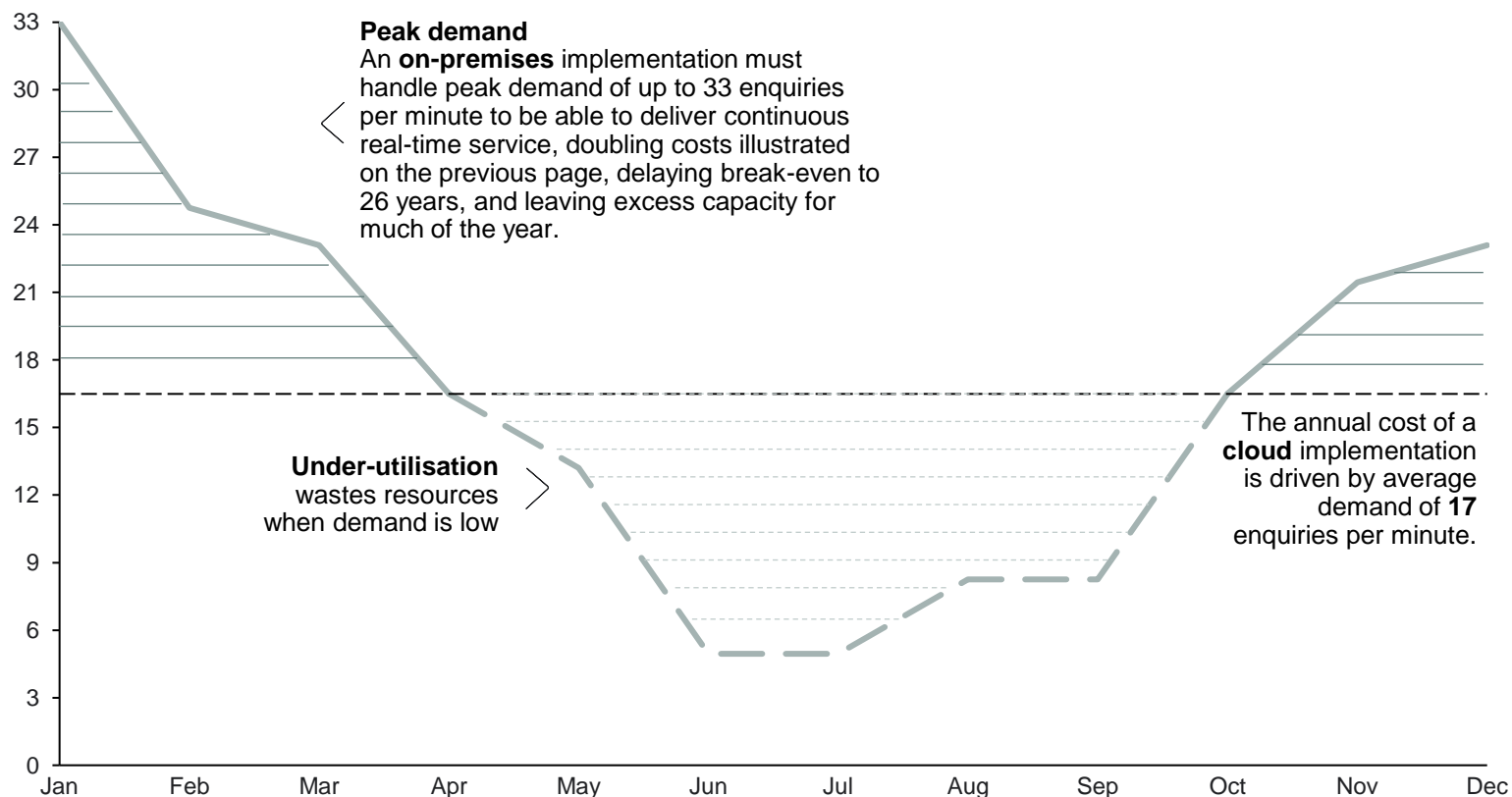
Cloud solutions offer flexible scalability, with costs tied to actual usage.

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

## Illustrative example Dutch Tax Chatbot

### Enquiries per month (illustrative)

Average enquiries per minute





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

The Dutch government has a clear strategy that acknowledges the need for cloud solutions to drive innovation while ensuring security. However, according to the [Netherlands Court of Audit \(2025\)](#), the complex compliance requirements place a heavy burden on agencies, forcing them to navigate vendor selection and risk assessments without clear guidance. As the largest IT-consuming party in the Netherlands, a more coordinated approach to cloud procurement should ensure digital sovereignty, business continuation and data protection across government operations.



**Expand the centralised cloud strategy.** Ensure Government Cloud Service Policies apply consistently to all levels of administration, including local and regional entities. Centralised procurement guidance ensures that security and compliance standards are universally applied.



**Increase clarity around cross-border data flows.** Establish robust frameworks that enable secure and interoperable data exchange across borders, both within and outside of EU, ensuring public administration can share and access standardised, high-quality data while respecting privacy and sovereignty concerns.



**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, the Netherlands can safeguard sovereignty, foster innovation, and protect national interests.



**Conduct and update risk assessments.** Mitigate risks through government-wide risk assessments that identify and address continuity, data protection and cost factors. Regularly update these frameworks to adapt to evolving services, ensuring that all “material” cloud solutions undergo thorough, up-to-date reviews.



## PART II

# Make smart procurement choices

- > To adopt AI at scale, the Dutch government must ensure flexibility and interoperability in procurement to mitigate the risk of overreliance on a single provider and promote innovation and competition



*There is an increasing dependence on a limited number of technology companies. With a few dominant players holding significant amounts of data, computing power and development capacity, the concentration of power in digital markets is reinforced – thereby increasing the risk of power abuse, unfair trade practices and limited options for those trying to innovate or access AI technologies in the public sector.*

[The Government of the Netherlands \(2024\)](#)

# Restrictive licensing terms hold back vendor switching

Public institutions frequently use specialised IT systems designed for specific needs, which limit their flexibility and make 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, found evidence of restrictive licensing and other activities that inhibit market competition.

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.

In a recent study, the German think tank [ZnT](#) found 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.

*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.*

*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.*

*... 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 across five European countries 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 like 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 Dutch government should...



### **Create cloud clarity**



Harmonise department policies and mitigate risks through government-wide risk assessments. Consider factors like 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 Dutch government

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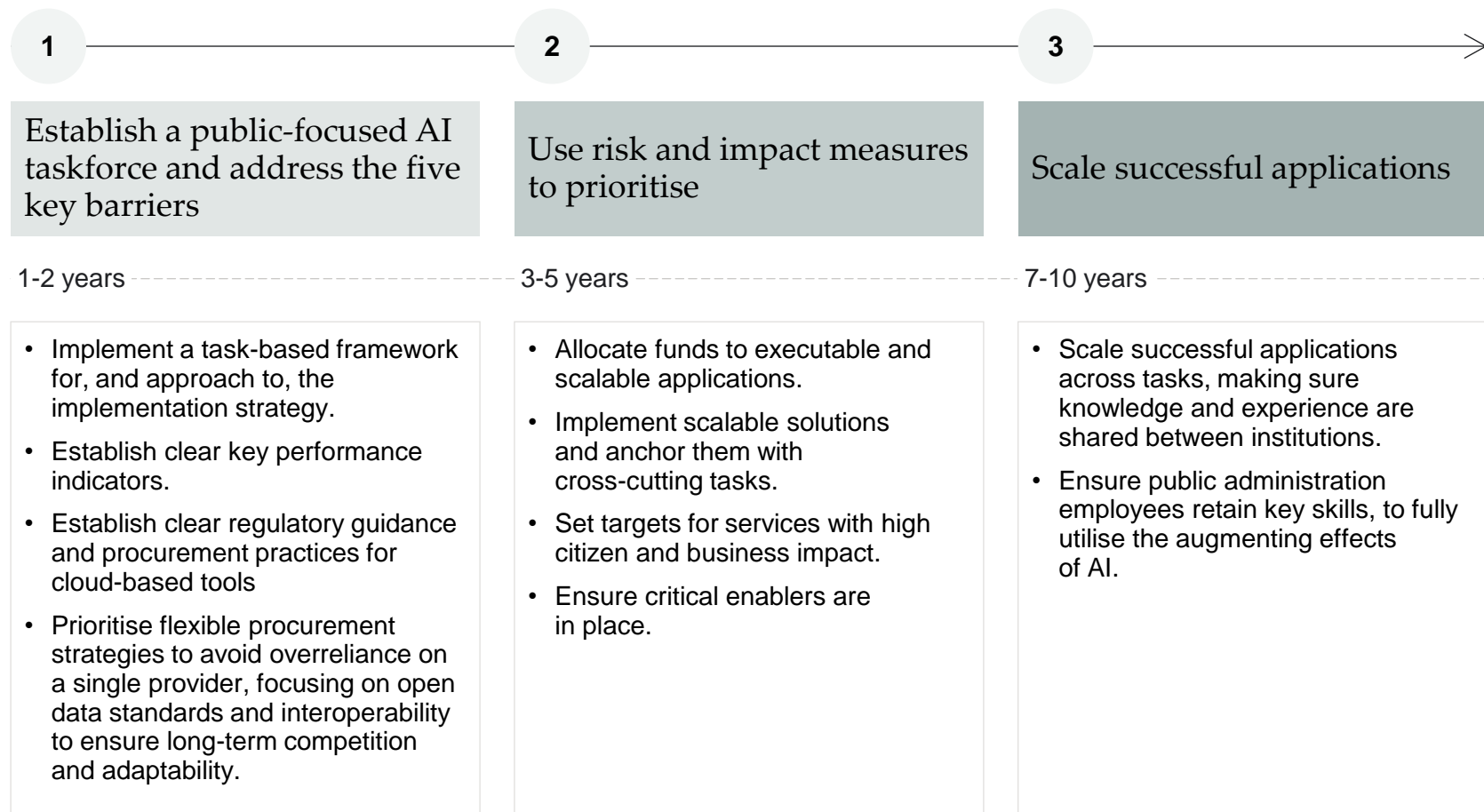
## Set ambitious targets and make an actionable strategy with clear milestones

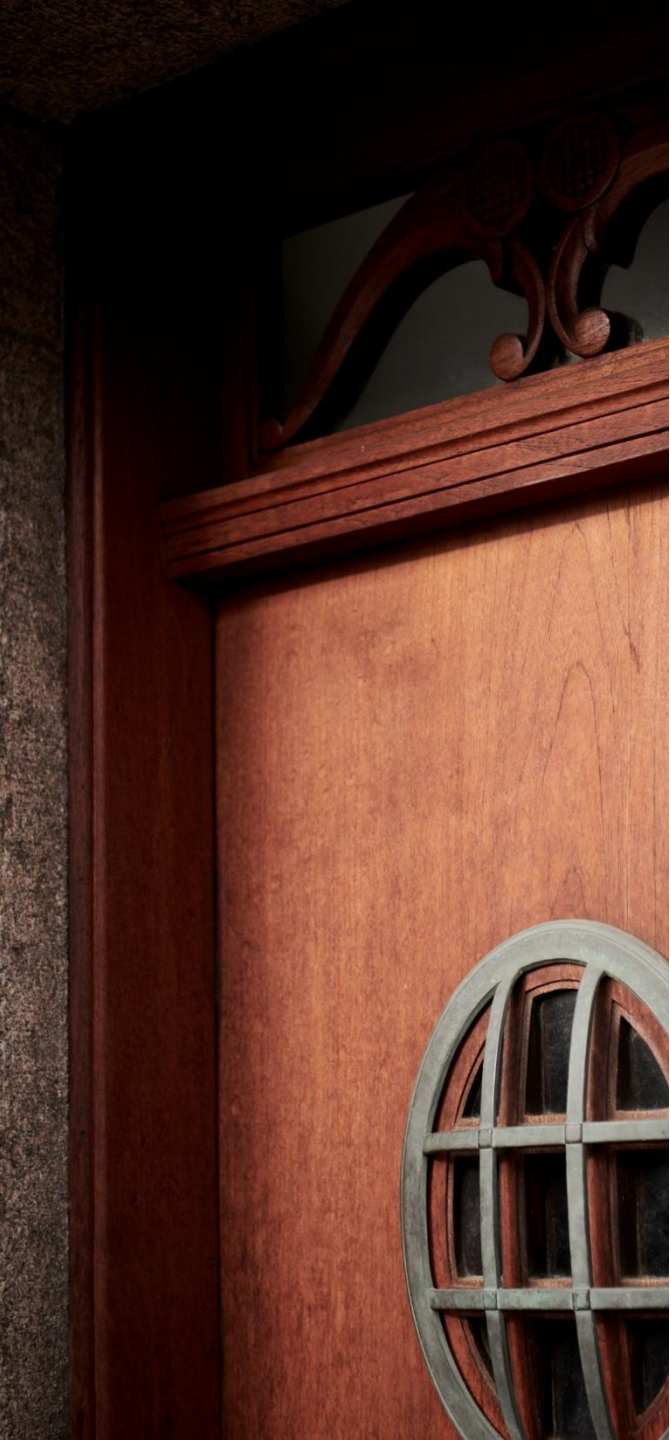
In April 2025, the Dutch government published its [government-wide position](#) on generative AI. This establishes a framework for responsible, valuable and ethical use—including mandatory risk analyses, clear articulation of purpose, and multi-stakeholder oversight—to guide all public administration bodies in harnessing AI's benefits.

The [Netherlands AI Coalition](#) (NL AIC) plays a pivotal role in fostering collaboration among government entities, industry and research institutions to accelerate AI innovation. However, the development and scaling of AI applications in the public sector remain a challenge due to unclear regulations and fragmented decision-making processes.

Implement Economics suggests that the Netherlands develops an updated AI strategy in addition to the government-wide position to apply risk and impact measures to address key barriers and harness the scalability of successful generative AI applications. This should include a taskforce focused on bridging the cross-cutting needs and opportunities across public administration.

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





# Appendix

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# Modelling the potential impact 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 the 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 for each occupation is expected to be seen: No automation, AI complement and Likely replacement. For public administration, we map detailed ISCO level 4 employment data in NACE sector O in the Netherlands 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 the Netherlands 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-term 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 aforementioned calculated potential is distributed across cross-cutting tasks within public administration by mapping detailed work activities to a 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 & Kodnani (2023) with granular employment data on the Netherlands and a framework of the task composition within public administration, which is mapped to the rich database of task descriptions within O\*NET.

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## Disclaimer

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