Nortal

AI is useless if your data's not in order

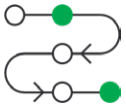
You possess mountains of data. But it's organised in disjointed- or monolithic infrastructures that cause poor user experiences. Your data aren't ready to make AI solutions possible. A proper foundation must be laid before any elegant structure can be built.

Inflation, cost cuts, and shrinking budgets in the public sector make digital transformation difficult, yet governments are still under pressure to deliver quick and efficient services to citizens. But unfit data means a missed opportunity to use both present-day and future AI tools. Properly organised data mean smart spending that reduces costs overall, generating safe, secure, data-enabled public services that cut through legacy barriers.

AI data readiness matrix

How far along is your organisation when it comes to data readiness?
How close are you to employing AI for a better public services?
Measure your progress using the five dimensions of this chart.

Data Maturity



Infrastructure utilization

Ethics, compliance & risk

AI Expertise & skillset

Strategy & leadership support

Level 1 Testing the waters	Minimal structure and integration (e.g. raw text files, PDFs, isolated databases)	Legacy on-premises systems (e.g. older servers with limited access)	No ethical framework (e.g. no policies or oversight for AI)	Minimal AI expertise (e.g. general technical knowledge, no dedicated data scientists)	Limited leadership support (e.g. no AI initiatives in roadmap)
Level 2 Gaining momentum	Partial structure and integration (e.g. basic databases with inconsistent standards)	Basic cloud infrastructure (e.g. cloud used for specific functions only)	Initial ethical framework (e.g. draft guidelines, limited compliance)	Limited AI expertise (e.g. small AI team, limited partnerships)	Partial leadership support (e.g. limited funding for pilot projects)
Level 3 Running seamlessly	Mostly structured and integrated (e.g. central warehouse with regular quality checks)	Hybrid infrastructure (e.g. partial cloud migration)	Established compliance policies (e.g. documented policies, some oversight)	Moderate AI expertise (e.g. established partnerships, engineering knowledge)	Active leadership support (e.g. resources allocated, AI goals in strategic plan)
Level 4 Leading the way	Fully structured and Integrated (e.g. centralised warehouse, real-time access)	Full cloud infrastructure (e.g. centralised data warehouse with inter-department sharing)	Comprehensive ethical framework (e.g. proactive risk assessments, dedicated AI ethics oversight)	Strong AI expertise (e.g. dedicated team with advanced expertise and partnerships)	Strong leadership support (e.g. dedicated budget, AI integrated across departmental goals)

Self-scoring spider chart: maturity and visualisation of dimensions

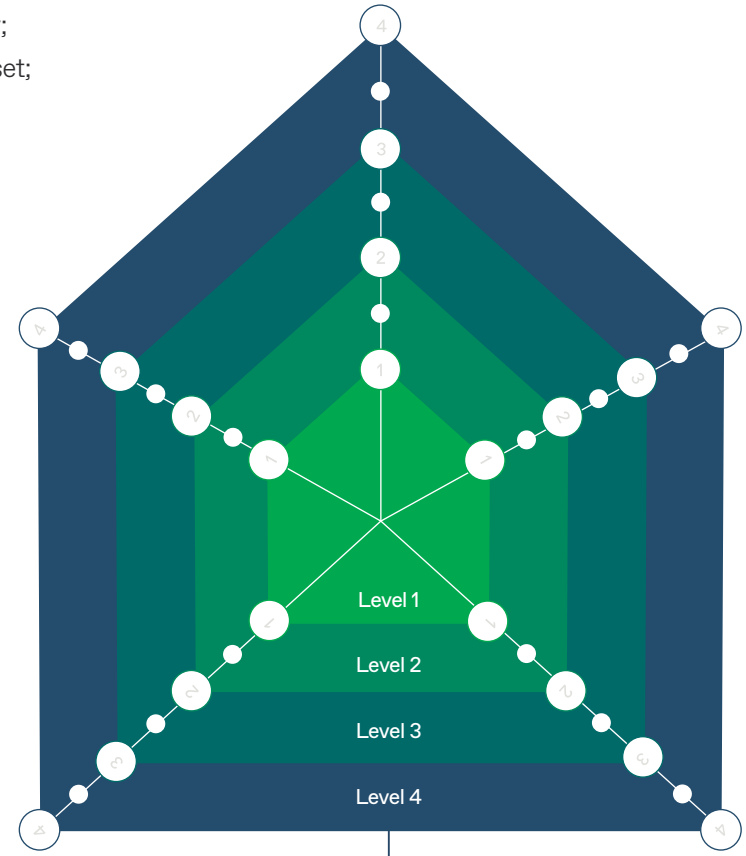
Assess your AI readiness across five dimensions: data structure and quality; infrastructure utilization; ethics, compliance, and risk; AI expertise and skillset; strategy and leadership support.

Data Maturity

Is your department's data structured, organised, and of high quality? Is data managed and integrated across all storage systems, such as data warehouses, databases, and potential data silos?

Strategy & leadership support

Does your leadership understand and actively support AI's potential in the public sector, with AI initiatives integrated into long-term goals?



Infrastructure utilization

What types infrastructure does your department use to store, manage, and access data, and how well does it support your data-driven initiatives?

AI Expertise & skillset

Do you have in-house expertise in AI, data science, and data engineering? Or partnerships with external organizations to cover skill gaps?

Ethics, compliance & risk

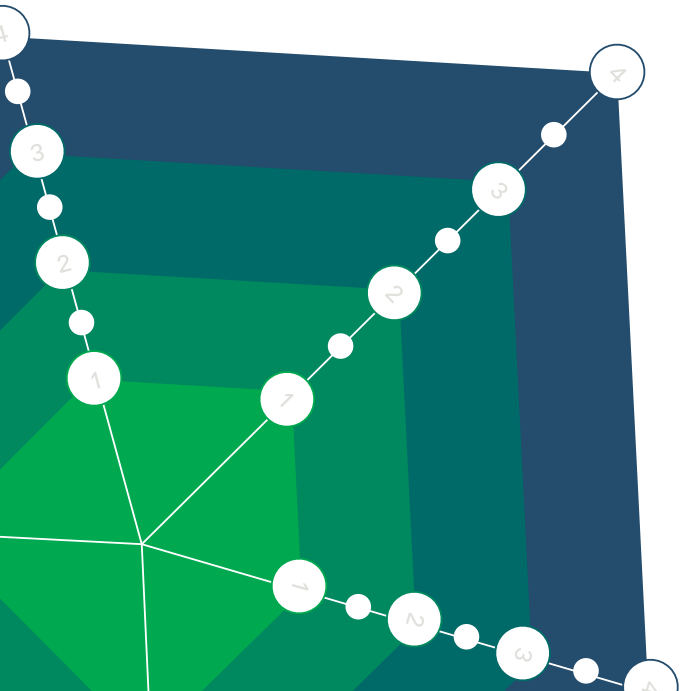
Do you have an ethical framework for AI that's compliant with UK regulations, plus policies to manage AI-associated risks?

Levels 1-4 represent company AI-readiness levels, with 1 being the lowest and 4 the highest.

Axes describe dimensions or categories for assessment and assignment of readiness levels.

Data questions

The questions are multiple-choice, with option ‘a’ corresponding to level 1 and option ‘d’ to level 4 of the AI readiness matrix.



Data Structure and Quality

Is your department’s data highly structured and organised—or are things a mess?

A
Data are all over the place with few efforts to ensure quality. (e.g. raw text files, PDFs without a common format, inconsistent entries across databases)

B
There’s some structure and organisation, but quality checks and controls are inconsistent. (e.g. basic spreadsheets and databases with partial standardization, inconsistent naming conventions)

C
Data are structured and organised, you do regular quality checks, though nothing comprehensive. (e.g. standardised tables in relational databases, common data fields, but occasional data entry issues)

D
Data fully structured, organised, of high quality, with rigorous quality assurance protocols. (e.g. well defined relational databases with consistent schema, metadata annotations, automated quality control processes)

Data Storage and Integration

How do you handle data across a variety of different storage systems, like data warehouses, databases, and potential data silos?

A
Data stored in isolated, unconnected databases and silos with minimal integration, making it difficult to consolidate information. (e.g. multiple legacy databases without a unified access point or data-sharing protocol)

B
Some data integrated, but things are still siloed, limiting the ability to get and use data across departments. (e.g. data sharing occurs on a limited basis, with reliance on manual processes to consolidate information)

C
Data mostly integrated, you have a central data warehouse, though some datasets are still in separate databases. (e.g. data warehouse is in use, but a few departments still rely on individual systems for storage)

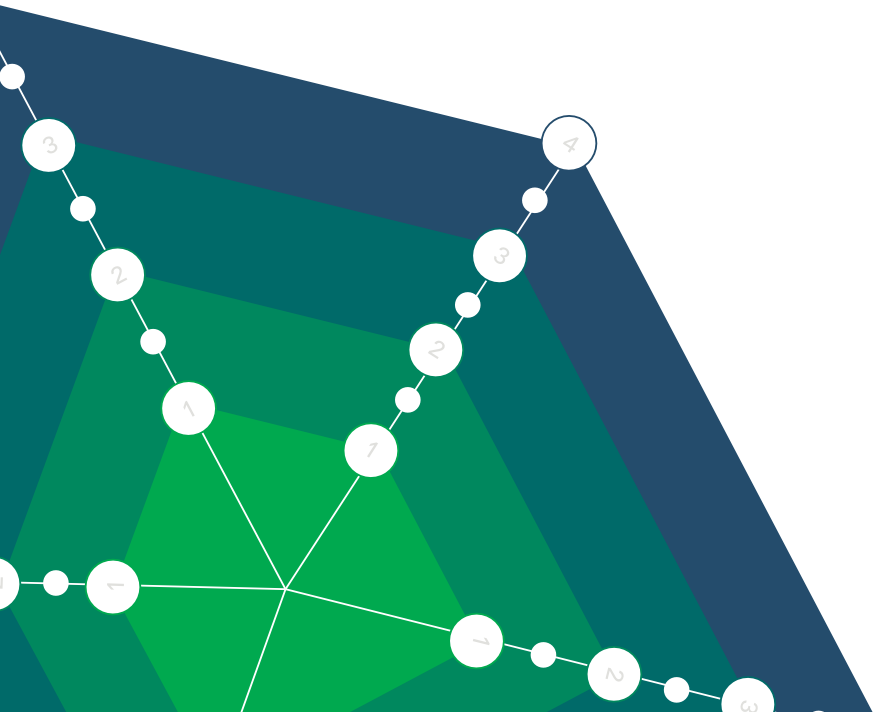
D
Data is fully integrated, with all relevant data consolidated into a central data warehouse, allowing seamless access and analysis across departments. (e.g. a centralised data warehouse supports structured, real-time access to standardised data across all units)

____ + ____ / 2 = ____

Question 1 | Question 2 | Your score

Infrastructure question

The questions are multiple-choice, with option ‘a’ corresponding to level 1 and option ‘d’ to level 4 of the AI readiness matrix.



Infrastructure types and utilization

What kind of infrastructure do you use to store, manage, and access data? Does it support your bigger plans?

A
No cloud at all: data are kept on-premise and legacy systems bog you down. (e.g. older servers with limited remote access capabilities)

B
You’ve got basic cloud infrastructure, though it’s limited to select applications and not widely used across the department. (e.g. cloud solutions used for specific functions, but most data remains on-premises)

C
You have a mix of on-premise and cloud resources that support data storage and access needs but probably needs additional integration. (e.g. partial migration to cloud with on-premises data warehouses supporting some data)

D
Full cloud infrastructure with robust data management and access systems in place, enabling streamlined, flexible data access and management. (e.g. centralised cloud data warehouse with access controls and data sharing across departments)

Your score

Ethics, compliance, risk management question

The questions are multiple-choice, with option ‘a’ corresponding to level 1 and option ‘d’ to level 4 of the AI readiness matrix.

Ethics, compliance, and risk management

Do you have an ethical AI framework that’s compliant with UK regulations, plus policies to manage AI risks?

A

Nothing at all in place. (e.g. no formal guidance or documentation for responsible AI usage, no oversight for AI projects, and no processes for evaluating ethical risks)

B

There are the beginnings of an ethical framework and compliance policies. (e.g. initial draft of ethical guidelines for AI usage, some awareness of data privacy regulations, but policies are informal and not enforced)

C

Ethical framework and compliance policies are present, but some risk areas still need improvement. (e.g. documented policies on responsible AI use, basic compliance with data privacy standards, and some oversight processes, though not consistently applied across all AI projects)

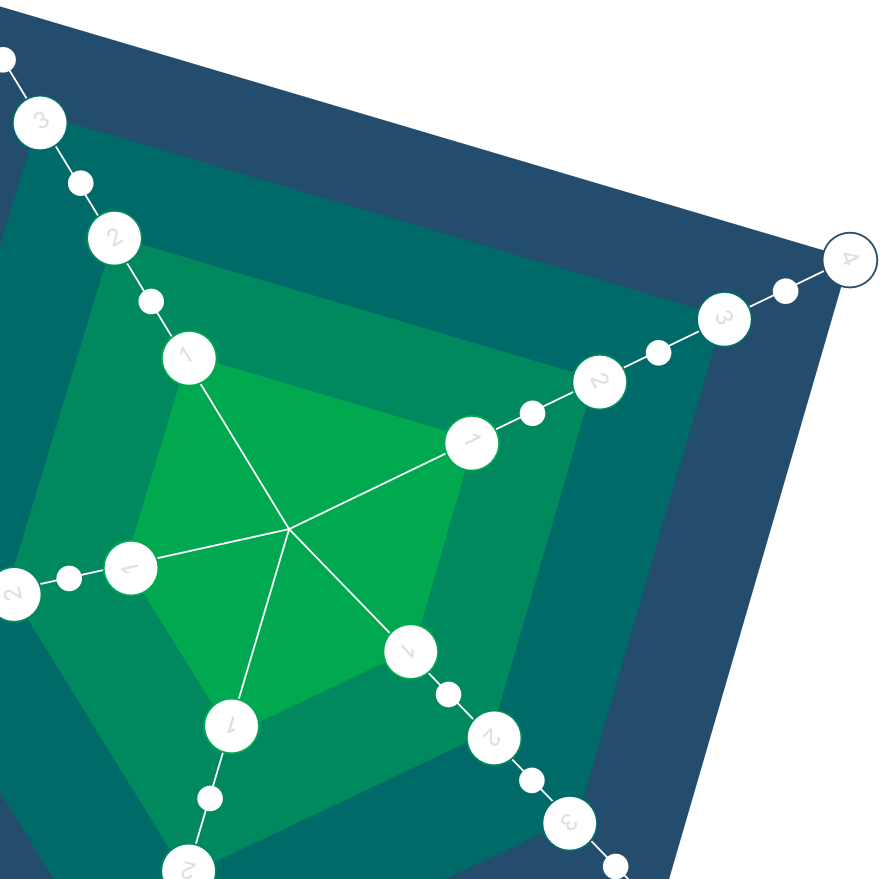
D

Comprehensive ethical framework and compliance policies in place, with regular updates and a proactive approach to risk management. (e.g. robust ethical guidelines aligned with UK regulations, regular audits for compliance, proactive risk assessments, and dedicated personnel overseeing AI ethics and compliance)

Your score

AI expertise and skillset question

The questions are multiple-choice, with option ‘a’ corresponding to level 1 and option ‘d’ to level 4 of the AI readiness matrix.



AI expertise and skillset

Do you have in-house expertise in AI, data science, and data engineering? What about partnerships with external organisations to cover skill gaps?

○ A

Very little AI expertise in house, and no partnerships to cover skill gaps. (e.g. only a few staff with general technical knowledge, no dedicated data scientists or engineer, and no collaborations with AI experts)

○ B

Some in-house expertise and some partnerships, but not enough to cover skill gaps. (e.g. small AI team focused on basic analytics, with occasional consulting support for specific AI projects)

○ C

Moderate in-house expertise with several established partnerships that strengthen capabilities. (e.g. data science team with practical engineering AI knowledge, partnerships with consulting companies or universities for specialised AI projects)

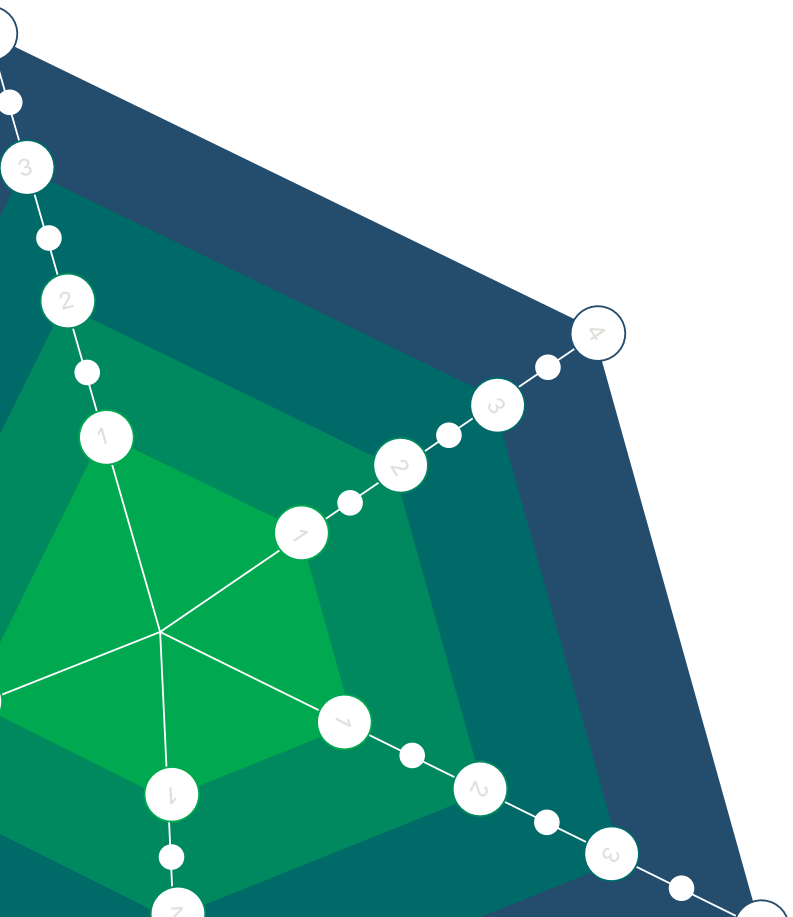
○ D

Robust in-house AI team with strong expertise, supported by a network of partnerships that provide access to leading AI practices. (e.g. a dedicated AI and data science and engineering team with advanced expertise, collaborating regularly with research institutions or tech companies to stay current on AI advancements)

Your score

Strategy and leadership support question

The questions are multiple-choice, with option ‘a’ corresponding to level 1 and option ‘d’ to level 4 of the AI readiness matrix.



Strategy and leadership support

Do your bosses understand and support AI’s potential in the public sector? Are AI initiatives part of long-term goals?

○ A

Little or no interest in AI from your bosses, with no AI initiatives in the planning stage. (e.g. leadership rarely discusses AI, no budget allocation for AI projects, and no AI-related goals or KPIs in strategic documents)

○ B

Some interest from leadership in AI’s potential, but AI initiatives are sporadic and not part of a bigger plan. (e.g. occasional mention of AI in meetings, limited funding for small AI pilot projects, but no consistent long-term AI strategy or investment)

○ C

Leadership actively supports AI, with initiatives included in strategic plans—though integration may be limited. (e.g. leadership has allocated resources for AI development, included AI goals in the strategic plan, but may lack a detailed implementation roadmap for wider AI adoption)

○ D

Strong leadership support for AI, with clear integration of AI initiatives into your long-term goals and priorities. (e.g., AI is prioritised at the executive level, with dedicated budget and resources, AI goals embedded across departmental objectives, and a roadmap for scaling AI initiatives)

Your score

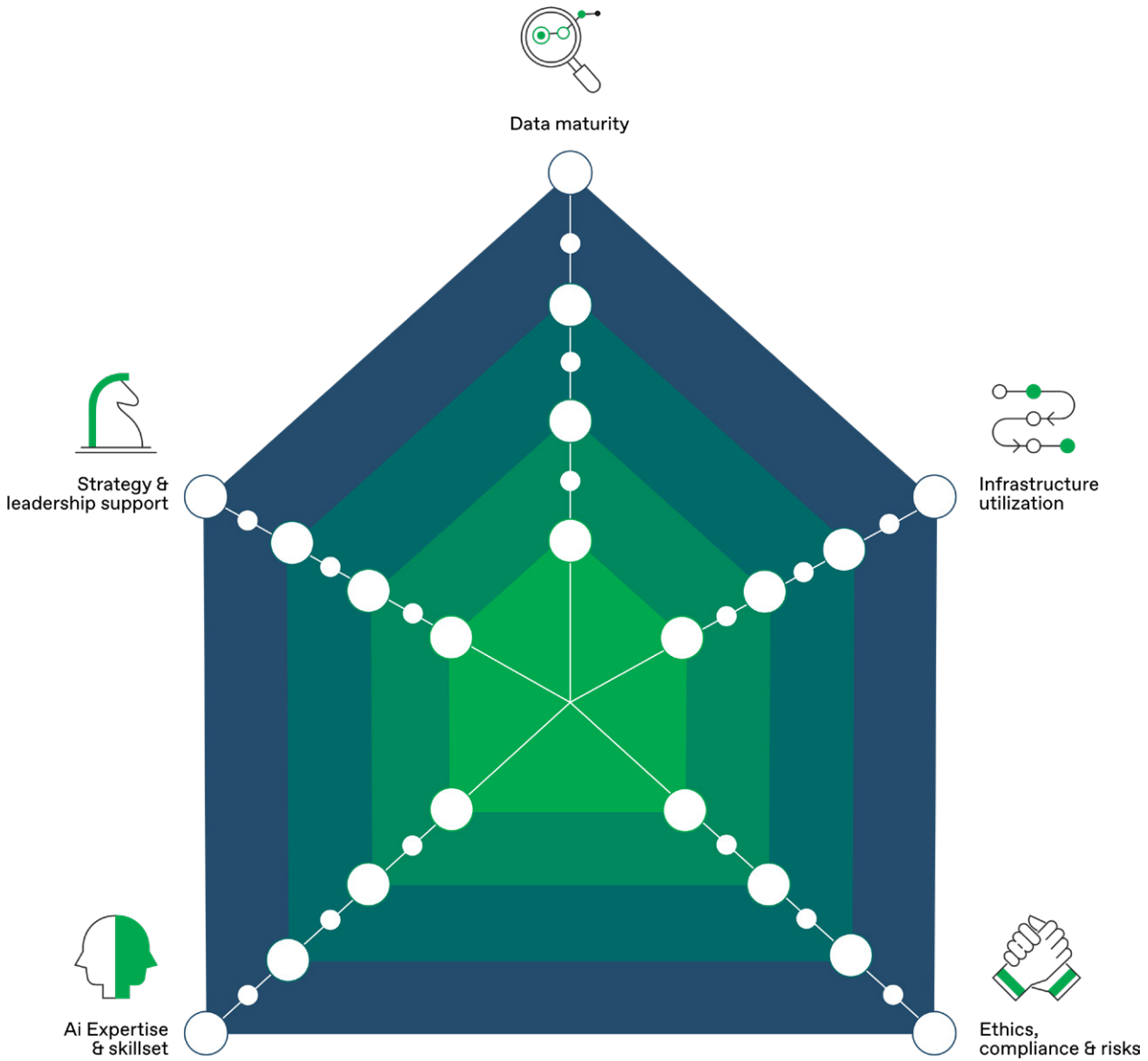
Calculating final AI readiness score

Compute the Data Maturity Score:

1. Score each data-related question on a scale from 1 to 4.
2. Average these two scores and round to the nearest whole number to get a single Data Maturity score.

Calculate the Overall AI Readiness Score:

1. Use the Data Maturity score along with the scores from the other four dimensions (Infrastructure, Ethics & Compliance, AI Expertise, and Leadership Support).
2. Add these five scores together and divide by 5 to get the overall readiness level



Benefits: How the UK public sector can exploit AI

Data readiness for AI means better citizen services and reduced costs overall.
These are the four key benefits of exploiting AI:

01

Smarter planning, better decisions

Nationwide, near-real time data means policies can be better developed and improved. Demand for services can be accurately forecast without adding significant cost.

02

Improve service effectiveness

Process casework, fulfil legal obligations like responding to FOIs, recording and sharing data, and managing procurement processes.

03

Boost customer satisfaction and engagement:

Use generative AI to personalise answers to citizens' questions, link citizen information across departments; provide information, distribute and accept citizen payments, and provide non-financial transactional services; plus ensure fair and equitable access to services.

04

Reduced risk, positive outcomes:

The right data infrastructure and governance ensures solutions are effective, non-biased, ethical, safe, compliant, and secure.

Matrix transition considerations: If you know your level, here's how to move up the ladder

AI readiness means adopting emerging technology and reorganising of government work methods relating to service provision and inter-departmental cooperation.

Transition level 1

Why?

With limited budgets and data inconsistencies, AI at Level 1 is often under-leveraged, leading to only marginal improvements in operations. Moving to Level 2 allows the government to strategically target high-impact, data-driven opportunities, making the most of limited resources and minimizing bureaucratic inefficiencies. AI can help streamline and automate routine data processing and administrative tasks, freeing up resources and reducing redundancy

What?

Conduct a strategic audit to identify processes where AI can bring immediate relief to both citizens and public workers (e.g., automating responses to routine citizen inquiries, improving data entry workflows). This initial shift to targeted AI implementation creates a foundation for reducing repetitive tasks, accelerating service response times, and increasing operational efficiency.

2

As AI efforts expand at Level 2, fragmented or siloed implementations can limit the broader impact. Moving to Level 3 enables unified AI strategies across departments, reducing redundant processes and standardizing citizen data access. This integration helps improve cross-department collaboration, creating a more streamlined experience for citizens while maximizing the effectiveness of limited budgets. AI's increased role in personalizing services, such as customizing communications or support based on citizen profiles, can directly improve satisfaction and engagement.

Shift focus from isolated AI projects to cross-functional initiatives that allow for a unified approach to citizen data. Standardize AI workflows and establish a central governance framework to ensure consistent use of AI insights across departments. This enables personalized, streamlined service experiences, minimizes redundancy, and ensures AI is part of strategic, budget-conscious decision-making.

3

At Level 3, AI may still be mainly supporting existing processes without fundamentally enhancing agility. Moving to Level 4 allows AI to fully drive improvements, not just in service delivery but in adapting to evolving citizen needs and policy requirements. Embedding AI in core operations allows for continuous process optimization and risk reduction, making government operations more resilient and responsive to citizens while managing resources effectively.

Implement real-time feedback loops to enable dynamic service adjustments based on citizen needs and policy changes. Establish an AI ecosystem with automated model deployment, monitoring, and updates to maintain high performance and responsiveness. This shift empowers AI to not only support but optimize critical government functions with human still staying in the loop, however, improving service personalization, managing risks proactively, and increasing overall agility.

4

Are you data-ready?

Data and AI are the catalysts for a new era of citizen-centric public services and are critical to confronting the UK's complex challenges.

Nortal is a leader in GovTech, with solutions proven safe, secure, and compliant. We pioneered e-Estonia, including the X-Road and its AI-driven services. Our products are the benchmarks in effective public governance.

We're ready to work with public sector leaders to reduce government complexity, build trust, and improve service. Let us demonstrate what we've done for others and what we're capable of doing for you.

Get in touch!

Get in touch if you'd like to learn more or have a conversation govtech@nortal.com