VISA

Beyond automation

Applying AI and digital payments in public finance

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What's inside

Executive summary

Artificial intelligence (AI) is becoming a cornerstone and core enabler of digital government. According to the OECD, more than 1,300 AI-related policy initiatives were underway globally in 2025, reflecting growing momentum to improve efficiency, transparency, and citizen-centred service delivery. This also aligns with rising expectations for faster, fairer and more personalised public services, as businesses and citizens increasingly use AI-enabled tools in their daily lives.

Modern digital payments infrastructure can play an important role in expanding the potential of AI in government. Payment systems generate high-quality transaction data that AI models can use to detect anomalies, strengthen oversight and help improve user experience.

Together, AI and digital payments can support governments in pursuing potential benefits across three domains of public financial management:

- Revenue collection
- Public disbursements
- Public spending and expense management

Global examples suggest what may be possible when AI is paired with strong governance and modern digital infrastructure — from reductions in tax gaps to improved targeting in benefits programmes, and better oversight in procurement. These outcomes are not guaranteed; results depend on programme design, data quality, secure payments infrastructure and institutional readiness.

AI itself is evolving rapidly. Beyond assistive tools that classify or extract information, governments are beginning to explore 'agentic' AI — systems capable of planning and executing multi-step tasks under human supervision. This may help streamline case management, eligibility verification and payment workflows, provided robust guardrails, human control and transparent audit trails are maintained.

Visa does not sell AI products to governments, but has deep, long-standing AI expertise in areas such as fraud monitoring and risk decisioning. Many Visa products and services are significantly AI-enabled, including tokenisation, dispute management and programme controls. In 2025, Fortune ranked Visa #2 on its inaugural AIQ 50 list, recognising leadership in applied AI. This combination of operational experience and secure payments infrastructure allows Visa and its partners to help enable governments as they design and implement solutions that help realise the potential of AI and digital payments in public finance.

This paper is the first in a four-part series examining how governments can strengthen public finance with the help of AI and digital payment capabilities.

Paper 1 (this document) provides a strategic overview of trends and capabilities, and an introduction to the intersection of AI payments in the public sector.

Paper 2 examines AI applications in public revenue collection.

Paper 3 explores how AI can enhance public disbursements.

Paper 4 focuses on AI and public spending and expense management.

The AI opportunity in digital government

Government digital transformation has advanced in waves. Early efforts focused on providing digital access to individual services — websites, online forms and payment portals. The next wave integrated services end to end, enabling constituents to complete transactions online without an office visit. More recently, the spread of foundational digital infrastructure — national digital ID systems, interoperable payment rails and secure data-sharing frameworks — has accelerated sophisticated digital government.[1]

A new wave is now emerging

AI can help governments to move beyond the digitisation and streamlining of existing processes, into a more transformational rethinking of how they operate and deliver services. The shift from digital to AI-enabled government is characterised by the ability to:

01

Automate multi-step tasks that previously required extensive human intervention

02

Orchestrate end-to-end processes with agentic capabilities under human oversight

03

Personalise public services at scale

04

Detect risks and anomalies in real time

05

Predict needs before they arise

Governments can move beyond streamlining existing processes into a more transformational rethinking of how they operate and deliver services.

1. This discussion of government digital transformation builds from a framework described in a 2023 report from Kearney and Visa, Digital Government Platforms, which outlines four stages of digital maturity in government services. See page 6 to learn more about each stage.

Why AI, why now?

AI is gaining traction in government because several enabling factors have matured at the same time. These trends give governments powerful new tools to rethink how services are designed and delivered, while prioritising clear public governance and accountability.

- **Technological maturity** — Rapid advances in machine learning, generative AI, natural language processing and compute power

- **Data availability** — Governments collect vast datasets spanning tax, social services, transportation and commerce

- **Constituent expectations** — People increasingly expect personalised, intelligent, seamless digital experiences across both private and public sectors

From assistive to agentic AI

AI technologies vary greatly in complexity. Assistive tools help with classification and summarisation, generative tools draft and explain content, and emerging agentic systems may support multi-step workflows based on defined rules and under human oversight.

Until recently, AI applications were largely assistive: classifying documents, summarising content, extracting data and recommending actions.

Now, newer agentic AI applications are playing a more active role via systems that can carry out multi-step tasks — gathering information, taking actions and adapting as they go — with human oversight, and with rules determined by policy guidelines. Emerging agentic systems can:

- Plan workflows
- Call tools and APIs
- Monitor progress
- Adapt based on feedback
- Execute multi-step tasks

Citizen wallets — secure applications containing identity credentials, payment instruments and service entitlements — may also support this shift. When combined with agentic AI, they can guide users through applications, initiate payments, surface eligibility or detect anomalies, while maintaining strong governance and user control.

Newer agentic AI applications are playing a more active role via systems that can carry out multi-step tasks.

Potential examples of AI capabilities in government[1]

AI is not a singular solution but a family of technologies, from predictive analytics to large language models (LLMs) to agentic systems, that can be deployed depending on service needs and institutional readiness. These tools can support internal efficiency, strengthen policy design and improve citizen-facing services. The following table provides examples to illustrate how different generations of AI capabilities could be applied across government functions.

AI tools can support internal efficiency, strengthen policy design and improve citizen-facing services.

Application	Assistive AI / Machine Learning	Generative AI	Agentic AI
Tax return triage and risk scoring	Flag anomalous filings; segment by risk; match receipts to declarations	Draft outreach notices; explain errors in plain language; generate case summaries	Orchestrate end-to-end case routing: request documents, schedule follow-ups, assemble evidence packs for human review
VAT/GST e-invoicing compliance	Detect missing/duplicate invoices; network anomaly detection	Generate reconciliation summaries for auditors	Auto launch checks across registries and payment data; open cases and assign to investigators with auditable trails
Benefits eligibility verification	Cross-check income/ employment/household data to assess eligibility	Draft eligibility explanations and adverse action letters	Coordinate data pulls, pre-fill applications, trigger verification steps and queue payments post approval
Unemployment claims integrity	Detect duplicate/ ghost claims; proof of life risk scoring	Create claimant correspondence; summarise call transcripts	Manage multi-step verification flows (ID, employment checks), escalate exceptions and pause payments pending review
Customs and border risk targeting	Profile shipments; detect undervaluation/ misclassification	Generate inspection briefs; summarise manifest inconsistencies	Coordinate inspections: book slots, request additional documents, notify brokers and update clearance status
Public spending analytics	Classify spend; detect split transactions; forecast budgets	Draft category insights and supplier performance summaries; monitor and evaluate payables metrics	Execute sourcing playbooks: invite bids, schedule evaluations and draft award recommendations for approval

1. While not exhaustive, this list illustrates the broad spectrum of existing and emerging government opportunities at each stage of AI maturity. Moreover, the OECD has analysed 200 AI use cases spanning 11 core government functions, while the European Commission's Joint Research Centre (JRC) notes that around 60 examples of generative AI use were identified across the European public sector in 2024.

Application	Assistive AI / Machine Learning	Generative AI	Agentic AI
Accounts payables automation	Match invoices to POs/receipts; detect duplicates	Compose discrepancy alerts; summarise unpaid items	Resolve AP exceptions by collecting missing data, proposing line level corrections and scheduling compliant payments
Customer service	Intent routing; next best action recommendations	Answer queries; draft follow-ups; translate and summarise calls	Handle end-to-end service tasks: verify identity, update records, file forms and book appointments with human sign-off
Inspection and compliance scheduling	Risk-based prioritisation; route optimisation	Create visit briefs and post-visit summaries	Plan multi-agency inspections, coordinate calendars, dispatch tasks and update case systems automatically
Licensing and permits	Validate requirements; detect incomplete submissions	Draft permit letters; generate checklists	Drive the full workflow: pre-fill forms, request missing items, collect fees and issue permits once approved
Public health surveillance	Detect abnormal trends; hotspot prediction	Draft situation reports; summarise literature	Coordinate responses: notify stakeholders, order supplies, schedule clinics and update dashboards after approval
Grants management	Score proposals; flag conflicts; monitor outcomes	Draft review summaries and award letters	Run the grant lifecycle: open calls, manage reviewer assignments, compile decisions and set up disbursements

As governments adopt more advanced AI systems, a commitment to responsible implementation becomes critical. Ethics, compliance, inclusion and accessibility help maintain public trust and enable sustainable use. These considerations are not exhaustive, but they highlight core elements governments typically prioritise.

Ethics and compliance

Governments generally focus on safeguards that ensure AI systems remain transparent, accountable and aligned with public mandates.

- Privacy by design and rigorous data minimisation
- Clear escalation pathways to human decision makers
- Strong consent, purpose limitation and data use controls
- Monitoring for bias and disparate impacts
- Independent auditing and evaluation
- Transparent criteria and explainability

Inclusion and accessibility

Ensuring AI supports all users — including those with limited connectivity, digital skills or accessibility needs — is essential for equitable public services.

- Accessible alternatives for people without digital access
- Design that accounts for diverse user capabilities and contexts
- Simple, intuitive interfaces and language
- Support for assisted digital channels

A focus on safeguards helps ensure AI systems remain transparent, accountable and aligned with public mandates.

AI and digital payments in public finance

Digital payments are both a primary use case for AI and a catalyst for adopting AI across government. Because payment systems generate structured, machine readable, real-time transaction data, they provide a reliable foundation for AI-enabled oversight, forecasting, compliance and automation.

Payments as an AI-ready data source

Digital payment systems generate structured, time-stamped information that governments can analyse to help detect irregularities, understand transaction patterns and support financial oversight. Because this data is consistent and machine-readable, it provides a strong foundation for AI models that support monitoring, forecasting, and risk management.

Transaction data is:

- High quality and structured
- Linked to verified identities or credentials
- Time-stamped and auditable
- Produced in large volumes across all sectors of the economy

These characteristics make payment data particularly suitable for AI models that detect anomalies, monitor trends or predict financial outcomes.

A catalyst for AI adoption across government organisations

Modern payment rails can help governments integrate AI into financial workflows by providing secure, consistent data streams and clear points of connection to other systems. Integration with payment rails can support AI in public finance by:

- Providing unified transaction streams across programmes
- Enabling compliance controls and real-time eligibility checks
- Allowing agentic systems to initiate or pause payments safely
- Supporting secure linkages to digital ID systems and citizen wallets

These can make it easier to apply AI to oversight, compliance and service delivery in ways that remain auditable and retain human oversight and control.

A framework for three domain-specific papers

This overview paper introduces the concepts, foundations and governance approaches required across all three domains. The following three papers explore how AI and payments can work together within key areas of public finance.

Revenue collection

How AI and payments data can strengthen compliance, forecasting, fraud detection and taxpayer services.

Public disbursements

How AI can improve targeting, application processes, fraud detection and the timeliness of payments.

Public spending & expense management

How AI can support procurement integrity, real-time oversight and automated reconciliation.

Success factors and strategic best practices

The potential of AI and digital payments in public finance is real — but success depends on far more than the technology itself. Achieving a meaningful impact requires a combination of strong infrastructure, robust governance, ethical safeguards and a strategy for scaling adoption.

Key success factors

Success in applying AI to government operations depends on more than deploying advanced algorithms. It requires the right environment — one where infrastructure, governance, skills and trust are in place. The following success factors represent foundational conditions that can help governments realise the benefits of AI in public finance while managing risks responsibly.

01 — Human-centred design

Effective AI tools start with an understanding of the people who will use them. Designing services around citizens, civil servants and frontline workers helps ensure that AI enhances — rather than complicates — the user experience. Accessibility, clarity and feedback mechanisms all contribute to better adoption and outcomes.

- Interfaces that are accessible regardless of digital literacy or connectivity
- Clear, plain language outputs so users understand the basis for decisions
- Built-in feedback channels to identify and correct issues

02 — Interoperability and standards

AI depends on high-quality data, and AI-enabled applications should exchange information securely across platforms and agencies. Common data standards and interoperability frameworks make it easier to integrate AI with infrastructure such as digital ID systems, payment rails and citizen wallets.

Because there is no single global standard for digital identity, governments are continuing to shape an evolving landscape of interoperability frameworks — including initiatives such as eIDAS in Europe, which may become a de facto reference model over time.

- Common data/API standards
- User consent, clear purpose limits, and simple, auditable revocation
- Data management and governance
- Scalable data infrastructure

Success in applying AI requires the right environment — one where infrastructure, governance, skills and trust are in place.

03 — Change management

Introducing AI requires more than new systems. Governments need to prepare staff for evolving roles, explain how tools work, and build confidence in their benefits and limitations. Phased implementation — starting with low-risk, high-impact applications — helps build trust and capacity over time.

- Prepare staff for evolving roles.
- Provide targeted training on new tools.
- Communicate benefits and limitations clearly to build trust.
- Roll out in phases, starting with low-risk, high-impact applications.

04 — Public–private collaboration

Governments often work with trusted ecosystem partners to access expertise, infrastructure and innovation. Successful partnerships maintain public ownership of data, align with public service values and operate within clear governance frameworks. Visa's experience in applying AI to enhance payment security offers practical lessons that may help governments integrate AI responsibly into payment-enabled services.

Successful collaborations:

- Have clear governance structures.
- Protect public ownership and control of data.
- Align with public service values on privacy, accessibility and fairness.

05 — Security and privacy by design

Safeguards are essential when deploying AI in sensitive financial contexts. Governments can help strengthen public trust by embedding privacy protections, aligning with emerging regulations, conducting independent audits and ensuring that payment rails remain secure and resilient.

This includes:

- Privacy-preserving data handling.
- Alignment with emerging AI regulations.
- Independent audits of system performance and fairness.
- Secure payment rails to provide the trusted transaction data that AI models require.

Governments need to prepare staff for evolving roles, explain how tools work, and build confidence in their benefits and limitations.

Best practices for implementation

In addition to foundational success factors, governments can benefit from adopting practical strategies that support effective implementation and scaling of AI initiatives. The following best practices draw on lessons from global public sector experience and are designed to help governments achieve measurable results in AI-enabled public finance and service delivery.

01 ### Start with high-impact, low-complexity use cases

Examples include anomaly detection in tax filings, automated reconciliation of payment records, AI-assisted fraud detection in benefit programmes and integration of AI agents into customer service channels to guide user processes. These can deliver visible results quickly, building momentum.

02 ### Build modular, scalable AI systems

Modular design allows governments to expand AI capabilities incrementally, reducing risk and enabling continuous improvement.

03 ### Establish common AI and data standards

Standardisation improves accuracy, reduces integration costs and speeds up deployment across departments.

04 ### Create centres of excellence

Dedicated teams can act as knowledge hubs, sharing best practices, reusable components and governance expertise.

05 ### Leverage ecosystem partnerships thoughtfully

Partnerships with banks, payment providers and technology firms can accelerate adoption — provided they are structured to maintain public accountability.

By starting with high-impact use cases, government can deliver visible results quickly, building momentum.

Ethics, inclusion and trust are the foundation of success

These principles are essential not only for compliance with legal frameworks, but also for maintaining the public trust needed to scale AI in sensitive areas such as revenue collection, disbursements and public spending oversight. Across all stages of AI adoption, governments should safeguard:

Transparency

Citizens should understand how AI influences public finance decisions.

Fairness

Systems must be monitored for bias and corrected promptly when disparities are found.

Inclusion

Services must remain accessible to those without digital access, with alternative channels available.

Human oversight

AI should augment, not replace, human judgement.

Across all stages of AI adoption, safeguards are essential to maintain compliance with legal frameworks and uphold public trust.

Our role is to support the secure, interoperable payment infrastructure that enables responsible AI deployment.

Conclusion

AI offers governments a set of tools that can help modernise public finance and service delivery. When paired with secure, interoperable digital payment systems, AI has the potential to support improved compliance, reduce improper payments, and strengthen oversight across revenue collection, public disbursements, and public spending.

Outcomes depend on strong digital foundations, robust governance and inclusive service design. This paper has outlined the strategic context for AI in public finance and the enabling role of payments. The next three papers in this series examine how AI and payments can support specific government functions:

Paper 2	Revenue collection
Paper 3	Public disbursements
Paper 4	Public spending and expense management

Visa's long-standing operational experience with AI in securing payments provides practical insights that may help governments as they explore these opportunities. Our role is to support the secure, interoperable payment infrastructure that enables responsible AI deployment.

With strategic planning, appropriate safeguards and strong public governance, AI and digital payments can help governments build and enable efficient, transparent and citizen-centred public finance systems for the future.

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