

Fundamentals of Generative AI

Building on Literacy, Delivering Value



The AI Moment: Why Now?

Generative AI is rapidly transforming the public sector, enabling leaders to automate routine tasks, synthesize complex information, and focus on strategic priorities. Unlike traditional AI, generative models create new content—text, images, code—based on user prompts, powered by large language models trained on vast datasets. This shift is timely: Canada is a global leader in AI adoption, with over a third of the population using AI tools. Governments face mounting challenges, from cybersecurity threats to workforce shortages, making digital innovation essential.

Generative AI Adoption: Insights & Trends



Productivity Gains

79% of employees report improved productivity; **31%** save 1–2 hours per week using AI.



Training Needs

83% want to upskill; only **48%** feel their employer provides enough training.



Public Sector Reality

48% of public servants use AI, but only **22%** of organizations have formal adoption. Many rely on public tools, raising privacy and governance concerns.

Sources: KPMG Canada Generative AI Adoption Index, 2025; KPMG Canada survey of 349 public servants, 2025.

How Public Sector Organizations are Embracing AI

1

Leadership Training:

Executive education builds readiness and responsible innovation.

2

Strategic Planning:

Ministries develop AI strategies and cross-departmental collaboration.

3

Copilot Deployment:

Large-scale pilots show measurable productivity gains—up to 3.66 hours saved per process, with strong user satisfaction and security.

High-Value Use Cases

GenAI Permitting Accelerator:

AI reduced permitting document preparation time by up to 75%.

Aberdeen City Council:

Copilot automation saved \$3M USD annually and boosted staff productivity.

Ontario Ministry of Red Tape Reduction:

AI policy review saved 300 days of manual effort in regulatory modernization.

Alberta Government AI Search:

Intelligent search improved citizen access and multilingual support on government website.

Hot Topics & Considerations in AI for Public Sector Leaders

- **Privacy & Sensitive Data:** Who owns AI-generated data? What privacy safeguards exist?
- **Bias & Fairness:** How do we ensure recommendations are unbiased?
- **Security & Access:** Risks of using non-enterprise AI tools.
- **Retention & Model Training:** How long is data kept? Are models trained on sensitive data?
- **Accuracy & Hallucinations:** How do we verify AI outputs?
- **Legal & IP:** Who owns AI-assisted work products?
- **Digital Sovereignty:** Prioritize Canadian data residency, strengthen cloud/AI infrastructure, enhance transparency, build digital skills, collaborate with Canadian tech partners, and embed sovereignty in procurement.
- **Responsible AI Principles:** Fairness, Reliability, Privacy, Transparency, Inclusiveness, Accountability - these principles guide safe and ethical AI deployment. Implementation includes training, tools, oversight, and compliance.

AI Strategy Roadmap: What to Do Next

Business strategy: Align AI projects with your organization's goals.

Technology & data strategy: Build the data and infrastructure needed for scalable AI.

AI strategy & experience: Develop expertise and repeatable processes to create sustainable value.

Organization & culture: Foster the vision, skills, and culture that drive adoption.

AI governance: Ensure privacy, security, compliance, and responsible use through strong controls.

IPAC AI Learning Hub

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