# Building Canada's brightest AI future

**A**rtificial Intelligence (AI) is no longer a distant promise of the future—it is reshaping economies, societies, and global power dynamics in real time. For Canada, as we navigate a persistent productivity crisis, AI presents an unparalleled opportunity to drive innovation-fuelled growth and strengthen our global economic position.

Today, the question is not *if* AI will transform Canada, but *how*. We are at an inflection point, a moment of transition in which many strategic leaders and decision-makers are advancing beyond exploration and experimentation toward a focus on how to scale and sustain AI in ways that deliver lasting economic and societal benefits.

To support Canadian leaders in this moment of transition, this report by Deloitte's Future of Canada Centre examines how Canada can unlock AI's transformative potential while overcoming critical barriers to its success. It offers a framework for scaling and sustaining AI that addresses the three interconnected imperatives that stand between current-state AI implementation in Canada and the realization of the country's highest AI potential.

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# The opportunity: AI as a catalyst for growth

*AI represents an opportunity to drive economic growth and productivity in Canada and globally. Projections suggest widespread AI adoption could boost Canada's real GDP by 5% to 8% over the next decade, driving annual productivity growth of 0.5% to 0.7%.[1] With a foundation of world-class research institutes, a deep talent pool, and a robust national AI strategy, Canada is well-positioned to lead in this space.*

However, to realize this potential, Canada must overcome persistent challenges that have historically hindered its ability to maximize the benefits of technological advancements.

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# The challenge: addressing key barriers

*Despite its advantages, Canada faces several systemic hurdles that threaten its ability to capitalize on the AI revolution, including sluggish business investment in technology, barriers to commercializing intellectual property (IP), and a trust deficit on the part of Canadians.*

If we don't address these challenges, Canada will fail to capture the full potential of the AI wave, as it did with the Internet boom in the early 2000s. This would mean missing an historic opportunity to revitalize productivity growth, elevate living standards, and secure a competitive edge in the global AI economy—and it would mean losing out on the long-term, wide-ranging benefits of a stronger, more innovative and tech-enabled economy.

# The path forward: a framework for action

*To guide Canadian leaders in navigating this critical moment, this report introduces a comprehensive framework for scaling and sustaining AI in Canada, built around three imperatives designed to address and overcome the key barriers standing in the way of our brightest AI future.*
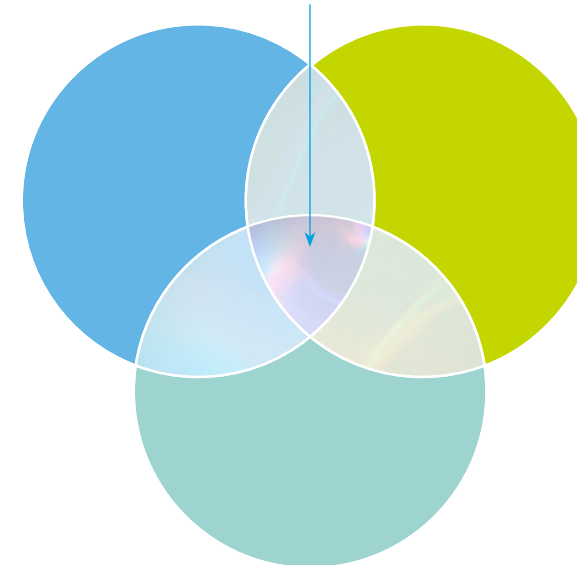
These imperatives are interdependent, forming a network of positive feedback loops. Appropriately channelled **ambition** is the engine that drives organizational and societal impact. **Positive societal impact**, in turn, builds trust among stakeholders. **Trust** then acts as a permission mechanism for ambition, enabling leaders to dream bigger and continue to innovate. Together, they pave the way for a thriving AI-powered economy aligned with Canadian values.

## Canada's brightest AI future

**1**

**Define ambition with a relentless focus on value creation:** Leaders must set clear, bold, and strategic goals that align AI initiatives with organizational and societal priorities.

**3**

**Commit to AI for good by embracing equitable, sustainable AI:** Leaders should champion equitable and sustainable AI practices to ensure inclusive growth and mitigate unintended consequences.

**2**

**Build trust by cultivating responsible AI, supporting AI literacy, and fostering human-AI synergy:** As organizations progress from experiments and pilot projects to fully integrated AI solutions, trust-building priorities should evolve from raising awareness and establishing basic ethical standards toward implementing a robust governance framework, increasing Canadians' AI literacy, and creating the conditions for optimal human-AI collaboration.

# I. Defining ambition: vision and focus

*The **ambition** imperative challenges Canadian organizations to overcome cultural and structural barriers that limit AI scalability. By setting visionary goals and focusing on high-value opportunities, Canada can enhance its global stature in AI innovation.*

## Vision: setting bold national and organizational goals

- **The case for urgency**
  Canada ranks ninth out of 33 countries best placed to benefit from AI and its effects over the coming decades, with its average rate of productivity growth forecasted to increase to around 1.5% per year during the 2030s—a marked increase over the average annual rate of productivity growth during the 2000–2022 period (0.85% per year) and slightly higher than the average growth rate during the 1973–2000 period (1.33% per year).[2]

Despite this outsized potential to benefit, there are troubling indicators that we are already falling behind. AI adoption in Canada lags global counterparts—only 26% of Canadian organizations have implemented AI compared to 34% globally.[3] Moreover, Canada's Global AI Index ranking dropped from 4th in 2021 to 8th in 2024.[4]

- **Visionary leadership needed**
  If Canada is to achieve its brightest AI future, national and organizational leaders must set clear AI goals and pursue bold initiatives to lead in areas of competitive advantage.

**26%**
Canadian organizations that have implemented AI

**34%**
Global organizations that have implemented AI

# Focus: prioritizing high-impact opportunities

◆ **Barriers to commercialization**

Despite a strong AI research ecosystem, commercialization of AI applications remains challenging. Canadian innovators cite access to funding, venture finance, mentorship, and markets as key factors contributing to the slower pace of business in Canada compared to countries like the U.S.[5] Canadian policymakers can set the country up for success by optimizing innovation policy, closing infrastructure gaps, and streamlining procurement processes.

◆ **Strategic focus areas**

To deliver on the promises of AI, Canada needs not just the vision to invest in priority areas, but a clear focus on where AI can have the most impact. At the national level, policymakers should concentrate resources on priority sectors such as healthcare, primary industries (agriculture, mining, forestry), and financial services, where Canada has natural strengths and data advantages. We also have an opportunity to claim global leadership in responsible AI innovation, as Canada already leads the world in the responsible adoption of AI.[6]

At the organizational level, priority focus areas will depend on each organization's strategy and purpose. We think the right approach is a thoughtful mix of relatively easy and low-risk quick wins—such as adopting generative AI in customer service—coupled with longer-term investment in high-growth areas (i.e., strategic initiatives or domains where AI can significantly enhance an organization's competitive advantage, create new revenue streams, or open untapped markets).

◆ **Measuring value**

Canada needs measurable targets for AI value creation to ensure investments yield economic and social benefits. A good example of this is Europe's Digital Decade framework for 2020–2030, which sets targets that are measurable goals in priority investment areas including digital transformation of businesses (the target being 75% of EU companies using cloud, AI, or Big Data by 2030).[7]

# II. Building trust: governance, literacy, and human-AI synergy

*Though Canada is home to world-renowned AI pioneers, **trust** in AI in Canada is 19 points lower than the global average, with only 31% of Canadians reporting that they trust AI.[8] To bridge the trust gap, leaders can implement comprehensive governance frameworks, support AI literacy, and create environments where humans and AI can synergize, ensuring AI solutions are both effective and ethically sound.*

## Governance: embedding transparency and accountability in AI operations

**Transparency builds trust**
Canadians have concerns around how AI technologies work and how they're implemented.[9] The first step in addressing these concerns is to help people understand where, how, and why AI systems affect their lives.

**Accountability and oversight**
AI governance frameworks should include oversight structures, ethical guidelines, and accountability provisions to mitigate risks and align AI operations with legal and societal expectations.

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# Literacy: empowering individuals with knowledge and understanding



◆ **Role-specific education**
Leaders need AI literacy to drive innovation, manage AI projects, and address ethical concerns, while employees require tailored training to integrate AI effectively into their workflows.

◆ **Public understanding**
Public education initiatives are important to demystify AI, enhance its perceived benefits, and address risks. Empowering individuals with knowledge about AI's functionality, intentions, and limitations builds confidence and trust in the technology.

◆ **Critical role for employers**
Canadians trust their employers more than other institutions to guide them on AI. According to the 2024 Edelman Trust Barometer, Canadians are more likely to trust technical experts at their own companies to tell them the truth about new innovations and technologies (60%) than they are to trust journalists (50%) or CEOs and government leaders (both 40%).[10] Businesses thus have a unique opportunity to build confidence through workforce training, ethical practices, and transparent communication.

## Human-AI synergy: amplifying and enhancing human capabilities

- **Collaboration over automation**
  Focusing on complementary strengths—
  AI's efficiency and data processing paired
  with human creativity and empathy—yields
  better outcomes than automation alone.

- **Defined roles and processes**
  Clearly defined roles for humans and AI in
  decision-making and task execution help
  reduce fears of unchecked AI taking over
  human jobs.

- **Training priorities**
  Training programs that emphasize timeless
  human skills (such as creativity and
  empathy) and skills complementary to AI
  can help prepare workers for a productive
  coexistence in an AI-powered environment.

# III.   AI for good: equitable and sustainable AI

*Depending on how it is developed, deployed, used, and regulated, AI has the potential to either enhance or undermine our pursuit of a more prosperous future for Canadians. At the same time, it can either promote or compromise equity and sustainability goals. **AI for good** emphasizes the deployment of AI in ways that not only drive economic growth but also enhance equity and sustainability, such that the benefits of AI are widely distributed and contribute to a sustainable future.*

## Equity: ensuring all Canadians benefit from the AI revolution

- **Equitable access and use**
  Canada's brightest AI future is only possible if all Canadians, including those belonging to underserved or marginalized communities, can access and use AI technology. This includes addressing disparities in infrastructure, education, and resources to bridge gaps between urban and rural areas and between high- and low-income groups.

- **Ensuring fair outcomes**
  Appropriate guardrails are necessary to prevent AI from perpetuating biases, especially in the context of automated decision-making processes. Innovative organizations can also leverage AI-powered solutions to drive greater equity in areas such as recruitment, healthcare, and education.

- **Equity as a competitive advantage**
  Organizations that prioritize equitable AI can enhance public trust, build customer loyalty, and achieve broader societal impact while mitigating risks.

# Sustainability: aligning AI with climate resilience



- **AI for sustainability**
  AI can be used to address environmental challenges and mitigate the effects of climate change through, for example, improved efficiency, enhanced responses to natural disasters, and optimized agricultural yields. Organizations across industries can use AI to reduce waste and resource demand in supply chains through better forecasting and operational efficiency.

- **Sustainable AI operations**
  According to Deloitte Global analysis, data centres worldwide used more than 380 terawatt hours (TWh) of electricity in 2023—accounting for about 1.4% of global electricity consumption and 0.3% of global greenhouse gas emissions.[11] By 2030, these figures are projected to nearly triple to around 1,000 TWh, or approximately 3% of worldwide power use. Leaders can adopt various tactics to embed sustainability in their AI operations; this could mean, for example, reducing redundant research by sharing open-source models, using recycled materials to build servers, or investing in energy-efficient AI model practices. It could also mean relying on renewable and low-carbon energy sources to power AI models, or choosing to deploy smaller, fit-for-purpose models that are less energy-intensive.

- **Strategic alignment**
  To craft and execute a strategy that is good for both the planet and the bottom line, leaders can take a coordinated approach to the so-called "twin transitions" of AI and sustainability.

# The stakes: critical choices that shape the future

Canada stands at a pivotal moment in its AI journey, with the opportunity to harness this transformative technology to build a future defined by sustainable, innovation-fuelled growth. By addressing vulnerabilities, leveraging strengths, and embracing a collaborative approach, the country can empower innovators, enable businesses to compete globally, and tackle societal challenges—all with the help of AI.

Decisions surrounding AI are among the most consequential that Canadian leaders will make. The choices leaders make today will shape not only organizational performance and economic growth but also national security, infrastructure resilience, and Canadians' daily lives. By actioning the imperatives of our framework, leaders can navigate AI's complexities, create and capture more value for their organizations, and contribute to building a bright future for all.

Achieving this vision requires immediate action and collaboration on the part of strategic and policy leaders. Now is the time to seize the transformative potential of AI and steer it toward outcomes that reflect our collective aspirations and values.

# Recommendations

| IMPERATIVE | | STRATEGIC LEADERS | POLICYMAKERS |
|---|---|---|---|
| DEFINE AMBITION | Vision | Build a comprehensive AI strategy that is ambitious, trust-building, and oriented toward equitable, sustainable prosperity | Craft a bold vision for Canada's AI future |
| | Focus | Identify AI opportunities with the greatest potential | Establish a harmonized system of public investment in AI that identifies competitive strengths and optimizes incentive structures targeting high-priority fields |
| | | Adopt a portfolio mindset to move up the AI maturity curve | |
| BUILD TRUST | Governance | Implement a responsible, forward-thinking AI governance framework that prioritizes transparency and accountability | Build trust and promote good governance by positioning Canada as a global leader in AI standardization and safety |
| | | | Focus CAISI efforts on real-world risks and applications of AI and regularly communicate findings to the public to foster trust |
| | | | Adopt a risk-based approach to public AI procurement |
| | Literacy | Invest in AI literacy | |
| | Human–AI synergy | Assemble cross-departmental teams to reimagine roles for optimal human–AI synergy | Incorporate AI literacy into Canada's AI strategy |
| | | Nurture timeless human capabilities to help people adapt to an AI-augmented world of work | |
| COMMIT TO AI FOR GOOD | Equity and sustainability | Embed equity and sustainability principles in AI strategies and governance frameworks | Establish an approach to assessing and reporting on AI's ecological footprint throughout its lifecycle |
| | | Explore ways to deploy AI in service of solving societal problems | |

# Endnotes

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3   Deloitte Canada, *Impact and opportunities: Canada's AI ecosystem - 2023*, September 2023.

4   Serena Cesareo and Joe White, "The Global Artificial Intelligence Index 2024," Tortoise Media, 19 September 2024.

5   Anja Karadeglija, "Canada is a force in AI research. So why can't the country commercialize it?" The Globe and Mail, 26 June 2024.

6   Center for AI and Digital Policy, *Artificial Intelligence and Democratic Values Index 2023*, April 2024.

7   European Commission, "Europe's Digital Decade: Digital targets for 2030," accessed 13 December 2024.

8   Edelman Trust Institute, *2024 Edelman Trust Barometer: Canada report*, March 2024, p. 12.

9   Jesse Snyder, "Distrust of AI significantly higher in Canada than other countries, survey finds," The Logic, 6 March 2024.

10  Edelman Trust Institute, *2024 Edelman Trust Barometer: Canada report*, March 2024, p. 16.

11  Deloitte Global, *Powering artificial intelligence: A study of AI's environmental footprint—today and tomorrow*, November 2024, p. 6.

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