

Eh-I? Canada Commits \$2.4 Billion to AI Development

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On April 7, 2024, the Government of Canada announced a C\$2.4 billion package to support the Canadian artificial intelligence (AI) sector as part of the federal budget for 2024, which was formally tabled by Deputy Prime Minister and Finance Minister Chrystia Freeland on April 16, 2024.

The bulk of this investment, being approximately \$2 billion, is to be allocated towards AI infrastructure and business development initiatives as part of the AI Compute Access Fund, including “computing capabilities and technological infrastructure” which will facilitate AI research, help to scale startups, and provide other support for AI organizations. In addition, approximately \$200,000 of the funding is earmarked to accelerate the adoption of AI in other important sectors, such as agriculture, healthcare, and manufacturing.¹

This announcement has elicited a mixed reaction from Canadian stakeholders in the AI sector. While most believe that this significant investment in the AI sector is important for the long-term health and success of Canadian AI ventures, stakeholders are hesitant to celebrate with strict regulation looming on the horizon.² In addition, because the *Artificial Intelligence and Data Act* (AIDA) remains at committee in the House of Commons and likely will not come into effect until 2025, Canadians have been left at a standoff between continuing growth in the AI sector and waiting for further regulation.

In this article, we will examine AI in Canada, the impending Canadian regulation of AI, the pathways for this budget to impact the AI market, and what emerging and established AI companies should be aware of in light of this recent influx of capital.

AI in Canada – Global Positioning

Canada has a longstanding history with regard to AI research and development. In fact, the “Godfathers of AI,” Yoshua Bengio and Geoffrey Hinton, are Canadian computer scientists who have made significant advancements in artificial neural networks and deep learning.³ Canada’s work in AI is also highlighted by federally-funded AI institutes situated in three of the largest Canadian cities – Toronto, Edmonton, and Montréal.⁴

Over the past decade, the AI sector in Canada has been a catalyst for productivity, innovation, and economic growth. With significant year-over-year increases in AI professionals, AI patents, venture capital expenditure and AI researchers, this sector has seen accelerated expansion. Government funding has been an important aspect of growth in the Canadian AI sector. Since 2016, the federal government has committed more than \$2 billion to develop Canada’s AI ecosystem, excluding the \$2.4 billion announced this year.⁵

These efforts have had a significant impact on Canada's AI sector. Although Canada's advancements in AI face impending legislation, Canada still currently ranks fifth in the world on the Tortoise Global AI Index,⁶ which measures the innovation, investment, and implementation of AI technologies in countries around the world.⁷ Moreover, throughout various studies on global AI market trends, multiple Canadian cities are often cited as AI hubs for growth and development.⁸ This indicates that Canadian innovation in the AI sector has held strong, despite federal roadblocks of impending regulation.

How Does the Budget Impact Impending AI Regulation?

As part of the budget allocation, the Government of Canada plans to launch a \$50 million AI safety institute to protect against "advanced or nefarious AI systems," with another \$5.1 million to be allocated towards the creation of an office of the AI and Data Commissioner to enforce the proposed *Artificial Intelligence and Data Act*, if and once Bill C-27 is enacted. AIDA is Canada's first attempt at comprehensively regulating AI and ensuring the responsible adoption of AI by Canadian businesses and has three main objectives:

- Protection of the public interest, particularly with respect to safety and human rights, through identifying and regulating high-impact AI systems;
- Ongoing administration and enforcement of AIDA, through the creation of an office headed by a new AI and Data Commissioner as a centre of expertise in regulation development and administration; and
- Prohibition of reckless and malicious uses of AI, through the introduction of new criminal law provisions.⁹

Criticisms of AIDA

AIDA has faced significant criticism since its announcement, with some stakeholders noting that AIDA could cause an innovation chill in the industry.¹⁰ Without international consensus on the best practice for regulating AI, AIDA has been criticized for being rushed and pushed forward without consultation from stakeholders,¹¹ which could damage Canada's ability to be a world leader in AI technology. While this investment in AI aims to create new opportunities in the sector in Canada, AIDA has been criticized for potentially risking the isolation of Canadian AI firms from the global economy.

Another concern regarding AIDA is the overly broad nature of its definitions. For example, AIDA references "high-impact" AI systems, and on November 28, 2023, Minister François-Philippe Champagne provided proposed amendments to AIDA that included a list of AI systems that could be considered "high-impact."¹² This list included AI systems that are used in employment-related decisions, the provision of services, biometric information processing, content moderation, healthcare and emergency service, court or administrative body decision-making, and law enforcement. However, this list lacked sufficient specificity regarding what types of AI systems will be classified as high-impact. For example, an AI system used in employment-related decisions could range from scheduling meetings, to hiring decisions, to organizing

company-wide birthday emails. While some of these decisions would have a greater impact than others, the breadth of AIDA as it is currently formulated would consider all of these AI systems high-impact.

Since AIDA is still currently being debated at committee in the House of Commons,¹³ it is likely that regulations will not be developed and come into force until at least 2025. Even after Royal Assent of Bill C-27, the federal government intends to undertake a consultation and development process for AIDA's regulations, where comments and feedback will be solicited from industry, academia, and affected Canadian stakeholders and communities.¹⁴

Canadian AI Regulation vs. EU AI Regulation

On February 13, 2024, the European Parliament passed the *Artificial Intelligence Act* (EU Act). While the final version has yet to be published, preliminary drafts show that the animating principles behind the EU Act are to promote a human-centric approach with a focus on trustworthy AIs that safeguard health, human safety, and fundamental human rights, to mitigate the potentially harmful effects of AI systems. The EU Act is designed to tailor regulation to the risk level of the AI system, but also to promote AI innovation in the EU.

A fundamental difference between the EU Act and AIDA is that the EU Act is a risk-focused, strict application of law, whereas AIDA is being promoted as a principles-based approach, allowing for flexibility in interpretation. AIDA is also currently just core legislation, and any effect is dependent on its regulations following royal assent. However, this flexibility leads AIDA to become overly broad. For example, the scope of AI systems caught under the “high-impact” category of AIDA is materially broader than the scope of AI systems caught under the “high-risk” category of the EU Act.

In addition, a fundamental principle of the EU Act is proportionality, while this principle is not explicitly referenced in AIDA. This means that AIDA is expected to be interpreted and applied strictly across emerging, established, and legacy companies, whereas the requirements imposed by the EU Act are proportional to the complexity of a company's AI system.

What Does this Mean for Emerging and Established AI Companies?

The additional funding dedicated to the growth of the AI sector is intended to contribute to the overall health of innovation in this industry. The focus has largely been on the \$2 billion earmarked for the AI Compute Access Fund, which has been established to improve technological infrastructure for existing and emerging AI companies, but also to entice global AI talent to consider Canada as both a work destination and an attractive market to enter. This benefits both emerging and established AI companies, as emerging companies will enter an ecosystem conducive to growth, and the infrastructure will be laid for established AI companies to scale.

As mentioned above, \$200 million of the \$2.4 billion has also been allocated to accelerate the adoption of AI

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in key industrial areas such as agriculture, clean tech, health care, and manufacturing. While it is unclear exactly how this funding will be used, the Regional Development Agency (RDA), the overarching organization tasked with managing these funds, will use a region-specific mandate to further particular economic development and diversification needs and job creation efforts. Key projects from the RDA include the Atlantic Innovation Fund, a program launched by Atlantic Canada Opportunities Agency. This was a highly competitive program that considered project proposals for funding opportunities for scalable businesses. Initiatives such as the Atlantic Innovation Fund will be crucial in ensuring the success of emerging and established AI companies.

In addition, the federal government announced that \$100 million will be put specifically towards helping small and medium-sized businesses scale up and incorporate AI in their practices, with another \$50 million committed to the Sectoral Workforce Solutions Program, which will train workers whose jobs may be disrupted by the implementation of AI technology.

Despite the influx of capital into the space, stakeholders appear to be cautiously optimistic regarding the future of AI in Canada. As mentioned above, with AIDA facing criticism at the committee level in the House of Commons, stakeholders have expressed concerns that the implementation of this Act may chill innovation in spite of federal investment in the space. As such, stakeholders are calling for a balance of regulation with respect to AIDA – requesting that legislators do not conflate impact with risk.

For emerging companies, strict regulatory compliance standards could handcuff innovators who otherwise require a runway to establish a foothold in an increasingly competitive industry. For established companies, strict regulatory requirements could prevent further innovation and tie up capital in testing systems that have otherwise been effective. The impact that AIDA will have on small-to-medium business enterprises has yet to be seen. However, even the threat of strict regulation stalls innovation in the AI sector as companies wait to see if their trajectory may be decelerated by AIDA.

Next Steps

The federal government has not yet announced how companies will be able to gain access to the infrastructure that the budget proposes; however, the announcement is about “investing in innovation and economic growth to secure Canada’s world-leading AI advantage today and for generations to come.” Our team will continue to monitor any developments in this regard as well as the implementation of the proposed AI programs.

Similarly, our team will be keeping track of the progression of AI regulation in Canada. As AIDA is still at the consideration stage, and in light of the EU Act, the potential for curtailing the regulatory impediments to innovation is still on the table.

For more information on how potential regulatory changes and the 2024 budget implementation may affect

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you or your organization, we welcome you to contact our Information Technology & Data Privacy Group to assist you further.

¹ House of Commons, *Budget 2024: Fairness for Every Generation* (16 April 2024), online: <budget.canada.ca/2024/home-accueil-en.html>.

² John MacFarlane, "Canada plans AI funding boost, but critics warn 'red tape' could harm industry" (9 April 2024), online: <ca.finance.yahoo.com/news/canada-plans-ai-funding-boost-but-critics-warn-red-tape-could-harm-industry-150025478.html>.

³ James Vincent, "'Godfathers of AI' honored with Turing Award, the Nobel Prize of computing" (27 March 2019) online: <theverge.com/2019/3/27/18280665/ai-godfathers-turing-award-2018-yoshua-bengio-geoffrey-hinton-yann-lecun>. See also Olsy Sorokina, "AI 'godfather' Yoshua Bengio wins Canada's top science award" (3 November 2023), online: <cbc.ca/radio/quirks/yoshua-bengio-herzberg-canada-award-artificial-intelligence-1.7017851>.

⁴ Canadian Institute for Advanced Research (CIFAR), "The Pan-Canadian AI Strategy" (last accessed 23 April 2024), online: <cifar.ca/ai/>.

⁵ Government of Canada, "Securing Canada's AI advantage" (7 April 2024), online: <pm.gc.ca/en/news/news-releases/2024/04/07/securing-canadas-ai#:~:text=Canada%20ranks%20first%20globally%20for,related%20papers%20published%20per%20capita>.

⁶ Tortoise, "The Global AI Index" (28 June 2023), online: <tortoisemedia.com/intelligence/global-ai/>

⁷ See also AI Index Steering Committee, Institute for Human-Centered AI, Stanford University, "Artificial Intelligence Index Report 2024" (April 2024), online: <aiindex.stanford.edu/report/>.

⁸ Harvard Business Review, "50 Global Hubs for Top AI Talent" (21 December 2021), online: <hbr.org/2021/12/50-global-hubs-for-top-ai-talent>.

⁹ See our previous Cassels Comment for more information on the *Artificial Intelligence and Data Act*.

¹⁰ MacFarlane, *supra* note 2.

¹¹ *Ibid.*

¹² Minister of Innovation, Science and Industry, *Letter to the Chair of the Standing Committee on Industry and Technology on Bill C-27* (28 November 2023).

¹³ Bill C-27, *An Act to enact the Consumer Privacy Protection Act, the Personal Information and Data Protection Tribunal Act and the Artificial Intelligence and Data Act and to make consequential and related amendments to other Acts*, 1st Sess, 44th Parl.

¹⁴ Innovation, Science and Economic Development Canada, *The Artificial Intelligence and Data Act (AIDA) – Companion document* (13 March 2023).

This publication is a general summary of the law. It does not replace legal advice tailored to your specific circumstances.