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Catalyzing AI infrastructure: opportunities for investment with the Canadian Sovereign AI Compute Strategy and the 2024 Fall Economic Statement

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On December 5, 2024 the federal government announced the Canadian Sovereign AI Compute Strategy (the Strategy). The Strategy outlines three elements to bolster investments in domestic artificial intelligence (AI) compute capacity. Subsequent announcements under the 2024 Fall Economic Statement (2024 FES) have provided further incentives for pension funds to invest in AI data centre projects. Given these major initiatives to establish AI infrastructure, investors and pension funds should be aware of these policies and how best to leverage their incentives.

What you need to know

- The Strategy and 2024 FES include measures aimed at creating opportunities to invest in domestic AI infrastructure over the coming years.
- The Strategy outlines three elements to build and secure domestic AI compute capacity:
  - **Mobilizing private sector investment:** The federal government will invest up to $700M to leverage investment in new and expanded data centres through the "AI Compute Challenge".
  - **Building public supercomputing infrastructure**: The Strategy provides $1B in spending to build a large supercomputing facility to exponentially increase Canada's computing power, as well as a smaller computing facility for research and development. This funding would also augment existing public compute infrastructure to meet immediate needs.
  - **The AI Compute Access Fund:** The Strategy provides $300M to support purchases to lower barriers to AI development in sectors that require high-performing compute capacity and where AI potential is greatest, such as the energy and life sciences sectors.
- In addition to the Strategy, the 2024 FES announced plans to develop a program that will provide up to $15B in loan and equity investments for AI data centre projects that receive investments from Canadian pension funds.

The Canadian Sovereign AI Compute Strategy

The growth of AI systems in recent years has prompted a corresponding discussion about enhancing the capacity and resources needed to power the AI. This capacity, or the computational resources required for AI system to run algorithms or process data, is referred to as "AI compute".

The Strategy addresses the need to build and secure AI compute infrastructure with the goal of providing Canadian businesses greater access to compute capacity in order to leverage AI technology. The Strategy puts into action funding from Canada's 2024 Budget, which provides $2B over five years to launch initiatives related to giving Canadian researchers and AI companies the tools to compete globally.

The federal government has already provided its first investment via the Strategy. The day following its publication, the Federal Government announced an investment of up to $240M in Cohere, a Toronto-based AI platform that focuses on generative AI and large language models. This investment will be used to enable Cohere to secure more private capital to build an AI data centre, and to enable Cohere and other firms to access compute capacity.

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The Strategy outlines three elements to encourage investment and increase domestic compute capacity, which are described below.

1. Mobilizing private sector investment

Under this element, the federal government will invest up to $700M to leverage investment in new and expanded data centres through the "AI Compute Challenge". The Challenge accepts proposals to "to strengthen Canada's AI ecosystem by securing domestic AI data centres", seeking projects that emphasize four objectives:

1. Build out or expand the capacity of commercial AI-specific data centres in Canada
2. Provide flexible and affordable compute offerings
3. Contribute to anchoring or growing Canadian AI champions
4. Advance innovative and sustainable compute solutions

The Challenge is directed to commercial and industry applicants, along with academic-industry partnerships looking to pursue "commercially viable AI compute infrastructure projects". Projects should maximize private and public funding, including provincial-level involvement.

Proposal applications for the Challenge are on an on-going basis. The Challenge emphasizes the preference for proposals that will lead to a fully integrated data centre solution and commercial deployment, along with proposals that focus on innovative and energy efficient components for data centres. Additionally, the Challenge prefers projects that increase capacity in the near term and are ready for "immediate implementation". Sector participants interested in pursuing AI capacity infrastructure should consider their proposal and how best to realize funding via this Challenge.

2. Building public supercomputing infrastructure

The Strategy's second element provides $1B in spending to build public supercomputing infrastructure, covering three main categories:

1. **Establishing a "large sovereign supercomputing facility":** This facility will be for researchers and industry to "exponentially increase" Canada's computing power. A statement of interest followed by a call for proposals will be launched in Spring 2025 with preference to those that can leverage private investment and increase its scale, "and/or co-locate commercial compute infrastructure for industry users".

2. **Establishing a smaller computing facility for research and development:** This facility, to be led by the National Research Council of Canada and Shared Services Canada, would be used by government and industry for research and development purposes.

3. **Augmenting existing public compute infrastructure to address immediate needs:** Up to $200M will be provided over two years to expand existing public compute infrastructure. This addresses the fact that building compute capacity infrastructure takes time and that there is need to address the issue immediately. The 2024 FES provides greater details of this funding — $85M will go to the Digital Research Alliance of Canada; $60M to various AI institutes; and $30M for the Vital real-time health computing infrastructure for Trials, Artificial Intelligence, and a Learning Health System (VITAL).

3. The AI Compute Access Fund

The third element of the Strategy is a $300M fund to support purchasing AI compute resources by Canadian businesses and innovators. This element aims to lower barriers to AI development for sectors that require high-performing compute capacity and where the potential for AI adoption is greatest, such as in energy, life sciences and advanced manufacturing. The funding is provided over three years and the program will formally launch in spring 2025.

The 2024 Fall Economic Statement

In addition to the Strategy, in the 2024 FES, the government announced it is developing a program that will provide up to $15B in aggregate loan and equity investments for AI data centre projects that receive investments from Canadian pension funds. To access these incentives, pension funds will have to invest $2 of their own capital for every $1 dollar of government money accessed, as well as be significant shareholders in the project.

To discuss these issues, please contact the author(s).