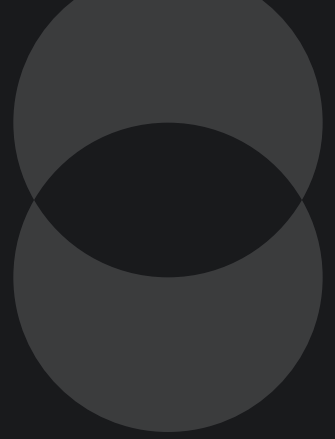




Economic Impact of Canada's Genomics Advantage

Economic impact and growth outlook

Canada's genomics sector plays a meaningful and growing role in the national economy. In 2025, the sector supported approximately 78,000 jobs, generated \$16.7 billion in GDP, and contributed \$4.5 billion in tax revenue. It also delivers strong spillover effects: Each genomics sector job supports an additional 1.9 jobs across the economy, and every dollar of direct GDP generates an additional \$0.60 in broader economic activity.

Growth will accelerate over the next decade. By 2035, the sector will support more than 151,000 jobs, generate \$42.6 billion in GDP, and contribute \$11.9 billion in tax revenue. Rapid advances in technology, declining sequencing costs, AI-enabled analytics, and rising cross-sector demand will drive this expansion.

Structure and strength of the sector

Canada's genomics ecosystem includes approximately 450 companies. This group includes about 100 core research-intensive genomics "creator" firms and 350 "implementer" firms that apply genomics across industries. Core genomics and therapeutics dominate the patenting activity in the sector, accounting for 87 per cent of activity. This concentration reflects strong capabilities in foundational science and clinical applications.

Canada also competes globally in research and data generation. The country ranks among the top producers of scientific output and maintains one of the world's largest repositories of biological sequence data. These strengths create a foundation for innovation, investment, and international collaboration.

Commercialization gap and structural challenges

Despite strong research performance, Canada struggles to translate discovery into commercial success. The country lacks large, globally competitive anchor firms, and commercialization pathways remain fragmented. As a result, Canada risks losing economic value as innovations move from the lab to the marketplace.

Several systemic constraints limit growth:

- fragmented genomic data ecosystems
- talent shortages in specialized fields
- limited access to growth capital
- slow adoption of genomics in traditional industries

These barriers reduce both the scale and speed of the sector's growth.

Economic drivers: The role of private firms

Private sector activity drives the sector's economic impact. Approximately 97 per cent of contributions to jobs, GDP, and tax revenue come from company revenue rather than public research funding.

Public investment has built a strong research base. However, long-term growth now depends on scaling high-performing companies and strengthening commercialization pipelines. Canada must ensure that publicly funded research leads to globally competitive firms if it wants to capture full economic value.

Genomics as a cross-sector enabler

Genomics now functions as a foundational technology across the economy. In healthcare, it enables earlier diagnosis, personalized treatments, and more efficient drug development. In agriculture, it improves crop resilience, productivity, and sustainability under climate pressure. In natural resources, it supports environmental monitoring, cleaner extraction methods, and more effective remediation.

These applications position genomics as a driver of productivity, sustainability, and resilience across sectors, extending its value well beyond economic output.

Key recommendations

To strengthen Canada's position and maximize impact, we've identified three priority actions:

- Strengthen the research-to-commercialization pipeline. Expand early-stage support to de-risk innovation, improve validation, and produce more investment-ready opportunities.
- Focus investment on areas of strength. Direct funding toward therapeutics and core genomics, where Canada holds clear advantages and where global demand continues to grow.
- Expand genomic data infrastructure and adoption. Strengthen data-sharing frameworks and increase public-sector use of genomic data to accelerate real-world applications and build a stronger domestic market.

For the full research, see our impact paper [Canada's Genomics Advantage: The Economic Impact of Genomics in Canada](#).

