

Ahead of the Curve

Investing in Canada's Digital Future | October 2021



We accelerate the development and adoption of digital technologies that help Canadians stay healthy, address climate change, drive economic productivity and build digital skills.



Health



**Natural
Resources**



**Digital
Transformation
of Industry**



**Skills for the
Digital Economy**

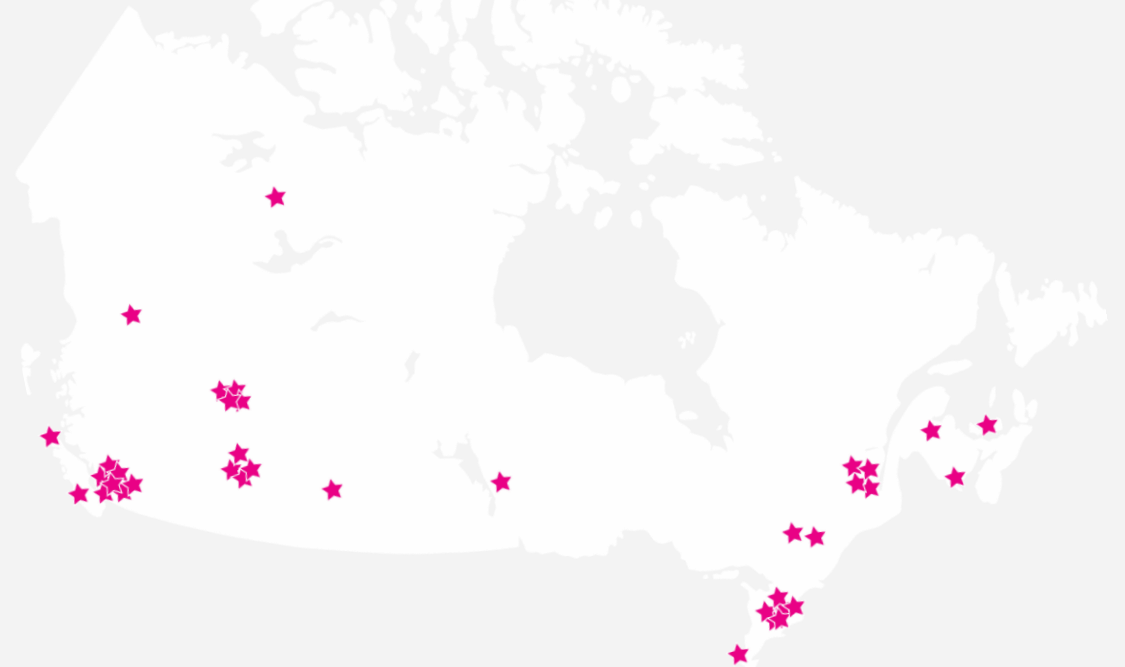
We unlock the potential of Canadians to lead and succeed in the digital world through a powerful combination of co-investment, cross-industry collaboration, IP creation and digital talent development

1000+ Organizations

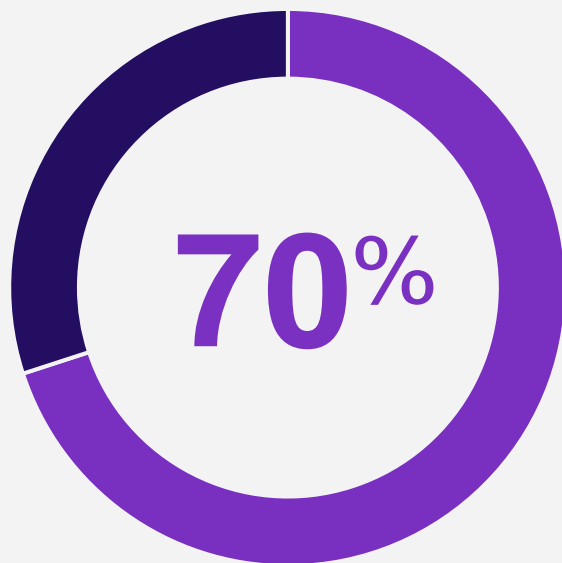
Diverse Expertise

Industry: Startups, SMEs, Large, Multinational

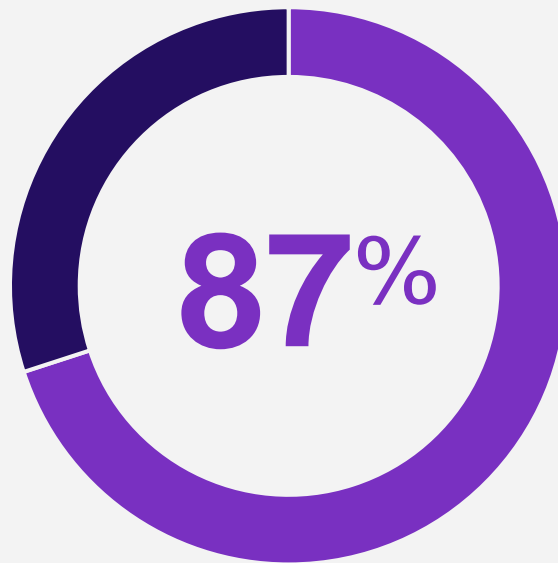
Research: Universities, colleges, institutes, Government, Not-for-profits



The world has changed



of new business value over the next decade will be through digitally enabled platforms



of companies say they either are experiencing skills gaps now or expect them within a few years

*[WEF Digital Transformation Powering the Great Reset 2020.pdf \(weforum.org\)](#)
[Digital strategy during the coronavirus crisis | McKinsey](#)*



If the pace of the pre-coronavirus world was already fast, the luxury of time now seems to have disappeared completely. Businesses that once mapped digital strategy in one-to three-year phases must now scale their initiatives in a matter of days or weeks.

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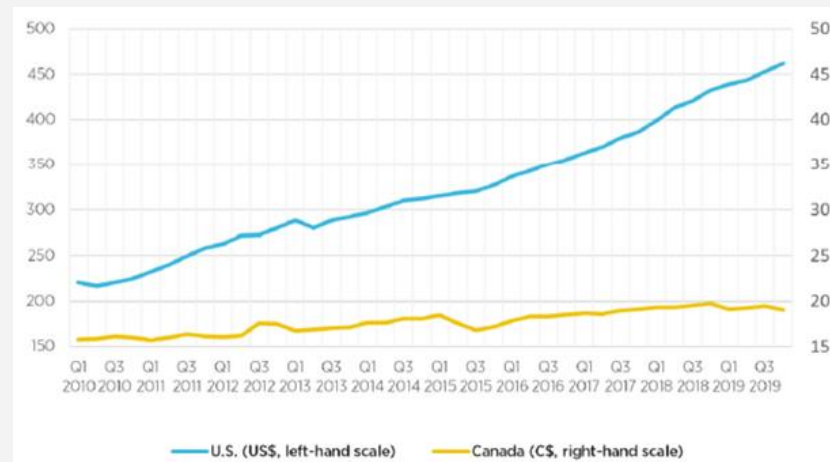
Canadian industry is behind

R&D Investment



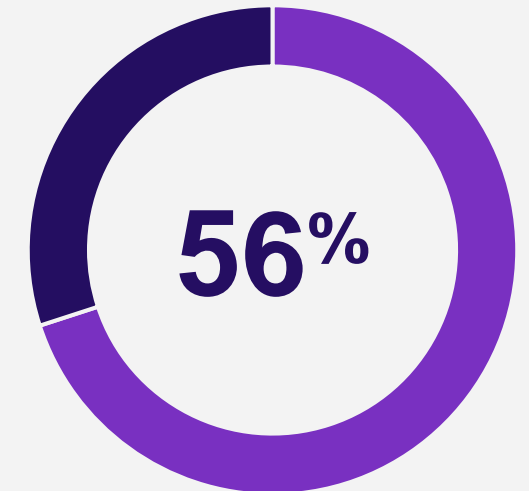
Canadian industry invests less than 50% of advanced economies in R&D and our rate of investment is declining

Digital Adoption



Canadian industry significantly lags the US in real business investment in software.

Digital Skilling



Canadian industry invests 56% of the global average companies spend on employee learning and development.

Collaborative innovation, co-investment and the customer voice drive results and adoption



1. Demand based R&D and Collaborative Innovation:

Diverse parties: academia, industry leaders, SMEs, public sector develop solutions together better than any single organization could alone.



2. Accelerating development through Co-investment

A co-investment approach de-risks and accelerates the pursuit of breakthrough digital technology and Canadian-owned IP

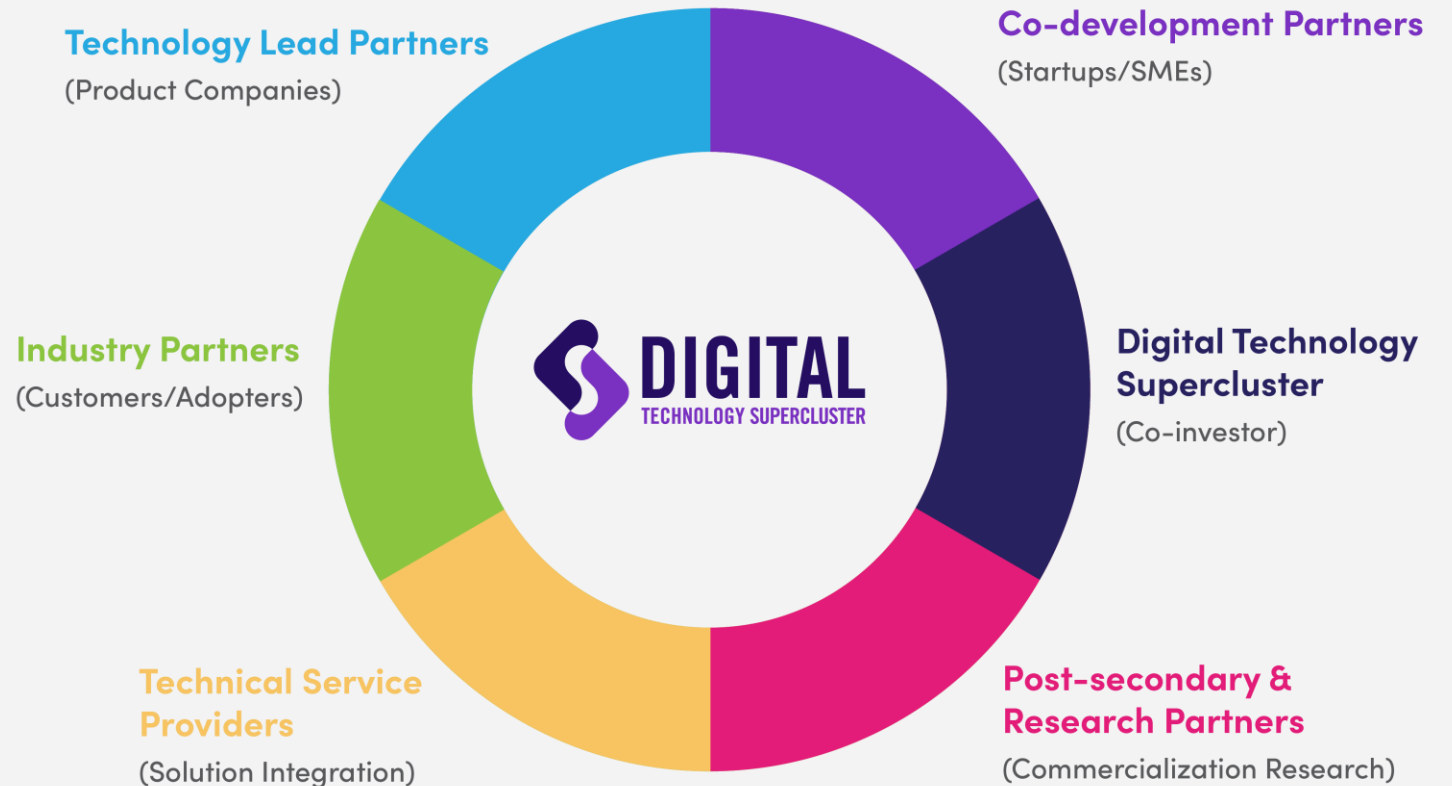


3. Driving Digital Adoption through customer voice

The 'customer voice' is at the table. Accelerated adoption unlocks opportunities for customers, providers and community.

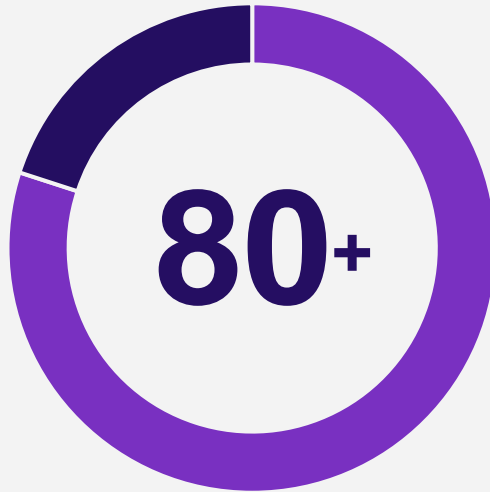
A new digital innovation approach: Design thinking meets cross-industry collaboration and co-investment

We employ a new innovation model that is led by industry and connects innovators, academia and customers to commercialize research and create and keep Canadian-owned IP.



Our approach is working

New Digital R&D Projects



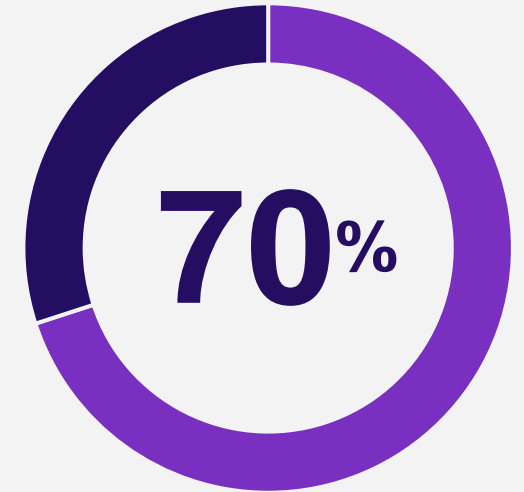
More than 80 cross-industry collaborations in digital R&D and talent development projects

Industry-led Investments



Leveraged industry investment in R&D with over \$300M in project investments

Investing in Canadian SMEs



Investments are benefiting Canadian SMEs – supporting new IP, market expansion and scale-up

A snapshot of our impact



136

PRODUCTS & SERVICES
IN DEVELOPMENT



20,000

EXPECTED JOBS



25

SMES SCALED



\$1.3B

GROWING OVER \$1B+ IN
POTENTIAL REVENUE
FOR CANADIAN
BUSINESS



\$6,500

LEARNING &
DEVELOPMENT
PLACEMENTS



40%

OF TEAMS EXPLORING
INTERNATIONAL
OPPORTUNITIES



350+

ANTICIPATED
IP ASSETS

Accessible, relevant, effective digital health



Autism Sharing Initiative

The first global network for sharing genomics and biomedical data to accelerate research to develop precision healthcare approaches for individuals with autism.



Wellness.ai

Developing a 'digital brain' to understand human interactions to deliver an immersive and personalized wellness coaching experience.



Telewound Care

Best-practice wound management across the care continuum

Environmentally sustainable approaches to natural resources



Protecting our Oceans

Using machine learning, artificial intelligence and data visualization to identify, track and apprehend illegal fishing vessels to protect our global fisheries and marine ecosystems



Mining Microbiome Platform

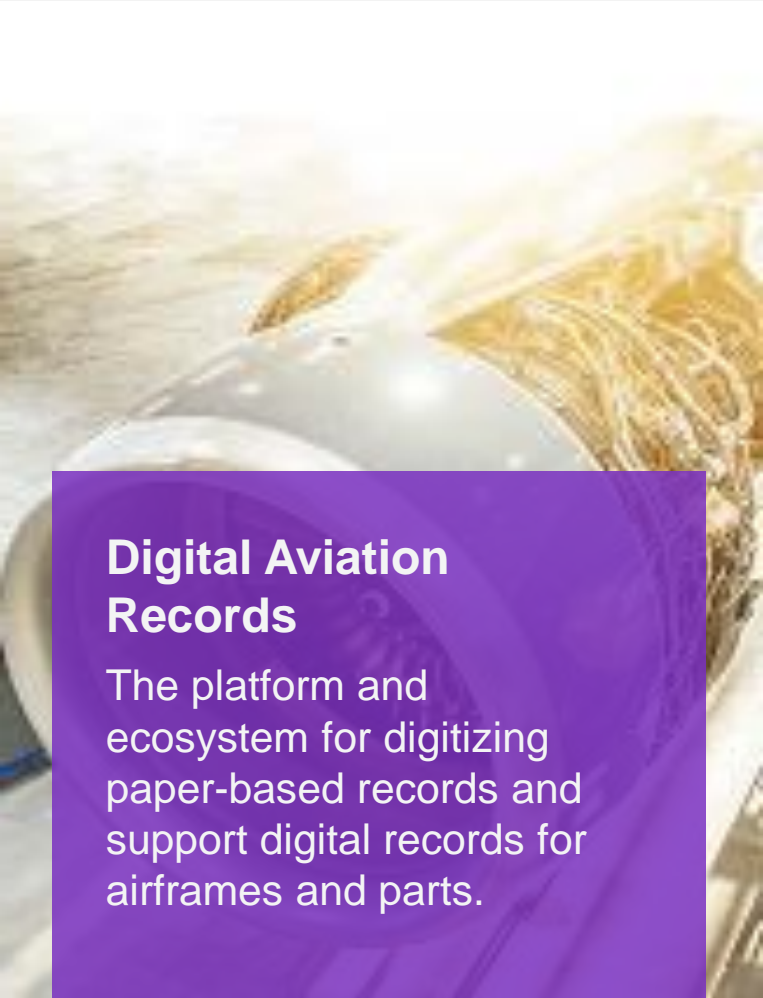
The world's first open data ecosystem in microbiome-based resource exploration, extraction and waste remediation



Precision Crop Health

A non-pesticide approach to managing crop disease through computational biochemistry, genomics, machine learning, computer vision and robotics.

Improving the competitiveness of Canadian industry



Digital Aviation Records

The platform and ecosystem for digitizing paper-based records and support digital records for airframes and parts.



Forest Machine Connectivity

Automating and optimizing the timber harvesting supply chain using a network of 'smart' devices



Scaling Safe Food Delivery

An end-to-end eGrocery Management solution to ensure food security for Canadians and improve food supply chain management.

Preparing Canadians for the future

A man in a dark shirt is standing in front of a whiteboard in a classroom, gesturing with his hands. A clock is visible on the wall behind him.

Canadian Tech Talent Accelerator

Providing in-demand tech skills to underemployed youth across Canada

A woman with glasses and a dark sleeveless top is standing and presenting to an audience. The background is a brick wall.

Digital Lift

Creating a system for rapidly skilling talent into careers in technology

A person is looking at a computer monitor. The screen displays a blue-toned image of a server room or data center.

Athena

Creating responsive and flexible training programs to broaden diversity in AI talent.

Technology innovation / R&D



Applied AI/ML



Blockchain



**Bioinformatics &
computational biology**



**Data standardization &
governance**



**Data visualization &
immersive technologies**



**Sensors, smart devices,
IoT & robotics**




**Geospatial &
hyperspectral imaging**


We are creating a better Canada



Helping Canadians
manage their health
and wellness



Addressing the
impacts and effects
of climate change




Improving the
productivity and
competitiveness of
Canadian industry



Creating job
opportunities for
Canadians in the
digital economy

Join us

- Our community is open to all Canadian organizations
- Explore collaboration opportunities with other organizations
- Develop/propose projects in our targeted program areas
- Repeat your engagement and success



I believe this consortium-based innovation is the way of the future, especially in rapidly growing emerging areas such as AI and ML. By building teams with other 'A-list' players we are able to provide interesting, meaningful projects to work on. That means we can create Canadian IP and new jobs. The Digital Technology Supercluster played a key role as an 'honest broker' in bringing together the partners at a speed not otherwise possible around these ambitious AI/ML projects.

NICOLE JANSSEN,
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