

LABORATORIES | LABORATOIRES CANADA | CANADA

Canadian Laboratory Consortium

**2025 Conference for Project Management
Professionals**

May 13-14, 2025



Canada 

LabsCanada's Vision

- ✓ Nation-building partnerships where key sectors are supported by science
- ✓ See industry, academia and all levels of government deliver collaborative science outcomes
- ✓ Lay the groundwork for made-in-Canada innovation solutions in diverse areas that build on Canada's science strengths and key interests, from critical minerals to AI
- ✓ Address complex challenges, drive economic growth, and enhance national security, strengthening Canada's productivity

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Laboratories Canada – Online Communication

Laboratories Canada



Science is vital to Canada's future: our economy; our health, safety, and security; our country. From protecting our borders and coastlines to securing our food supply and sustainably developing our natural resources, federal scientists are delivering core science and spurring innovation that will benefit Canadians.

Innovative research requires modern technology. That's why Laboratories Canada's national network of world-class, IT-enabled laboratories. These facilities support and enhance health and safety, creating a more resilient and brighter future.



As a world-class leader, the CHS hub will contribute to the advancement of cultural heritage science, conservation and co-operative information sharing to further the preservation of Canada's cultural heritage.

Science priorities:

- Preserve cultural heritage for future generations
- Facilitate access to collections of artifacts and historic objects
- Identify and address emerging risks to cultural heritage

Scientific facility

- The location of the CHS facility will be announced over the coming months.

Transportation Safety and Technology Science (TSTS)



The TSTS hub will enhance evidence-based decision-making by bringing together federal institutions to collaborate on science to advance transportation safety and technological developments.

Science priorities:

- Reduce transportation safety risks for Canadians
- Create new technologies to improve transportation in areas such as safety, certification and accident investigation for the air, marine, rail and pipeline sectors
- Enhance technologies to secure our summer and address wildlife conservation

Scientific facilities

- Ottawa, Ontario - Transportation Safety and Technology Science facility: Facilitate transportation safety risks for Canadians.



Download the alternative format (PDF format, 824 KB, 1 page)

Organization: [Laboratories Canada's In-Use Services and Programs](#)

Published: 2021

Partners

- [Canadian Conservation Institute](#)



Transportation Safety and Technology Science (TSTS) fact sheet

Partners

- [National Research Council Canada](#)
- [Transportation Safety Board of Canada](#)

Canada's new Centre for Plant Health to benefit wine and fruit Industries

From: [Canadian Food Inspection Agency](#)

News release

March 7, 2025 – North Saanich, BC

A state-of-the-art scientific facility is now open, setting a new standard for plant health science and bolstering Canada's trade and agriculture sectors.

The Canadian Food Inspection Agency's (CFIA) new [Centre for Plant Health](#) (by MONET/AUTUMN ETJE SJESENENEC) in North Saanich, British Columbia, is a pioneer project of the Laboratories Canada strategy. Construction was led by Public Services and Procurement Canada (PSPC), on behalf of the CFIA.

Removing barriers through science


As Canada's only post-entry quarantine, research and diagnostic facility for virus testing of grapevines, fruit-bearing trees, and small fruit, the Centre plays a vital role in protecting plant health. Its cutting-edge work in virus testing and virus elimination supports the productivity and sustainability of Canada's vineyards, orchards, and berry farms. This work supports farmers and strengthens sectors that contribute billions to the national economy.


State-of-the-art science equipment and information technologies at the new Centre will modernize testing for regulated plant diseases, improving Canada's capability to detect these diseases earlier and more accurately. This will have the potential to decrease plant quarantine testing times, which can help to speed up regulatory approvals and enable Canadian businesses to move their products to market faster and more internationally.




The entrance to the new Centre for Plant Health. Various maple plants that are the 'signature' of the LAURICUS/CFIA, which means 'the place of refuge' in the SHCOTEN language. Photo credit: Michael Balthus.

The Science and Infrastructure Ecosystem is Changing


 **New Opportunities** to attract and retain talent that advances fact-based decisions and science key to supporting national priorities

 **Fiscal Pressures** are leading to re-prioritization and could refocus infrastructure investments

 **Economic Imperatives** for GDP growth and digital transformation could shift strategic investments in scientific research

 **International Competition** is driving governments to direct science investments where they can position themselves as key players in critical sectors

 **Geopolitical Reset** creates opportunities for new partnerships, both within Canada and with like-minded nations

 **Security Interests** are increasingly important in research and are escalating needs for strong infrastructure and safe IM/IT

Laboratories Canada – Helping Canadians

- [Laboratories Canada | International Day of Women and Girls in Science](#)



Strategic Outlook

Strengthening Canada's Economy: driving Canada's productivity through evidence-based decision making and bolstering science and desired outcomes amongst departments, industry, academia and other governmental partners to support national priorities like public health, natural resources development, manufacturing, and regulatory enforcement

Building Canada: building and upgrading science facilities with partners to support faster processes and develop a digitized environment to drive scientific research, IT security, and mission-critical capabilities

Securing Canada: strengthening security and safety by supporting the science needed to enable earlier detection of emerging threats secure borders, and enhance our response to crises (e.g. pandemics, cyber-attacks and environmental disasters)

Transformative Delivery: LabsCanada is changing the way scientists work, share, and collaborate from labs to offices to IT systems, spurring better outputs and productivity



“Canada must prioritize its commitment to supporting scientific advances, or risk permanent damage to our productivity, national security, and our way of life.”

– Donna Strickland
Professor, Dept. of Physics and Astronomy, University of Waterloo
Nobel Prize in Physics 2018

Laboratories Canada Strategic Outlook – Communication

- *Strategic Outlook* highlights recent accomplishments and emphasizes the broader impact of science hubs, showcasing the scientific contributions that benefit Canadians.
- Completed Labs: Terra Hamilton, Terra Mississauga, RSS Sidney - Centre for Plant Health.
- Construction work initiated on ASEC in Moncton; design advancing for TerraCanada NCA, RSS Main, and TSTS; CHS site selected.



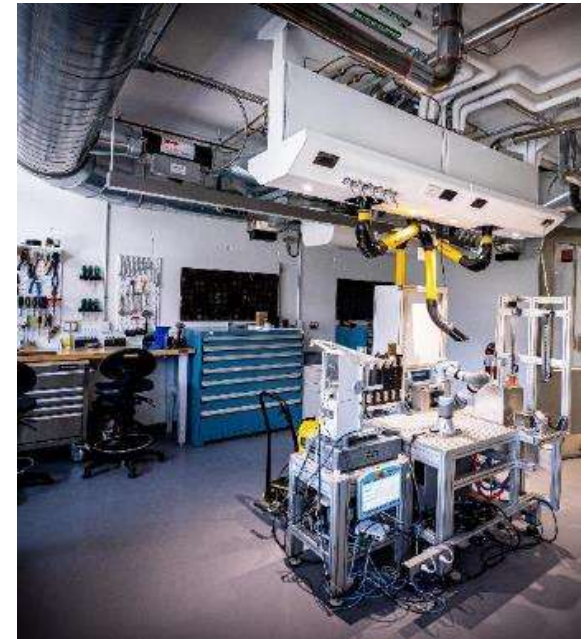
LabsCanada to Date

LabsCanada is a \$3.7B investment addressing Canada's aging and siloed science infrastructure and **delivering purpose-built facilities** for select science priorities. These projects are a model of **digitally-integrated, adaptable, and energy-efficient labs**.

LabsCanada stood up **five science hubs** where scientists from **14 departments and agencies** work together on priorities and challenges facing Canadians' health, safety, resources, and economy.

Laboratories Canada is Driving Partnership, Catalyzing Innovation, and Building a Better Canada

- Single investments supporting multiple science outcomes and partners
- Driving new technological development and piloting new IT solutions with SSC
- Prioritizing Canadian supply chains while driving domestic innovation and productivity
- Creating and applying the Repeatable Labs Design Framework to drive efficiencies to deliver flexible, inclusive, sustainable and secure laboratories
- Creating world-class environments that will attract top scientists, STEM talent, and external partnerships



Activities Underway Across Canada



Completed labs in
Hamilton, Mississauga,
and Sidney, BC



Construction activity
underway in Moncton
and Ottawa (west end)

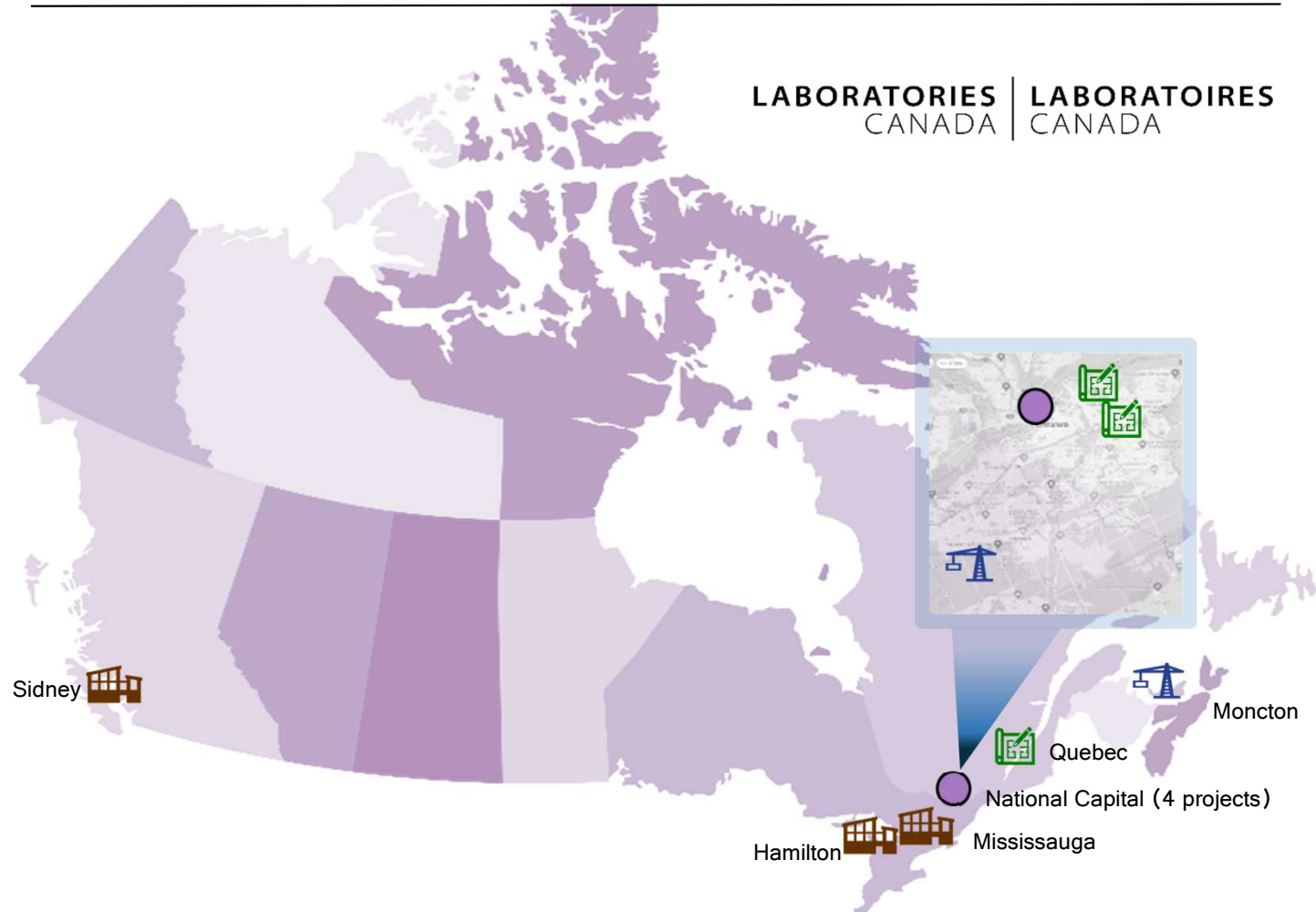


Design underway for 2
Ottawa projects (east
end) and 1 in Quebec



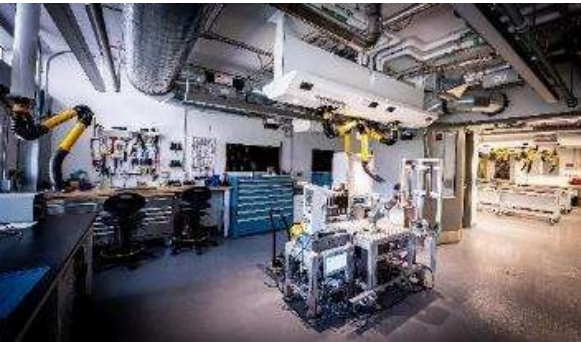
Planning and
procurement launched
for a location in Gatineau

Revitalizing Federal Science Buildings



New Completed Laboratories

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TerraCanada Hamilton: Opened Summer 2022

Advancing Our Steel and Metals Manufacturing Sectors

Using **AI-driven robotics** to increase the experimental pace of discovery of novel minerals, materials and structures **between 10X & 1000X vs traditional techniques**

TerraCanada Mississauga: Opened Spring 2024

New Materials Discovery and Advanced Manufacturing Science

AI-driven novel materials and manufacturing (e.g., solar power, battery tech, biotech) in partnership with universities/industry



"You can see when you walk through the [TerraCanada Mississauga] facility how it has been explicitly set up to allow for the kind of cross-pollination, that germination of ideas across different fields to come up with those breakthroughs that we know can happen when you bring in interdisciplinary science."

- Drew Leyburn, ADM Energy Efficiency and Technology, NRCAN

Laboratories Canada – Design and Impact of New Lab

First Look: Advanced Material Manufacturing Centre | A Canada FIRST Joint Venture | HOK



New Completed Laboratories (Con't)



Sidney (BC) Centre for Plant Health: Opened Winter 2025

Protecting Crops & Growing Trade in Agriculture and Agri-food

Protecting Canada's borders and food through Canada's quarantine and diagnostic lab for **import testing** and **export certification** for vine, fruit and berry crops

Supports the productivity and sustainability of Canada's vineyards (\$1.6B per year in total revenues and \$223M in domestic exports), and fruit from orchards and berry farms (farm gate value of over \$1.3B and fruit exports valued at \$1.1B in 2023)

Projects Under Construction



Atlantic Science Enterprise Centre: Moncton, NB

Sustainably Advancing Canada's Blue Economy

Protect aquatic resources and ecosystems while leveraging big data and Indigenous partnerships

Regulatory & Security Science: Ottawa, ON

Safeguarding our borders, health, and food supply

Combat animal and plant diseases, prevent food-borne illnesses, and strengthen borders to safeguard the health of our food supply, drive economic growth, and prepare for emergencies



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Laboratories Canada (ASEC) – Onsite Communication



Projects in Design



Transportation Safety & Technology Science: Ottawa

Safer & better transportation by air, marine, rail, and pipeline

Reducing the transportation safety risks while **advancing new safety technologies for air, marine, rail and pipeline** sectors

TerraCanada: Ottawa

Driving transformation to a low-carbon economy

Developing the **potential of resources and critical minerals** in a sustainable manner



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Projects in Design (Con't)

TerraCanada: Quebec City

Driving transformation to a low-carbon economy

Supporting sustainable **resource development**,
groundwater and **geoscience**



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Project in Planning

Cultural Heritage Science: Gatineau, QC

Conserving Canadian heritage and advancing reconciliation

Protecting nationally historic objects and places for the next generation while advancing reconciliation goals



Communication with future occupants

RSS-Centre for Plant Health – Newsletter



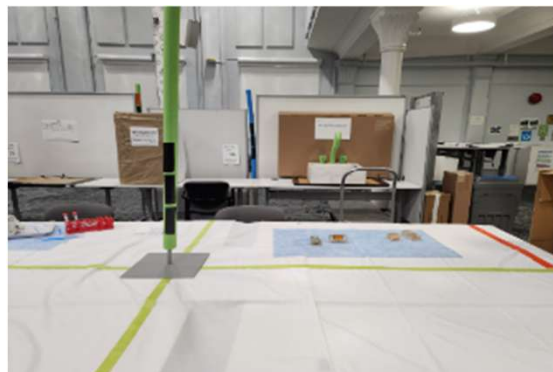
CHS – Extensive Gcpedia site



TSTS – banners and posters design concepts in high traffic areas



ASEC – mock-up LabsCan laboratory



Terra – Virtual Science Event



Driving Outcomes for Canadians

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~\$6B

GDP

Economic Impact from Infrastructure Spend

1/2 Mt

GHG Reductions (tCO₂eq)

Over 40-year lifecycle

50,000+

Person-Years of Employment

In architecture, engineering, trades,
clean tech, & manufacturing

\$250M

to Indigenous Business & Communities

Advancing reconciliation goals through partnerships & opportunities



Creating universal accessibility to foster equity & diversity through inclusion by-design in all new facilities