

Semiconductors



Critical Infrastructure at the
Heart of Industry

Canada's Semiconductor Ecosystem.



Managed by CMC Microsystems, FABrIC is a five-year, \$217M project to secure Canada's future in semiconductors. It galvanizes national strengths in photonics, MEMS, compound semiconductors and quantum technologies, accelerating commercialization and amplifying Canada's competitive advantages by maximizing the economic impact of its semiconductor sector.

Canada's Semiconductor Powerhouse

CMC's impact on the chip-making industry in Canada

Founded in 1983, CMC Microsystems (CMC) has been instrumental to the success of Canada's semiconductor industry. Today its network includes over 11,000 researchers and 1,200 companies developing innovations in advanced technologies.

Over the decades, CMC's highly regarded training programs have honed the skills of tens of thousands of semiconductor professionals. From microelectronics to quantum software and hardware to silicon photonics, it has fortified the pipeline of Highly Qualified Personnel (HQP) that are the bedrock of market success.



FABrIC: a generational investment by the Government of Canada

FABrIC is a Strategic Response Fund initiative of the Government of Canada to expedite domestic capabilities in advanced semiconductor design and manufacturing.

Marquee programs include Challenge Funding, the Quantum Computing Sandbox, and Training, all of which build national capacity.

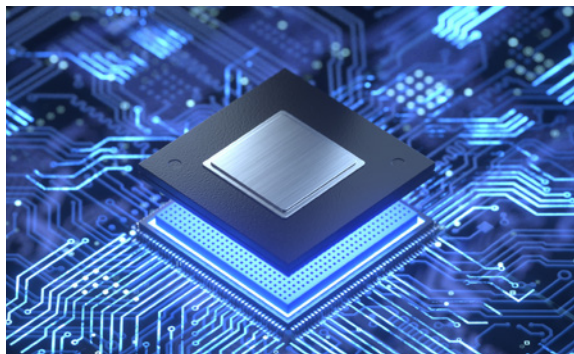
FABrIC connects the semiconductor sector into Canada's major industrial performers: the auto sector, mining and natural resources, agriculture, medtech, ocean/marine, aerospace, defence, and advanced manufacturing. Forging these connections is integral to the semiconductor sector, to the ability of these critical Canadian industries to innovate and compete – and to bolstering national sovereignty.

<https://fabricinnovation.ca>

CMC lowers the cost and complexity of technology adoption by creating and sharing platform technologies, including access to state-of-the-art design, manufacturing, and testing capabilities.

CMC has established cost-effective access to the sophisticated tools and technologies essential for academic research, the growth of emerging companies, and industrial R&D. During the era of globalization and subsequent fab and foundry consolidation, it negotiated critical manufacturing agreements that enabled researchers to prototype and test their products.

www.cmc.ca



Access to Leading-edge Design and Fabrication Capability.



Enabling academic and industrial innovators to transition from theoretical design to physical prototyping with reduced barriers to entry.

Simplified access at reduced costs to create first-time-right prototypes

CMC provides essential industrial-scale manufacturing services, and in-house expertise for academic researchers, emerging companies – and their collaborative R&D partners.

EDA Tools and Cloud Hosting

- > Over 50 Computer-Aided Design (CAD) tools and design environments.
- > A secure, distributed private cloud for hosting state-of-the-art software for successful design.

100+

global supply chain vendors; includes over 50 located in Canada

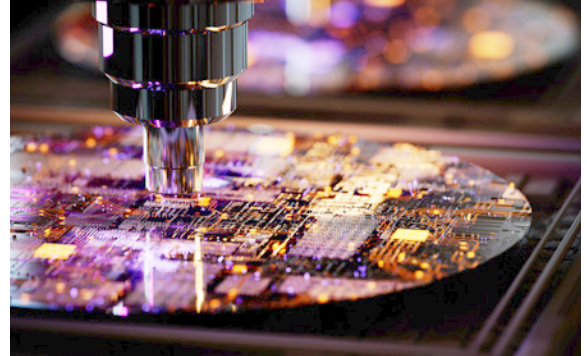
13,495

microchips prototyped through CMC since 1983

Multi-Project Wafer Access

- > Fabrication including MPW and dedicated runs in more than 25 technologies from 12 commercial foundries backed by engineering support.
- > Value-added packaging and assembly services.
- > Subsidized pricing for academics in Canada to advance research and train HQP.
- > **NEW:** Subsidized access for start-ups in Canada to accelerate early-stage product development.

www.cmc.ca/technologies



MicroFAB Access

CMC's MicroFAB Access service supports custom microfabrication at open-access micronanotechnology (MNT) cleanroom facilities at Canadian post-secondary institutions.

- > Up to 80% reimbursement of eligible fabrication costs, to a maximum of \$4,000, for users creating working prototypes.
- > Available to academics in Canada.

<https://fabricinnovation.ca/microfab-access>

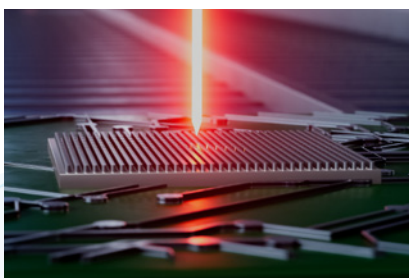
Canadian MNT Lab Locator

- > Over 40 MNT Labs
- > Discover open-access cleanrooms, nanofabrication, microscopy and microfluidics labs.

www.cmc.ca/canadian-mnt-labs



FABrIC Challenge Funding & CMC Technical Support.



Canada is making strategic investments in semiconductor technologies that accelerate the development and commercialization of technologies and products where there is significant domestic capability and global opportunities.

Challenge Funding – A Call to Industry in Canada

New Advanced IoT Sensors and Semiconductor Chips

Challenges foster the growth and expansion of companies developing and commercializing advanced sensors in Canada targeted at clean tech, electrified vehicles, 5/6G data communications, healthcare, mining and other strategically important sectors.

- > Reimbursement rate:
 - 37% of eligible project expenses
- > Exit TRL 8 or higher

Fabrication Supply Chain Capacity and Capability

Challenges develop widely accessible semiconductor fabrication capability in Canada to strengthen and deepen Canada's supply chain for design, prototyping, and test. Key areas of focus are photonics, microelectromechanical systems (MEMS), compound semiconductors, quantum technologies, such as superconducting technologies, and related advanced packaging and test technologies.

- > Reimbursement rate:
 - 40% of eligible project expenses
- > Exit TRL 7 or higher



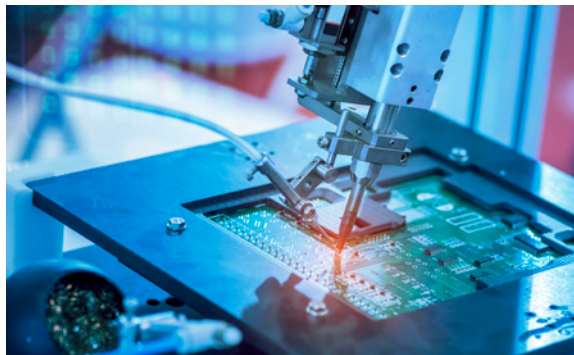
Technical Advice

Technical advice is available from CMC's experts during the proposal development stage – and can provide support once your project has been awarded. Technical support can mitigate risk and shorten the time-to-market.

FABrIC Advisors

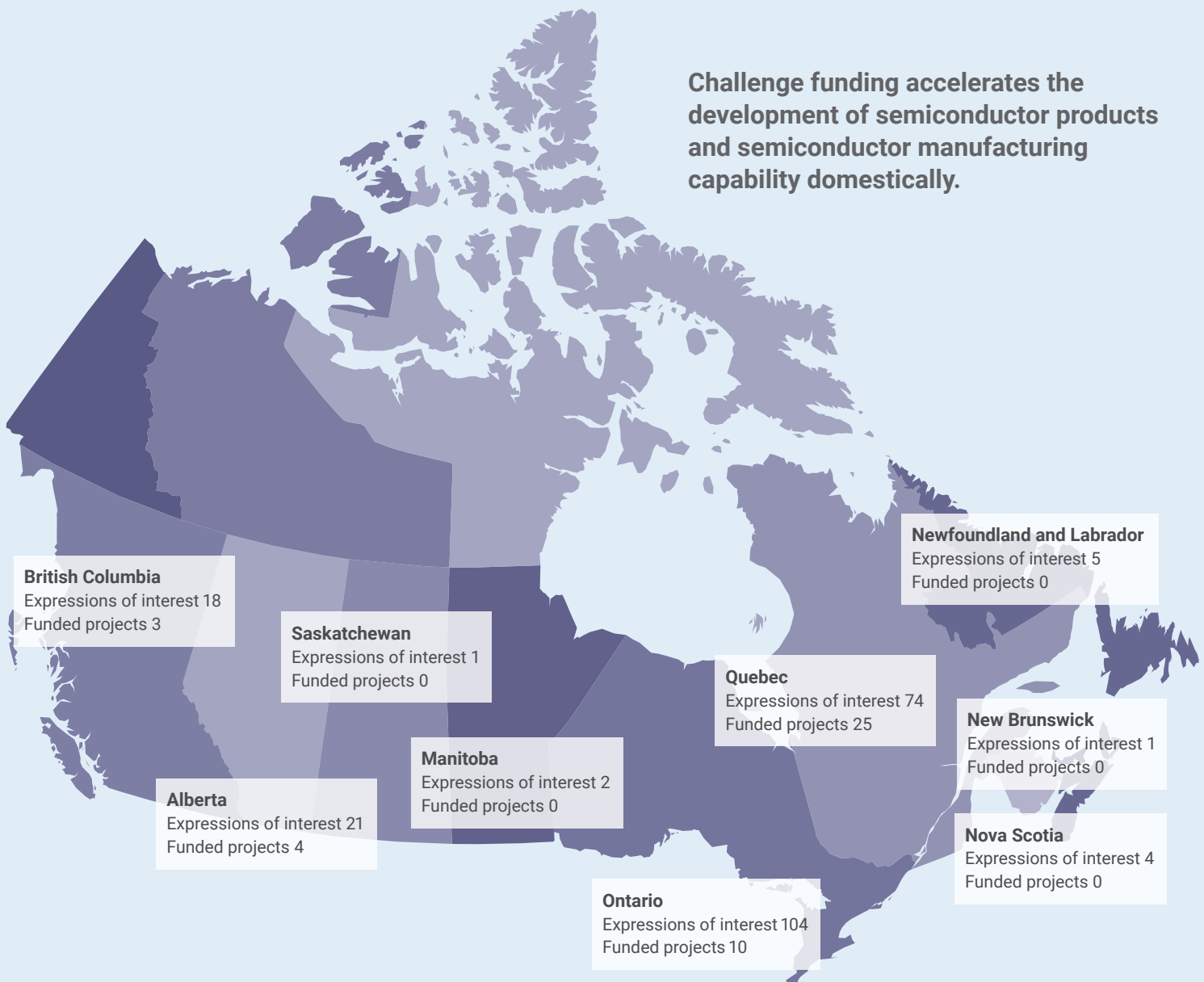
FABrIC Advisors are available to help potential applicants further understand the objectives of these Challenges and the eligibility criteria.

<https://fabricinnovation.ca/funding>



Challenge Funding by Province

Challenge funding accelerates the development of semiconductor products and semiconductor manufacturing capability domestically.



Impact To-Date

240

FABrIC Members
across Canada

230

Expressions of
Interest (EOIs)
received

42

Active Challenge
projects

\$94.7 M

Total project value
with a total FABrIC
investment of \$30M

Awarded Projects.

Market-ready semiconductor innovation.



Semiconductors are ubiquitous. The 21st century's most advanced technologies rely on semiconductors. They control power and communication systems, connecting and operating everything from refrigerators and cellphones to cars, pacemakers, satellites.

PRODUCT DEVELOPMENT

Axonal Networks Inc.

paraDOX™ (parallel Digital Optical Cross (X) Connect). A new Ethernet packet switch architecture using silicon photonic optical logic. Montreal, Quebec. 2025. \$850K.

This is a new packet switching architecture with low-latency, high efficiency and scalable to thousands of ports, while using far fewer resources than current switches. paraDOX™ also integrates optical technologies, providing the pivotal “killer app” for massive silicon photonics semiconductor scaling.

Blumind Inc.

Ultra Low Power Analog AI for Physical AI, IoT and Wearables. Ottawa, Ontario. 2026. \$1.5 M.

This audio inference chip will enable always-on, wake-word, and command recognition in IoT devices and consumer wearables from smartwatches to autonomous vehicles – reducing battery drain by a factor of 100 to 1,000.

Bonsai Micro

Edge AI Controller (eAIC) for LEO Satcom and 5G. Vancouver, British Columbia. 2026. \$618K.

Analog, RF, and mmWave circuitry for advanced wireless communication applications, the eAIC will improve the power efficiency of critical digital technology hardware and reduce greenhouse gas emissions.

Boréas Technologies Inc.

Active Cooling for Edge AI Computing. Bromont, Quebec. 2026. \$925K.

Developing an active heat management system built specifically for edge AI: a new piezo micropump driver IC paired with a reference design that integrates easily into a wide range of devices.

Digitho Technologies Inc. (DIGITHO)

Reprogrammable Photomask for Direct Writing Capability in Semiconductor Lithography. Bromont, Quebec. 2025. \$438K.

This direct writing technology can be used to mark a serial number on each and every chip, providing a cost-effective traceability solution to the semiconductor industry. It enables chip tracking and traceability at a lower cost to secure the semiconductor supply chain and to avoid counterfeiting.

Edgewater Wireless Systems Inc.

Next-generation Spectrum Slicing for IoT and Wi-Fi Applications. Kanata, Ontario. 2025. \$921K.

This Wi-Fi chip improves speed, reliability, and efficiency for today's connected world. Shaped by input from large-scale users across residential, business, and industrial IoT sectors, this technology supports more devices, reduces delays, and uses less power – making everyday internet use better for everyone.



"The Government of Canada is making strategic investments in our semiconductor industry to expand the development of critical technologies that protect our sovereignty, and drive productivity and economic growth. The projects announced today showcase Canadian ingenuity at its best and highlight that when we invest in our companies, they can compete globally and win."

The Honourable Mélanie Joly

Minister of Industry and Minister responsible for Canada Economic Development for Quebec Regions

HaiLa Technologies Inc.

Ultra-Low-Power Edge-AI Connectivity Chip.
Montreal, Quebec. 2026. \$1M.

This system-on-chip (SoC) combines extreme low-power communications with secure edge processing, enabling real-time, secure monitoring in a wide range of applications, from personal health devices, smart buildings, industrial equipment and processes to automotive.

ICSPI Corp.

Development of an atomic force microscope semiconductor metrology system.
Waterloo, Ontario. 2025. \$623K.

This pioneering, breakthrough inspection tool for semiconductor manufacturing uses unique miniaturized atomic force microscope (microAFM) technology to detect tiny defects at speeds 100x faster than the state-of-the-art tools. By speeding up defect detection, tool can enable new chip-making processes, accelerate time-to-market of new products, reduce waste and boost the supply of chips.

indie Photonics Canada Inc.

Semiconductor Lasers for Oceanic Fibre Optic Sensing. Quebec City, Quebec. 2026. \$970K.

Existing submarine fibre optic cables offer a unique opportunity to deploy compact, low-noise semiconductor lasers for distributed sensing applications. A cost-effective way to monitor seismic activity, environmental conditions, and the health of the telecom network, it also strengthens national security, protecting against national disasters and cyber threats.

mmSense Technologies Inc.

Co-Lead: C-COM Satellite Systems Inc.

High-efficiency Beamforming IC and Intelligent Beam-forming Antenna Modules for Satellite IoT and ESA terminals. Waterloo, Ontario. 2025. \$911K

This new class of beamforming ICs and electronic scanning antennas aims to reduce power consumption and cost while enhancing performance – making satellite connectivity more viable for emerging GEO/LEO, IoT and communication markets.

mmSense Technologies Inc.

High Performance Connected Conformal 4D millimeter Wave Radar IoT Sensor. Waterloo, Ontario. 2026. \$847K.

Accurate, real-time detection in smart infrastructure, industrial, and automotive environments, from smart parking, security monitoring, environmental sensing, and automotive systems.

Noze Inc.

Development of High-resolution, Scalable Silicon Aroma Sensor for Healthcare Applications. Saint-Laurent, Quebec. 2026. \$524K.

This medical-grade chip will power next-generation breath-based health monitoring. By analyzing biomarker molecules in human breath, it will enable non-invasive, accessible tools for early disease detection and wellness tracking.

\$94.7 M**Total project value with a
total FABRIC investment of \$30 M****PROVA Innovations Ltd.**

Advanced ASIC Development for Real-time Gait Analysis in Rehabilitation Devices.
Ancaster, Ontario. 2025. \$398K.

The project enhances the performance, scalability, and cost-effectiveness of WithinStride™, enabling real-time biofeedback for gait rehabilitation from clinic to home.

Qubic Inc.

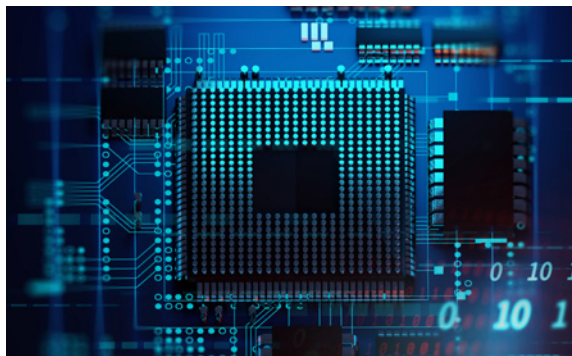
Development and Commercialization of Low-noise Superconducting Amplifiers for Scalable Quantum Computing. Sherbrooke, Quebec. 2025. \$925K.

The development of disruptive cryogenic superconducting amplifiers that significantly reduce heat dissipation, a key barrier to scaling superconducting quantum computers.

Ranovus Inc.

ODIN® ELS-Canada Capability Demonstrator (ELS-CCD). Ottawa, Ontario. 2025. \$923K.

The project is developing a high-performance, Canadian-made External Laser Source (ELS) designed to power the next generation of AI data centers. This innovative laser source is a crucial component for Co-Packaged Optics (CPO), a new technology that dramatically improves the power efficiency, speed, and reliability of the systems that train and run complex AI applications.

**Ranovus Inc.**

ODIN® Optical Engine Fast-track Prototype Development ("Raptor"). Ottawa, Ontario. 2026. \$1.5 M.

This market-demand-driven project responds to the unprecedented growth in AI model size. With training and inference growing exponentially, data centres and edge connectivity growth are being constrained by power availability. Ranovus' high-bandwidth, power-efficient, large-scale networking technology is essential for both scale-up and scale-out needs. Their technology positions Canada in the AI hardware value chain and helps maintain sovereignty over critical infrastructure components.

Sheba Microsystems Inc.

MEMS-actuators for AI-based Temperature Compensation Enabling Enhanced ADAS Camera Systems. Toronto, Ontario. 2026. \$796K.

Advanced-Driving-Assistance-Systems (ADAS) automotive cameras are fixed-focus with large lenses affected by temperature change – an issue that will worsen as pixel size continues to decline. Sheba's technology maintains sharp focus, with market applications in automotive, advanced manufacturing and digital technologies.

Soundskrit Inc.

Development of a directional MEMS microphone resilient to wind noise for outdoor consumer devices. Montreal, Quebec. 2025. \$173K.

Commercial outcome: Soundskrit now has a world-class Canadian-made technology broadly relevant for mobile phones, wearables, and field devices where wind and environmental noise degrade speech quality. Full story: <https://fabricinnovation.ca/soundskrit-success/>



"After just two rounds of Challenge calls, we've seen a revitalized semiconductor ecosystem step forward – not just with early-stage ideas – but with market-ready solutions to real commercial problems. Established companies and feisty newcomers alike have responded with substantive projects that address the expanding needs of a rapidly accelerating technological era. Canada is back on the global map."

Gordon Harling President & CEO, CMC Microsystems

SPARK Microsystems International Inc.

Wireless Personal Area Network System-in-Package for Low-Energy, Low-Latency AI Wearables. Montreal, Quebec. 2026. \$1M.

As AI wearables evolve from accessories into always-on multi-modal health and safety devices, the demand for high-speed synchronization and extended battery life is exploding. This project delivers a Canadian-designed wireless subsystem for next-generation wearables.

Teledyne MEMS (a business unit of Teledyne Digital Imaging Inc.)

Cu-TSV Platform Development. Bromont, Quebec. 2025. \$409K.

Copper Through-Silicon Vias (Cu-TSVs) are an enabler for 3D integration, allowing vertical stacking of chips to achieve higher performance, reduced form factor, and improved thermal and electrical efficiency. They are critical for advanced applications such as AI, HPC, IoT, and medical imaging, where high bandwidth and compact integration are essential.

WhalePiX

LightEdge: Scalable Photonic Chiplets for Far-Reach Connectivity. Quebec City, Quebec. 2026. \$999K.

Aimed at enabling energy-efficient optical connectivity for advanced AI and data-centre systems, LightEdge's high-speed chiplet supports multi-terabit data transmission and establishes a Canadian manufacturing workflow that builds next-generation AI infrastructure.

FABRICATION PROCESS DEVELOPMENT

Aeponyx Enterprises Inc.

Development of an advanced integrated photonic platform targeted for operation between 450 and 1065 nm for quantum applications. Montreal, Quebec. 2025. \$867K.

The objective is to develop a low-loss Si Nitride photonics integrated circuit (PIC) platform to realize compact optical filters for refining the linewidth of semiconductor laser diodes operating at visible or NIR wavelengths for quantum computing applications.

Aeponyx Enterprises Inc.

Hybrid Photonic Platform for Advanced Integrated Optical Components. Montreal, Quebec. 2026. \$960K.

Bandwidth and energy limits are pushing data systems toward optical I/O. Aeponyx's hybrid photonic chip combines active and passive components on one platform, cutting complexity and boosting performance. The result is smaller, more efficient optical hardware for communications, sensing, and emerging quantum applications.

Anyon Systems Inc. Co-Lead: C2MI – Centre de Collaboration MiQro Innovation

Low Volume Prototyping and Testing of 3D Quantum Chips. Dorval, Quebec. 2026. \$1M.

Superconducting qubit technology is the leading platform to develop large scale quantum processors. As chips scale, there is a need to develop new 3D architectures to allow for more qubits.

FABRIC's goal is to increase Canadian-built solutions in the semiconductor supply chain to enhance the resilience of Canadian industry and increase the economic footprint of the semiconductor industry in Canada.

Applied Nanotools Inc.

Si-SiN Platform for Quantum Photonic Circuit Prototyping. Edmonton, Alberta. 2026. \$210K.

Quantum and photonic circuits need ultra-low-loss routing and broad wavelength coverage. A monolithic silicon – silicon nitride platform enables both active and passive functions on a single chip. The approach makes prototyping more accessible for quantum technologies, lidar, sensing, and advanced communications.

Boréas Technologies Inc.

Active Cooling for Edge AI Computing. Bromont, Quebec. 2026. \$1M.

The powerful computational benefits of AI generate enormous amounts of heat. It is a major limit on the capabilities of edge devices. Heat management is essential — this project promises cheaper, smaller, lower-energy cooling systems that accelerate functionality on the edge.

C2MI – Centre de Collaboration MiQro Innovation. Co-lead: Institut interdisciplinaire d'innovation technologique (3iT), Université de Sherbrooke

Die to Wafer (D2W) Heterogeneous Direct Bonding. Bromont, Quebec. 2025. \$119K.

Development of a series of process steps to achieve direct bonding of various material pairs, a critical enabler for many advanced packaging applications.

Dream Photonics Inc.

LINC3D Laser-Integrated Nanophotonic Chiplets using 3D Printing, Fabrication Process Development. Vancouver, BC. 2025. \$322K.

The growing demand for AI clusters, driven by massive data processing, requires high-speed, energy-efficient interconnects. Addressing precision in optical coupling, thermal management, and alignment is crucial to unlocking the full potential of optical chiplets, enabling faster, low-latency communication and scalability in AI systems.

École de technologie supérieure. Co-Lead: Seneca Sense Technologies Inc.

Flexible Hybrid Electronics Prototyping and Low-Volume Manufacturing Platform. Montreal, Quebec. 2026. \$333K.

Flexible printed electronics remain difficult to build in Canada. A new local prototyping and manufacturing platform gives innovators faster, more secure access to wearable, biosensing, environmental, and smart-packaging technologies. The capability reduces reliance on offshore suppliers and accelerates product development. The project co-lead is Seneca Sense Technologies Inc.

INO (Institut national d'optique). Co-leads: Aeponyx Enterprises Inc. and C2MI – Centre de Collaboration MiQro Innovation

Establishing a Canadian TFLN integrated circuit prototyping and fabrication capacity. Quebec City, Quebec. 2025. \$965K.

Developing a complete thin film lithium niobate (TFLN) chip production ecosystem - from design to foundry services, to testing and packaging – by partnering with key players in Canada, both in industry and academia.

The competitiveness of every industry in the Canadian economy – from agriculture and natural resources to advanced manufacturing and automotives – depends to some degree on semiconductor technology.

Inpho (ElectroPhotonic-IC Inc.)

Monolithically Integrated EML arrays for DR and FR applications. Kanata, Ontario. 2026. \$940K.

High-speed optical links are essential for modern data centres and secure networks. A single-chip laser-modulator design supports very high data rates with lower power use. The technology enables faster, more efficient optical engines for next-generation communications.

IPR Innovative Products Resources Inc.

Fabrication and Packaging Process for Novel 3-Axis MEMS Strain Sensor. Sainte-Anne-de-Bellevue, Quebec. 2026. \$446K.

Accurate strain sensing is essential for safer infrastructure, but today's sensors are fragile and limited. IPR's manufacturable process for a compact, low-power 3-axis MEMS strain sensor will enable more reliable structural monitoring and strengthening domestic MEMS fabrication capability.

Jones Microwave Inc.

Commercial Scale-Up of High-Frequency, High-Power, and High-Speed Light-Activated Solid-State Plasma Switches. Edmonton, Alberta. 2025. \$349K.

The company has developed processes to fabricate next-generation of light-based technologies for telecommunications and instrumentation using common and existing materials such as silicon. These technologies will be refined for use at commercial scale and offered to other Canadian firms with manufacturing needs.

Meerv Inc. Co-Lead: Digitho

Sustainable Electronics Process Development Kit. Trois-Rivières, Quebec. 2026. \$637K.

Global supply chains need low-cost, traceable, and sustainable electronic tags. A silicon-free, compostable RF process kit enables recyclable sensors using existing printing tools. The approach strengthens circular-economy goals and supports greener item-level tracking.

Micro-°K Sensors Inc.

New Fabrication Processes for Advanced MEMS Thermal Sensors. Montreal, Quebec. 2025. \$922K.

The project leverages newly emerging fabrication technologies to design advanced MEMS thermal sensors for measuring pressure, flow and gas properties. The sensors will address growing market demand for better performance, enhanced reliability and significant cost reduction.

Nanogrande Inc. Co-Lead: École de Technologie Supérieure

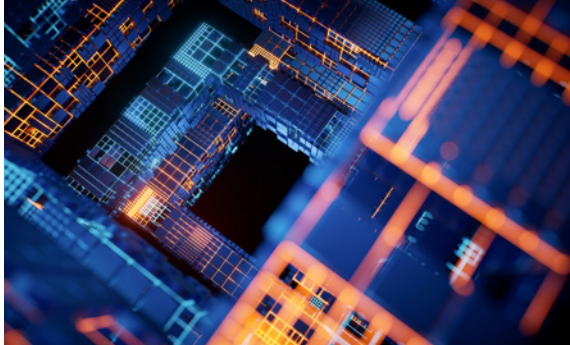
High-Efficiency Fluidbed Photoresist Deposition Platform. Montreal, Quebec. 2026. \$598K.

Conventional spin coating wastes most of the photoresist used in chip fabrication. Fluidbed deposition cuts waste dramatically while improving coating uniformity. The method lowers material costs and supports more sustainable semiconductor manufacturing.

Norcada Inc. Co-Lead: University of Ottawa

Advanced Fabrication Processes for Next-Generation Semiconductor Hybrid Biosensing. Edmonton, Alberta. 2026. \$266K.

Advanced biosensors rely on ultra-thin, stable membranes that are difficult to produce at scale. Refined fabrication techniques enable hybrid semiconductor biosensing chips using thin membranes and 2D materials. The result is better tools for DNA analysis, diagnostics, environmental monitoring, and neuromorphic computing.



Noze Inc.

Scalable MEMS Chemical Sensor Array Development for Health Monitoring. Montreal, Quebec. 2026. \$405K.

Breath-based health monitoring requires dense, reliable chemical sensor arrays. Scaled MEMS fabrication with controlled, repeatable processes supports pilot-level production. The technology enables non-invasive, real-time health insights for clinical and consumer use.

Omniply Technologies Inc.

Next Generation III-V Semiconductor Wafer Platform for Large-Format Integrated Photonics. Montreal, Quebec. 2025. \$571K.

Currently, high-quality III-V materials need to be grown on small, expensive substrates which can lead to challenges in integrating fabricated devices into conventional manufacturing lines. The project will simplify manufacturing leading to accelerated adoption of III-V devices in industries such as displays and clean energy.

OSCPS Motion Sensing Inc.

Refined Fabrication Process Development for Low-Loss Photonic Gyroscope Sensor Microchips. Montreal, Quebec. 2026. \$486K.

Accurate motion sensing is essential when GPS and satellite signals are unreliable. OSCPS and C2MI are refining the fabrication of compact photonic gyroscope chips to reduce optical losses and improve manufacturing consistency. The project will support commercialization and strengthen Canadian silicon photonics capabilities.

Quantum Recon

Quantum I/O: Fabricating Next Generation Photonic Circuits to Unlock Scalable Quantum Computing. Vancouver, British Columbia. 2025. \$691K.

Just as fibre optics are replacing coaxial cables for your home internet, this project will deliver novel fabrication processes to replace bulky, expensive and energy inefficient equipment with a new generation of photonic circuits, developed in Canada.

TransEON Inc.

Commercial Scaling of Domestic GaN MOS RF Foundry Processes Edmonton, Alberta. 2026. \$625K.

Next-generation RF systems need chips that handle higher power and frequency. Scaled gallium-nitride RF processes enable domestic production of high-performance RF devices. The capability strengthens Canada's position in communications, radar, satellite systems, and future 6G hardware.



Challenge Success Profile



Montreal-based Soundskrit's Butterfly Demo Kit, a hardware-and-software platform designed to help consumer devices deliver clearer speech in real-world outdoor conditions, is FABrIC's first completed project. Already a commercial success, it's a signal of the breadth of Canada's semiconductor ecosystem – and its ability to turn complex technical challenges into commercially viable products.

Soundskrit Turns Wind Challenge into Product Advantage

From Lab Problem to Deployable Solution

By reverse-engineering how leading consumer devices handled wind, Soundskrit came up with a pragmatic architecture that didn't reinvent the wheel.

FABrIC funding not only paid for experiments but encouraged the Soundskrit team to define a concrete development plan and test multiple approaches in a structured way.



FABrIC funding allowed us to dedicate more resources to audio challenges we hope our technology can help solve. It accelerates our time to market and makes our overall product offering more compelling to our customers. Stephane Leahy, Co-founder

Commercial outcome: Soundskrit now has a world-class Canadian-made technology broadly relevant for mobile phones, wearables, and field devices where wind and environmental noise degrade speech quality.

Project Metrics

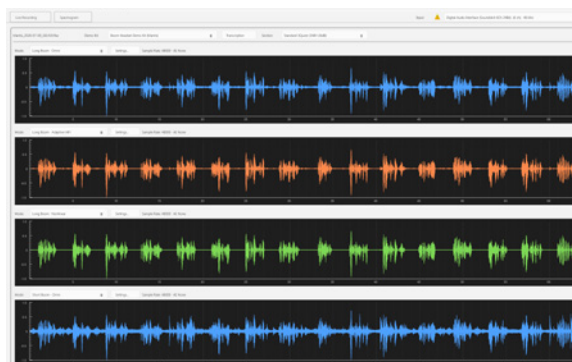
- > Products commercialized:
 - 4 (1 directional mic, 2 webcams, 1 boom mic)
- > Product/process developed:
 - 1 (Butterfly demo kit)
- > Job creation: 4 FTE created, 2 maintained
- > Skills development: 9 HQP with skills developed/improved because of their work on the project

De-Risking Adoption of New Audio Hardware

Soundskrit gained a better understanding of what worked, what didn't, and how to position the product for customers who need a minimum level of performance and reliability in difficult environments.

When customers from around the world ask about wind, the company has more than an answer — it has a world-class Canadian-made technology broadly relevant for mobile phones, wearables, and field devices where wind and environmental noise degrade speech quality.

<https://fabricinnovation.ca/soundskrit-success>



Quantum Readiness Program.



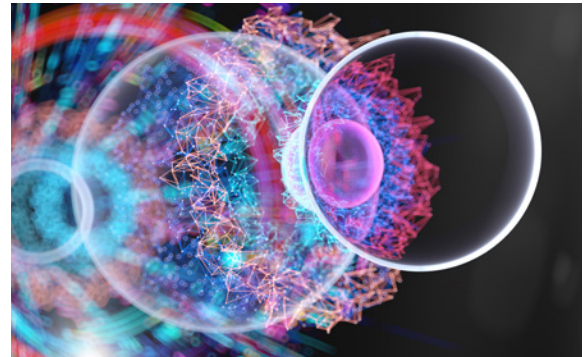
Stimulating the development of industry-relevant applications of quantum computing in Canada, strengthening domestic R&D in areas of strategic importance, and driving the adoption of quantum computing solutions by end-sector users.

Accelerating the Adoption of Quantum Computing Technology in Canada

The quantum readiness program prepares Canadian industry for the arrival of commercially viable quantum technologies.

Quantum Computing Sandbox

Direct access to quantum computing cloud services offered by global quantum computing providers and technical expertise from CMC Microsystems.



Vital to our Quantum Readiness Program, FABrIC's Quantum Computing Sandbox is the first of its kind in Canada.

- > Quantum computer access up to \$100K
- > R&D support: minimum 8 hours/week
- > 13-week, 26-week, and 52-week project options
- > Three track options
 - Demonstration Track: Deploying an industrially-relevant quantum application at scale
 - Adoption Track: Exploring what can be done with quantum computing in end-sector industries
 - Discovery Track: Pushing the boundaries of quantum information science

<https://fabricinnovation.ca/quantum-sandbox/>

Other Quantum Computing Infrastructure and Services

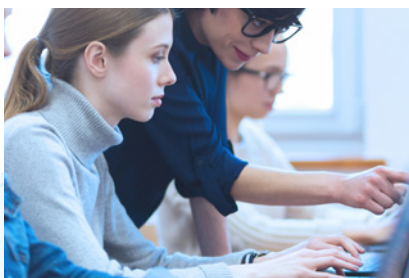
- > Quantum software services to identify and develop business-relevant use cases
- > CMC quantum team assistance developing and generating proof-of-concepts to explore and validate quantum computing solutions on quantum computers
- > State-of-the-art device design and simulation tools (CAD)
- > Cost-shared fabrication runs for superconducting and silicon photonics quantum devices
- > Quantum hardware and quantum software training

<https://fabricinnovation.ca/quantum-readiness/>





Skills that Scale: Training and Upskilling.



The semiconductor sector is one of the most demanding and exhilarating industries to build a career in. Canada needs thousands more skilled semiconductor sector employees over the next five years, with skills in IC design among the hardest to fill.

Expert training and upskilling that meet the needs of a demanding industry.

For decades, CMC Microsystems has delivered essential training that has supported the needs of a fast-changing, always innovating industry. Its highly regarded courses have been delivered to over 100,000 trainees. CMC's training reduces employee time to productivity by 6-18 months and leads to faster career progression.



The FABrIC training portfolio represents a comprehensive educational ecosystem designed to bridge the gap between academic theory and industrial application in Canada's semiconductor sector.

Semiconductor Upskilling

Designed for

- > new hires and early-career engineers,
- > final-year MSc and PhD students at Canadian institutions seeking IC design job readiness,
- > industry professionals looking to upskill.

Building job-ready skills

The courses close skill gaps and strengthen Canada's semiconductor workforce by providing practical training in integrated circuit design, implementation, verification, and high-speed interface technologies.

<https://www.cmc.ca/upskilling/>



CMC basecamp™

Intensive courses in core technologies

The training combines lectures, self-paced study, workshops, CAD and simulation tool access, design reviews, fabrication opportunities, testing support, and post-workshop project development.

The right hands-on Basecamp for you

- > Passive Silicon Photonics
- > Active Silicon Photonics
- > Quantum Photonics
- > Superconducting Quantum Devices
- > CMOS for Photonics
- > Integrated Circuit Design
- > Low-Temperature Co-fired Ceramic (LTCC)

<https://www.cmc.ca/basecamp/>

Building Canada's Semiconductor Ecosystem.



FABrIC ecosystem development activities bring players from across Canada together to leverage our strengths and learn from one another. Our strong network of partners makes for a more coherent supply chain and ensures collaboration among partners to accelerate product development and commercialization in Canada.

Growing and Developing the Ecosystem

FABrIC Membership has grown to almost 250 organizations across Canada – over 75% of them are for-profit advanced technology companies.

Membership is open to industry professionals, non-profits, government agencies, and researchers and students from Canadian post-secondary institutions. FABrIC Membership is free and offers participation in:

- > Challenge Funding Calls
- > Quantum Computing Sandbox Calls
- > IP Registry and IP Repository
- > Ecosystem opportunities and insights

Unprecedented recalibrations in the global semiconductor supply chain are an opportunity for Canada.

Connect through FABrIC's Member Portal

Become a FABrIC Member and drive your initiatives through collaboration with other Members – by connecting based on technology, end-sector interests, and/or semiconductor value chain needs. Together, let's strengthen Canada's semiconductor industry!

<https://fabricinnovation.ca/member/>



Ecosystem Events

Canada's Semiconductor Symposium: the semiconductor industry's signature event, focusing on building a stronger, more resilient economy.

Workshops: sharing valuable insights into the intersection of science and business.

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FABrIC, managed by CMC Microsystems, is a Strategic Response Fund initiative of the Government of Canada to advance domestic capabilities in advanced semiconductor design and manufacturing.

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