

Canada's Advanced Manufacturing Supercluster

Update

June 10, 2019

NGen Next Generation
Manufacturing Canada

SUPER
CLUSTERS



Canada's Innovation Supercluster Initiative

The Government of Canada is investing \$950 million in five industry-led Superclusters with the greatest potential to energize long-term economic growth.

First initiative of its kind in Canada.

Connecting established businesses and start-ups, education and research institutions, and government partners.

Fostering new forms of collaboration to supercharge innovation and economic growth.

Canada's Innovation Superclusters



Canada's Advanced Manufacturing Supercluster

Canada's Advanced Manufacturing Supercluster leverages Canada's technology and industrial strengths to accelerate the development, adoption, and scale-up of advanced technologies in Canadian manufacturing ... for commercialization in global markets.

Led by Next Generation Manufacturing Canada (NGen) – an industry-led not-for-profit organization dedicated to positioning Canada as a world leader in advanced manufacturing.

Leveraging \$230 million in funding from the Canadian Government and over \$500 million in private-sector funding to:

- Build connections and strengthen collaboration in the field of advanced manufacturing.
- Invest in collaborative, industry-led projects that will lead to the development, adoption, and scale-up of transformative technologies in Canadian manufacturing and strengthen Canada's innovation infrastructure for advanced manufacturing.
- Support initiatives that will help de-risk technology adoption and scale-up for smaller firms (including education and training, technology demonstrations, new tools and testbeds).

The Opportunity for Canada

Technology Strengths

- Engineering
- Software
- Artificial Intelligence
- Data Science & Computing
- Microelectronics
- Materials
- Robotics
- Photonics
- IOT
- Batteries & Energy

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Manufacturing Capabilities

- Automotive
- Aerospace
- Steel
- Metal & Plastic Products
- Machinery & Equipment
- Food Processing
- Textiles
- Medical Products
- Wood Products
- Electronics

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Commercial & Economic Benefits

- New Products & Services
- Improved Productivity
- Accelerated Business Growth
- New Supply Chain & Export Opportunities
- Increased Investment
- Talent Development & Attraction
- Stronger GDP Growth
- Enhanced Job Growth

Who Knew? – Connecting the Dots

Connections & Collaboration:

- **Supercluster Membership**
 - Registration is free of charge
 - Companies, supporting organizations, individual experts – Canadian and international
 - Members provide details about how they contribute to advanced manufacturing in Canada
- **Searchable Capabilities Database**
 - AI-enabled to provide in-depth description of capabilities
- **On-Line Collaboration Platform**
 - Interactive system to identify partnership/collaborative opportunities
- **Collaboration Events**
 - Organized with Supercluster partners

Supercluster Projects

Project funding will focus on four streams of work:

- **High Potential Technology Development:** Developing and scaling technology solutions that will give Canadian manufacturers a distinct competitive advantage.
- **Technology Adoption:** Game-changing technologies applied in transforming existing manufacturing processes.
- **Technology Diffusion:** Developing new manufacturing capabilities based on the application of advanced technologies.
- **Ecosystem Development:** Development of new training programs, tools, testbeds that fill in gaps in Canada's infrastructure in support of advanced manufacturing.

Strategic Evaluation Criteria

Transformative

- Positioning Canada as a global leader in advanced manufacturing.

Applied

- Involving later stage technology and manufacturing readiness with a potential to generate significant commercial benefits.

Collaborative

- Involving the participation of industry partners, co-investors, academic and research institutions.

Enduring

- Leaving a legacy in skills development, tools, testbeds, IP, business knowledge for Canada's advanced manufacturing ecosystem.

Mandatory Terms & Conditions

All projects must:

- Be collaborative – involve at least four industry partners in project consortia.
- Be industry led – NGen will reimburse eligible industry expenses at a maximum rate of 44.4%.
- Be undertaken in Canada by NGen members.
- Show how they require Supercluster funding to proceed.
- Have adequate project management processes in place.
- Have a consortium agreement in place defining roles, responsibilities, and IP sharing arrangements.
- Adhere to NGen's Project Requirements and Funding Agreement terms
 - Details and application information will be posted on www.NGen.ca in early March

Capacity Building Programs

Aim to de-risk technology adoption and scale-up for SMEs:

- Help companies identify opportunities for improvement, appropriate technologies to deploy, business requirements for successful implementation, and how to access integrated solutions (technology, business, financing).
- Advanced Manufacturing Capability Standards
- Workshops, collaboration events, technology demonstrations
- Online tools and training
- Capacity Building Fund for SMEs
 - Tech assessments, implementation plans, pilot projects, cluster start-ups
- Partnerships with service providers and public/private sector funders

Opportunities for Member Participation

Membership in the Advanced Manufacturing Supercluster is open to any company or organization in Canada or internationally that can contribute to Canada's advanced manufacturing ecosystem.

Register as a NGen member

Connect with other NGen members (companies, organizations, clusters)

Propose a NGen project (open call for proposals)

Partner and co-invest in a NGen project

Partner with Canadian companies/organizations in other innovation projects

Invest in and benefit from the development of Canada's advanced manufacturing ecosystem and skilled workforce

Leverage Supercluster participation to access new partners, customers, markets, and supply chains.

Status Update

Ready to begin funding projects and capacity building initiatives:

- Contribution Agreement negotiated.
- Conditions Precedent (Five Year Strategy, IP Strategy, Data Strategy, Membership Agreement, Project Selection Process) approved by Board and ISED.

Objectives for 2019/20:

- Expand membership
- Launch projects (up to \$100 million of Supercluster funding allocated for year)
- Expand project pipeline
- Launch online collaboration platform
- Define advanced manufacturing capability standards
- Launch Capacity Building initiatives
 - *Workshops and collaboration events*
 - *Online tools and training*
 - *Funding for tech assessments, implementation plans, pilot projects, cluster start-ups*
 - *Joint project funding*



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