

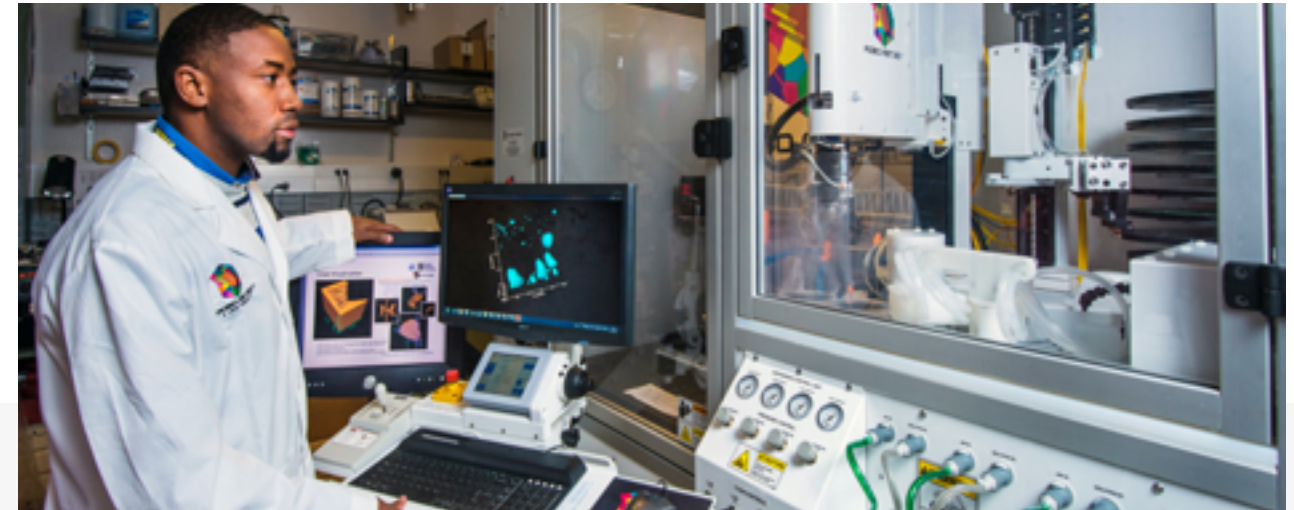
Industry-Led Collaboration

Ground-Breaking Innovation

Workforce Development

Shared Insight and Resources

NGen Update: Atlantic Canada



**NGen's projects
and initiatives
are making a
real life impact
across Canada.**

Atlantic Canadian companies are building world-leading advanced manufacturing capabilities that are helping Canadians battle the COVID-19 pandemic, improving environmental sustainability, and developing new digital and high-performance technology applications boosting the competitiveness and growth potential of Canadian manufacturers from coast to coast.

Next Generation Manufacturing Canada (NGen) is the industry-led network committed to enhancing Canada's advanced manufacturing capabilities for the benefit of Canadians. NGen leads Canada's Advanced Manufacturing Supercluster. It works to combine research, technology, manufacturing, and workforce strengths across the country to accelerate the development, adoption, scale-up, and commercialization of innovative solutions that enhance

the competitiveness and growth of Canada's manufacturing sector, add value and new jobs to the Canadian economy, and tackle some of society's most pressing challenges like health care, food and supply chain security, and environmental sustainability.

NGen works to identify, promote, connect, and strengthen collaboration among experts, companies, and organizations that contribute to advanced manufacturing in Canada. It funds and supports transformative, industry-led, collaborative innovation projects with the potential to deliver significant economic and social benefits for Canadians. NGen also leads initiatives that improve access for smaller companies to education, training, and testing facilities across Canada and that enhance the skills and management capabilities of Canada's advanced manufacturing workforce.

Atlantic Canada Highlights



NGen Membership.

Since inception, over 226 Atlantic Canadian companies, experts, and organizations have signed up to join NGen's advanced manufacturing Membership network.



Project Participation.

25 Atlantic Canadian companies and research centres are partnering in 16 world-leading advanced manufacturing projects funded by NGen.



NGen Investments.

NGen has approved investments of \$19.1 million in projects involving Atlantic Canadian partners, with total innovation spending estimated at \$66.4 million.



Economic Impact.

NGen Projects involving Atlantic Canadian partners will create more than 4,500 jobs over the next five years.

Securing
supply chains.

Protecting the
environment.

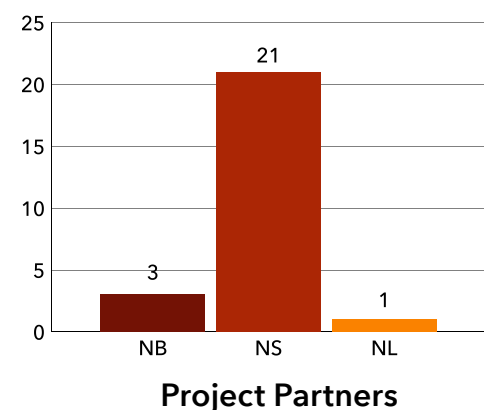
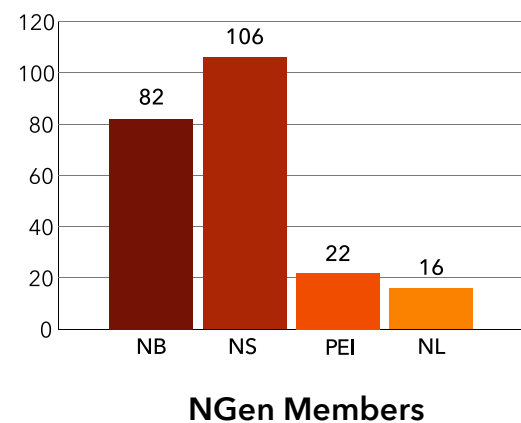
Improving
healthcare.

Supporting
technology
adoption.

Membership.

Across Atlantic Canada, 226 manufacturers, technology providers, academic institutions, research and innovation centres, business networks, and public sector partners are members of NGen's advanced manufacturing network.

There are 82 NGen members based in New Brunswick, 16 in PEI, 106 in Nova Scotia, and 22 in Newfoundland and Labrador. In total, they represent nearly 6% of NGen's 4,030 members from across Canada. NGen membership is open to any expert, company, or organization actively contributing to building advanced manufacturing capabilities in Canada. Members have access to NGen project funding, business and support services, and to a network that allows them to identify potential partners, business opportunities, and industry best practices.



Advanced Manufacturing Projects.

NGen co-invests with industry in collaborative projects that have the potential to transform manufacturing processes, lead to significant commercial opportunities, and contribute to Canada's advanced manufacturing ecosystem through the transfer of knowledge and intellectual property.

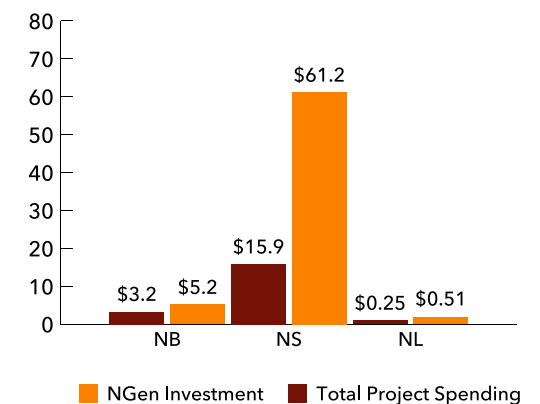
NGen-funded projects combine research, technology, and manufacturing capabilities in the development and scale-up of novel manufacturing processes. Collaboration provides project partners with innovation, scale-up, and commercial opportunities they would not be able to achieve on their own. Licensing agreements allow IP arising in projects to be shared with NGen members and applied across manufacturing sectors.

To date, NGen has approved investments of \$203.3 million in 129 projects across Canada leveraging an estimated \$497.2 million to total innovation spending. NGen's project portfolio involves 294 industry and 56 academic and research partners from across the country - 264 (90%) of the industry partners participating in NGen-funded projects are SMEs. One quarter of NGen-funded projects involve interprovincial collaboration among project partners.

NGen has approved investments of \$19.1 million in 16 projects involving 25 industry and research partners based in Atlantic Canada, which will lead to an estimated \$66.4 million in total innovation spending. Five of those projects involve collaboration with partners in other provinces across Canada. All Atlantic Canadian project partners are SMEs. To date, projects involving partners from Atlantic Canada have generated around \$100 million in sales. As they progress and the results are commercialized, they are expected to create more than 4,500 jobs over the next five years.

More than \$61 million will be invested by NGen and industry alike in advanced manufacturing projects involving partners based in Nova Scotia, more than \$5 million for projects with partners from

Saskatchewan, and around \$500,000 for projects involving partners from Newfoundland and Labrador. (Note that partnerships across these provinces lead to double counting of project investments.)



Approved Investments in Projects Involving Partners from Atlantic Canada

Atlantic Companies Leading the Way.

Companies and researchers from Atlantic Canada have led in the fight against COVID-19. Here are two excellent examples:

- Sona Nanotech in Halifax partnered with researchers at the University of Saskatchewan and Runnymede Health Centre in Toronto to test a new rapid response point-of-care COVID-19 virus screening kit.

Atlantic Companies Leading the Way Continued...

- DMF Medical in Dartmouth partnered with the biomedical engineering department at Dalhousie University to test and scale up the manufacturing of memsorb™ enabling the modification of anaesthesia machines into ICU ventilators to treat patients with COVID-19.

Atlantic Canadian companies are also developing unique solutions for additive manufacturing and other automated production systems. In the health care sector, for instance, Halifax-based Conceptualiz is partnering with OIC and Precision ADM in

Winnipeg, Spinologics from Montreal, and Pega Medical from Laval, QC to develop and validate an automated software system for improving the additive manufacturability of patient-specific medical devices.

In addition to advanced manufacturing projects, NGen has supported the development and growth of three advanced manufacturing clusters in Atlantic Canada – the Verschuren Centre for Sustainability in Energy and the Environment in Sydney, Materials Atlantic, and a new Advanced Manufacturing Cluster in Newfoundland and Labrador. NGen funding has allowed these clusters

to connect with other advanced manufacturing clusters across Canada and to develop new performance enhancement and business opportunities for their 100 plus members.

NGen is also partnering with other industry and innovation networks based in Atlantic Canada, including the Canada's Oceans Supercluster, Canadian Manufacturers & Exporters, and Springboard Atlantic.

More to come.

More projects have yet to be announced! Companies and research centres in

Atlantic Canada will be working to develop and produce new materials to improve environmental sustainability, new systems to enhance energy management and reduce greenhouse gas emissions, and new automation and robotics solutions that will be applied in a variety of manufacturing applications.

Learn more about NGen and keep an eye out for new project announcements at www.ngen.ca.

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NGen's industry-led approach enables private sector leaders to pursue game changing, market-driven innovations.