Next Generation Manufacturing Canada

Next Generation Manufacturing Canada (NGen) is the industry-led, not-for-profit organization leading Canada’s Advanced Manufacturing Supercluster.

NGen is dedicated to building world-leading advanced manufacturing capabilities in Canada, for the benefit of Canadians.

We aim to strengthen the Canadian economy and create high value jobs for Canadians while contributing solutions that address some of the world’s most pressing challenges in areas like health care, energy and resource management, and environmental sustainability.

NGen works to achieve these objectives by leveraging the research, technology, and industrial strengths of Canada’s advanced manufacturing ecosystem.

We create new opportunities by combining the capabilities of our country’s manufacturers, engineering and technology companies, business services, researchers, academic institutions, innovation centres, business networks, and our high-quality workforce, that will enhance the competitiveness and growth potential of Canada’s advanced manufacturing sector.

Catch up with what’s happening in Canada’s Advanced Manufacturing Supercluster at www.ngen.ca.

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**Our Mission:** Build world-leading advanced manufacturing capabilities in Canada for the benefit of Canadians.

**Our Objectives:** NGen aims to strengthen the competitiveness and growth potential of Canada’s advanced manufacturing sector, boosting GDP by $13.5 billion and creating 13,500 well-paying jobs by 2030 while contributing solutions that address some of the world’s most pressing challenges in areas like health care, energy and environmental sustainability, and food security.

**Strategy:** Strengthen Canada’s advanced manufacturing ecosystem and enable the development, deployment, and scale-up of innovative solutions in Canadian manufacturing, and their commercialization in global markets, by:

- Promoting Canada’s advanced manufacturing capabilities, both within Canada and around the world.

- Making connections, identifying partnership opportunities, and strengthening collaboration across Canada’s advanced manufacturing sector.

- Building capacity by enhancing advanced manufacturing workforce capabilities, de-risking technology deployment and scale-up on the part of smaller firms and enhancing Canada’s advanced manufacturing ecosystem.

- Co-investing in collaborative, industry-led projects that have the potential to create unique competitive advantages for Canada’s advanced manufacturing sector.

**Our Values:** Equity, diversity, and inclusiveness are core values for NGen. They foster the respect, teamwork, collaboration, innovation, and dedication that are essential for NGen to play a leading role in developing advanced manufacturing capabilities for the benefit of Canadians. NGen is a committed member of Canada’s 50/30 Challenge.
Innovation is the key to growing Canada’s economy and acts as a gateway to global markets.

The Superclusters were designed to foster innovation at the speed of business, which is critical to staying competitive in the global innovation race today.

Our investment in Canada’s Superclusters was about doing things differently: new partnerships, new projects and new investments—with ecosystem-level results to take Canada further, faster. And they are doing just that.

The overall momentum and progress to date is compelling. In just over three years, the Superclusters have approved hundreds of projects and supported the creation of thousands of new jobs. Their membership is strong and continues to grow.

The last year has been challenging, but the Superclusters pivoted to address the most critical needs of our country, demonstrating the flexibility of the program’s model. I am proud of the contributions they have made to support Canada’s response to COVID-19 by keeping businesses going and growing and helping secure critical health care supplies, equipment and technology.

Superclusters are supercharging innovation ecosystems across the country in areas where Canada has a significant competitive advantage, and they are having a positive impact on our economic recovery across all sectors. They have developed a network of industry leaders, academics and representatives from the business community, governments and not-for-profits to create new business opportunities and drive economic growth. Together, members advance cutting-edge research, develop a highly skilled and diverse workforce, and help smaller companies scale up—all while establishing Canada as a world leader in digital technologies, plant-based protein industries, next-generation manufacturing, artificial intelligence and the ocean economy.

The Advanced Manufacturing Supercluster is helping develop innovative technologies and products to build on Canada’s strategic advantages in the areas of research, technology and next generation manufacturing.

Over this past year, you have advanced transformative projects, such as the repurposing of
anesthesia machines to act as ICU ventilators to help address critical shortages during the pandemic and the Accelerating Manufacturing Performance Upskilling Program that offers management and skilled training programs to future-proof our advanced manufacturing workforce.

Thank you for your continued dedication to building a strong foundation for collaborative research and developing world-leading innovation ecosystems across Canada. Your accomplishments over the past year demonstrate the incredible possibilities that we can achieve when we work together.
MESSAGE FROM OUR CHAIR

Linda Hasenfratz
President, Chairman and CEO, Linamar

When our Board of Directors approved NGen’s corporate plan for 2020-2021 we were in the early stages of the pandemic and in the midst of a national lockdown.

Nevertheless, we set some aggressive targets for the organization to achieve over the year ahead. We wanted NGen to play an active role in fighting COVID-19. In spite of the economic uncertainty, we expected NGen to speed up approvals and investments in leading edge advanced manufacturing projects – all the more reason to support innovation at a time of cash constraints, especially on the part of smaller companies and start-ups. We wanted NGen to expand its reach and industry engagement across Canada, and to increase industry contributions to sustain NGen’s operations. At the same time, we saw opportunities for NGen to support the development of Canada’s advanced manufacturing workforce. We asked the NGen team to develop a campaign that would attract young people to careers in advanced manufacturing. NGen exceeded our expectations.

It made a significant investment in the development and manufacturing of critical products to combat COVID-19 and worked with federal and provincial partners to expedite procurement processes. NGen pivoted quickly in response to the pandemic. So too did many manufacturers across Canada. The past year has revealed how entrepreneurial, agile, and innovative Canada’s advanced manufacturing sector is. It has also shown us just how important it is to be able to make things in Canada and the critical role that advanced manufacturing plays in building those capabilities. We don’t need capacity to build everything we may need in our country in times of crisis, but we do need the capability to pivot to do so. Our advanced manufacturing sector did us proud in doing just that in 2020.

By the end of March 2021, NGen had committed more than three-quarters of its project funding budget.

It had approved 91 transformative projects valued at almost $350 million. There were 207 industry and 56 academic and research partners from across Canada, including 187 SMEs, involved in those projects. Momentum has certainly been building in terms of finding great projects to invest in. We need to look forward to the best way to keep that momentum going given the substantial payback it is generating and the leadership role it is giving Canadian companies on a global stage.
MESSAGE FROM OUR CHAIR

NGen had also launched some very innovative national programs to enhance advanced manufacturing management and workforce skills. Its Careers of the Future campaign was launched in the spring of 2021 and has seen strong engagement and response. The effort is fundamentally important in supporting the advanced manufacturing sector in our country. To continue to grow and succeed we need young talent, talent that is as excited about the evolution of manufacturing into a hybrid of traditional processing and modern technology, massively changing the face of the advanced manufacturing sector. And talent that is excited about what this industry is doing in terms of solving the world’s biggest issues, whether it be around addressing COVID or longer lasting issues like climate change and ensuring access to clean water and food for a growing global population. The advanced manufacturing industry is the answer to all those challenges, and NGen has put us on track to attract the talent we need to deliver on that promise.

NGen also proved that it was a responsible steward of taxpayer money. While the volume of transactions increased enormously over the year, NGen demonstrated that it has robust financial and project management processes in place. Three independent financial and operational audits were conducted with no exceptions or problems noted.

For Canadians though, what really stands out are the economic, environmental, and health care outcomes that industry was able to achieve thanks to Supercluster funding. The $56 million that NGen actually invested in projects last year resulted in $962 million in new orders - a 17X return on investment, which will in turn generate additional tax revenues for the federal government of almost three times the amount of NGen funding!

By the end of the year, NGen’s projects had already created 865 new jobs. Canadian companies had added 75 new Intellectual Property assets to their balance sheets. And 15 new companies had been established to commercialize the IP arising from NGen projects. Industry partners were reporting improved environmental impacts. Health care products were helping save lives across the country.

NGen is playing a unique role in Canada’s innovation ecosystem. Its commitment to building world-leading advanced manufacturing capabilities across the country, the support it provides for industry-led technology adoption and scale-up initiatives, the partnerships it has established with federal and provincial departments and funding agencies, and the collaborative nature of the projects and programs it supports all contribute to providing significant benefits for NGen members - and for Canadians.

I want to thank my fellow Board members for their commitment and hard work. We look forward to another exciting year ahead!
Linda Hasenfratz, Chair  
President, Chairman & CEO, Linamar

Mike Andrade  
CEO, Morgan Solar

Mike Baker  
CEO, Wood Manufacturing Cluster of Ontario

Rhonda Barnet  
President & COO, Steelworks Design

Chris Brown  
Vice President, GDLS Canada

Tony Chahine  
CEO, Myant

Moira Harvey  
Executive Director, Ontario Aerospace Council

Patricia Hawkins  
Strategic Partnerships and Innovation, Xerox Research Centre of Canada

Sandra Ketchen  
President & CEO, Spectrum Health Care

Jennifer Maki  
Corporate Director, Franco Nevada, Baytex Energy

Carol McGlogan  
President & CEO, Electro-Federation Canada

Joris Myny  
Senior Vice President, Digital Industries, Siemens Canada

Angela Pappin  
Chief Transformation Officer, ArcelorMittal North America

Thomas Ferns  
General Counsel and Corporate Secretary, Mohawk College

Melissa Chee  
President & CEO, VentureLAB
Jayson Myers
CEO, Next Generation Manufacturing Canada

It’s been an extraordinary year!

For everyone at NGen and I’m sure for those in the companies, organizations, and government departments with whom we have worked so closely, it has been a year of seemingly endless online meetings, challenges managing family and business obligations, and concerns over personal health and safety and that of family and friends. It has also been a year of incredible commitment, hard work, urgency, and impact. I am tremendously proud of what our team at NGen has accomplished. And I thank them for the personal and family sacrifices they have made.

At the end of our third year of business, we have truly demonstrated what NGen and the Supercluster program are capable of achieving. Our focus on industry’s innovation priorities and strategic opportunities for Canada’s advanced manufacturing sector, the network of innovators we have built across Canada, and the collaborative approach we have championed in developing unique and integrated solutions in the projects and ecosystem initiatives we have funded are truly paying off.

It has been astonishing to review the breadth of the impacts we have made over the past year. They go well beyond the number of projects we have approved and contracted or the amount of Supercluster funds we have invested, as important as those metrics are from an operational point of view. What makes the biggest difference are the benefits that our initiatives are delivering for advanced manufacturing in Canada, and for Canadians as a whole.

Our projects are creating new jobs, new forms of intellectual property, new companies, new sales, and new business opportunities for the future. NGen funding helped keep many smaller firms in business through the pandemic. We enabled manufacturers to get critical products into the hands of front-line workers so they can treat patients and protect Canadians against COVID-19. Our projects are creating new methods to reduce greenhouse gas emissions and improve environmental sustainability.

We have also developed some innovative ways of strengthening the skills and management capabilities of Canada’s advanced manufacturing workforce. We are encouraging young people - Canada’s next generation of workers - to consider a career in
advanced manufacturing. We are supporting entrepreneurship in Indigenous education. And we are offering students and employees better access to digital education and simulation tools that will enhance their skills in advanced manufacturing.

My thanks go again to the dedicated and talented team with whom I have the pleasure to work at NGen. I am also very grateful to the members of our Board of Directors for their leadership, motivation, and support, and to our colleagues at Innovation, Science, and Economic Development Canada as well as our other government partners for their collaboration, commitment, and teamwork.

Another exciting year lies ahead!

THE NGEN TEAM

Jayson Myers  
Chief Executive Officer

Bilal Haffejee  
Chief Financial Officer

John Laughlin  
Chief Technology Officer

Stewart Cramer  
Chief Manufacturing Officer

Carol Cutrone  
Office Manager & Executive Assistant to the CEO

Wendy Young  
VP, Data Systems & Security

Rhonda O’Keefe  
VP, IP and Contracts

Steven Bell  
VP, Project Management

Kelly O’Neill, EdD  
Director, Education & Training

Christy Michalak  
Director, Advanced Manufacturing Development Programs
THE NGEN TEAM

Frank Defalco
Director, Member Relations

Bridge Bohan
Director, Business Development

Robbie MacLeod
Director, Strategic Communications & Corporate Secretary

Gillian Sheldon
Director, Investment Partnershipa

Lara Sanders
Director, Finance

Robert Mastrotto
Program Director

Ken Morris
Director, Technical Partnerships

Joanne MacKinnon
Senior Project Coordinator

Mary Toth
In House Paralegal

Kim D’Souza
Manager, Client Engagement

Nelson Netzereab
Manager, Digital Marketing

Frank Haas
Senior Program Manager

Ron Pope
Program Manager

Emily Blosdale
Financial Claims Analyst

Ashley Leung
Financial Claims Analyst

Arun Lavishetty
Systems Admin Manager, Digital Marketing
NGen measures success by the benefits it delivers to Canadians.

In line with the objectives of Canada’s Innovation Supercluster Initiative, NGen aims to:

- Develop world-leading technological capabilities in advanced manufacturing.
- Connect and actively engage members of Canada’s advanced manufacturing ecosystem.
- Increase industry investment in innovation and support for ecosystem development.
- Enhance value creation and opportunities for economic growth.
  - Key Outcomes:
    - New domestic and international sales
    - Jobs created
    - Companies created
    - New products, processes, and services
    - Intellectual property created
  - Strengthen advanced manufacturing leadership and management capabilities, particularly among small and medium-sized enterprises (SMEs).
  - Contribute to the development of a skilled advanced manufacturing workforce.
  - Improve the health, security, and social well-being of Canadians.
During its third full year of business, NGen aimed to:

- Grow its membership and connect and strengthen collaboration across Canada’s advanced manufacturing ecosystem.

- Accelerate the development, approval, and funding of collaborative industry-led projects that build transformative advanced manufacturing capabilities in Canada, meet the short-term innovation and long-term economic objectives of the Innovation Supercluster Initiative, and contribute to strengthening Canada’s advanced manufacturing ecosystem.

- Support the fight against COVID-19 and strengthen Canada’s economic recovery.

- Promote Canada’s advanced manufacturing capabilities in Canada and internationally.

- Launch a campaign to improve the image of advanced manufacturing and promote career opportunities for young Canadians.

Strengthen advanced manufacturing workforce and management capabilities to de-risk investments in technology adoption and business scale-up, especially for SMEs. Continuously improve its own operating processes and business sustainability.
### SURPASSING OUR TARGETS FOR THE YEAR

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<tr>
<th>Operating Objective</th>
<th>Target</th>
<th>Year-End Result</th>
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<tr>
<td>Membership Growth</td>
<td>3,000 members</td>
<td><strong>3,334</strong> members</td>
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<td></td>
<td>25% of members outside Ontario</td>
<td><strong>36%</strong> of members outside Ontario</td>
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<td>At least 90% of members are SMEs</td>
<td><strong>92%</strong> of members are SMEs</td>
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<td>Balance between manufacturing and technology providers</td>
<td><strong>43%</strong> of members are manufacturers</td>
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<td><strong>45%</strong> of members are technology and innovation organizations</td>
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<td><strong>43%</strong> of members are manufacturers</td>
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<td><strong>45%</strong> of members are technology and innovation organizations</td>
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<tr>
<td>Connections and Collaboration</td>
<td>200 innovation partnerships</td>
<td><strong>372</strong> innovation partnerships</td>
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<td></td>
<td>150 cases of shared IP</td>
<td><strong>332</strong> cases of shared IP</td>
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<td></td>
<td>1,000 participants in NGen workshops and collaboration events</td>
<td><strong>1,631</strong> participants in workshops and events</td>
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<td></td>
<td>10 collaborative relationships with federal and provincial departments</td>
<td><strong>40</strong> public sector partners</td>
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<td></td>
<td>and funding agencies</td>
<td><strong>24</strong> colleges and universities engaged in projects</td>
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<td><strong>32</strong> innovation and research centres engaged in projects</td>
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<td><strong>372</strong> innovations partnerships</td>
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<td><strong>32</strong> innovation and research centres engaged in projects</td>
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<td>Project Realization</td>
<td>60 projects approved</td>
<td><strong>91</strong> projects approved</td>
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<td></td>
<td>$275 million in total project costs approved</td>
<td><strong>$349</strong> million in total project costs approved</td>
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<td></td>
<td>$190 million in total project costs contracted</td>
<td><strong>$299</strong> million in total project costs contracted</td>
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<td>$10 million in SME capacity-building project costs approved</td>
<td><strong>$10.4</strong> million in capacity-building costs approved</td>
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<td></td>
<td>150 industry partners involved in approved projects</td>
<td><strong>207</strong> industry partners in approved projects</td>
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<td>75% of industry partners are SMEs</td>
<td><strong>90%</strong> of industry partners are SMEs</td>
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<td>20% of industry partners outside Ontario</td>
<td><strong>35%</strong> of industry partners outside Ontario</td>
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<td><strong>91</strong> projects approved</td>
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<td><strong>35%</strong> of industry partners outside Ontario</td>
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<tr>
<td>Fight against COVID-19</td>
<td>25 new COVID-19 product lines launched</td>
<td><strong>39</strong> new COVID-19 product lines launched</td>
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<td>Promote Capabilities</td>
<td>Projects highlighted on NGen website</td>
<td><a href="https://www.ngen.ca/our-impact">https://www.ngen.ca/our-impact</a></td>
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<td></td>
<td>10 earned media appearances</td>
<td><strong>229</strong> earned media appearances</td>
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<td>Presentations at 25 industry events</td>
<td><strong>69</strong> presentations in Canada</td>
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<td>Presentations at 5 international event</td>
<td><strong>14</strong> presentations at international events</td>
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<td><strong>Projects highlighted on NGen website</strong></td>
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<td>Careers of the Future Campaign</td>
<td>Media campaign ready to launch</td>
<td>Campaign prepared for launch May 2021</td>
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<td>Workforce and Management Capabilities</td>
<td>100 registrants in NGen education and training programs</td>
<td><strong>17</strong> education and training partners</td>
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<td>Process Improvement and Sustainability</td>
<td>$3.7 million in industry contributions to operating expenses</td>
<td><strong>$5.0</strong> million in industry contributions</td>
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<td>Clean audit of financial statements</td>
<td>Clean financial audit</td>
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<tr>
<td></td>
<td>No compliance violations</td>
<td>No compliance violations</td>
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DELIVERING BENEFITS FOR CANADIANS

16 new health care products in use to fight COVID-19
1,700+ members of advanced manufacturing clusters supported by NGen
$31.6 million in new industry investments in R&D
$962 million in new orders

1,342 people working on NGen projects
139 students engaged in projects
865 full-time jobs created to date
15,108 new jobs projected over the next ten years

50 IP commercialization strategies developed
75 new IP assets created
23 IP opportunities available for sharing with NGen members
55 new products under development

66 new manufacturing processes
15 new companies created
70 projects reporting positive environmental impacts
Canada is home to world-leading research, technology companies, start-up ecosystems, and manufacturers. It is a magnet for high tech talent. Our natural resources remain a vital source of economic wealth and competitive advantage. New investments are being made by industry in order to take advantage of Canada’s low-carbon electricity supply.

There are not many places in the world with this combination of assets that can support a dynamic and thriving advanced manufacturing sector. Yet we still have a great deal of work to do in order to build a world-leading advanced manufacturing ecosystem in Canada.

An ecosystem approach is vital in order to solve the technical and manufacturing problems facing Canadian industry and tackling many of the bigger economic, social, and environmental challenges confronting Canadians, now and in the future. Advanced manufacturing is powering many of the solutions that we need. But it takes an ecosystem to achieve success, and to ensure that the opportunities and value of innovation are captured in Canada.

World-leading capabilities in advanced manufacturing cannot be built one company or one organization at a time. The pace of technological change, business disruption, and emerging market opportunities is simply too fast for any one entity to take all the risks or command all the resources needed to succeed by itself.

Unique manufacturing solutions depend on integrating knowledge and tools from a variety of advanced digital, materials, and production technologies and techniques. Deployment, scale-up, and commercialization of those solutions depend on maximizing the potential of shared intellectual property and rely on supporting innovation, business services, public sector, and investment infrastructures for their success. Business knowledge and best practices shared across organizations, sectors, and regions are instrumental in enhancing the leadership and management capabilities required to develop and execute new business strategies effectively. Everyone in Canada’s advanced manufacturing ecosystem has a stake in developing and gaining access to a highly qualified workforce.

Innovation ecosystems develop when research, technology, and industry come together, supported by government initiatives and business services, to transform knowledge into solutions that can be applied to generate value and improve social and economic well-being. In Canada, that depends on doing a better job in identifying the capabilities resident across the country, connecting the dots, building networks, and strengthening collaboration in order to generate more value than any one organization can achieve on its own.
That is what the Innovation Supercluster Initiative is all about. Next Generation Manufacturing Canada is the catalyst for building Canada’s advanced manufacturing ecosystem. The Supercluster it leads is composed of individual experts and organizations at the leading edge of transforming Canada’s most important industrial sector. They are the change agents building world leading advanced manufacturing capabilities in Canada, for the benefit of Canadians.

NGen’s members are the building blocks of Canada’s Advanced Manufacturing Supercluster. NGen membership is open to any individual expert, company, or organization able to make a contribution to strengthening the capabilities of Canada’s advanced manufacturing ecosystem. Registration is free, but membership is a requirement in order to be eligible for NGen funding or to take advantage of NGen’s programs and services.

In 2020-2021, NGen added 1,387 new members. By the end of March 2021, NGen membership had grown to 3,334, including 2,372 companies and organizations and 982 individual experts. Among member companies and organizations, 2,097 or 92% were SMEs.

NGen’s membership is drawn from every province across Canada. While membership is concentrated in southern Ontario, 36% of NGen members are located outside the province. NGen also has 100 members that are based outside Canada.
The organizations within NGen’s membership include manufacturers, technology companies, colleges and universities, research centres, industry clusters and business networks, start-up accelerators and innovation centres, engineering and consulting services, private-sector investors and financial institutions, economic development organizations, as well as federal and provincial government agencies.

NGen’s membership offers a valuable source of information about the structure and capabilities of Canada’s advanced manufacturing ecosystem, a pool of potential partners for innovation projects, an extensive population to survey in order to identify business priorities and constraints, and an effective platform for communicating with and engaging supercluster members in NGen-led initiatives.

NGen has used data collected from its members to identify priorities for ecosystem investments. The report was published in May 2020. NGen also published other empirical studies based on membership input in 2020-2021 that will help to inform future initiatives, including analyses of:

- Strategic opportunities for Canada’s advanced manufacturing sector;
- The structure and capabilities of Canada’s advanced manufacturing supercluster;
- Advanced manufacturing programs in Canadian business schools;
- The structure, capabilities, and priorities of Canada’s additive manufacturing and automation sectors;
- The competitiveness of Canada’s advanced manufacturing supply chains;
- Advanced manufacturing capabilities in Ontario (in conjunction with the Innovation Economy Council); and,
- Manufacturers’ digital investment intentions for 2021-2022 (in conjunction with Plant Magazine and Annex media)
NGen is also strengthening the ecosystem by supporting and connecting advanced manufacturing clusters across Canada. We’re building a Supercluster that is itself a collaborative network of innovation clusters.

In 2020-2021, NGen facilitated the creation of three advanced manufacturing clusters, bringing together companies and research organizations in the fields of additive manufacturing, robotics and automation, and the manufacturing of personal protective equipment.

NGen also approved capacity-building investments in nine other advanced manufacturing clusters across Canada, with a total membership of more than 1,700 SMEs. By connecting these clusters to each other, introducing them to NGen programs, and facilitating access to support services from key NGen partners like BDO, RBC, EDC, BDC, and Canada’s Trade Commissioner Service, NGen has boosted their performance and those of their members.

The results have been remarkable. NGen support has enabled:

- The Saskatchewan Industrial and Mining Suppliers Association (SIMSA) to organize a virtual trade mission to South America and identify over $20 billion in new business opportunities.

- The Alberta Manufacturing Export Enhancement Network to develop a collaborative approach for improving manufacturing capabilities, finding new markets, and forming an Indigenous Manufacturing Cluster in the province.

- The Wood Manufacturing Cluster of Ontario to organize 16 virtual events allowing members to identify and share best practices in advanced manufacturing management and export development.
• Canada’s NanoMedicines Innovation Network (NMIN), based at the University of British Columbia, to establish itself, increase membership, and develop digital tools to support its members.

• The Ontario Aerospace Council (OAC) to develop an AI tool to promote Ontario’s aerospace capabilities and develop collaborative partnerships across Canada and around the world.

• Nova Scotia’s Verschuren Centre to develop a cleantech bio-industrial cluster supporting start-ups manufacturing bio-ingredients as they commercialize and scale up their products.

• Photons Canada, based in Quebec City, to organize networking and collaboration events for their members to identify new opportunities to commercialize sensor and optic technologies in manufacturing.

• Materials Atlantic, based in Nova Scotia, to promote and identify business opportunities for their members, primarily start-up companies manufacturing new materials.

• The Canadian Association of Mold Makers (CAMM), based in Southwestern Ontario, develop a digital platform to promote Canadian capabilities and identify new business opportunities for their members.
In 2020-2021, NGen undertook a number of initiatives to promote the capabilities of its members and Canada’s advanced manufacturing ecosystem as a whole. By the end of the year, NGen had made 69 presentations about Canada’s advanced manufacturing super-cluster at in-person and virtual industry events across Canada. NGen used its website along with 229 earned media appearances to showcase the world-leading projects that are being supported by Supercluster funding. In partnership with RBC, NGen also launched a series of online plant tours to showcase best practices in advanced manufacturing that will be made available to the public later in 2021.

On the international stage, NGen is represented on the advisory committee of the World Manufacturing Forum and the selection committee of INNOWIDE, the European Union’s Horizon program in support of developing international innovation partnership opportunities for SMEs. Both venues provide global platforms to showcase Canada’s advanced manufacturing capabilities. In 2019 NGen convened an innovation cluster summit where a formal agreement on Canada-EU cluster collaboration was signed. Since then, NGen has actively participated in identifying priorities for Canadian participation in Eureka! and other European cluster programs.

Throughout the year, NGen participated in 14 international in-person and online venues to promote Canada’s advanced manufacturing capabilities hosted by organizations in the United States, Japan, the UK, Germany, France, Italy, Belgium, and South Korea. In September 2020, NGen signed a memorandum of understanding with South Korea’s Small Business Development Agency (TIPA) to explore mutually beneficial opportunities between our two countries for innovation and business development partnerships in the field of advanced manufacturing. NGen partnered with Science Business and Canada’s Embassy to the European Union in February 2021 to host a webinar showcasing Canadian advanced manufacturing capabilities in which over 250 European companies took part. NGen’s project team also participated in a series of discussions with government agencies in the United States, United Kingdom, and Japan to highlight Canadian capabilities in critical mineral and electric battery supply chains. We also worked with Invest in Canada to introduce potential investors to Canada’s advanced manufacturing ecosystem.
In 2020-2021, 1,631 supercluster members participated in NGen collaboration events, webinars, and project workshops. NGen also connected 372 member companies and organizations looking for project partners or other potential business opportunities.

Bridging relationships between research and industry is an important part of NGen’s role. It serves to bring leading edge science to bear on solving applied industry problems, inform researchers about technology trends and business conditions affecting industry, and establish the knowledge and talent pipelines and work-integrated learning opportunities upon which Canada’s advanced manufacturing sector will depend in the future. By the end of March 2021, 24 college and university research teams – including 139 students – and 32 other innovation and research centres were engaged in NGen-funded projects. In addition, NGen had partnered with 6 colleges and universities in its advanced manufacturing skills upgrading initiatives and initiated discussions with an additional 17 business schools across Canada to explore opportunities to enhance advanced manufacturing leadership and management education.

For NGen, collaboration also means working alongside other public sector and publicly funded partners to support their innovation initiatives and to help develop and co-invest in advanced manufacturing projects. Over the past year, NGen partnered with 40 public partners that have supported projects prior to, in conjunction with, or subsequent to NGen investment.
NGen launched seven new initiatives in 2020-2021 designed to enhance Canada’s advanced manufacturing workforce and strengthen the capacity of SMEs to manage the successful deployment and scale-up of advanced technologies for manufacturing.

1. NGen’s Advanced Manufacturing Youth Campaign is a multi-media initiative that aims to promote awareness about the importance of advanced manufacturing in Canada and attract young people into careers in the sector. It educates students about advanced manufacturing and showcases young role models in the sector, what they do, and what inspires them about advanced manufacturing. It also provides students with guidance about the types of careers available in manufacturing, the academic qualifications required to pursue advanced manufacturing employment, and how to get engaged in extracurricular activities related to advanced manufacturing like youth-oriented robotics programs and maker spaces. The campaign was launched in May 2021. By the end of June, it had attracted over 75,000 engaged visits by students and parents alike to its website at www.CareersoftheFuture.ca.

2. NGen’s Diversity and Inclusion Initiatives aim to identify best practices related to the management of diversity and inclusion in advanced manufacturing companies in order to provide guidance for its members and assist them in connecting with initiatives being undertaken by other organizations across Canada to enhance the participation and capabilities of women, people with disabilities, and BIPOC employees in Canada’s advanced manufacturing workforce. These initiatives will also inform how NGen will work to achieve its own commitments under the 50/30 Challenge. In 2020-2021, NGen helped to connect and provided in-kind support for university Women in Science and Engineering programs and well as other Women in Manufacturing and Women in Technology initiatives. It also initiated discussions with the Black North initiative led by the Canadian Council of Business Leaders Against Anti-Black Systemic Racism and the Martin Family Initiative (MFI) to identify opportunities to include advanced manufacturing as part of its in aboriginal entrepreneurship education programs. Eighty-one of the original 470 signatories to Canada’s 50/30 Challenge were NGen members.

3. In July 2021, NGen and MFI announced a partnership to develop a manufacturing component in MFI’s high school and adult Indigenous education programs that are being offered on and off reserves across Canada. NGen support will also allow MFI to expand its entrepreneurship and financial literacy courses into primary schools and set up a summer employment program for Indigenous youth. Our aim is to raise awareness among Indigenous students about modern manufacturing in Canada and the type of
jobs that exist in the sector and prepare them with many of the skills and some of the practical experience required to take advantage of future post-secondary and career opportunities.

4. The Virtual Robotics Training Academy (VRTA) is a cloud-based learning platform providing students with easy and low-cost access to virtual simulations that will help hone their skills in advanced manufacturing. Developed by InspireTech with financial support from NGen, the platform offers a variety of simulations that allow students to program and run virtual robots. Cisco has also joined the partnership by providing access to its Net Academy network and cybersecurity simulation programs via the platform. VRTA also offers online Python coding courses that will enable students to develop their coding skills and apply them to the simulations on the platform. Discover more at www.vrtaonline.com.

NGen is now working with InspireTech and Cisco to encourage school boards across the country to adopt the VRTA platform for practical learning purposes in their STEM, technology, and computer science courses. NGen will be encouraging its members to sponsor student seats on the platform, targeting in the first instance sponsorships for Black and Indigenous youth and youths at risk. Companies will be able to develop their own robotics simulations on the platform to engage students in customized contests, or to provide employee training or skills testing for potential employees.

5. What’s Next? is a series of webinars and follow-up discussions intended to engage NGen members by sharing insights with industry leaders and other experts about strategic issues affecting their business. In 2020-2021, the program covered issues like managing workplace health and safety during the pandemic, Canada’s economic outlook, building world-class supply chains through operational excellence, using AI to drive manufacturing success, business strategies in support of the circular economy, managing IP strategies, cybersecurity in advanced manufacturing, export opportunities in a post-COVID world, and innovation funding initiatives in Europe.

6. NGen’s Recover & Lead Supply Chain Resiliency Program engages business leaders and supply chain executives from across NGen’s membership in developing a strategic roadmap for securing and strengthening the resiliency of advanced manufacturing supply chains. In 2020-2021, NGen published a report in conjunction with Deloitte on the competitiveness of Canada’s manufacturing supply chains. In June 2021, it convened an online supply chain summit to discuss the findings of the report and identify industry priorities for enhancing supply chain competitiveness in Canada.
7. NGen’s Transformation Leadership Program offers SME managers step-by-step advice, proven methodologies, and practical tools they can use to assess and improve performance along the path to successful implementation of advanced manufacturing strategies. The program draws on best international management practices. It provides a modular approach to online executive education that will help business leaders and senior managers identify how they can best contribute to customer value, improve critical processes, and understand their business and skills requirements for successful advanced manufacturing transformations.

8. AmpUp is an open-source online education and training platform for managers and employees in advanced manufacturing. It provides access to high quality executive education and skills development programs relevant to advanced manufacturing offered by Canadian universities, colleges, and private sector training initiatives. Training partners provide NGen members with a discount on registration fees while NGen matches company contributions to employee training up to a maximum of $15,000 per company. The program was launched in October 2020. By the end of March 2021, it was providing access to 64 online courses offered by 17 academic and private sector partners from across Canada. Partners had discounted registration fees by $66,200 and NGen had provided $120,852 in matching funding to support 156 employees who were early registrants in the program. For more information about NGen’s workforce development initiatives, visit www.ngen.ca/workforce.
NGen co-invests with industry to develop, apply, and commercialize world-leading advanced manufacturing solutions. The objective is to construct unique manufacturing solutions by integrating a variety of digital, materials, and production technologies and techniques. These range from sensors and electronics, operating software systems, digital networks, advanced computing, data analytics, artificial intelligence, and machine learning to digital twins, virtual and augmented reality, and advanced vision systems to smart materials, automation, robotics, and additive manufacturing. It’s not about simply adopting off-the-shelf systems. To be at the leading edge, every solution needs to be customized to get the job done.

Integration is important because single technologies rarely deliver what is needed by manufacturers to improve performance, add customer value, and improve agility, flexibility, and operating efficiencies. Machine learning, for instance, involves the application of artificial intelligence; but it also requires machines. It is how technologies are combined, how they are customized, and then how they are deployed and managed that makes the difference for manufacturers looking to transform their production processes and deliver better results for their business and ultimately for their customers, investors, and stakeholders.

That’s where collaboration comes in. By bringing manufacturers together with different technology providers, and enabled by applied research, NGen projects aim to develop uniquely innovative ways of improving manufacturing performance that deliver competitive advantage to Canadian companies and offer opportunities to commercialize new products, processes, and intellectual property in Canada and around the world. Collaboration also provides an opportunity for smaller companies to integrate their technical or production capabilities into a larger engineering solution that can be managed by manufacturers. It offers them new commercial and scale-up opportunities they would not be able to access as readily on their own.

NGen helps to develop project ideas and facilitate connections with industry and research partners. We co-invest in projects approved by panels of independent industry experts. NGen funding provides a bridge between support for early-stage R&D and start-up ventures on one hand and working capital or funding for full scale production on the other. To that end, NGen works closely with other funding agencies, lenders, and investors to provide an integrated financing solution for industry, and in those cases where projects are not eligible for NGen funding to identify alternative sources of funding for industrial innovation initiatives.
NGen also supports the commercialization of project outcomes when projects are completed. We work with project teams to develop IP commercialization strategies, advise project partners about ways to protect their IP, and identify opportunities to share IP arising in projects with other NGen members. NGen also partners with other public and private sector services, including Canada’s Trade Commissioners, Export Development Canada, BDC, as well as banks, investors, and consulting services, to help support production scale-up, marketing, and sales of the new products, technologies, services, and businesses created as a result of NGen-funded projects.

All of the projects that NGen funds involve the development, application, and commercialization of novel advanced manufacturing solutions. They are initiatives that would not proceed in the same way, at the same scale, or at the same pace without NGen investment. Project work is done primarily in Canada. All projects are also required to meet four strategic criteria defined by NGen’s Board of Directors. They must be:

1. Transformative: They must lead to the development of world-leading advanced manufacturing capabilities.

2. Applied: They must lead to the development of advanced manufacturing solutions that have significant commercial potential.

3. Collaborative: They must involve more than one company and at least one SME and enable capabilities that no individual company or organization can achieve on its own.

4. Enduring: They must contribute know-how and resources in support of Canada’s advanced manufacturing ecosystem.
NGen maintained an open call for advanced manufacturing project proposals throughout the year ending March 31st, 2021. We entertained industry-led applications for projects that aimed to develop new advanced manufacturing technology processes, transform existing industrial processes, and develop new ecosystem capacity. Under NGen’s Capacity-Building Program, SMEs were also able to apply for funding for smaller scale feasibility studies, pilot projects, and cluster-building initiatives.

In response to the pandemic, NGen also launched three challenges designed to accelerate the development and production of products critical in the fight against COVID-19:


2. A **Disinfecting Robot Challenge**, issued in May 2020, aimed to develop and manufacture new autonomous systems for disinfecting workspaces.

3. A **Made Smarter Strategic Challenge**, issued in August 2020, aimed to support the deployment of advanced technologies that will ensure sustainable globally competitive manufacturing and supply chains related to critical products required to combat this and future pandemics.

All pandemic-related projects were expected to lead to the development of transformative advanced manufacturing capabilities as well as to the rapid production and commercialization of products for use in fighting the pandemic. Because of the urgency of the situation, requirements for industry partners and for matching industry contributions were waived under NGen’s Rapid Response and Disinfecting Robot challenges.

During the year NGen approved investments of $107.8 million in 68 projects that will leverage total innovation investments of $272.2 million.

By the end of March 2021, NGen’s overall portfolio of approved projects consisted of 91 projects with commitments of $154.5 million from NGen and total estimated investments of $349.0 million. For every dollar to be invested by NGen, $1.26 was committed to be invested by industry or from other sources.
By the end of March 2021, NGen’s overall portfolio of approved projects consisted of 91 projects with commitments of $154.5 million from NGen and total estimated investments of $349.0 million. For every dollar to be invested by NGen, $1.26 was committed to be invested by industry or from other sources.

Within its portfolio, 23 projects involving $39.8 million in NGen investment and total costs of $53.5 million, had been completed by the end of the year. Seventeen of the completed projects were delivering on NGen’s COVID-19 Rapid Response or Disinfecting Robot challenges. Six were smaller scale feasibility studies, pilots, or cluster building projects. Another 43 projects, leveraging $92.9 million in NGen commitments for an estimated $245.4 million in total investments, were contracted and underway. Twenty-five projects with NGen commitments of $21.8 million and estimated overall costs of $50.1 million had been approved but had not yet been contracted.

In 2020-2021, actual project investments totaled $87.8 million, with NGen investing $56.1 million of Supercluster funding and industry or other funding sources contributing $31.7 million. Industry matching funds contributed during the year amounted to $28.3 million.

### Industry Partners come from across Canada

![Map of Canada with industry partner distribution]
True to its objectives to enhance collaboration and engage smaller companies, NGen’s project portfolio at the end of March 2021 involved 207 industrial partners, including 187 SMEs, as well as 24 colleges and universities and 32 innovation and research centres, from across Canada. Over a third of industrial partners were from outside Ontario.

In 2020-2021, NGen approved investments of $71.5 in the three challenges it launched in response to COVID-19 generating an expected total project spend of $122.5 million. For every dollar committed to these projects by NGen, an additional industry committed an additional $0.71. Sixty-four industry partners were involved, 62 of which were SMEs. The projects led to the production of 39 new product lines to fight COVID-19 and future pandemics.

<table>
<thead>
<tr>
<th>Funding Stream</th>
<th># of projects</th>
<th># of Project Partners</th>
<th># of SMEs</th>
<th>NGen Investment</th>
<th>Total Project Spending</th>
<th>Leverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Call Mainstream</td>
<td>27</td>
<td>83</td>
<td>67</td>
<td>$78.3 million</td>
<td>$216.1 million</td>
<td>176%</td>
</tr>
<tr>
<td>Open Call Capacity Building</td>
<td>31</td>
<td>60</td>
<td>57</td>
<td>$4.7 million</td>
<td>$10.4 million</td>
<td>121%</td>
</tr>
<tr>
<td>COVID-19 Rapid Response</td>
<td>16</td>
<td>23</td>
<td>22</td>
<td>$39.2 million</td>
<td>$52.0 million</td>
<td>32%</td>
</tr>
<tr>
<td>Disinfecting Robots</td>
<td>5</td>
<td>7</td>
<td>7</td>
<td>$5.0 million</td>
<td>$10.3 million</td>
<td>106%</td>
</tr>
<tr>
<td>Made Smarter</td>
<td>12</td>
<td>34</td>
<td>33</td>
<td>$27.3 million</td>
<td>$60.2 million</td>
<td>121%</td>
</tr>
<tr>
<td><strong>Total Portfolio</strong></td>
<td><strong>91</strong></td>
<td><strong>207</strong></td>
<td><strong>187</strong></td>
<td><strong>$154.5 million</strong></td>
<td><strong>$349.0 million</strong></td>
<td><strong>126%</strong></td>
</tr>
</tbody>
</table>

By the end of March 2021, NGen’s portfolio also consisted of 27 mainstream advanced manufacturing projects and 31 smaller scale feasibility, pilot, and cluster-building projects. The greatest leverage achieved by NGen investments will be in its mainstream projects where $78.3 million of approved Supercluster funding is expected to result in total investments of $216.1 million – a leverage ratio of 176%. NGen’s mainstream projects involve 83 industry partners, 67 of which are SMEs.

Capacity-building projects approved by the end of March 2021 are expected to generate a total of $10.4 million in total spending based on $4.7 million committed by NGen – a leverage ratio of 121%. They involve 60 industry partners, 57 of which are SMEs, and include the nine cluster-building initiatives with a potential impact on more than 1,700 cluster members.

All NGen projects can be categorized according to whether they involve the development of new technological processes for advanced manufacturing, the transformation
of industrial processes through the implementation of digital technologies, or the development of new ecosystem capabilities including the more widespread diffusion of technologies across Canada’s manufacturing sector. As of the end of March 2021, two-thirds of the investments approved by NGen were directed to advanced manufacturing technology development projects while those projects accounted for 62% of total estimated project spending.

<table>
<thead>
<tr>
<th>Approved NGen Investments</th>
<th>Total Estimated Project Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology Development</td>
<td>67%</td>
</tr>
<tr>
<td>Process Transformation</td>
<td>27%</td>
</tr>
<tr>
<td>Ecosystem Development/Technology Diffusion</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td>3%</td>
</tr>
</tbody>
</table>

The projects approved for funding by NGen will lead to the development of unique advanced manufacturing solutions for a variety of industry sectors.

<table>
<thead>
<tr>
<th>Approved NGen Investments</th>
<th>Total Estimated Project Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Processing</td>
<td>12%</td>
</tr>
<tr>
<td>Medical Devices</td>
<td>7%</td>
</tr>
<tr>
<td>PPE</td>
<td>10%</td>
</tr>
<tr>
<td>Bio-Manufacturing</td>
<td>19%</td>
</tr>
<tr>
<td>Materials</td>
<td>18%</td>
</tr>
<tr>
<td>Advanced Textiles</td>
<td>5%</td>
</tr>
<tr>
<td>Robotics</td>
<td>5%</td>
</tr>
<tr>
<td>Electronics</td>
<td>2%</td>
</tr>
<tr>
<td>Automotive</td>
<td>3%</td>
</tr>
<tr>
<td>Process Digitization</td>
<td>1%</td>
</tr>
<tr>
<td>Equipment</td>
<td>14%</td>
</tr>
<tr>
<td>Aerospace</td>
<td>3%</td>
</tr>
<tr>
<td>Batteries</td>
<td>1%</td>
</tr>
</tbody>
</table>

NGen ended the year with a pipeline of 62 project applications yet to be assessed, involving a funding ask of $180.9 million and an estimated value of $458.7 million in total eligible costs.

For a full description of all NGen projects, explore [www.ngen.ca/project-map](http://www.ngen.ca/project-map).
As manufacturing becomes more data-driven and science-based, applied research is playing a key role in developing the unique solutions required for sustaining competitive advantage. NGen’s collaborative projects aim to build and strengthen innovation partnerships between Canada’s research community and advanced manufacturing sector, as well as among industry partners themselves.

On one hand, NGen support for project development enables industry partners to identify the applied science, engineering, and technical problems they need to have solved and identify researchers from across Canada capable of contributing to their solution. On the other, projects offer researchers opportunities to identify practical problems for exploration, as well as opportunities to build industry connections that can support further research.

By the end of March 2021, 24 colleges and universities, 139 students, and 32 other research and innovation centres were engaged as partners in NGen-funded industry-led projects.
In addition to colleges and universities, NGen-supported projects involve research and innovation centres from across Canada. They include several National Research Council and Natural Resources Canada institutes, (most notably NRC’s Manufacturing and Automotive Innovation Hub in London and NRCan’s CANMETMaterials centres in Hamilton and Ottawa), Fraunhofer Centres in London and Hamilton, Innotech in Edmonton, le Centre de recherche industrielle du Québec, MaRS, ventureLab, Communitech, the McMaster Innovation Park, NORCAT, the Centre for Excellence in Mining Innovation, ReMap, the Vineland Research and Innovation Centre, the Canadian Centre for Regenerative Medicine, hospitals and health care research centres, as well as other Research and Innovation Centres in Ontario.

NGen not only helps fund the direct participation of researchers - technical experts, faculty, and students - in industry-led projects. We also enable the transfer of knowledge developed in academic and research centres into industrial applications with commercial potential. And, we provide later stage funding for scaling up the production of prototypes and application of new technologies, augmenting financial support from granting councils, earlier stage R&D funding programs, and venture capital investors.

Another important objective for NGen is to facilitate collaborative R&D relationships across Canada, across institutions, and across disciplines - all serving to strengthen Canada’s advanced manufacturing ecosystem. For example, Sona Nanotech’s project involving the development, testing, and production of a new test kit for COVID-19 supported work by the Halifax-based company in conjunction with researchers at the University of Saskatchewan and Runnymede Health Centre in Toronto. The digitization of steel production at ArcelorMittal Dofasco engages both local universities and colleges. NGen works closely with Ontario’s Advanced Manufacturing Consortium, consisting of engineering departments at McMaster, Western, and Waterloo universities, to identify research partners for projects and, in conjunction with NRC, support funding for new infrastructure like the Additive Manufacturing Lab at the University of Waterloo. We have also supported the development of world-leading AI-enabled Materials Acceleration Platforms, along with research teams from CANMET, NRC, the University of British Columbia, and University of Toronto. The platforms will radically speed up the characterization and testing of new materials, particularly for light-weighting and development of new additive processes, that will provide unique competitive advantages for multiple manufacturing sectors in Canada.
Enabling a Rapid Response

NGen launched its COVID-19 Rapid Response Challenge in March 2021, five days after the pandemic was declared by the World Health Organization. The objective was to mobilize Canada’s technology and production capabilities to develop, manufacture, and deliver medical equipment and health care products in critically short supply into the hands of front-line workers within six months.

Over a period of two months NGen received more than 1,100 applications from industry anxious to make a contribution to fighting the pandemic. NGen identified 391 project proposals with a funding request in excess of $1 billion that merited consideration for investment. Working with federal partners, including ISED, Health Canada, the National Research Council, and IRAP, along with independent industry and health care experts, NGen ultimately approved investments of $39.2 million for 16 projects. In addition, we flagged 63 projects as potential candidates for mainstream funding by NGen and referred 165 applications to other federal funding agencies or to federal and provincial procurement initiatives.

Among NGen’s Rapid Response projects, Starfish Medical in Victoria BC led the redesign of a Winnipeg prototype ventilator, simplifying its bill of materials, developing manufacturing specifications, running, testing, and certifying products in pilot stage production, and sourcing more than a dozen suppliers and manufacturers across Canada to get the ventilator into full scale production. The ventilator was one of the first to be certified for use by Health Canada and approved for procurement by the Canadian government. The company has additional sales to Mexico and the province of Manitoba and expects sales to exceed $200 million over the next two years.

NGen Rapid Response Challenge also supported the development and manufacturing of different types of personal protective equipment (PPE).

Auto parts manufacturer Molded Precision Components (MPC) from Oro-Medonte, Ontario partnered with Sterling Industries to develop and manufacture 27 million full-sized face shields. They mobilized 15 partners in Barrie, Ontario to help supply materials and store inventory - even commandeering the community arena for a while!

Burloak Technologies in Oakville began 3-D printing face shields ramping production up to 5,000 full shields per week.
Mosaic Manufacturing enabled a community network of 3-D printing companies including Rockmass Technologies, Redetec, and Glia to design and manufacture 20,000 face shields across 21 locations in Toronto.

Eclipse automated the production of respirators and created a new N-95 mask production facility in Cambridge, Ontario.

Toronto-based Myant developed and began manufacturing textile-based health monitoring systems, in addition to a new line of surgical-grade safety masks.

The Challenge provided funding for the development of COVID-19 test kits and therapeutic products as well.

Halifax-based Sona Nanotech collaborated with the international vaccine centre at the University of Saskatchewan and Runnymede Health Care Centre in Toronto to develop a rapid point-of-care test for screening the virus. The project led to the development of six new products including a rapid antigen test based on nasopharyngeal and saliva samples that offers results within 15 minutes. The company expected more than $50 million in additional sales over the next two years.

Vancouver’s Response Biomedical developed and scaled-up its line of rapid diagnostic antigen tests which are able to deliver results within five to ten minutes. Their test is now being deployed for pre-departure screening at Pearson Airport in Toronto. The company is also working with long-term care homes across the country.

Precision Biomonitoring based in Guelph, Ontario partnered with Evik Diagnostics to begin manufacturing lyophilized COVID-19 RNA detection kits. It received Health Canada approval in November 2020 and has expanded capacity to produce enough kits to perform more than 100,000 tests per day. Their tests have also been approved for use in the European Union. The company estimates that tens of millions of tests will be manufactured in Canada for export markets.

LuminUltra Technologies from Fredericton, New Brunswick scaled up production of its RNA Test kit to 500,000 units per week. Its first mobile testing laboratory capable of analyzing 500 COVID tests per hour was delivered to the Public Health Agency of Canada in November 2020. The company is now working on the development and validation of a direct saliva testing method for virus detection. It predicts $300 million in additional sales growth over the next two years.
In addition, NGen’s Rapid Response Challenge enabled Immunovaccine Technologies, based in Dartmouth, Nova Scotia, to accelerate production of its neutralizing epitope-based synthetic vaccine. DMF Medical also in Dartmouth set to work developing a technology that allows for sharing ventilators and repurposing anaesthesia equipment into ventilators. A new generation of ventilator filters was developed and brought into production by Winnipeg-based BOMImed working with partners Synergy Moldworks and Precision ADM. Cloud Diagnostics in Toronto developed its cloud-based DX Pulsewave solution to monitor patients and help relieve the hallway medicine crisis caused by the surge in pandemic cases. Guelph-based Envision SQ began manufacturing a self-sterilization coating to sanitize health care and other workplaces.

And, Exacad in Boisbriand, Quebec perfected a fast and highly specialized system for producing plastic molds for COVID-19 test kits.

Helping Canadians Work Safely

NGen’s Disinfecting Robot Challenge aimed to support the development and production of robotic sanitization and sterilization equipment for use in health care facilities and more generally to support a rapid return to work in offices and industrial facilities. NGen funded five initiatives under the Challenge, approving $5.0 million of investment for projects with a total spend of $10.4 million.

By the end of March 2021, the Challenge had enabled Kitchener-based PrescientX to the launch of its autonomous UV disinfecting robot, Violet, in partnership with Clearpath Robotics. Crosswing from Aurora, Ontario had developed a working prototype and was producing pilot units of its mist and UV-C applications. Advanced Intelligent Systems in Burnaby, BC had also developed a working prototype of its disinfecting robot and was in field trials to measure its navigation performance and disinfection effectiveness. A&K Robotics from Vancouver was conducting a trial with Global Affairs Canada. And, Global DWS was testing its autonomous solutions with UV lights and disinfectants.

Gaining Strategic Autonomy

With our Made Smarter Challenge NGen aimed to help build a sustainable, globally competitive supply of made-in-Canada health care products critical in fighting COVID-19 and future pandemics through the adoption and deployment of advanced manufacturing technologies. NGen was able to support 12 projects in the challenge, involving 34 industry partners including 33 SMEs. We committed to invest $27.3 million in these initiatives with a
total estimated project spend of $60.2 million. All of our Made Smarter projects had been contracted and work was in progress by the end of March 2021.

The Made Smarter Challenge will help develop capacity in Canada to manufacture environmentally friendly types of PPE, surgical grade masks and respirators, mRNA vaccines, biological reagents, sanitizers and anti-microbials.

**Providence Therapeutics** in Toronto is partnering with Northern RNA in Calgary to test and produce a made-in-Canada mRNA vaccine.

Automated manufacturing processes for the production of high-grade respirators are being developed by:

- Armfoam from Longueil, Quebec in partnership with Roswell DHT based in Calgary,
- Fidelity Machine and Mold Solutions in Calgary with local partners Sentinent Tools Engineering and Fidelity Medical Manufacturing
- IPC Technologies in Cambridge in partnership with BIG-Nano from Waterloo, Ontario
- Novo Textiles from Coquitlam, BC partnering with Harbour Technologies located in Windsor, Ontario.

**Carmina de Young Fashion Design** in London is setting up sustainable PPE production in partnership with Optima Colours based in Brampton, Ontario. **Titan Clean Energy Products** in Craik, Saskatchewan is partnering with Panther Industries in Davidson, Saskatchewan, BIG-Nano from Waterloo, Masq from Markham, Ontario, and K+S Potash Canada based in Saskatoon to develop biodegradable melt-blown resin and fabric production for manufacturing PPE. **BIG-Nano** is leading another project together with Swenco from Waterloo, IPC Technologies in Cambridge, APC Filtration from Brantford, Ontario, and Titan to manufacture PPE and air purification filters from meltblown nanofibers. **Fine Cotton Factory** in Toronto is partnering with Microbonds in Markham to scale up production of metal-infused anti-microbial textiles.

**International Point of Care** in Toronto is setting up a large-scale manufacturing facility for COVID-19 reagents and test kits in partnership with Precision Biomonitoring, Immune Response Diagnostics from Toronto, and Calgary-based Suncor Energy. MPC is partnering with Niigon in Vaughn, Ontario to develop an automated pellet-to-pallet system to
manufacture, bottle, and package sanitizing solutions. And, **McRae Imaging** in Mississauga, Ontario is working with Lumentra from Toronto and Dot Automation from Vaughan, Ontario to develop and manufacture nanomaterial coatings for antimicrobial shielding of shared spaces.

**Supporting the Ecosystem**

In addition to the projects it funded, NGen played an important role in helping manufacturers certify their products and processes for use in Canada, connecting them to procurement opportunities, and identifying gaps in health product supply chains and supporting standards and certification infrastructure.

Over the past year, NGen established an online resource centre to alert its members about the latest updates on the pandemic, product requirements, testing, and certification procedures from Health Canada. We hosted virtual workshops on Quality System Design to enable transitions from general, aerospace, and automotive manufacturing standards to ISO 13485 medical device manufacturing standards. NGen partnered with IRAP, the Standards Council of Canada, CSA, and the University of Toronto to conduct an analysis of Canadian capabilities related to standards, testing, certification, and quality control of health care products required to fight the pandemic. We partnered with Eastern Health and Canada’s national centre of excellence in health care supply chains (SCANH) to develop performance-based substitutability criteria for PPE and other health care products. We also supported our members in the formation of the Canadian Association of PPE Manufacturers (CAPPEM) with a mandate to work together to improve standards, regulatory, and procurement processes in order to sustain PPE manufacturing in Canada.

Members of the NGen team participated with ISED, Health Canada, and other federal agencies in identifying and assessing the product standards and production capabilities of Canadian companies applying for federal procurement opportunities. In particular, we helped the Government of Canada build a sustainable inventory of ventilators, diagnostic test kits, nasal swabs, and other peripheral devices.

And, in an effort to identify more domestic procurement opportunities for Canadian PPE manufacturers, NGen invested in Canada’s Rapid Response Platform (RRP). NGen funding enabled that online marketplace for personal protective equipment and other critical health care products, highlighted on the Government of Canada’s website, to provide services in both official languages, upgrade quality assurance, and showcase Canadian suppliers and products manufactured in Canada. As a result, RRP was able to offer
Canadian manufacturers five online regulatory approval pathways for eleven categories of PPE regulated by Health Canada. NGen support enabled RRP to add 6,124 users to its platform. They spent an average of 14 minutes and 32 seconds searching for PPE made in Canada. By the end of March 2021, RRP was managing more than 300 PPE product listings, over half of which were manufactured in Canada. Suppliers were located in every province across the country. The platform made over 40,000 automated matches and supplied more than 45 million units in response to requests for PPE from businesses as well as public agencies and health care authorities across Canada.

ADVANCED MANUFACTURING PROJECTS – HIGHLIGHTS

Throughout 2020-2021, NGen continued to develop, assess, approve, contact, and support world-leading industry-led advanced manufacturing projects in its open-call mainstream and SME capacity-building programs.

At the end of March 2021, ArcelorMittal Dofasco in Hamilton was leading a consortium with IBM Canada and Tenova, and IFiveO from Mississauga to digitize hot-ladle steel production. Aspire Food Group in London was developing advanced processes for the manufacture of high-quality proteins working with Telus in Vancouver, London-based A&L Biologicals, and Darwin AI out of Waterloo. MDA in Ste-Anne-de-Bellevue, Quebec was partnering with Promark Electronics from Pointe-Claire and AV&R from Montreal to deploy flexible advanced manufacturing systems in its production facility. And, Vancouver-based Panevo Services was working with Saputo Dairy Products in St.-Laurent, Quebec and Accuenergy in Toronto to develop and implement a solution to enhance real-time overall equipment effectiveness, monitoring, optimization, and supply chain collaboration.

Several materials development projects were also underway. Axiom Plastics based in Aurora was leading a project, along with MS Falcon from Toronto, Kytech Machine Works from Mount Albert, Ontario, and Bulldog Polymers from Alliston, Ontario to develop a zero-transition solution for plastic materials. Macrodyne Technologies in Vaughan was also partnering with Linear Transfer Automation out of Barrie and Ridgetech from Cambridge, Ontario to develop and manufacture bioplastics as an alternative to single use plastics. Calgary-based Exergy was working with Suncor Energy and Precision ADM in Winnipeg to develop a new, more environmentally sustainable process for mining and mineral processing. Formula Solutions in Burlington was partnering with local firm Promation and
AXYZ Automation in Midland to automate the scale-up of carbon fiber cascade production with applications in both aerospace and automotive sectors.

A number of medical technology and biomanufacturing projects were in progress as well. Baxter, with its Canadian head office in Mississauga, was working with Technology Trace from Rockwood and Cheme Engineering in Campbellville, Ontario to optimize medical device remanufacturing. Clearpath and Siemens were partnering to manufacture an intelligent mobile forklift. Toronto-based Myant was working with Urtech in Burlington and Applied Brain Research in Toronto to scale up the production of wearable defibrillators. And, Winnipeg-based OIC was working with Pega Medical from Laval, Quebec, Spinlogics in Montreal, Conceptualiz in Halifax, and Precision ADM in Winnipeg to develop and validate automated patient-specific medical device software for enhancing additive manufacturability of orthopedic surgical implants.

New manufacturing processes were being developed too. Toronto-based Mosaic Manufacturing was developing a new array additive manufacturing production system in partnership with Objex Unlimited, ReDeTec, and Athletic Knit, also SMEs from Toronto. Conrex, another Toronto company, was working with Macrodyne Technologies from Concord and Source Industrial Services in Brampton, Ontario to develop and manufacture its large-scale steel press technology. Mycionsics in Putnam, Ontario was developing an innovative robotic mushroom harvesting system along with local Whitecrest Mushroom and Piccioni Brothers Mushroom Farms. And, Ranovus and Jabil, both based in Kanata, Ontario, were setting up a new electro-photonics integrated circuit board manufacturing facility.

Ten other mainstream advanced manufacturing projects in the fields of biomanufacturing, advanced materials, electric battery production, autonomous robotics, and the digital transformation of industrial processes had been approved but had not yet been contracted by the end of the year.
NGen’s Intellectual Property Strategy is central to achieving its objectives of maximizing the commercial potential and economic impact of NGen-funded projects, enhancing the IP management capacity of SMEs, and creating new business opportunities for NGen members. IP in advanced manufacturing comes in various forms ranging from patents, trademarks, and copyright to raw and analyzed data, algorithms, industry secrets, customized techniques, and employee know-how.

NGen has established clear, transparent, and predictable IP ownership policies and licensing structures with respect both to the Background IP that project partners bring to their collaborative activities as well as to the Foreground IP arising from Supercluster-funded projects, including procedures for NGen members to request and negotiate licenses to use Foreground IP in future commercial applications.

Foreground IP is shared among participating members of project consortia according to the terms of collaboration agreements developed in consultation with NGen’s IP Manager. Wherever feasible, and as determined by IP owners, opportunities for sharing Foreground IP arising from projects with other NGen members are identified on NGen’s IP Registry. Balancing this availability is a mechanism to enable companies to recoup their investment, through licensing/sharing agreements or user fees to be paid by members who wish to access newly developed IP. Both of these considerations are important criteria in evaluating and selecting projects for NGen funding.

NGen provides direct advisory support to assist project applicants develop and implement their IP strategies. By the end of March 2021, NGen had provided IP support for all 91 project proposals approved to date. NGen’s IP Manager recorded 194 touchpoints with NGen members including:

- 9 customized IP strategy workshops for project teams.
- 36 discussions with applicants at the pre-assessment development stage of their projects.
- 103 discussions with applicants following assessment of their project proposals.
- 30 mid-stage monitoring meetings with project teams.
- 12 meetings with teams at the close-out of their projects.
- 5 meetings to discuss IP strategies unrelated to NGen projects.
During the year, NGen recorded:

- 50 IP strategies developed for contracted NGen projects.
- 309 cases of Background IP contributed to projects.
- 234 instances where Background IP was being shared with project partners.
- 367 instances of Foreground IP expected to be created in contracted projects.
- 75 pieces of Foreground IP created in completed projects.
- 23 IP profiles listed in our IP Registry and available for licensing or sharing with other NGen members.

While no IP licensing arrangements have been recorded by projects to date, all contracted projects have agreed licensing obligations in their Master Project Agreements with NGen. There have been no cases in which project partners have been denied access to Foreground IP arising in their projects. Only one case has been recorded where project partners refused to enter eligible Foreground IP onto NGen’s IP Registry. There have been no IP disputes arising among project partners that have been referred to dispute resolution.

In addition to its work with project partners, NGen has also supported a number of IP education initiatives for the ecosystem more generally. In 2020-2021, NGen organized three IP Strategy workshops for NGen members with 564 registrants attending. We published two articles in NGen’s member newsletter and social media on the topics of IP strategy development and fundamental IP protections in Intellectual Property law. NGen provided advice and member survey input to MaRS and the Innovation Economy Council for their reports on IP management and commercialization published in April 2021 (https://innovationeconomycouncil.com/reports/). In addition, we entered into agreements with four IP firms to provide one-on-one support to NGen project teams for developing and implementing their IP strategies. The firms are also developing IP education and programming that will be available for all NGen members beginning in the fall of 2021.
NGen regularly monitors the progress of projects once they are contracted and works with project teams to help commercialize the results of projects that are underway as well as those that are completed.

By the end of March 2021, NGen projects had already delivered significant economic benefits in line with the objectives of the Innovation Supercluster Initiative and NGen’s goal of generating $13.5 billion in GDP and creating 13,500 jobs by 2030.

- NGen funding had generated $31.6 million in new R&D investments by industry.
- 55 new products were under development or in production.
- 66 new manufacturing processes were being developed or were in place.
- 15 new companies had been created.
- NGen project partners had generated $962 million in new orders.
- 3,619 people had worked or were working on NGen-funded projects.
- 139 students were engaged in NGen projects.
- 865 full-time jobs had been created.
- Project partners were estimating that 15,108 new jobs would be created over the next ten years.

<table>
<thead>
<tr>
<th>ECONOMIC BENEFITS</th>
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<tbody>
<tr>
<td>NGen funding had generated $31.6 million in new R&amp;D investments by industry.</td>
</tr>
<tr>
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</tr>
<tr>
<td>Project partners were estimating that 15,108 new jobs would be created over the next ten years.</td>
</tr>
</tbody>
</table>
What is more, NGen’s projects are delivering cleaner energy, more sustainable industrial processes, more secure and resilient supplies of food and medical products, improvements in health care, and in the case of COVID-19 related projects, they are saving lives.

Seventy approved projects were reporting that they were, or upon completion would be, contributing positive environmental impacts. Benefits are expected to come in the form of GHG emission reductions, improved and more efficient energy, resource, materials, water, and waste management, reductions in particulates and volatile organic compounds (VOCs), reduced production footprints, the development of biodegradable materials, and the development of more circular systems of product disposal and re-use.
NGen support for Aspire’s project involving the use of advanced manufacturing methods in the development and large-scale production of insect-based proteins will play an important role in developing a solution that can be exported around the world to help relieve problems of food insecurity - a global challenge made all the more dire by the dual impacts of COVID-19 and climate change.

Perhaps though the most immediate and significant social impacts for Canadians come from the projects as well as the other initiatives that NGen has undertaken over the past year to respond to the pandemic and to develop new medical device and biomanufacturing capabilities in Canada. These are projects that are improving health care for Canadians – and saving lives.

NGen occupies a unique position. Thanks to our understanding of research, technology, and manufacturing capabilities across Canada, our participation in global innovation networks, and the project pipeline we have developed, NGen has privileged view of the strategic opportunities – and the challenges – that lie ahead for advanced manufacturing in Canada. We also work in an incredibly important space bridging the relationships and transfer of knowledge between the world of research and technology start-ups on one hand and the business of technology application and production scale-up for manufacturing on the other. Supercluster funding allows NGen to support later stage innovation, scale-up, and pilot projects - again playing a strategically important funding role for projects that require support for cash flow and pre-production acquisition of technology and equipment.

Over the past year, we have worked to bring strategic industry analysis to the attention of our members and to the general public.

In 2020-2021, NGen published a series of articles and reports on Canada’s advanced manufacturing sector, Canadian capabilities in the field of additive manufacturing and automation, and the global competitiveness of Canada’s manufacturing supply chains. They are available at www.ngen.ca/news-events.

We contributed to reports on strategic innovation policy issues by the Innovation Economy...
Council, including reports on Ontario’s advanced manufacturing sector, Canada’s competitive edge in the international competition for tech talent, strategic business opportunities for Canada’s cleantech sector, and the importance of commercializing not just protecting Canadian IP. Check these reports out at https://innovationeconomy council.com/reports.

We also commissioned a series of reports on strategic opportunities for Canada’s advanced manufacturing sector that will be published later in 2021. They will look specifically at technology trends and related investment and business opportunities in Canada related to:

- Electric vehicles and battery supply chains.
- Development of a circular food economy.
- The challenge of single-use plastics.
- Accelerating materials discovery, characterization, and testing.
- Industrial decarbonization.

These studies will help inform future project funding and ecosystem development initiatives by NGen.
NGen has three strategic priorities for 2021-2022:

1. Monitor and facilitate the successful completion and commercialization of NGen funded projects.

2. Enhance support for advanced manufacturing workforce, SME management, and ecosystem development.

3. Raise additional funding in order to sustain NGen’s ability to support world-leading, industry-led advanced manufacturing projects and ecosystem development initiatives.

NGen’s Board of Directors has set the following targets for the organization over the course of the coming year.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Targets</th>
</tr>
</thead>
</table>
| Project Realization     | - All projects contracted  
                          - $25 million in additional funding raised for NGen projects                                                                 |
| Capacity Building       | - 500 registrants in NGen’s workforce and SME management development programs  
                          - Transformation Leadership Program launched - 100 users  
                          - Virtual Simulation platform launched - 100 users                                                  |
| Impact                  | - 4,000 NGen members  
                          - 50% of projects reporting NGen assistance in commercializing results  
                          - 50 recorded cases of NGen-brokered industry partnerships  
                          - 50,000 engaged visits on www.careersofthefuture.ca  
                          - 50% of engaged visits from females                                                                   |
| Finance & Compliance    | - $3.0 million in industry contributions to NGen’s operating expenses  
                          - Clean financial and operating audits  
                          - No compliance violations                                                                            |
Ecosystem Investments

NGen invested $2.2 million in ecosystem development initiatives directly from its operating expenses and approved additional investments of $9.2 million explicitly for ecosystem development projects in 2020-2021. All open call advanced manufacturing projects approved for NGen funding are required to contribute to building Canada’s advanced manufacturing ecosystem.

Investment Policy

There have been no updates to NGen’s investment policies, standards, and procedures.

Executive Compensation

Total compensation comprising salary and benefits for one employee was in excess of $300,000.

Financial Controls

NGen management maintains a system of financial and internal controls to provide reasonable assurance that transactions are accurately recorded on a timely basis, are properly approved, and result in reliable financial information. NGen’s financial and internal controls have operated as intended.

IP Strategy

There have been no updates to NGen’s Intellectual Property Strategy.

NGen’s IP Strategy has operated as intended and has supported the objectives as outlined in NGen’s Corporate Plan.

There was one instance in which project partners refused to enter eligible Foreground IP onto NGen’s IP Registry or where project partners have been denied access to Foreground IP.

There have been no disputes arising among project partners that have been referred to dispute resolution.
Data Strategy

There have been no updates to NGen’s Data Strategy. NGen continues to leverage data as a strategic asset and provide strong security policies and procedures to ensure governance and compliance of data activities.

During the year NGen conducted a Cyber Threat Assessment with MNP PLC to support the maturity of NGen cybersecurity. We are in the process of implementing safeguards to mitigate the top six risks identified.

Evaluations and Audits

NGen conducts regular reviews of its financial controls and project performance. An independent Financial Process Walkthrough Audit and an Audit of Operating and Administration Costs for the Supercluster program since inception was conducted on behalf of ISED. No deficiencies nor recommendations were made.

NGen’s financial statements for 2020-21 were subject to independent financial audit. The results of the audit are appended at the end of this report.

Statements of Funding

a. Funded Eligible Costs incurred and paid by NGen in the Fiscal Year amounted to $83,473,135.

b. Unfunded Eligible Costs incurred in the Fiscal Year amounted to $6,049,918.

c. Industry matching funds contributed in the Fiscal Year amounted to $28,334,515.

d. Total funding received from all sources to support NGen’s eligible operating and administrative expenses during the Fiscal Year amounted to $14,178,051.
INDEPENDENT AUDITORS' REPORT

To the Shareholder of Next Generation Manufacturing Canada

Opinion

We have audited the financial statements of Next Generation Manufacturing Canada (the Entity), which comprise:

- the statement of financial position as at March 31, 2021
- the statement of operations and changes in net deficiency for the year then ended
- the statement of cash flows for the year then ended
- and notes to the financial statements, including a summary of significant accounting policies

(Hereinafter referred to as the “financial statements”).

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Entity as at March 31, 2021 and its results of operations and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the "Auditors' Responsibilities for the Audit of the Financial Statements" section of our auditors' report.

We are independent of the Entity in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Entity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Entity or to cease operations, or has no realistic alternative but to do so.
**Auditors’ Responsibilities for the Audit of the Financial Statements**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit.

We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.
  
  The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Entity's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors’ report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors’ report. However, future events or conditions may cause the Entity to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
Communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Chartered Professional Accountants, Licensed Public Accountants

Hamilton, Canada

July 26, 2021
NEXT GENERATION MANUFACTURING

Statement of Financial Position

March 31, 2021 with comparative information for 2020

(In thousands of dollars)

<table>
<thead>
<tr>
<th></th>
<th>2021</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current assets:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>$15,591</td>
<td>-</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>98</td>
<td>53</td>
</tr>
<tr>
<td>HST receivable</td>
<td>652</td>
<td>140</td>
</tr>
<tr>
<td>Contributions receivable</td>
<td>-</td>
<td>30,665</td>
</tr>
<tr>
<td>Project/program advances (note 3)</td>
<td>15,268</td>
<td>-</td>
</tr>
<tr>
<td>Prepaid expenses (note 8)</td>
<td>5,419</td>
<td>114</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>37,028</td>
<td>30,972</td>
</tr>
<tr>
<td>Capital assets (note 4)</td>
<td>56</td>
<td>37</td>
</tr>
<tr>
<td>Intangible assets (note 5)</td>
<td>1,348</td>
<td>597</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$38,432</td>
<td>$31,606</td>
</tr>
</tbody>
</table>

|                  |        |        |
| **Liabilities and Net Assets (Deficiency)** |        |        |
| Current liabilities: |        |        |
| Bank overdraft (note 6) | $ -  | $ 154 |
| Accounts payable and accrued liabilities (note 7) | 1,311 | 1,756 |
| Project/program holdbacks | 1,174 | -     |
| Unearned revenue | 40    | -     |
| Deferred contributions (note 8) | 31,602 | 31,095 |
| **Total** | 34,127 | 33,005 |
| Deferred capital contributions (note 9) | 1,199 | 448 |
| **Total** | 35,326 | 33,453 |
| Net assets (deficiency) | 3,106 | (1,847) |
| COVID-19 (note 14) Subsequent event (note 15) |        |        |
| **Total** | $38,432 | $31,606 |

See accompanying notes to financial statements.

On behalf of the Board:

[Signatures]

[Name]
Director

[Name]
Director
### NEXT GENERATION MANUFACTURING

**Statement of Operations and Changes in Net Deficiency**

March 31, 2021 with comparative information for 2020

<table>
<thead>
<tr>
<th>(In thousands of dollars)</th>
<th>2021</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal contributions</td>
<td>$64,536</td>
<td>$3,328</td>
</tr>
<tr>
<td>Administration fees</td>
<td>4,774</td>
<td>470</td>
</tr>
<tr>
<td>Industry in-kind contributions</td>
<td>83</td>
<td>112</td>
</tr>
<tr>
<td>Industry sponsorships</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>Interest income</td>
<td>202</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Revenues:</strong></td>
<td>69,601</td>
<td>3,928</td>
</tr>
<tr>
<td><strong>Expenses:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project and program expenditures</td>
<td>56,120</td>
<td>178</td>
</tr>
<tr>
<td>Salaries &amp; benefits</td>
<td>3,677</td>
<td>3,074</td>
</tr>
<tr>
<td>Advanced manufacturing ecosystem initiatives (note 10)</td>
<td>2,240</td>
<td>-</td>
</tr>
<tr>
<td>Outsourced services (note 11)</td>
<td>1,635</td>
<td>619</td>
</tr>
<tr>
<td>Administration and governance</td>
<td>506</td>
<td>638</td>
</tr>
<tr>
<td>Communications and events</td>
<td>236</td>
<td>218</td>
</tr>
<tr>
<td>Amortization of capital assets</td>
<td>234</td>
<td>23</td>
</tr>
<tr>
<td><strong>Total Expenses:</strong></td>
<td>64,648</td>
<td>4,750</td>
</tr>
</tbody>
</table>

**Excess/(deficiency) of revenues over expenses**

<table>
<thead>
<tr>
<th></th>
<th>2021</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4,953</td>
<td>(822)</td>
</tr>
</tbody>
</table>

**Net deficiency, beginning of year**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>(1,847)</td>
<td>(1,025)</td>
</tr>
</tbody>
</table>

**Net assets (deficiency), end of year**

<table>
<thead>
<tr>
<th></th>
<th>2021</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$3,106</td>
<td>$(1,847)</td>
</tr>
</tbody>
</table>

See accompanying notes to financial statements.
# NEXT GENERATION MANUFACTURING

Statement of Cash Flows

March 31, 2021 with comparative information for 2020

<table>
<thead>
<tr>
<th>(In thousands of dollars)</th>
<th>2021</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cash provided by (used in):</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Operations:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excess/(deficiency) of expenses over revenues</td>
<td>$ 4,953</td>
<td>$ (822)</td>
</tr>
<tr>
<td><strong>Items not involving cash:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amortization of capital assets</td>
<td>234</td>
<td>23</td>
</tr>
<tr>
<td><strong>Changes in non-cash operating working capital:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase in accounts receivable</td>
<td>(45)</td>
<td>(53)</td>
</tr>
<tr>
<td>Increase in HST receivable</td>
<td>(512)</td>
<td>(63)</td>
</tr>
<tr>
<td>Decrease/(Increase) in contributions receivable</td>
<td>30,665</td>
<td>(30,665)</td>
</tr>
<tr>
<td>Increase in project/program advances</td>
<td>(15,268)</td>
<td>-</td>
</tr>
<tr>
<td>Increase in prepaid expenses</td>
<td>(5,305)</td>
<td>(55)</td>
</tr>
<tr>
<td>(Decrease)/Increase in accounts payable and accrued liabilities</td>
<td>(445)</td>
<td>1,484</td>
</tr>
<tr>
<td>Increase in project/program holdbacks</td>
<td>1,174</td>
<td>-</td>
</tr>
<tr>
<td>Increase in unearned revenue</td>
<td>40</td>
<td>-</td>
</tr>
<tr>
<td>Increase in deferred contributions</td>
<td>507</td>
<td>30,410</td>
</tr>
<tr>
<td><strong>Total changes in operating working capital</strong></td>
<td>15,998</td>
<td>259</td>
</tr>
<tr>
<td><strong>Financing:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank overdraft</td>
<td>(154)</td>
<td>(168)</td>
</tr>
<tr>
<td><strong>Investing:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase of capital assets</td>
<td>(54)</td>
<td>(17)</td>
</tr>
<tr>
<td>Purchase of intangible assets</td>
<td>(950)</td>
<td>(296)</td>
</tr>
<tr>
<td>Deferred capital contributions</td>
<td>751</td>
<td>222</td>
</tr>
<tr>
<td><strong>Total changes in investing activities</strong></td>
<td>(253)</td>
<td>(91)</td>
</tr>
<tr>
<td><strong>Increase in cash</strong></td>
<td>15,591</td>
<td>-</td>
</tr>
<tr>
<td><strong>Cash, beginning of year</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Cash, end of year</strong></td>
<td>$ 15,591</td>
<td>$ -</td>
</tr>
</tbody>
</table>

See accompanying notes to financial statements.
1. **Corporate information:**

   Next Generation Manufacturing Canada ("NGen") was incorporated under the laws of Canada as a not-for-profit corporation without share capital on November 23, 2017. NGen is an industry-led, organization dedicated to building next generation manufacturing capabilities nationally. Our mission is help Canadian companies become global leaders in the application of leading technologies to manufacturing products and/or processes.

   NGen projects and programs are aimed at driving greater technology development and technology adoption in Canadian manufacturing. To further support cluster growth, we also use data to increase connections and collaboration across the Canadian advanced manufacturing network.

   With the signing of the Contribution Agreement between the Federal Government, represented by Minister of Industry and NGen dated November 9, 2018, the Federal Government's Ministry of Innovation, Science and Economic Development ("ISED") committed to fund NGen for eligible project costs over a five year period commencing in Fiscal Year 2018/19. Under the terms of the contribution agreement, ISED will provide a non-repayable contribution to NGen for 75% of eligible operating expenses that do not exceed 15% of the total contribution, and 100% of eligible project costs. The total is not to exceed the lesser of $229,765 or 100% of total Industry Matching Funds obtained by the organization over the five-year period. The amount of ISED contributions varies from year to year based on forecasted operating and project spend and amounts may be reallocated to other fiscal years within the five year period with the written approval from the Minister of ISED.

   Payment by the Federal Government of the contribution is conditional on there being a legislated appropriation for the Fiscal Year in which the contribution is due. The Minister shall have the right to terminate or reduce the contribution in the event that the amount of the appropriation is reduced or denied by Parliament.

2. **Significant accounting policies:**

   These financial statements are prepared in accordance with Canadian accounting standards for not-for-profit organizations. NGen’s significant accounting policies are as follows:

   (a) **Revenue recognition:**

   NGen receives grant revenue from ISED under the Innovation Superclusters Initiative ("ISI") and from industry.

   NGen follows the deferral method of accounting for contributions. Unrestricted contributions and sponsorships are recognized as revenue when received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured.

   Externally restricted contributions are recognized as revenue in the year in which the related expenses are incurred.
2. Significant accounting policies (continued):

a. Revenue recognition (continued):

Deferred capital contributions related to capital and intangible assets represent amounts received specifically for the purpose of purchasing capital and intangible assets. Externally restricted contributions related to the purchase of capital and intangible assets are deferred and amortized to revenue on the same basis as the related capital or intangible asset. An administration fee of 2.5% of total eligible project costs is charged to recipients prior to contracting. Revenue related to this non-refundable fee is recognized when invoiced.

b. Cash:

Cash consists of amounts held in a bank account which earns interest on a monthly basis.

c. Contributions receivable:

Contributions receivable represents amounts due from ISED for project and operating costs.

d. Project/program advances

Project/program advances consist of funding provided to projects in advance of project costs being incurred. Advances are drawn down and recognized as revenue when a claim for project costs incurred is submitted and approved by NGen.

The year-end balance includes an accrual for project claims submitted for costs incurred and not yet approved.

e. Capital assets:

Purchased capital assets are recorded at cost.

Capital assets are amortized on a straight-line basis using the following annual rates:

<table>
<thead>
<tr>
<th>Asset</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computers</td>
<td>55%</td>
</tr>
<tr>
<td>Furniture and fixtures</td>
<td>20%</td>
</tr>
</tbody>
</table>

f. Intangible assets:

Intangible assets are measured at cost less accumulated amortization. Amortization is provided for, upon the commencement of the utilization of the asset, on a straight-line basis over the remaining term of the Contribution Agreement.

Development activities are recognized as an asset provided they meet the capitalization criteria, which include NGen's ability to demonstrate: technical feasibility of completing the intangible asset so that it will be available for use; NGen's intention to complete the asset for use; NGen's ability to use the asset; the adequacy of NGen's resources to complete the development and to use the asset; NGen's ability to measure reliably the expenditures during the development; and NGen's ability to demonstrate that the asset will generate future economic benefits.
2. Significant accounting policies (continued):

   g. Project/program holdbacks:

   Project/program holdbacks represent unpaid amounts for reconciled project costs which become payable to projects upon project closeout. NGen will hold back 15% of total available project funding until the closure of a project to ensure the receipt and acceptance of all project deliverables from the project. Holdbacks are recorded when a claim for project costs incurred is submitted and approved by NGen and reconciled funding exceeds 85% of total available funding.

   The year-end balance includes an accrual for project claims submitted for costs incurred and not yet approved.

   h. Contributed services:

   The value of in-kind services for professional fees, materials and administrative services is recognized in the statement of operations at the fair value of such services at their date of contribution.

   i. Income taxes:

   NGen is a not-for-profit organization under the Income Tax Act (Canada) and accordingly is exempt from income taxes.

   j. Financial instruments:

   Financial instruments are recorded at fair value on initial recognition. Freestanding derivative instruments that are not in a qualifying hedging relationship and equity instruments that are quoted in an active market are subsequently measured at fair value. All other financial instruments are subsequently recorded at cost or amortized cost, unless management has elected to carry the instruments at fair value. NGen has not elected to carry any such financial instruments at fair value.

   Transaction costs incurred on the acquisition of financial instruments measured subsequently at fair value are expensed as incurred. All other financial instruments are adjusted by transaction costs incurred on acquisition and financing costs, which are amortized using the straight-line method.

   Financial assets are assessed for impairment on an annual basis at the end of the fiscal year if there are indicators of impairment. If there is an indicator of impairment, NGen determines if there is a significant adverse change in the expected amount or timing of future cash flows from the financial asset. If there is a significant adverse change in the expected cash flows, the carrying value of the financial asset is reduced to the highest of the present value of the expected cash flows, the amount that could be realized from selling the financial asset or the amount NGen expects to realize by exercising its right to any collateral. If events and circumstances reverse in a future year, an impairment loss will be reversed to the extent of the improvement, not exceeding the initial impairment charge.
2. Significant accounting policies (continued):
   k. Use of estimates:

   The preparation of the financial statements in conformity with Canadian accounting standards for not-for-profit organizations requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the year. Significant items subject to such estimates and assumptions include the carrying amounts of capital and intangible assets. Actual results could differ from those estimates.

3. Project / Program Advances:

   Project/program advances of $20,662 have been reduced by an accrual amount of $5,394 (2020 - nil) for project claims received but not yet approved by NGen at year-end.

4. Capital assets:

<table>
<thead>
<tr>
<th></th>
<th>2021</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cost</td>
<td>Accumulated</td>
</tr>
<tr>
<td>Computers</td>
<td>$ 68</td>
<td>$ 25</td>
</tr>
<tr>
<td>Furniture and fixtures</td>
<td>24</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>$ 92</td>
<td>$ 36</td>
</tr>
</tbody>
</table>

   Cost and accumulated amortization at March 31, 2020 amounted to $67 and $30 respectively. During the year, NGen disposed of fully amortized assets with cost and accumulated amortization of $29.
5. Intangible assets:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Project pipeline and claims portal</td>
<td>597</td>
<td>199</td>
<td>398</td>
<td>597</td>
</tr>
<tr>
<td>Collaboration platform</td>
<td>950</td>
<td>-</td>
<td>950</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>1,547</td>
<td>199</td>
<td>1,348</td>
<td>597</td>
</tr>
</tbody>
</table>

Cost and accumulated amortization at March 31, 2020 amounted to $597 and $nil respectively.

i. Project pipeline and claims portal

This asset reflects a portal that is being used to capture project and program application intake and is utilized to manage the internal workflow from the application stage through to the contracting stage. Project participants also use this portal to submit claims and supporting documentation for processing and reimbursement.

The portal was available for use and subject to amortization commencing April 1, 2020.

ii. Collaboration platform

The collaboration platform allows NGen members to easily locate partners to collaborate on advanced manufacturing initiatives and will support the needs of our members to:
- identify potential opportunities to partner in innovation projects in Canada and internationally and identify potential partners or suppliers for projects or other innovation initiatives,
- identify potential solutions to technology adoption/scale-up challenges and identify potential tech adoption/scale-up challenges based on what companies want to do,
- Identify individual experts/researchers who can support projects,
- Identify supporting intellectual property or opportunities to commercialize intellectual property – including from NGen projects, and
- Identify sources of public and private funding for innovation initiatives, tech adoption and scale-up.

The collaboration platform was available for use and subject to amortization commencing April 1, 2021.
6. Bank overdraft:

NGen has an authorized operating line of credit of $1,000, repayable on demand. The interest rate charged on the operating line is prime plus 1.00%, payable monthly in arrears. At year-end, the balance drawn on the operating line was $nil (2020 - $154). In addition, NGen has credit facilities in the form of corporate credit cards which total $100 (2020 - $100) of which $nil (2020 - $nil) was utilized.

7. Accounts payable and accrued liabilities:

Included in accounts payable and accrued liabilities are trade amounts due, project and program reimbursements payable and performance-based incentive accruals. Also included is a $nil (2020 - $1,167) amount due to ISED, which was repaid in full during the fiscal year.

8. Deferred contributions:

Deferred contributions represent unspent externally restricted government funds from the ISED program, for the purpose of providing funding to eligible recipients for future projects and for the payment of NGen's subsequent years' operations. The change in the deferred contributions balance is as follows:

<table>
<thead>
<tr>
<th></th>
<th>2021</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance, beginning of year</td>
<td>$31,095</td>
<td>$685</td>
</tr>
<tr>
<td>Funding receivable</td>
<td>-</td>
<td>30,665</td>
</tr>
<tr>
<td>Funding received</td>
<td>64,845</td>
<td>3,073</td>
</tr>
<tr>
<td>Amount recognized as revenue</td>
<td>(64,338)</td>
<td>(3,328)</td>
</tr>
<tr>
<td>Balance, end of year</td>
<td>$31,602</td>
<td>$31,095</td>
</tr>
</tbody>
</table>

Funding receivable includes $nil (2020 - $30,237) related to COVID-19 specific projects. Total revenues include amortization of deferred capital contributions of $199 (2020 - $nil) referenced in Note 9.

Included in deferred contributions is $5,419 (2020 - $nil) for prepaid IT support, media and consulting contracts supporting a youth in manufacturing campaign, delivery of an advanced manufacturing gap analysis, and other ecosystem initiatives. Revenue related to these prepaid contracts is recognized when the expense is incurred, and the contract deliverables are accepted by NGen.
9. Deferred capital contributions:

Deferred capital contributions represent the unamortized amount of restricted government funds from the ISED program received for the purchase of intangible assets. Details of the change in the unamortized deferred capital contribution balance is as follows:

<table>
<thead>
<tr>
<th></th>
<th>2021</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance, beginning</td>
<td>$448</td>
<td>$226</td>
</tr>
<tr>
<td>Funding received</td>
<td>950</td>
<td>222</td>
</tr>
<tr>
<td>Amount recognized</td>
<td>(199)</td>
<td>-</td>
</tr>
<tr>
<td>Balance, end of</td>
<td>$1,199</td>
<td>$448</td>
</tr>
</tbody>
</table>

10. Advanced manufacturing ecosystem initiatives:

Advanced manufacturing ecosystem initiatives represent payments to external parties who will carry out activities on behalf of the Supercluster to help build out and strengthen Canada's advanced manufacturing ecosystem. These activities will:

- Raise awareness about the importance of advanced manufacturing for Canada's economic prosperity and about the world-leading technologies, skills, and manufacturing capabilities that Canada has to offer,
- Enhance connectivity and strengthen collaboration among manufacturers, technology providers, researchers, educators, government organizations, business networks, and supporting business and financial services across Canada and internationally,
- Help coordinate and align services and capacity building initiatives across the ecosystem, especially for SMEs,
- Facilitate access to existing public and private sector funding, expertise, resources, tools, and testbeds,
- Identify gaps in Canada's supporting advanced manufacturing infrastructure based on needs and interests identified by Supercluster members, and
- Support the development of new workforce programs, tools, and testbeds that support technology development, adoption, and scale-up in manufacturing.

11. Outsourced services:

Outsourced services include payments for independent expert assessors for project reviews, contractor payments for monitoring of projects and technology costs.
12. Committed funding:

NGen invests in projects and programs which drive greater technology development and technology adoption in Canadian manufacturing. Projects are selected through a competitive process and successful proponents enter into Master Project Agreements outlining the terms of the investment. As of March 31, 2021, commitments for funding by stream are as follows:

<table>
<thead>
<tr>
<th>Project Type</th>
<th>Total Committed Funding</th>
<th>Estimated Remaining Commitment</th>
<th>Total Estimated Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supercluster projects</td>
<td>$81,189</td>
<td>$35,283</td>
<td>$116,472</td>
</tr>
<tr>
<td>COVID-19 projects</td>
<td>71,528</td>
<td>-</td>
<td>71,528</td>
</tr>
<tr>
<td>Capacity building programs</td>
<td>4,501</td>
<td>7,499</td>
<td>12,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$157,218</strong></td>
<td><strong>$42,782</strong></td>
<td><strong>$200,000</strong></td>
</tr>
</tbody>
</table>

13. Financial risks and concentration of risk:

NGen has a risk management framework to monitor, evaluate and manage the principal risks assumed with its financial instruments. The following analysis provides a summary of NGen’s exposure to and concentrations of risk at March 31, 2021:

a. Liquidity risk:

Liquidity risk is the risk that NGen will be unable to fulfill its obligations on a timely basis or at a reasonable cost. NGen manages its liquidity risk by monitoring its operating requirements and prepares budget and cash forecasts to ensure it has sufficient funds to fulfill its obligations. As referenced in Note 6, the organization also has access to an operating line of credit. There has been no change to the risk exposures from 2020.

b. Interest rate risk:

Interest rate risk arises from fluctuations in interest rates depending on prevailing rates. NGen has exposure to interest rate risk through its operating line of credit, however, management has assessed that the impact on NGen’s financial position would be insignificant.

c. Projects and Programs risk:

Projects and Programs risk is the risk where companies that have contracted with NGen may not be able to continue to fund their portion of the costs given unstable economic conditions referenced in Note 14. If requested by companies, NGen will provide advances to cover eligible project and program expenditures to assist companies with cash flow.
14. COVID-19:

On March 11, 2020, the World Health Organization declared the Coronavirus COVID-19 (COVID-19) outbreak a pandemic. This has resulted in governments worldwide, including the Canadian and Ontario governments, enacting emergency measures to combat the spread of the virus. These measures, which include the implementation of travel bans, self-imposed quarantine periods and social distancing, have caused material disruption to businesses globally and in Ontario resulting in an economic shutdown. Governments and central banks have reacted with significant monetary and fiscal interventions designed to stabilize economic conditions however the success of these interventions is not currently determinable.

From the declaration of the pandemic to the date of approval of these financial statements, NGen experienced the following in relation to the COVID-19 pandemic:

(a) Current year transactions:

ISED has increased the non-repayable contribution to NGen to 100% (from 75%) of eligible operating expenses that do not exceed 15% of the total contribution.

(b) NGen has committed to funding $71,528 of the total contribution of $229,765 for the purpose of funding COVID-19 related projects. In the year ended March 31, 2021, NGen has recognized $47,432 (2020 - $nil) in revenue related to COVID-19 projects from the total contribution.

15. Subsequent Event

NGen has been conditionally approved for $20,000 (of the $60,000) earmarked within “Budget 2021: A recovery focused on jobs, growth and resilience” for the Innovation Superclusters Initiative, to ensure that superclusters that have made emergency investments in supporting Canada's response to COVID-19, as well as other investments, can continue to support innovative Canadian projects. NGen is working with ISED to amend our contribution agreement for an amount up to $20,000; with $12,000 allocated in 2021-22 and the remaining $8,000 in 2022-23. The additional funding is intended to support the most promising projects in NGen’s current pipeline, an Automotive Zero-Emissions Challenge and a Circular Food Economy Challenge. The finalization of the additional contribution will include a formal amendment to the Contribution Agreement.
NGen is founded on the principle that the transformation to advanced manufacturing will enrich the lives of Canadians, delivering better products and good jobs while generating the economic growth essential to a better future.