



TRILLIUM NETWORK
FOR ADVANCED MANUFACTURING



Annual Report
2021-2022

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Message from the Chair



As the president of an Ontario-based manufacturing company, I can assure you that the past two years have been challenging. However, it is from these challenges that we learn and grow. Part of this growth will be closely related to a shift away from addressing short-term priorities that were so common during the pandemic and towards a focus on longer-term strategic priorities that allow us to build on our strengths and competitive advantages.

The same is true for the Trillium Network. I am certainly proud of our accomplishments over the past two years, especially those that supported government efforts related to PPE manufacturing and attracting billions of dollars of EV-related investment to Ontario. I am even more excited to lead our efforts to renew the Trillium Network's longer-term strategic priorities based on our own strengths and based on the needs of manufacturers, policy-makers, and ecosystem partners. I look forward to being able to tell you more about this in the coming months.

I am excited to announce that the Trillium Network has recruited new board members to support our renewed focus on longer-term strategic priorities. Scott MacKenzie of Toyota

and Darryl Spector of Promation recently joined our board and will play important roles in supporting our work that focuses on the automotive and automation industries. They join an already exceptional group that includes Ian Howcroft, Jayson Myers, Alison Newton, and Paul Madden, all of whom bring a wealth of experience to our organization.

I would also like to wholeheartedly thank two of our outgoing board members: Paul Boothe and Ray Tanguay. Paul is and always will be the Trillium Network's founder, as well as one of the brains behind OG100, of which both my own company and the Trillium Network are proud members. Ray has worn several hats, but may be best known for his work to bring a Toyota assembly plant to Woodstock, Ontario, and his role as Ontario and Canada's 'Auto Advisor'. I wish them all the best in their future endeavours and expect that we will stay in touch.

BEN WHITNEY

Chair of the Board

Trillium Network for Advanced Manufacturing

Message from the Managing Director



Despite the challenges associated with the COVID-19 pandemic, the Trillium Network had its busiest and most successful year yet. Over the last fiscal year our organization deepened its relationships with several longtime partners, including MEDJCT, ISED, and NGen, and forged new partnerships with several others, including the University of Waterloo, Clean Energy Canada, and a number of municipal and regional economic development organizations.

We broadened and deepened the scope of our work. We spent a substantial amount of time focused on the potential economic impacts of the EV manufacturing supply chain in order to help develop strategies to attract investment of this type to Ontario. Suffice to say that our combined efforts were successful considering the number of exciting announcements in this space earlier this year! We also deepened our understanding of PPE manufacturing in Ontario, an initiative that began in March 2020, through a survey of and interviews with more than 60 companies that manufacture PPE in the province. Finally, we built on our already strong foundation of knowledge related to workforce development and DEI in manufacturing through a series of reports, blog posts, and podcasts.

In addition to these initiatives we profiled 19 innovative Ontario manufacturers including Myant, the Axiom Group, Northern Transformer, and Promotion. We released 24 episodes of our podcast 'Making it in Ontario' featuring guests from the aerospace, cosmetics, food ingredients, automotive, automation, machining, and craft brewing

industries. We augmented our TrilliumGIS application by adding new 'verticals', which we will continue to do in the upcoming months.

We welcomed a number of new (but in some cases familiar) faces to our team, including Natasha Bartlett, Luiza Moczarski, Cliff Patterson, Samy Otero, and Greg Keenan. They bring a wealth of experience from backgrounds as diverse as journalism, luxury goods manufacturing, and website development.

I would like to recognize some of our departing staff, who have left us for the next stage of their careers. These included Shannon Miller, who recently joined OVIN, Andrew Horne, who is joining NRCan this summer, and Jack Mordue, who took a new role at the Township of Springwater. We wish them all the best of luck and are glad to have played a role in their career development.

Finally, we would like to recognize the contributions of outgoing board members Paul Boothe and Ray Tanguay, both of whom have been instrumental to manufacturing in Ontario and to the success of our organization since Day 1.

Here's to an even more successful year in 2022-2023.

BRENDAN SWEENEY

Managing Director

Trillium Network for Advanced Manufacturing

The Trillium Team

BOARD OF DIRECTORS

The Trillium Network for Advanced Manufacturing is governed by a Board of Directors chaired by Ben Whitney. Board members include Ian Howcroft, Paul Madden, Jayson Myers, Alison Newton, Scott MacKenzie, and Darryl Spector.

PARTNERS

Automate Canada
Automotive Parts Manufacturers' Association
Automotive Policy Research Centre
Build a Dream
Business Development Bank of Canada
Canadian Manufacturers and Exporters
Canadian Vehicle Manufacturers Association
City of Brampton Economic Development Office
City of Vaughan Economic Development Office
Clean Energy Canada
County of Simcoe Economic Development Office
Economic Developers Council of Ontario
Export Development Canada
FedDev Ontario
HIRE Waterloo
Innovation, Science and Economic Development Canada
Invest Stratford
Invest Windsor-Essex
Ministry of Economic Development, Job Creation and Trade
National Research Council of Canada
Niagara Industrial Association
NGen
Ontario Auto Mayors
Ontario Craft Brewers
Ontario Global 100
Reshoring Canada
Western University NEST
YorkLink

STAFF (2021-2022)

Natasha Bartlett, Program Manager
Kristine Clarin, Communications and Marketing Assistant
Mike Cox, Strategy Data Analyst
Denise Deschênes-McKay, Operations Manager
Andrew Horne, Program Officer
Greg Keenan, Editor and Strategic Adviser
Eva Kwan, Research Assistant
Shannon Miller, Program Officer
Luiza Moczarski, Marketing and Communications Manager
Jack Mordue, Program Officer
Samy Otero, Senior Website Developer
Cliff Patterson, Strategic Data Manager
Nick Persichilli, Communications Officer
Erman Sener, Project Manager
Brendan Sweeney, Managing Director
Talissa Watson, Research Associate

WHAT WE DO

Our work focuses on the following areas:

Industry 4.0: how manufacturers are adopting and developing technologies such as digital twins and artificial intelligence.

The Manufacturing Workforce: DEI and best practices among Ontario manufacturers.

EVs and the Automotive Industry: the impact of electrification on Ontario's automotive industry.

Success Stories: profiles and podcasts featuring innovative Ontario manufacturers.

Asset Mapping: building the most comprehensive and accessible database of Ontario manufacturers and ecosystem partners.

2021-2022 Performance Report

The past year was the Trillium Network's most productive yet. Some of our feature initiatives include:

- Profiles of 19 innovative Ontario manufacturers from industries as diverse as electronics, automation, food, and cabinetry;
- 24 episodes of 'Making it in Ontario', the official podcast of the Trillium Network. These episodes explore a range of industries and themes, from cosmetics manufacturing to artificial intelligence to workforce development to PPE manufacturing;
- Developing and publishing a comprehensive database of more than 230 publicly-funded or non-profit manufacturing ecosystem partners (MEPs) that support advanced manufacturers across Ontario, many of which are affiliated with universities, colleges, health sciences centres, or government research facilities;
- A report that examines the shortage of industrial land in Ontario;
- A report that examines the experience of three racialized women who own and operate manufacturing companies in Ontario;
- The first in a series of TrilliumGIS 'verticals' that maps the largest 100 manufacturers in Ontario;
- A series of data bulletins that explore specific aspects of Ontario manufacturing.

We engaged in a number of projects in collaboration with our partners. These include:

- An online survey of and interviews with more than 60 companies that manufacture PPE in Ontario (in collaboration with MEDJCT);
- A collaborative project with NGen, the APMA, and Porsche Consulting that examines the threats and opportunities for Canada associated with the transition to electric vehicles;
- A report that provides case studies of Ontario companies that have deployed digital twins technologies (in collaboration with NGen);
- A collaboration with Clean Energy Canada that builds an economic model of the EV battery supply chain in order to develop a value proposition to help attract further investment.

We became certified as a Living Wage Employer by the Ontario Living Wage Network.



Initiative: PPE Manufacturing in Ontario



If there is any silver lining to the COVID-19 pandemic, it is that it has taught Ontarians the value of domestic manufacturing capacity. Since the earliest days of the pandemic, the Trillium Network has worked to identify manufacturers that pivoted in order to produce much-needed personal protective equipment (PPE) and medical supplies. In the past year we led an initiative (in collaboration with MEDJCT) to continue to identify these manufacturers and to better understand the process of pivoting (or starting a new company), the opportunities that were available to Ontario manufacturers, and the challenges that they faced manufacturing and distributing PPE.

To do so, we surveyed more than 60 companies that manufactured PPE in September 2021. We followed this survey with detailed interviews with more than 10 of these companies. The results of these surveys and interviews, which were shared with MEDJCT colleagues, emphasized the importance of the public sector as customers for Ontario-made PPE, as well as the challenges that many smaller manufacturers face selling PPE to private retailers (many of which preferred to import PPE) and those associated with the process of pivoting.

Finally, we augmented our analysis of PPE manufacturers with two episodes of ‘Making it in Ontario’, the official podcast of the Trillium Network. One featured David Yeaman of Molded Precision Components (MPC). This episode focused on how Industry 4.0 technologies enabled MPC to pivot to manufacturing PPE, their collaborations with NGen, and the development of Yeaman’s ambitious MediCA Park in Oro-Medonte. Another featured George Irwin and Danielle Cane from the recently-formed Canadian Association of Personal Protective Equipment Manufacturers (CAPPEM), an organization that aims to ensure that Canada will never again be vulnerable to shortages of PPE. Throughout this episode, George and Daniel remind us that Ontario PPE manufacturers do not only create economic benefits, but that they are also an important source of healthcare innovation.

This work underlies the importance of recent investments in Ontario PPE manufacturing, including 3M’s mask manufacturing facility in Brockville, CY Health’s gown manufacturing facility, and Medicom’s nitrile glove manufacturing facility (both of which are in London).

Initiative: Industrial Land Use



The shortage of suitable sites for manufacturing threatens a sector that is vital to Ontario's economic and social well-being. But it's not too late to do something about it according to a report that the Trillium Network published in the Fall of 2021.

Ontario has long relied on manufacturing to create wealth, job opportunities, and prosperity. The COVID-19 pandemic and recent disruptions to supply chains have reminded Ontarians how crucial manufacturing is to the provincial economy. Manufacturers face challenges, however, including those related to the cost and availability of suitable sites for factories. While these challenges were laid bare during the pandemic, they are not necessarily new.

The project found that at the same time as manufacturers seek to expand and grow in the province, the sites of hundreds of factories that were closed are now used for purposes other than manufacturing. In some cases residential developments are situated on these sites. In many others, lower value commercial activities, such as warehousing, have replaced factories. These activities contribute much less to Ontario's economy than manufacturing does.

The report identifies four solutions to the problem:

- Creating and maintaining a comprehensive and publicly available database of available industrial land;
- Providing support for upgrades and retrofits to existing factories;
- Protecting industrial land with designations that recognized the outsized economic contributions of manufacturing; and
- Adjusting property taxes according to the economic benefits generated at a particular site.

The report also examines the fate of 14 'mega-sites' that each employed more than 1,000 people at some point in the 1990s or 2000s. It shows that very few of these sites are used for manufacturing today. Having mega-sites available to investors is necessary to attract large-scale transformative investments.

Profile: QTK Fine Cabinetry



■ Image Credit - QTK Fine Cabinetry

It was a visit to the assembly line at Honda of Canada's Alliston plant that convinced Daniel Toto, general manager of QTK Fine Cabinetry, that kitchen cabinets can be both unique and manufactured at high volumes.

For Toto, who grew up learning about QTK's business on the shop floor, Honda's low-inventory business model and just-in-time production system were key. He observed that mass customization was possible with precise production scheduling and automated equipment – even in a business whose customers want their kitchens to stand out and reflect their own personalities. What he learned from the auto giant gave Toto a vision to steer QTK in a similar direction.

Delivering each customer a unique kitchen that strikes a balance between form and function is QTK's promise to its customers. By engaging with them and tailoring the designs for their needs the Vaughan-based family owned company sets itself apart from ready-made kitchen cabinetry providers.

Given the high level of product customization and customer engagement QTK provides, one might expect it to be a low-volume producer. But the company punches above its weight

thanks to its Industry 4.0 investments. With 50 employees aided by advanced production equipment and software, QTK can individually customize more than 500 kitchens for a single new residential development. It can do so while working on one-off home renovation projects and achieve all within competitive lead times.

Toto says QTK recognized in the 1990s that adopting advanced manufacturing technologies was necessary not only to survive, but to thrive. When Toto's parents founded the business in 1974, all manufacturing was manual. But as new technologies emerged, the labour market got tighter, and competition against low-cost manufacturers became more challenging, QTK decided to upgrade itself. Mass customization, enabled by higher levels of automation and new software tools, emerged as a viable path for growth.

When Toto joined his brother, Giovanni (the current vice president of QTK) at the company in 2007, their priority was therefore to invest in key technologies to move the company to a made-to-order business model. Moreover, they wanted to build up the company's mass customization capabilities.

The first investment towards implementing their plan took place that year. QTK purchased a license to use Microvellum, an AutoCAD-based software well-known in the wood products industry for streamlining processes. Daniel Toto developed the first software libraries himself, and built custom add-ons to represent every element and process used in manufacturing. He also developed the CNC machine post processors, the software that converts design files into instructions for the machines. That allowed the new software to communicate with QTK's equipment seamlessly.

The advantages of using Microvellum were shorter lead times, superior scheduling that allowed more projects to run in parallel, and higher levels of product customization. Most parts could be automatically labeled with barcodes, sorted automatically, and traced by sensors as they moved from one work cell to another. Fewer misplaced or lost parts translated into fewer delays. Enhanced design capabilities meant more satisfied customers. Better scheduling led to higher production capacity.

But there was a significant challenge. Parts that would eventually get painted could not be visibly labeled with barcodes on the surface. These were the parts with the longest lead times and often got misplaced, so it was crucial to be able to label and track them within the plant.

To overcome that challenge, Toto turned to a technology that was seldomly used in woodworking: using radio frequency identification (RFID) tags to label and track parts. Although it was a relatively expensive solution, Toto believed the potential returns from increased on-time deliveries would outweigh the costs. However, for QTK, it was important for these tags to be invisible to the end-user. A machine that could automatically and seamlessly insert the tags into cabinet parts was not readily available. After hundreds of hours of searching, Toto finally made the decision to custom build the machine in house and develop the necessary software internally. After six months of experimenting and testing, the solution was rolled out for all painted parts in 2018. Since then the company has been using hidden RFID in painted parts to track information on each painted part for the life of the part.

In 2013, to complement Microvellum's capabilities, QTK decided to invest in a full-scale enterprise resource planning (ERP) system. It received some funding for the project from the National Research Council of Canada's Industrial Research Assistance Program (NRC-IRAP). QTK specifically wanted an ERP system that would not modify QTK's existing processes.



■ Image Credit - QTK Fine Cabinetry

A Burlington-based company, Seradex, offered exactly what it was looking for. While Microvellum and Seradex both worked well for QTK individually, integrating the two was a challenge. In 2015, the company hired a programmer to help. Today, all the information from Microvellum and the shop floor flows directly into Seradex, providing QTK with a fully-integrated platform to streamline and optimize different processes.

Toto says the software upgrades significantly improved the management decision making process. The primary reasons for that were centralized information and near real-time visibility into the shop floor. The upgrades also allowed QTK to be more agile in production and address potential issues before they occurred. With continuous improvement in mind, a review committee gathers once every week to review issues.

At the same time as it upgraded the software QTK also invested in more automated equipment and robots. Toto underlines that the use of automated equipment did not lead to job cuts. But it required a shift in the company's work culture.

"It is my responsibility to create fulfilling jobs for my employees," says Toto. "Repetitive work is boring and those tasks can be handled by a robot." With that belief in mind, upskilling personnel became an important activity for QTK. The company retrained employees to operate machines that did their work automatically. Others were assigned to higher value-added tasks like quality control.



■ Image Credit - QTK Fine Cabinetry

Toto says these changes translated into increased productivity and job satisfaction among employees. They also helped the company retain its most experienced personnel, some of whom have been with QTK for more than 30 years. Toto summarizes the type of culture he wanted to cultivate: “Every single day we should be learning, professionally and personally.”

QTK also focuses on environmentally friendly practices. Since 2004, the company has been capturing, recycling and reusing the residual chemicals from the painting process. All locally-shipped products, which amount to about 95 per cent of QTK’s business, are wrapped in reusable packaging. All of the cardboard used is made from recycled material and reused multiple times before further recycling. Recently, the company has also started upgrading its service vehicle fleet with electric vehicles.

Moreover, all of QTK’s raw materials come from locally controlled forest environments. About 95 per cent of the materials, including Uniboard, Panolam, HDF, maple and red oak come from high-quality Canadian mills. The rest, mostly walnut, comes from high-quality mills in the United States.

The biggest recent challenge for QTK was fluctuations in the lumber market. The rapid rise in the prices and supply

shortages in the summer of 2020 put pressure on QTK’s low-inventory, made-to-order model. Most of QTK’s work is based on fixed-price contracts, so passing through the increased cost was not an option. Toto observed that while prices were increasing quality was declining due to material shortages. To mitigate quality issues, the company had to invest in a larger-than-usual stockpile and made sure it had access to high-grade lumber and other quality raw materials.

Despite supply chain headwinds, the company remained on the growth path thanks to its past investments in advanced manufacturing. It exported its products abroad for the first time, to Florida. And with the lumber market back to a more normal state, the company remains positive about the prospects for its made-to-order business.

For a family-owned business like QTK, reaching the scale of some of the low-cost, ready-made cabinet manufacturers was fraught with risks. But by embracing advanced manufacturing and learning from another manufacturer (that was, in this case, in a completely unrelated sector), QTK has been able to build kitchen cabinets that are both unique and manufactured at high volumes.

Profile: Myant



■ Image Credit - Myant

Tony Chahine, founder and chief executive officer of Myant, experienced first hand the difficulties associated with providing care for a loved one with dementia when his father was diagnosed with symptoms. He saw the need for a product that could track patients' vital health information passively, without the need for them to put on a new device or press a button. That idea evolved into the goal of integrating capabilities of separate wearable technologies into everyday textiles.

In order to realize his goal, Chahine began looking into advances in textile sciences and engineering. Several research institutions - Ryerson University, University of Toronto, Drexel University, Cornell University, Massachusetts Institute of Technology, University of Alberta, RWTH Aachen University, and the University of Tokyo - had various research projects underway on textile materials that demonstrated connectivity was possible. Chahine and his team decided to purchase dormant patents from these institutions, which laid the groundwork for Myant's Textile Computing platform.

Textile Computing, as Myant defines it, is the technology that connects the human body to the world around it through textiles. Capitalizing on the latest advances in

various disciplines, the 10-year old Toronto-based start up knits everyday textiles out of conductive yarns and embeds biometric sensors and actuators into them. A proprietary software platform records and processes the data collected through the hardware, giving Myant's products the ability to sense and react to the human body.

Becoming a manufacturer was not what Chahine had in mind when he founded Myant. But the fragmented and remote nature of the textile industry made prototyping and commercializing Myant's revolutionary idea within a reasonable time frame nearly unworkable. As the company's executive vice-president Ilaria Varoli notes, at that early stage of the company the founding team understood that "innovation doesn't take place without manufacturing and the art of making leads to the art of innovation." That realization marked the beginning of Myant's journey to become one of the world's leading Textile Computing companies.

The company's main product line, Skiin, was launched in early 2021. Skiin includes underwear, bras and tank tops that can collect health and wellness data including body temperature, heart rate, posture, location, and body activity. From this

data the connected software platform generates meaningful insights, warnings and reminders related to the user's health and well-being that can be shared with caregivers or doctors. While Skiin is the first commercially available product line Myant offers to the public, the company is busy developing products that have myriad applications from elderly care to space travel.

Developing and manufacturing the revolutionary set of products that Myant specializes in requires a unique group of talent. The multidisciplinary team of 130 working at the company's 80,000 square foot facility includes textile, biomedical, and electrical engineers as well as data scientists, software developers, and fashion designers. This cohort reflects the company's vision for the future of the textile industry and positions Myant ahead of the more traditional textile manufacturers that generally lag behind in innovation.

Myant differentiates itself from traditional textile manufacturers not only by employing a multidisciplinary team but also by having highly automated production processes. In contrast to the typical shop floor at a traditional cut and sew manufacturer where workers sit behind rows of sewing machines, Myant's factory features highly-automated flat, circular, and three-dimensional robotic knitting machines. The last of these are made by the industry leader Stoll by Karl Mayer, a German manufacturer of advanced textile machinery with whom Myant collaborates extensively to push the boundaries of what is possible in textile manufacturing. As production for Myant's Skiin product line ramps up, the company expects to add 250 more machines, doubling its production capacity. Notably, as Varoli highlights, the driving force behind automation was the ability to innovate and not labour costs.

In addition to state-of-the-art production equipment, Myant's facility has areas dedicated for laboratory testing, R&D, software development, and fashion design. Many of the company's non-production personnel work on their computers in these spaces while automated knitting machines carry on their tasks quietly. A small cut and sew area at the back of the plant reminds visitors that Myant is still a textile manufacturer. Varoli explains that handcraft can never be out of the equation in fashion design and that space is vital to bringing new ideas to reality.

While the launch of Skiin marked an important milestone for the company, it took Myant a decade to develop. Part of the reason behind that long product development stage was the lack of an ecosystem that could support Myant's activities.

The company knew from the start that it alone could not build the entire supply chain and the ecosystem that were

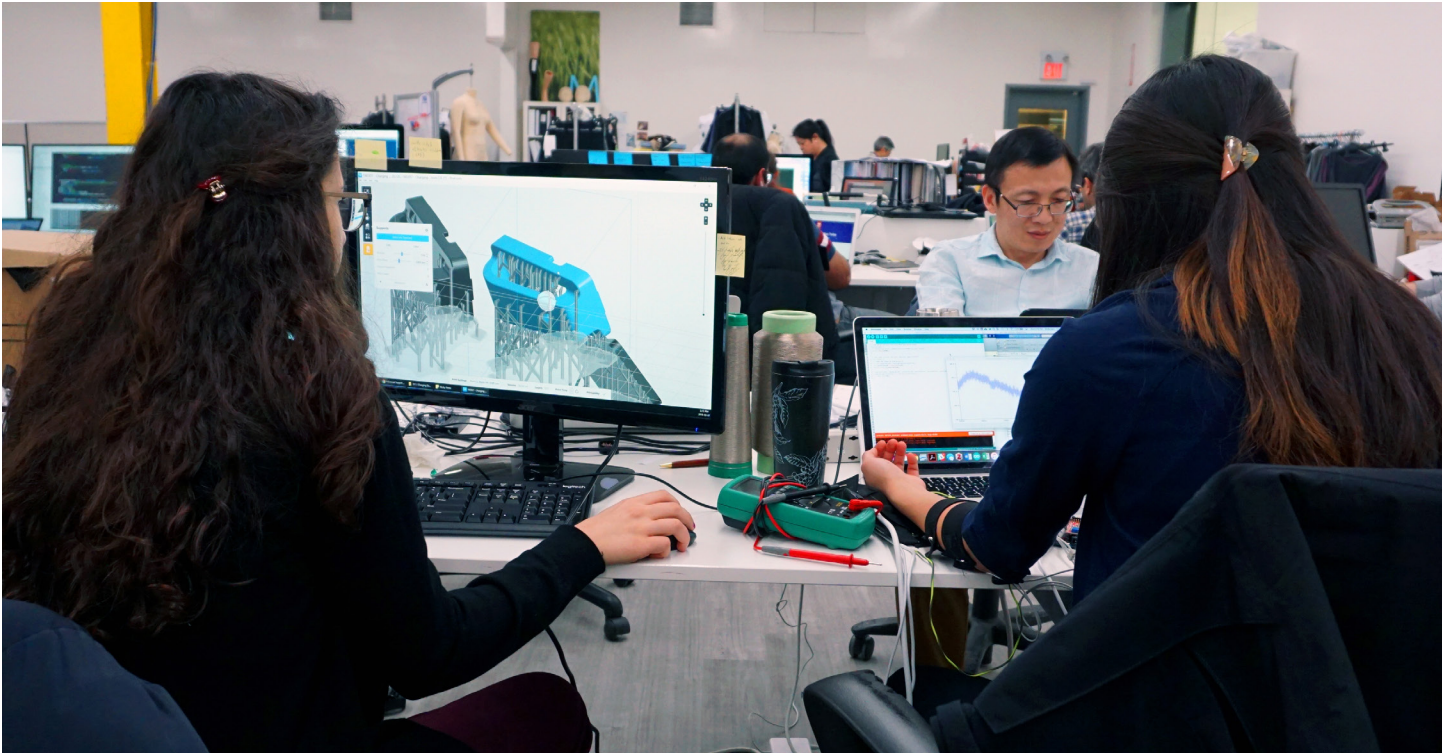


■ Image Credit - Myant

necessary to develop this emerging industry segment. So, collaboration has been critical - with scientists, researchers, machine builders, even Myant's own competitors. In its early stages, Myant struggled to get the attention of suppliers, machine builders, and universities. That changed only when the company built up its manufacturing capabilities and demonstrated the potential applications of its products.

Those counterparts started to come to Myant to seek ideas on how to develop certain technologies, making exclusive collaboration agreements with the company. In-house manufacturing capabilities gave Myant the ability to help other stakeholders develop an emerging product segment more collaboratively, fostering innovation. However, Myant realized that insisting on exclusivity could slow down the uptake for its products by limiting other aspiring industry players entering the market. Therefore, the company became less protective of its intellectual property over time and stopped making exclusive agreements. It launched different initiatives that aim to democratize the sector.

For example, Myant assisted Ryerson in opening a laboratory specializing in Textile Computing by donating some of its production equipment. At the same time, the company collaborated with the university to establish a curriculum to train the talent with the right combination of skills to further develop smart textiles. In the long run, this collaboration can alleviate some of the challenges Myant faced in finding experts to work on this emerging technology.



■ Image Credit - Myant

Separately, the company launched the Myant Digital Textile Exchange (MDTX), an online platform designed to connect those who would like to develop new smart textile products with manufacturers that have the capability to produce those. While this platform fosters innovation and helps increase the market penetration of smart textiles, it also facilitates setting certain standards (e.g. environmental, material, labor, design, etc.) across this emerging industry segment. The standards allow the platform to run seamlessly and democratize the ability to create and commercialize textile computing innovations.

From a strategic standpoint, Myant's near-term goal is to expand in healthcare. To do that, the company has established partnerships with several key institutions in order to test and deploy its Skiin products. The Mayo Clinic based in Minnesota, Southlake Regional Health Centre in Newmarket, The Hospital for Sick Children (SickKids) in Toronto, Algoma University and the Sault Area Hospital are among Myant's current partners.

Myant established its partnership with the Mayo Clinic in 2018. That partnership focuses on the use of Skiin, to monitor heart activity and detect arrhythmia. Another partnership involves a clinical study with SickKids, the KITE Research Institute in Toronto, and the University Health Network. This study is testing whether an accurate electrocardiogram signal can be gathered by Skiin's textile-based sensors to monitor pediatric patients with heart disease. Myant has also partnered with the Southlake Regional Health Centre in Newmarket to clinically

validate the application of Skiin as a diagnostic modality. The Ontario government recently awarded Myant \$1.5 million from the Ontario Together Fund to distribute its Skiin kits to 2,500 trial participants in a partnership with Algoma University and the Sault Area Hospital. The goal is to develop a better understanding of how entire communities might use and benefit from this product.

In addition to its healthcare applications, the Skiin garment innovation can change the workplace, by allowing employers to track factors that contribute to the health and safety of their teams. Employees' activity and stress levels, body temperature, and their state of restfulness can be monitored across their shifts. Risks can be managed through early identification.

Applications are not limited to healthcare or workplace safety. The company has met with a space agency several times as it researches spacesuits that can give electromagnetic muscle stimulation to astronauts to reduce muscle atrophy during long space voyages.

It is no surprise that Myant still regards itself as a start up as it imagines novel areas of application for its revolutionary products. But the company already acts like a mature business as it lays the groundwork for other innovative start ups, manufacturers, and research institutes in Ontario to build an entirely new ecosystem around smart textiles.

Statement of Financial Position as of March 31, 2022

ASSETS CURRENT	2022	2021
Cash	\$ 116,855	390,754
Short-term Investments	\$ 160,236	-
Grants Receivable	\$ 19,040	-
Accounts Receivable	\$ 21,295	3,390
HST Rebate Recoverable	\$ 8,212	10,884
Prepaid Expenses	\$ 4,400	10,057
	\$ 330,038	415,085
Capital Assets	\$ 10,552	10,471
	\$ 340,590	425,556
LIABILITIES AND NET ASSETS CURRENT	2022	2021
Accounts Payable and Accrued Liabilities	\$ 23,242	22,750
HST Payable	\$ 15,757	30,985
Source Deductions Payable	\$ 13,980	8,722
Deferred Revenue - MEDJCT	\$ -	38,722
Deferred Revenue - NGen	\$ -	204,000
	\$ 52,979	305,179
Deferred Contributions Related to Capital Assets	\$ 10,552	10,471
	\$ 63,531	315,650
Net Assets	\$ 277,059	109,906
	\$ 340,590	425,556

Auditor's Statement

The financial summary is an excerpt from the complete Financial Statements of the organization, which were audited by BDO Canada LLP, dated May 18, 2022 and as such does not contain all disclosures required under Canadian accounting standards for not-for-profit organizations. A copy of the complete audited Financial Statements is available from the organization upon request.

Statement of Operations as of March 31, 2022

REVENUE	2022	2021
Grants	\$ 533,967	524,327
Consulting	\$ 346,832	34,000
Amortization of Deferred Contributions Related to Capital Assets	\$ 3,369	2,901
Interest - MEDJCT	\$ 445	1,674
Interest - Other	\$ -	964
	\$ 884,613	563,866
EXPENSES	2022	2021
Salaries, Benefits, and Consulting Fees	\$ 591,086	405,553
Software, Website, and TrilliumGIS	\$ 27,205	46,722
IT Consulting	\$ 24,316	6,086
Professional Fees	\$ 20,741	23,192
OG100 Membership Fees	\$ 15,591	14,651
Publications and Promotions	\$ 13,920	3,221
Rent	\$ 9,520	-
Office and General	\$ 5,437	9,328
Meetings and Travel	\$ 4,261	5,632
Amortization of Capital Assets	\$ 3,369	2,901
Insurance	\$ 1,689	1,763
Bank Charges, Interest and Penalties	\$ 325	218
Projects and Initiatives	\$ -	26,841
	\$ 717,460	546,108
Excess of Revenue Over Expenses from Operations	\$ 167,153	17,758

2022-23 Operating Plan

To raise awareness of Ontario's advanced manufacturing ecosystem with the intention of supporting growth and competitiveness, the Trillium Network for Advanced Manufacturing will focus on the following objectives:

OBJECTIVE 1: BUILD AND PROMOTE OUR NETWORK AND ITS CAPABILITIES

We will promote our work and our partners through our updated website, social media platforms, TrilliumGIS, our podcast 'Making it in Ontario', and through participation at in-person events. We will continue to aim to publish 20 company profiles annually.

We will continue to support and promote the work of OG100. We will broaden and deepen our partnerships with MEDJCT, municipal economic development offices, industry associations, and other ecosystem partners. We will continue to support MEDJCT and other provincial initiatives whenever our help is needed.

OBJECTIVE 2: FOCUS ON WORK IN PRIORITY AREAS

Automotive Industry Transitions

We will continue our work, in collaboration with partners like the APMA, CVMA, and NGen, that focuses on the impacts on Ontario's automotive industry of the transition to manufacturing EVs and EV batteries.

Skills, Talent, and Workforce Development

We will continue to collect, analyze, and disseminate information and insight related to the evolving skills and workforce needs of Ontario manufacturers and the Ontario manufacturing workforce. We hope to conduct in-depth analysis of recent census data related to the demographics of Ontario's workforce as those data are made available.

Industry 4.0

We will continue our work that provides insight and case studies of Ontario manufacturers that are successfully adopting Industry 4.0 technologies and of the ecosystem partners that support those transitions. Some of this work is likely to be completed in collaboration with NGen.

Asset and Capability Mapping

We will maintain our databases of Ontario manufacturers and ecosystem partners. We will disseminate these data through our classic TrilliumGIS platform and through a series of verticals and data bulletins. We will share these data with MEDJCT, Invest Ontario, and other government and ecosystem partners to support investment attraction, retention, and expansion initiatives.

OBJECTIVE 3: EQUITY, DIVERSITY, AND INCLUSION (EDI)

We will continue to focus on equity, diversity, and inclusion within our organization and in Ontario's advanced manufacturing ecosystem. This includes recruiting staff that are diverse in age, gender, and ethnicity. It also involves collaboration with and supporting manufacturers and ecosystem partners that endeavour to do the same.

OBJECTIVE 4: GOOD GOVERNANCE

We will meet our financial target of budget balance. We will meet our carbon neutrality target. We will operate according to the principles of good governance and in accordance with the Canada Not-for-Profit Corporations Act. We will maintain our status as a Living Wage employer.

Trillium Network 2023-2025 Financial Plan

REVENUE		2023	2024	2025
MEDJCT	\$	499,500	498,000	498,000
Interest on Provincial Funding	\$	500	2,000	2,000
Provincial Carry-Forward + HST Rebate	\$	8,000	11,000	11,000
Other Revenue	\$	35,000	0	0
Other Carry-Forward	\$	277,000	222,380	225,260
Interest on Carry-Forward	\$	2,700	2,200	2,200
Total Revenue	\$	822,700	735,580	738,460

EXPENSES		2023	2024	2025
Staff	\$	480,000	390,000	390,000
Accommodations	\$	16,320	16,320	16,320
Operating Expenses	\$	20,000	20,000	20,000
OG100	\$	15,000	15,000	15,000
Travel and Event Expenses	\$	30,000	30,000	25,000
Project and Initiative Expenses	\$	20,000	20,000	20,000
Miscellaneous Expenses	\$	5,000	5,000	5,000
HST Expenses	\$	14,000	14,000	13,200
Total Expenses	\$	600,320	510,320	504,520
Surplus	\$	222,380	225,260	233,940



TRILLIUM NETWORK
FOR ADVANCED MANUFACTURING

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