Driving Talent Forward:

Building Ontario's Highly-Skilled Automotive & Mobility Workforce

Ontario Labour Market Partnerships Program

March 2021 - September 2024



Canada

EMPLOYMENT ONTARIO

OVIN AUTONOMOUS • CONNECTED • ELECTRIC

Ontario

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Background

As Ontario's flagship initiative for the automotive and mobility sector, the Ontario Vehicle Innovation Network (OVIN) is driving economic development and catalyzing a future of safer, cleaner, and more efficient transportation. To maintain Ontario's position as a global leader in automotive and mobility, OVIN is focused on talent and workforce development, bringing together the entire ecosystem to build, retain, and manage a pipeline of talent across the entire province.

With over $45 billion of sector investment in the last 4 years, Ontario's automotive and mobility landscape is thriving. OVIN ensures that employers across the sector are equipped with the skilled workforce they need to succeed today while also future proofing the workforce to meet the demands of tomorrow. By building talent management strategies and fostering connections across the ecosystem – including among industry, education, and regional partners – OVIN is creating the capacity and collaboration needed for Ontario's ongoing success in this field.

Supported by $17,898,934 in funding from Ontario's Ministry of Labour, Immigration, Training, and Skills Development (MLITSD) through the Ontario Labour Market Partnerships (OLMP) program, OVIN has led transformational work from March 2021 to September 2024. This report details the achievements, innovations, and partnerships made possible through this funding, underscoring OVIN's critical role in cultivating a future-ready workforce for Ontario's automotive and mobility sector.

Governance and Oversight



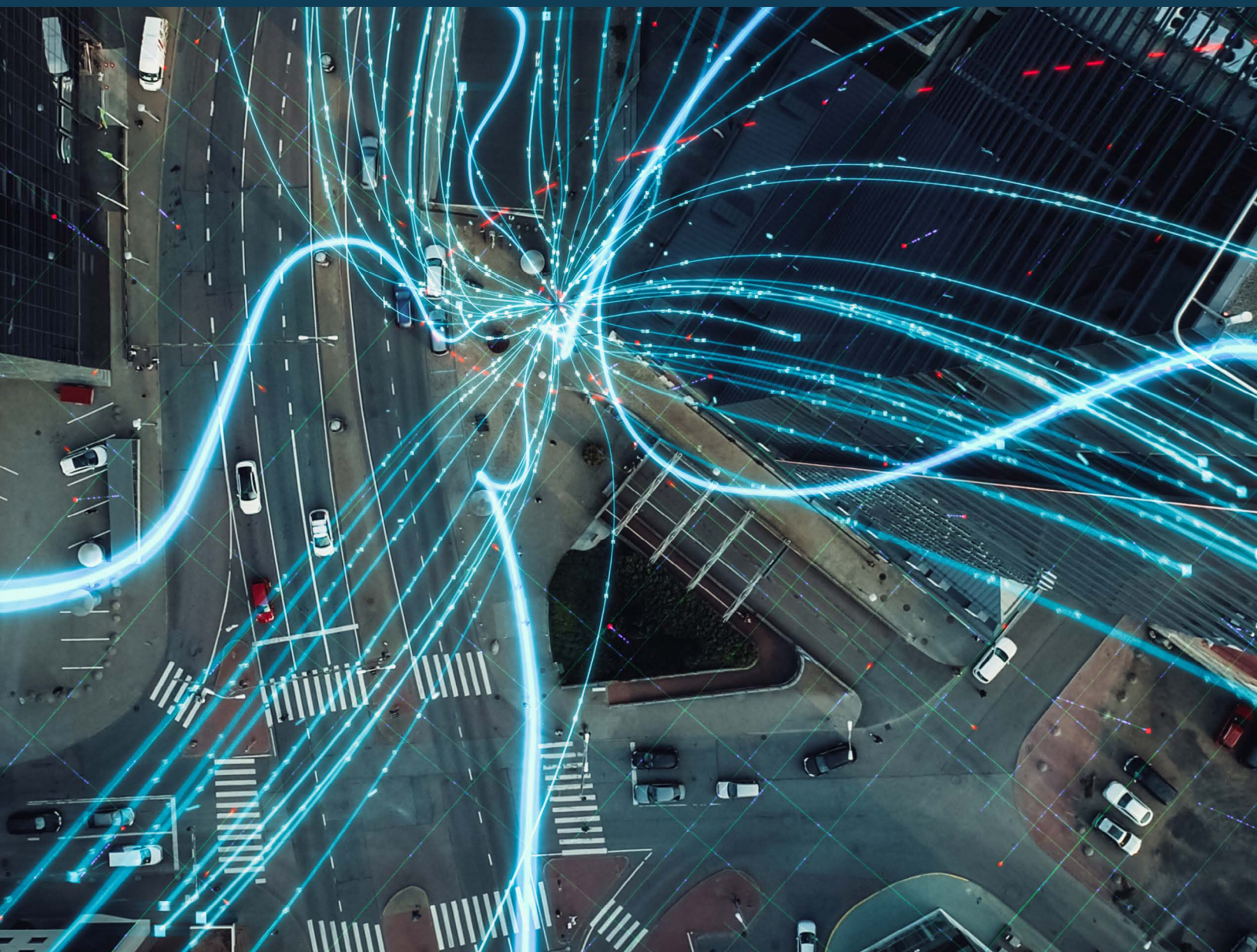
In alignment with its Governance and Oversight responsibilities, OVIN established an Inter-ministerial Working Group comprising representatives from OVIN and various ministries:

- **Labour, Immigration, Training, and Skills Development (MLITSD)**
- **Economic Development, Job Creation, and Trade (MEDJCT)**
- **Transportation (MTO)**
- **Colleges and Universities (MCU)**
- **Education (EDU)**
- **Ministry of Mines***
- **Ministry of Northern Development***

*Added during the project to reflect the growing importance of critical minerals to the sector

This group met monthly throughout the project and continues to do so. With the growing importance of critical minerals to the sector, the group expanded to include the Ministry of Mines and the Ministry of Northern Development. Additionally, OVIN convened its Liaison Committee, which has provided guidance and oversight since 2017, quarterly throughout the project and continuing this cadence.

Collaboration and Coordination Across the Province





From the outset of the Ontario Labour Market Partnerships (OLMP) project, the Ontario Vehicle Innovation Network (OVIN) has actively engaged with stakeholders throughout Ontario's automotive and mobility ecosystem to conduct primary research on their needs. This included consultation calls and roundtables, site visits, and participation in events hosted by 20 industry stakeholders, 56 post-secondary institutions, and 48 community organizations such as regional economic development agencies and non-profits.

Stakeholder Engagement

Engaging with a total of 124 stakeholders through event presentations and showcases of OVIN's work led to several partnerships that were codified through agreements: Honda of Canada Manufacturing contributed to the development and beta testing of the OVIN Learn upskilling platform; the Automotive Parts and Manufacturers' Association (APMA) provided content for OVIN Learn; Ford Motor Company Canada provided critical insights for the skills gap analysis and reskilling training framework; and Colleges Ontario helped OVIN convene a roundtable of eight colleges and two industry partners to discuss EV technician curriculum and training.

Throughout 2022 and into 2023, OVIN staff conducted a Roadshow across the province, bringing together relevant stakeholders for roundtable discussions, assessing regional needs, and articulating how programs operating through OVIN could provide value.



Through the Roadshow, OVIN visited the following locations and engaged the following stakeholders:

Brampton
Brampton Economic Development, Algoma University – Brampton, and Sheridan College

Hamilton
Mohawk College, McMaster University, and the Centre for Integrated Transportation and Mobility

Kingston
Queen's University, St. Lawrence College, Loyalist College, and the Kingston Economic Development Corporation

London
Fanshawe College and Western University

Oakville
Ford Motor Company Canada

Oshawa
Ontario Tech University

Ottawa
Algonquin College and the University of Ottawa

Peterborough
Trent University

Sarnia
Lambton College

Simcoe County
Georgian College, Lakehead University – Orillia, and Honda of Canada Manufacturing

St. Catharines
Brock University, Niagara College, Niagara Economic Development, and Niagara Industrial Association

Sudbury
NORCAT, Cambrian College of Applied Arts and Technology, College Boreal, and Laurentian University

Thunder Bay
Lakehead University

Toronto
York University, University of Toronto – St. George and Scarborough campuses, and Centennial College

Waterloo
University of Waterloo, Communitech

Windsor
University of Windsor, St. Clair College, Stellantis, NextStar, Flex Ion Battery Innovation Centre, Flex-N-Gate, CentreLine, AV Gauge, Laval Tool and Mould Ltd., Canadian Association of Mold Makers (CAMM), Unifor, WEtech Alliance, and Invest WindsorEssex



Through its engagement with the ecosystem, OVIN also participated in various events, including:

London
Ontario Council for Technology Education, where OVIN spoke at a plenary session about their efforts to ensure the auto sector is prepared for the many changes electrification will bring and their initiatives to engage younger students in the sector

Smart Prosperity Institute Roundtable and Green Economy Forum, where OVIN discussed future skills and labour needs in Ontario's zero emissions vehicle and battery manufacturing sector

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Sarnia
Lambton College EV Summit, where OVIN gave a presentation on labour market research surrounding EV technologies and batteries

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Toronto
Drive Forward, where OVIN engaged youth in learning about careers in the automotive and mobility sector

eCampus Ontario Micro-Credentials Forum, where OVIN shared information about their upskilling platform and labour market insights that inform opportunities to develop micro-credentials for Ontario's automotive sector

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Vaughan
Talk Auto, where OVIN spoke on a panel about the industry's transition to electrification and a more diverse workforce

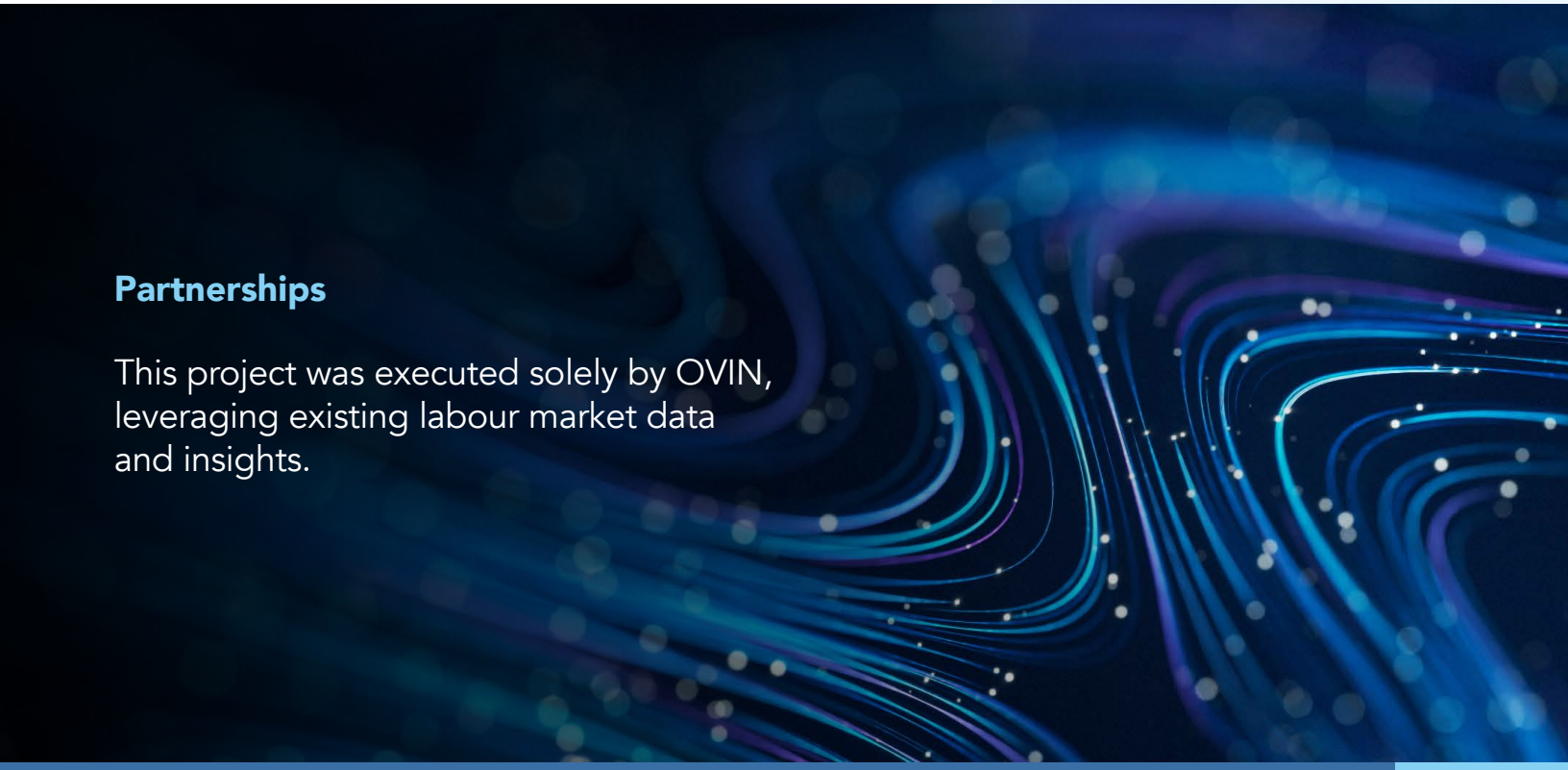
The Auto Mayors, to whom OVIN presented their skills, talent, and workforce development strategy

These relationships provided crucial insights into industry needs and built a pipeline of applicants for programming, particularly the Regional Future Workforce pilot program launched in late 2022. Throughout the course of the project, OVIN remained active in Ontario's automotive ecosystem, attending events like the Globe and Mail's Future of Automotive in Toronto, the University of Toronto's Executive Speaker Series in partnership with Porsche, and the APMA's Canada Automotive Summit.



Talent Strategy and Roadmap Addendum

In 2021, OVIN created a comprehensive roadmap, informed by expert insights, to guide stakeholders through the transformations driven by electrification, advanced technology adoption, and new manufacturing investments in Ontario. In 2024, an Addendum was added to this roadmap, providing insights and research into the current and future state of skills and talent in the electrification, propulsion systems, lightweighting, advanced air mobility, marine transportation, rail transportation, safety management and controls, and semiconductor segments of the sector. Both the Talent Strategy and Roadmap and the Addendum are publicly available on OVIN's website in English and in French.



Partnerships

This project was executed solely by OVIN, leveraging existing labour market data and insights.



Industry and Academia Working Group

OVIN established an Industry and Academia Working Group to support OVIN's assessment of industry needs and gather insights to inform OVIN's talent initiatives; to validate training, education, and career pathways information, identifying gaps in workforce reskilling plans for the upskilling platform, skills gap analysis, and reskilling framework; and to assess and support the alignment of training standards with skills development across the sector. Group members provided perspective that informed the development of the upskilling platform (now OVIN Learn), skills gap analysis, and reskilling training framework. The working group meets quarterly and continues to shape the talent initiatives as they evolve from assessing needs and engaging students to workforce development to broader initiatives around talent attraction and retention for experienced hires.

Members Include:

Kim Thiara
President of Acetronic Industrial Controls Inc.

Nicole Vlanich
Executive Director of the Canadian Association of Mold Makers (CAMM)

Adrienne Madden,
Coalition Manager at Canadian Colleges for a Resilient Recovery (C2R2)

Paulo Santos
Dean of the School of Transportation at Centennial College

Dina McNeil
Director of Projects and Programs, Government and Stakeholder Partnerships at Colleges and Institutes Canada

Janet Westbury
Regional Associate Director – Central at Co-operative Education and Work-Integrated Learning Canada (CEWIL Canada)

Alaa Khamis
AI and Smart Mobility Technical Leader at General Motors Canada

Jonathon Azzopardi
President at Laval Tool and Mold (Laval International)

Florent Lefevre-Shlick
Adjunct Assistant Professor at the Water G. Booth School of Engineering Practice and Technology at McMaster University

Juan Naranjo
Senior Manager of Next-Gen Learning at Rogers Communications

Sheri Butera
Assistant Director of Micro-Credentials, Executive Programs at the Rotman School of Management at University of Toronto



EV Technician Curriculum and Training Roundtable

Anticipating the surge in electric vehicle (EV) adoption, OVIN and Colleges Ontario forged a strategic partnership to enhance EV Technician curriculum and training across the province. In August 2024, OVIN hosted a roundtable with senior leaders from eight publicly funded Ontario colleges and EV transformation leaders from original equipment manufacturers (OEMs). Participants discussed their current training programs and the challenges they face in sourcing qualified EV technician talent.

Participating Colleges:

Cambrian College
Georgian
Centennial College
Canadore college.ca
Fanshawe
Mohawk College
Durham College Success Matters
Niagara College

Participating Industry:

OVIN leveraged its network to engage industry leaders from Volkswagen and Mercedes-Benz Canada, who expressed interest in continued collaboration.

OVIN will continue convening and expanding this group each academic term, turning discussions into actionable steps that support both educational institution and industry goals. Although the findings of the initial roundtable were shared with attendees, and eventual outcomes will be made public. Based on industry feedback, OVIN will continue to evaluate opportunities to engage similar roundtables for other focus areas that are pressing for the sector.



Talent Sourcing and Attraction





OVIN has made significant progress towards building strong, highly-skilled, and diverse talent pathways for Ontario's automotive and mobility sector, with the right skills to help the sector navigate transformations such as the shift to electric vehicle (EV) production and the increased adoption of advanced manufacturing technology.

Regional Future Workforce Pilot Program

Program Overview:

To encourage students of all ages and regions of Ontario to pursue careers in the automotive and mobility sector, OVIN launched the Regional Future Workforce (RFW) pilot program. This initiative bridges the gap between students —from kindergarten through post-secondary education— and the automotive and mobility sectors. By partnering with educational institutions and non-profits, RFW actively engaged students, particularly those from equity-deserving and underrepresented groups, in exploring and preparing for careers in these fields.



Program Highlights:

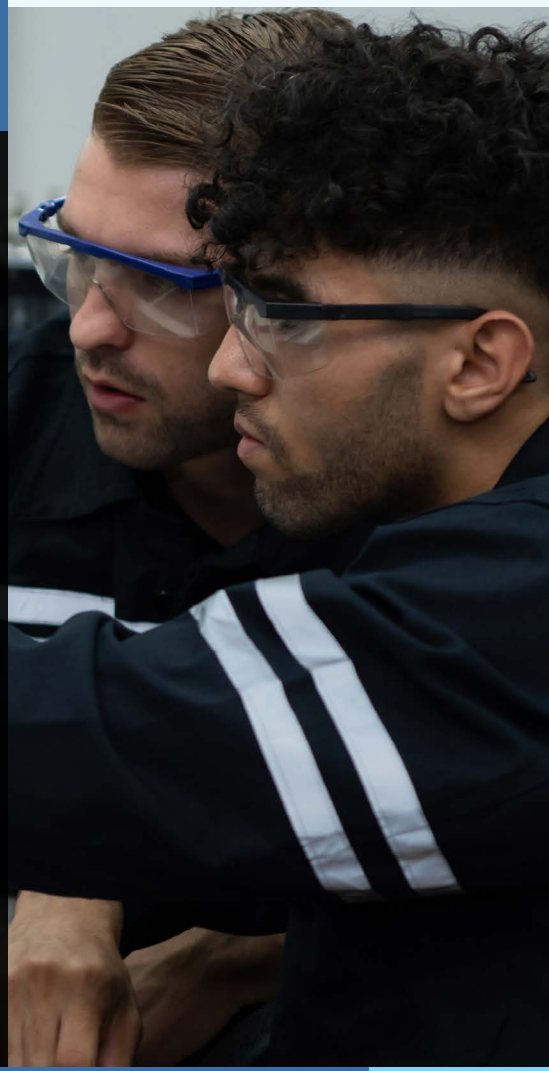
In late 2022, OVIN invited applications for yearlong projects designed to connect students with the industry, prioritizing one project per region across Ontario. Ultimately, 14 applications were accepted, leading to the implementation of programs at 86 sites from February 2023 to February 2024.

The diversity of programs was impressive. For instance, the University of Ottawa facilitated 14 work-integrated learning placements with leading companies like Aurrigo and Sensor Cortek, while also offering workshops on career development and mentorship for engineering students. In contrast, Mohawk College established the "Put Your Future in Motion eXploRation Centre," using virtual reality to help students explore various career pathways beyond traditional roles in the sector. Additionally, the University of Toronto – Scarborough Campus hosted the EVolve Hackathon, where students addressed critical challenges in the electric vehicle industry.

Industry partners, including Volkswagen, provided expertise, while resources developed during the initiative will help sustain community engagement and educational efforts. By supporting so many different projects which used different techniques to engage students, and by evaluating all of these projects' effectiveness, the RFW pilot program tested, measured, and gathered insights on mechanisms that engaged an early talent pipeline. Some particularly effective projects were those that promoted the sustainability of the program by training educators or creating platforms, courses, or e-bits for their work to remain accessible to students long-term. Several highly successful projects also reinforced the importance of customizing program content to participants' ages.

Impact

The initial cohort of the RFW pilot program exceeded its initial targets, engaging 48,603 students—nearly seven times its goal of 7,000. Of these participants, 53% identified as girls, women, or non-binary individuals, and 46% came from equity-deserving groups. Surveys indicated a 29% increase in students' belief that the automotive and mobility sector offers favorable career opportunities, with 69% reporting heightened interest in the field post-program. The initiative fostered 233 partnerships among 144 stakeholders, strengthening the ecosystem.



Showcasing Success:

In August 2024, program partners participated in a virtual showcase to present their successes and findings. OVIN also produced an Impact Report and video, sharing the results with Ontario's Ministry of Labour, Immigration, Training, and Skills Development and showcasing them at key events in fall 2024.

Partnerships & Collaborations:

The Program Guidelines were informed by OVIN's Stakeholder Engagement Roadshow and input from ecosystem organizations such as We Build a Dream and FIRST Robotics.



Partnerships:

Following the application review process, OVIN supported 14 projects from the following partners:

actua Youth · STEM · Innovation Jeunesse · STIM · Innovation

Mohawk College

uOttawa

Georgian

OCTE Ontario Council for Technology Education

University of Toronto Scarborough

Lambton College

OntarioTech University

University of Waterloo | Faculty of Engineering

Laurentian University / Université Laurentienne – Goodman School of Mines / École des mines

St. Clair College

Lassonde School of Engineering | York U

mathstronauts educate · enrich · inspire

University of Guelph

Each program provider collaborated with industry partners to enhance project development and mentorship. Notable partners included:

- Aurrigo
- Bombardier
- Centreline
- Dynamic Earth
- E-Zinc
- Ford Motor Company of Canada
- Glencore
- GM Canada
- Honda Canada
- Lego Canada
- Linamar
- Sensor Cortek
- Sudbury Hyundai
- Toyota Foundation
- Toyota Motor Manufacturing Canada (TMMC)



In addition, many providers collaborated with public sector and community partners, including:

- Accelerate Auto
- Association of Computer Studies Educators
- Automotive Industries Association of Canada (AIA Canada)
- Canadian Black Scientists Network
- Conseil des écoles Catholiques du Centre-Est
- Curve Lake First Nations Health Centre
- FiRST Robotics Canada
- Metrolinx
- Ministry of Transportation of Ontario
- Saugeen First Nation Youth Centre
- Science North
- Six Nations Polytechnic
- Toronto District School Board
- Vector Institute
- Women Enterprise Skills Training (WEST) of Windsor

Together, these partners contributed over **$2.7 million** of non-monetary contributions by collaborating on project development, providing spaces for events, providing mentorship, and assisting with marketing efforts. This support was vital to the program's success. All learnings from the Regional Future Workforce Pilot Program will be leveraged to support future early talent pipeline programs that will be developed through OVIN.



Regional Future Workforce – Empowering Equity in STEM Pilot Program

Program Overview:

Building on the successes of the initial Regional Future Workforce pilot program, OVIN launched the Regional Future Workforce – Empowering Equity in STEM pilot program in summer 2024. This initiative aims to foster equity, diversity, and inclusion by breaking down barriers for underrepresented groups in the automotive and mobility sector.

In spring 2024, OVIN invited educational institutions and non-profit organizations to submit proposals for summer projects that engage youth from underrepresented groups. Partners were encouraged to collaborate with industry to enhance project design and implementation. A total of 15 applications were accepted from institutions and organizations across the province, with projects executed between July and September 2024.

Program Highlights:

The programs varied widely. The University of Waterloo developed the STEMpowered program for Black youth and the Travelling STEM program for Indigenous youth, creating new learning opportunities while reducing barriers to accessibility.



The University of Windsor hosted the "Engineer Your Future in STEM" event, showcasing success stories in the automotive sector to underrepresented students in grades 9-12 and their families. McMaster University partnered with Red Dot Digital Inc. to create a comprehensive STEM curriculum engaging over 400 diverse students, including many from the Francophone community. Activities included webinars, in-class sessions with industry experts, a field trip to the McMaster Manufacturing Research Institute, and hands-on STEM kits. Additionally, they produced a parents' guide to help families support their children's interests in STEM and explore automotive opportunities.

Through diverse projects and thorough evaluations, the RFW – Empowering Equity in STEM pilot program gathered insights on effective strategies aligned with OVIN's Talent Strategy and Roadmap. Several highly successful projects demonstrated the value of using inclusive participant recruitment and teaching techniques such as featuring people from underrepresented groups in marketing materials, ensuring that instructors were from underrepresented groups to resemble the participants, and creating safe spaces and inclusive classroom environments. These helped engage students from underrepresented and equity-deserving groups.

Impact:

Remarkably, the program exceeded expectations, engaging over 10,000 students, far surpassing the initial goal of 750 students across 15 projects. In August 2024, all partners participated in a virtual showcase, sharing their project structures and successes, enabling cross-sector knowledge sharing.



Partnerships:

The evaluation framework was developed with input from OVIN's Diversity, Equity, and Inclusion (DEI) Advisory Committee, ensuring robust assessment tools.

Following the application review process, OVIN supported 15 projects from the following 14 partners:

To strengthen program impact, program providers collaborated with various partners, including:

Black Boys Code
Boys and Girls Club of Sarnia Lambton
Cambrian College of Applied Arts and Technology
Durham District School Board
Fort William First Nation
Georgian Island First Nation
GM Canada
McMaster Automotive Resource Centre
Moose Cree First Nation
Red Dot Digital Inc.
Science North
Wahnapitae First Nation



Regional Future Workforce – Critical Minerals Pilot Program

Program Overview:

In spring 2024, OVIN launched the Regional Future Workforce – Critical Minerals pilot program, building on the success of the initial pilot and addressing the rising workforce demands in Ontario's critical mineral supply chain. The program aimed to attract, train, and retain talent while fostering diversity, equity, and inclusion and promoting sustainable practices in line with the Critical Minerals Talent Strategy.

OVIN called for applications from educational institutions, non-profit organizations, and Indigenous communities to design and implement summer projects focused on skill development and training in the critical minerals sector. OVIN approved eight applications — five from Northern Ontario — with all partners delivering projects between July and September 2024.

Project Highlights:

The projects varied widely in approach and impact. The Outland Youth Employment Program (OYEP) led by Dexterra Community Initiatives provided a six-week, hands-on education and training experience for high school-aged Indigenous youth, engaging 473 students, including 163 Indigenous youth. Activities included job shadowing and site visits.



Conversely, the University of Toronto, in partnership with TMetal, supported over 100 students from underrepresented groups, offering specialized training in the EV battery manufacturing process, workshops, internships, and industry tours.

The program's diverse methodologies, including gamification and "train the trainer" initiatives, significantly boosted student engagement and enhanced educators' capacity to cultivate future talent. Partners expressed enthusiasm for continuing their programs, recognizing their effectiveness in promoting critical minerals careers.

Impact:

The pilot program exceeded expectations, engaging over 7,300 students, far surpassing the initial goal of 400. Findings were presented at an event in September 2024 at Canadore College of Applied Arts and Technology, attended by ecosystem stakeholders, including the Minister of Economic Development, Job Creation, and Trade.

Partnerships:

Following the application review process, OVIN supported eight projects from the following partners:

CANADORE college.ca

OUTLAND YOUTH EMPLOYMENT PROGRAM

LOYALIST COLLEGE

Boréal

NORCAT

CAREERS EDUCATION EMPOWERMENT
CENTRE FOR YOUNG BLACK PROFESSIONALS

Lakehead UNIVERSITY

UNIVERSITY OF TORONTO



Collaborations with industry stakeholders included:

Frontier Lithium
Green Technology Metals
Humber College
Impala Canada
Kingston Process Metallurgy
Miller Technology Inc.
Mushkegowuk Council
NSS Canada
Shooniyaa
TMetal Inc.
Wyloo Ring of Fire

These partners collectively contributed **$144,808** in non-monetary contributions such as opportunities for participants to visit their worksites and shadow current employees, as well as an additional **$19,330** in matching cash contributions. All of these contributions were vital to the program's success. Many partners reported strengthened relationships with industry and communities, paving the way for ongoing talent engagement in the critical minerals and automotive sectors.



Critical Minerals Talent Impact and Strategic & Policy Insights Report

Delivery:

OVIN collaborated with labour market experts to produce the Critical Minerals Talent Strategy, comprising an impact report and a strategic and policy insights report. The impact report highlights the talent gaps facing the sector amid its growth, particularly for vehicle electrification in Ontario and North America. The strategic and policy insights report outlines actionable strategies for attracting and retaining a diverse workforce, including engagement with Indigenous communities in Northern Ontario.

The Critical Minerals Talent Strategy was launched at the BEV In-Depth Conference in Sudbury in May 2024 and has been shared broadly through OVIN's website and social media.

Partnerships:

To develop the Critical Minerals Talent Strategy, OVIN convened a working group that included representatives from:

Ontario Mining Association (OMA)

Ministry of Labour, Immigration, Training, and Skills Development (MLITSD)

Ministry of Economic Development, Job Creation, and Trade (MEDJCT)

Ministry of Mines (MINES)

Ministry of Northern Development (MND)

OVIN took the first action based on the Critical Minerals Talent Strategy in launching the Regional Future Workforce – Critical Minerals pilot program. The Critical Minerals Talent Strategy identified the need for sector awareness, youth engagement, and engaging and developing partnerships with Indigenous communities; these key findings were used to develop the Critical Minerals stream of the RFW pilot program, which demonstrated initial progress on all three of these needs. Future initiatives based on the Talent Strategy will enhance coordination among stakeholders to support sector advancement.

Through this collaboration, OVIN joined the Ontario Mining Association's Steering Committee, and these organizations continue to explore further partnership opportunities. OVIN is also participating in ongoing discussions with the Ministry of Mines to continue collaborating on the broader electrification value chain with a focus on critical minerals.





Talent Map and Impact Assessment

Overview:

In early 2024, Ontario's Ministry of Labour, Immigration, Training, and Skills Development (MLITSD) engaged OVIN to support a manufacturer, in workforce preparation for their new plant. The manufacturer's Human Resources Task Force, which includes MLITSD representatives, sought OVIN's expertise to address key questions about talent sourcing and market impact as they ramp up operations.

Approach:

These reports address the following key questions:

1. Where can the manufacturer's find the diverse talent needed to meet future workforce demands in he area where they will operate?

2. How can the manufacturer effectively recruit talent while minimizing potential disruptions to the local and regional labour markets?

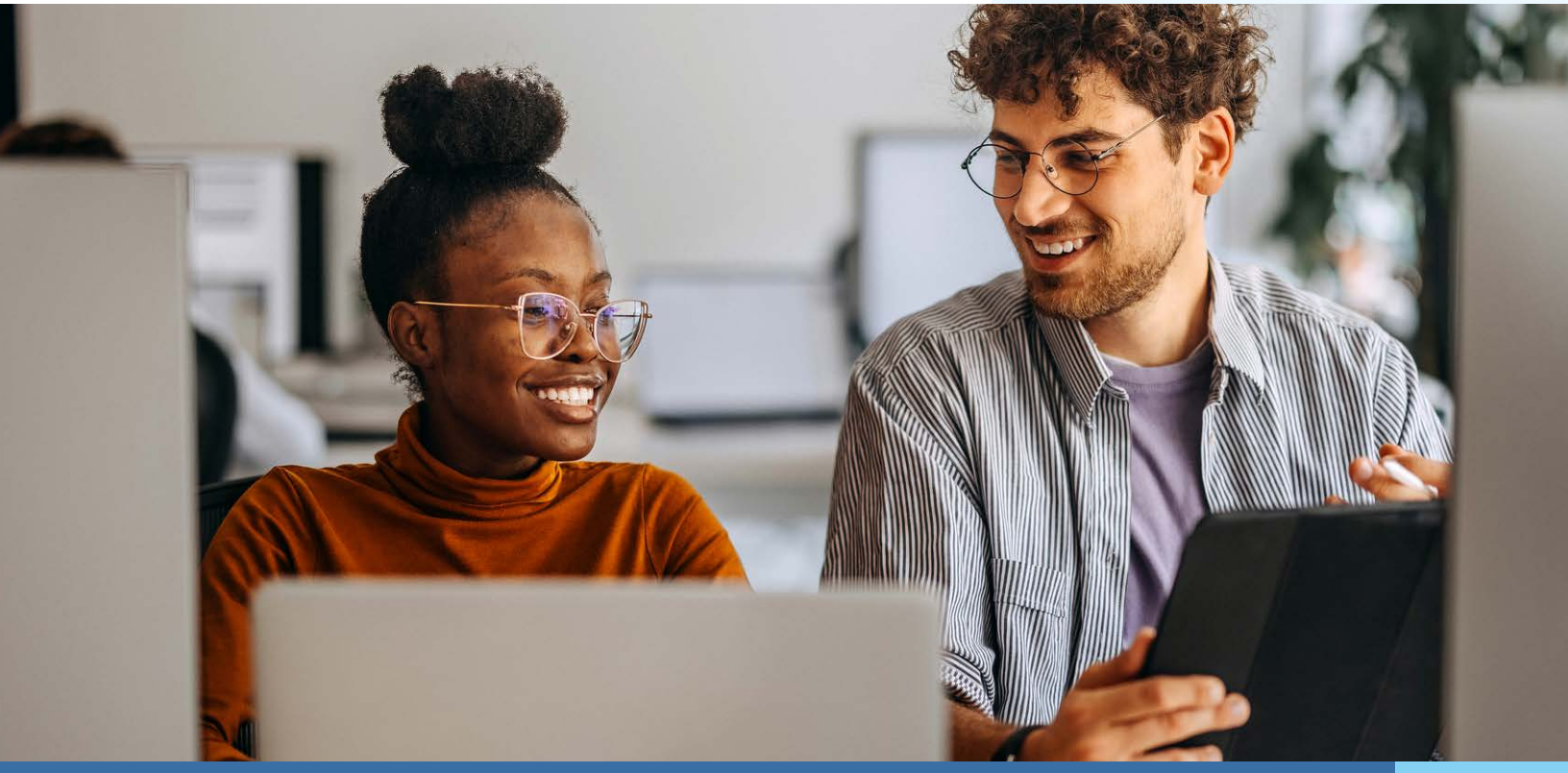
Solutions:

To answer these questions, OVIN developed a Talent Map — an analysis and visualization of census data identifying regional talent sources — and an Impact Assessment that drew on primary and secondary research examining the implications of new manufacturing facilities in small-to-medium economies.

Throughout the research process, OVIN maintained monthly consultations with MLITSD representatives, ensuring that project updates and draft reports were shared and refined based on their feedback. While the final reports will not be publicly released, they were shared with MLITSD, who will communicate the findings to the manufacturer's Task Force.

Partnerships:

This initiative emerged from a recognized need within the sector. The manufacturer's invitation to MLITSD to join their Human Resources Task Force led to OVIN's involvement in a supportive research role. With ongoing feedback from MLITSD, these reports will equip the manufacturer's Task Force to strategically recruit a significant workforce while effectively managing stakeholder communications across the region where they will operate. This collaboration aims to ensure a smooth launch for the manufacturer's facility and prevent skills shortages in local communities.





Candidate Personas

Overview:

Candidate personas are invaluable in understanding the needs and expectations of potential job candidates, enabling industries to attract and engage talent through tailored recruitment strategies. Through discussions with OEMs and automotive parts suppliers, OVIN identified a significant gap in industry leaders' awareness of job candidates' evolving needs in the EV and battery segments.

Approach:

To bridge this gap, OVIN developed five candidate personas representing ideal candidates for positions in the sector. These composite profiles were constructed using extensive research on current industry workers.

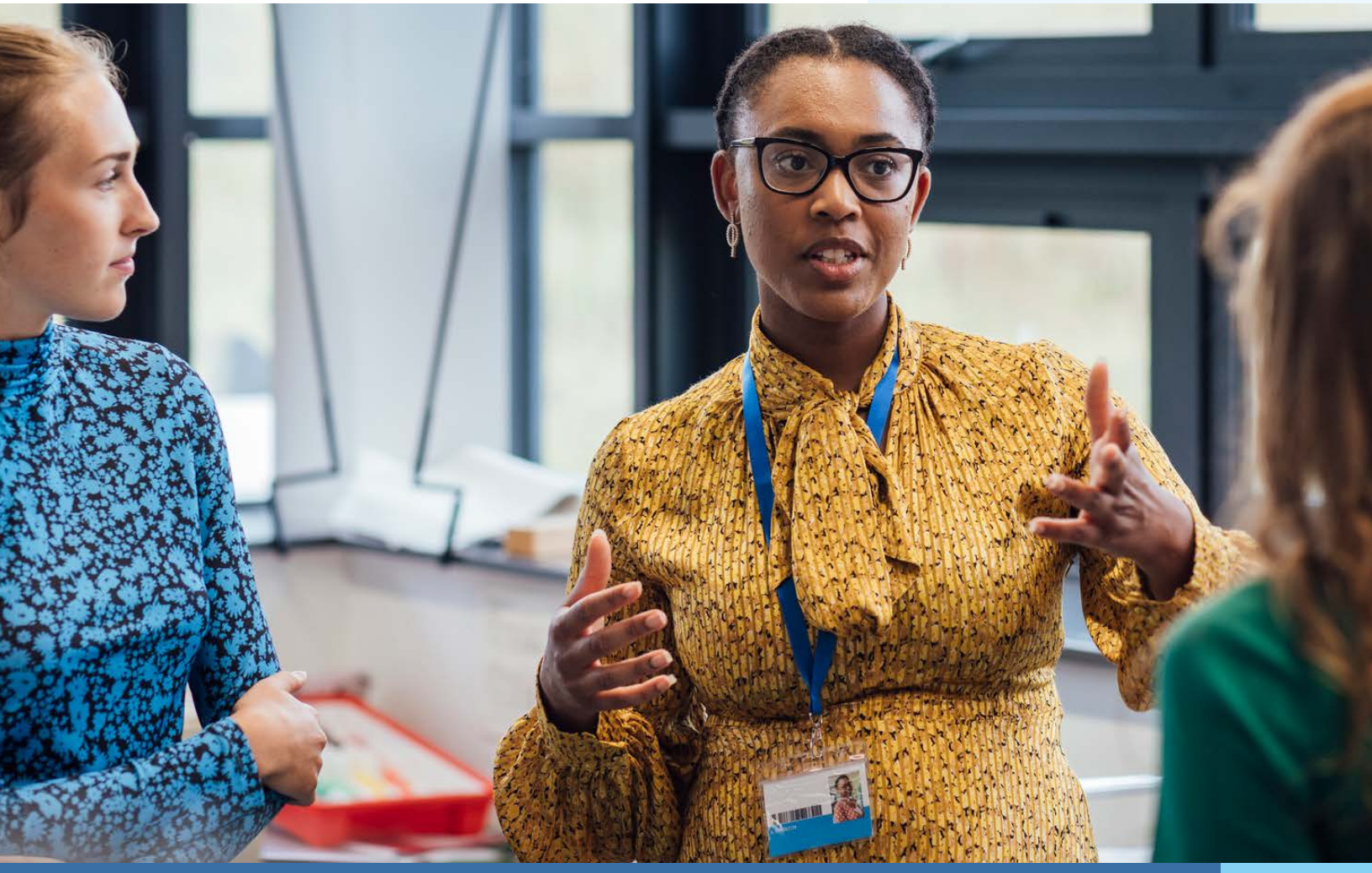
OVIN leveraged existing labour market information, analyzed census data, and conducted interviews with over 20 professionals across various sectors, including construction, manufacturing, skilled trades, and information technology. These interviews focused on job seekers' motivations and the life circumstances that influence their employment decisions, ensuring that each persona accurately reflects real demographic and geographic profiles within Ontario.

While the candidate personas are not yet available to the industry, they will be released soon.

Partnerships:

The 20+ professionals interviewed represent a diverse array of employers, including:

Apple Canada	Shopify
GM Canada	Toronto Metropolitan University
Honda Canada	Toyota Canada
Linamar	Ubisoft



Workforce Development and Retention





This OLMP project supported Ontario's automotive and mobility workforce in adapting and advancing their skills and knowledge to meet the pace and scale of the sector's transformation.

OVIN Learn Platform: Upskilling and Career Navigator

The OVIN Learn platform is an innovative digital upskilling resource designed to empower current and future employees in the automotive and mobility sectors. This platform provides access to micro-credentials, labour market insights, and essential career planning tools.

Prior to its launch, OVIN conducted extensive research on training pathways and learning management systems, establishing a foundation for the platform's development. By engaging a technical partner, OVIN created a platform tailored to stakeholder needs, which included insights gathered from a May 2023 stakeholder engagement session in Windsor with the Canadian Association of Mold Makers (CAMM) and their members. This session identified key skill development challenges and effective training methodologies, shaping the platform's offerings.

Following the initial development phase, OVIN beta-tested the platform with Honda Canada employees, refining features based on their feedback.



Despite some initial delays in officially launching the OVIN Learn platform, it was successfully launched in fall 2024 with a broad promotional campaign and targeted outreach through OVIN stakeholder relationships. Since its launch, registration numbers have been steadily increasing, signaling positive growth and engagement with the platform.

The platform's content was developed through the Content Partnerships Pilot Program, engaging Ontario-based educational and non-profit organizations to create relevant micro-credentials.

OVIN Learn represents a unique, Ontario-based initiative, providing 28 industry-driven micro-credentials that are aligned with evolving workforce demands in areas such as autonomous and electric vehicles, artificial intelligence and machine learning, and workplace hazards. This platform is a vital resource for professionals seeking to advance their careers in the automotive and mobility sectors, reinforcing Ontario's commitment to talent development and economic recovery.

Partnerships:

From the outset, OVIN engaged with key stakeholders who have expertise in course development and online learning to gain valuable insights into best practices.

Notable partners included:
Automotive Parts Manufacturers' Association (APMA)
eCampus Ontario
myBlueprint
Ontario Council for Technology Education (OCTE)
Palette Skills
St. Clair College
Vector Institute
York University

APMA was instrumental early on, sharing insights from their Driven platform. During the beta phase, OVIN partnered with Honda Canada for user feedback, which was critical for enhancing the platform's functionality and accessibility.



Content Partnerships Pilot Program

Overview:

Initial stakeholder discussions highlighted a lack of standardized training frameworks within the sector, where skill requirements are rapidly evolving. To ensure content credibility, OVIN launched the Content Partnerships Pilot Program, inviting Ontario-based institutions to collaborate with industry in identifying skill gaps and developing micro-credentials.

Through this program, four post-secondary institutions produced ten micro-credentials in partnership with industry, seven of which have been translated into French. We also received 11 additional training modules and one package of resources from two industry associations. This initiative exceeded OVIN's original target of 12 training modules, equipping current and prospective workers with the essential skills for in-demand roles in Ontario's automotive and mobility sectors.

Participants in the program provided final reports, offering insights and recommendations for future improvements. Industry recognized the value of being involved in developing the content they will eventually use. Lead content developers found it valuable to be able to work with diverse industry partners, as different types of partners – such as suppliers and municipalities – have different perspectives on what content would be valuable to their workforce. The Content Partnerships Pilot Program remains open to new applicants, fostering ongoing dialogue and alignment between academia and industry.



Partnerships:

Throughout the project, OVIN consulted with various stakeholders, including those listed below. These stakeholders were crucial in providing the groundwork for the program guidelines, sharing information about costs typically involved in the develop of micro-credentials, and the time and resources required to design and implement online learning.

The following institutions successfully developed the following micro-credentials by collaborating with industry partners to ensure their content addresses real-world skills gaps:

Fanshawe College Corporate Training Solutions

EV Awareness – Battery Service, Maintenance, and Driver Awareness: Delves into the particulars of ensuring the longevity, efficiency, and safety of EV batteries, covering everything from routine inspections to advanced diagnostic techniques and emergency protocols.

EV Awareness – Battery Structure, Safety, and Standards: Delves into the particulars of battery diagnosis, maintenance, and safety precautions while working around electric vehicles.



Mohawk College

EV Safety and Awareness: A comprehensive overview of EV safety features and protocol, emergency response procedures, and best practices for handling and maintaining electric vehicles.

Ontario Tech University (available in EN and FR)

Understanding Autonomous Vehicles: Explores key technologies, historical evolution, levels of automation, sensor integration, artificial intelligence, and ethical considerations.

Introduction to Safety in Autonomous Vehicles: Covers functional safety models, software quality assurance, and machine learning safety in autonomous vehicles (AVs).

CASE Vehicles: Provides an introduction to CASE (Connected, Autonomous, Shared, and Electrified) vehicles, including key technologies, software requirements, the impact on sustainability, and their broader implications for the environment and society.

Introduction to Fuel Cell EVs: Provides the foundation of various aspects of fuel cell electric vehicles, including major components and systems, operations and performance, and sustainability, including how they compare to other types of vehicles.

University of Guelph

Introducing Data Collection: This course provides learners with a foundation for understanding data collection concepts within an automotive manufacturing setting, including current data collection trends and best practices for handling manufacturing data efficiently.

Introducing Artificial Intelligence (available in EN & FR) Provides a basic understanding of key concepts in Artificial Intelligence and Machine Learning to help learners navigate the ethical issues surrounding AI use and its impact on the automotive industry.



The following industry partners were involved in developing micro-credentials that are now available within OVIN Learn:

- Body Line Auto Recyclers
- Canada Moving
- City of London
- City of Tillsonburg
- Dilawri Automotive Group
- Eccles Auto Services
- Elgin County
- H2Cs Hydro Cool Systems Ltd.
- Intact Insurance
- Leddar Tech
- Linamar
- Pfaff Automotive
- Queenston Automotive Group
- Team Eagle Ltd.
- The John Aarts Group
- Vector Institute
- Wired Auto Works

The relationships formed through the Content Partnerships Pilot Program will pave the way for future initiatives, with OVIN committed to ongoing collaboration with partners like APMA and WSPS.

The Content Partnerships Pilot Program remains open to new applicants, who will again be required to collaborate with industry partners to ensure that the content addresses an existing skills gap and that industry voices are represented in the development process. Post-secondary institutions in Ontario are uniquely positioned to take the lead on developing content through this program, as many of them have academic programs and initiatives focused on the future of automotive and mobility.



Skills Gap Analysis and Reskilling Training Framework for EV Manufacturing

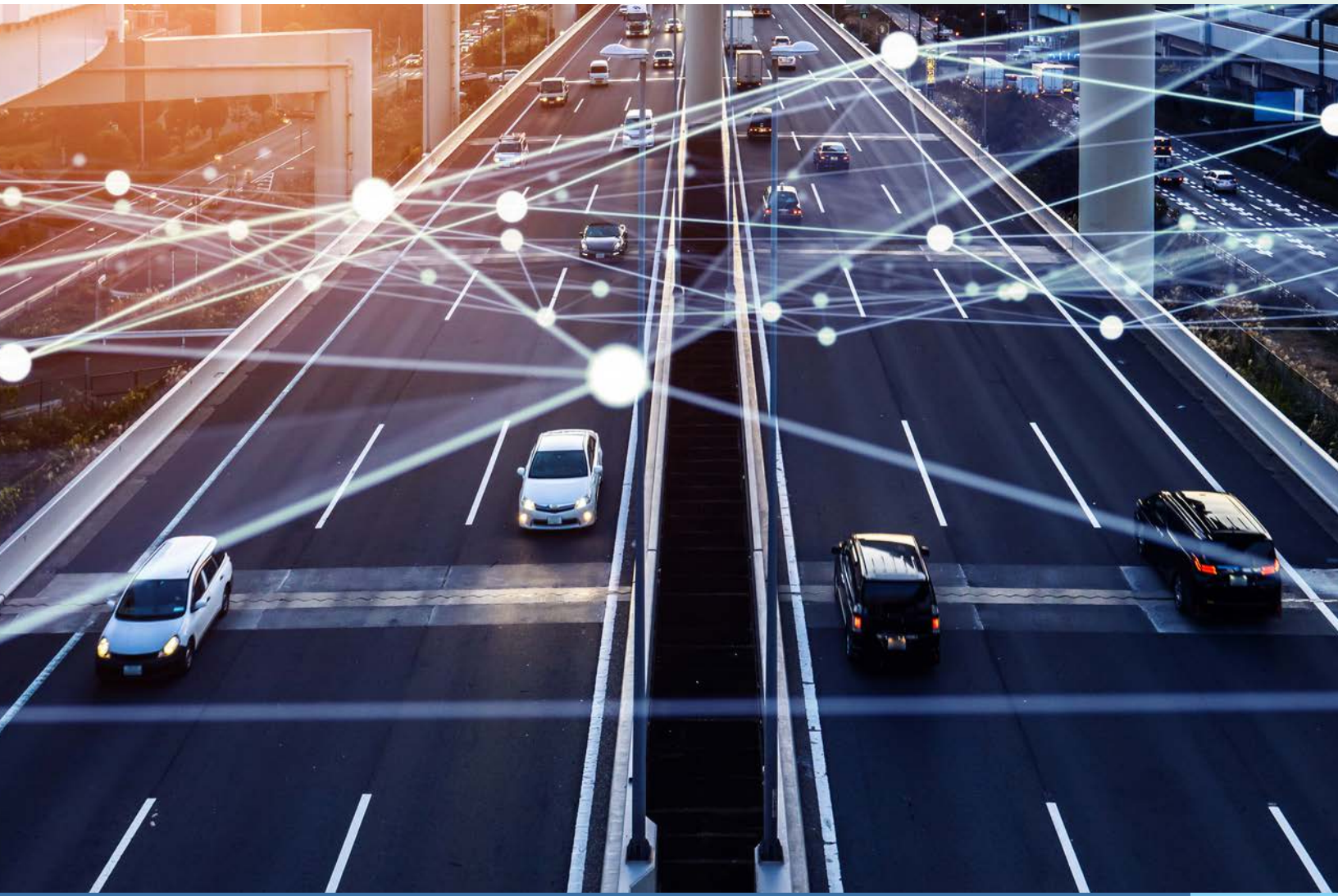
Overview:

OVIN's engagement with Ontario's automotive ecosystem revealed the urgent need for workforce transitions as the industry shifts from internal combustion engine vehicle (ICEV) production to electric vehicles (EV) production. To facilitate this change, OVIN developed a skills gap analysis and reskilling framework.

This initiative involved comprehensive stakeholder engagement, including focus groups with CAMM and Unifor, as well as discussions with a large, Ontario-based OEM regarding their workforce transition strategies. Insights gained from these engagements informed the development of OVIN's skills gap analysis, which outlines anticipated skill and knowledge deficiencies as manufacturers adapt to new technologies and production methods.

The accompanying reskilling framework presents strategies for retaining talent within OEMs during this transition and offers a blueprint for addressing career development challenges faced by employees amid significant industry shifts.

The skills gap analysis and reskilling training framework will soon be published on OVIN's website, alongside further details about the project's initiatives. This comprehensive analysis and framework will serve as a crucial resource for the automotive sector as it navigates the transition to electric vehicle production. OVIN will continue to work with the large, Ontario-based OEM who informed this study and other industry partners to implement relevant components of the framework.



Amplifying Diversity, Equity, and Inclusion in Ontario's Automotive Sector





Diversity, Equity and Inclusion Advisory Committee

In alignment with OLMP objectives, OVIN collaborated with key stakeholders in the automotive and mobility sector to establish a Diversity, Equity and Inclusion Advisory Committee. The Committee's mandate is to support the coordination and development of Diversity, Equity and Inclusion-related initiatives, programs, and opportunities to ensure representative guidance and support for the automotive and mobility industry.

With 10 diverse members from across the province, the committee developed Terms of Reference and began guiding OVIN's efforts to create a more inclusive and highly skilled workforce in the sector. Announcements on OVIN's website and social media introduced the committee and its members, whose expertise has shaped our Regional Future Workforce (RFW) – Empowering Equity in STEM pilot program, creating a meaningful resource for all project partners. The Committee continues to meet quarterly, learn from each other, and exchange best practices that inform OVIN's work.

Our DEI Advisory Committee includes the following members:



Andrew Harkness
Director of Dealer Network Development
Training & Corporate Strategy
Nissan Canada Inc.



Aryan Habib
Co-Founder & Director
Empowering Auto



Cheryl Thompson
Founder and CEO
Center for Automotive Diversity
Inclusion & Advancement (CADIA)



Christopher Nabeta
Executive Chairman
Accelerate Auto and Director
OEM Sales and Strategy Canada
TD Auto Finance



Karima-Catherine Goundiam
Founder & CEO
B2BeeMatch



Katherine Mior
Manager of Human Resources and
Diversity, Equity and Inclusion
Hyundai Auto Canada Corp.



Parm Dhillon
Director of Member Relations
Automotive Parts
Manufacturers' Association



Shannon Spano
Vice President of Sales
Wakefield Canada



Steven Majer
Vice President
Human Resources
Ford Motor Company Canada



Tara Willis
Senior Manager of Diversity
Equity and Inclusion (DEI) & Philanthropy
Nissan Canada Inc.



Experienced Hire Pilot Initiative

OVIN partnered with Accelerate Auto on a workplace showcase initiative to engage and recruit experienced talent. In September 2024, 41 adults from underrepresented groups visited three sector workplaces for immersive experiences, connecting with industry professionals and learning about career paths. OVIN provided Accelerate Auto with a data collection framework, which will inform a playbook to plan future programs engaging underrepresented and equity-deserving groups.

This pilot yielded positive feedback and valuable insights from both participants and industry employers. OVIN learned how important it is for underrepresented community members to engage directly with industry and gain insights from professionals working in different sector segments and functions. Through these experiences, participants reporting gaining a more holistic view of the industry and shifting their perceptions of automotive careers in a positive direction. Employers also valued the shorter pipeline for sourcing talent.

Partnerships:

The industry partners that hosted participants were:
Canadian Black Book
Hyundai Canada
TD Auto Finance

These events helped industry partners connect directly with a diverse talent pool, refining recruitment efforts and paving the way for future showcase events.

Project Outcomes



By the Numbers

66,000+
Students Engaged

261
Unique Stakeholders/ Partners Engaged

$3.6M+
Non-Monetary Contributions from Industry

46,500+
OVIN Learn Engagement

28
Content Pieces Created



OVIN's OLMP program has successfully delivered on all of its objectives, driving tangible improvements in Ontario's automotive and mobility labour market. Most notably, we've strengthened connections between industry and academia, ensuring students and graduates are equipped with the skills to address real workforce needs. This impact is clearly visible on OVIN Learn, a platform enriched with sector-relevant content developed through close collaboration in our Content Partnerships Pilot Program.

Through the Regional Future Workforce pilot and spin-offs like the Empowering Equity in STEM and Critical Minerals programs, OVIN introduced a new wave of young and diverse talent to the sector. These initiatives have increased awareness and interest in the sector, creating a lasting pipeline of diverse talent. By sparking a deeper interest in automotive and mobility careers, we're setting the stage for a future-ready workforce that better reflects Ontario's diversity.

Throughout the OLMP program, OVIN also observed positive shifts in industry culture and talent management practices. Employers, school boards, post-secondary institutions, and community organizations are working together to address the sector's challenges. This spirit of collaboration has fostered stronger partnerships and a commitment to diversity, equity, and inclusion (DEI). Employers are increasingly engaging with diverse communities in their hiring efforts, while inclusive hiring practices are taking center stage at industry events and conferences.

By engaging the next generation of talent, upskilling the current workforce, and integrating insights from government, industry, education, and community stakeholders, OVIN has demonstrated its unique ability to convene key players and deploy high-impact initiatives to strengthen Ontario's automotive and mobility workforce.

Notable Partners



Notable Partners

- 100 Strong Foundation
- 407ETR
- Aamjiwnaang First Nation
- Accelerate Auto
- Acetronic Industrial Controls Inc.
- Algoma University - Brampton
- Algonquin College
- Algonquins of the Pikwakanagan First Nation, Child Well-Being
- AlumnaPower Corp
- Amax
- APMA
- Apple Canada
- Archocell
- Area X.O.
- Association of Computer Studies Educators
- Astro Mean ChargeLab
- Aurrigo
- AutoCate
- Autoniche
- AutoNomix
- AV Gauge
- Avon Maitland District School Board
- B2Bee Match
- Big Brothers Big Sisters
- Black Boys Code
- BMO Financial Group
- Body Line Auto Recyclers
- Bombardier
- Boys and Girls Club of Sarnia Lambton
- Brampton Economic Development
- Brant Haldimand Norfolk Catholic District School Board
- Brock University
- Bruce Grey Catholic District School Board
- Cambrian College
- Canada Drones
- Canada Moving
- Canadian Association of Mold Makers
- Canadian Black Book

- Canadian Black Scientists Network
- Canadian Colleges for a Resilient Recovery (C2R2)
- Canadian Tooling & Machining Association
- Canadore College
- Cando Rail
- Carleton University
- Carpe Diem Treatment Foster Home
- Cavalier Tool
- Centennial College
- Center for Automotive Diversity Inclusion and Advancement (CADIA)
- CenterLine
- Centre for Integrated Transportation and Mobility
- CentreLine
- Chippewas of Rama First Nation
- Cino Auto
- City of Greater Sudbury
- City of London
- City of Tillsonburg
- CityLab
- Collège Boréal
- Colleges and Institutes Canada
- Colleges Ontario
- Communitech
- Conestoga College
- Conseil des écoles catholiques du Centre-Est
- Conseil des écoles publiques de l'Est de l'Ontario
- Contact North
- Cooper Equipment
- Co-operative Education and Work-Integrated Learning Canada
- CSN Collision
- Curve Lake First Nations Health Centre
- CWB Welding Foundation
- DEEN
- Dexterra Community Initiatives
- Dexterra Group
- Dilawri Automotive Group
- Dokis First Nation, Kikendawt Kinoomaadii Gamig
- Durham College
- Durham District School Board
- Dynamic Earth
- Earth District
- Eastgate Ford
- eCampus Ontario
- Eccles Auto Services
- Elgin County
- Elvy Inc.
- Empowering Auto
- Epiroc
- Expeditors International
- e-Zinc
- Fanshawe College
- First Robotics Canada
- Fix Auto Group
- Fleming College
- Flex Ion Battery Innovation Centre
- Flex-N-Gate
- Ford Motor Company Canada
- Fort William First Nation
- Frontier Lithium
- General Motors Canada
- Genesee and Wyoming Rail
- Georgian College
- Georgian Island First Nation
- Glencore
- Go ENG Go
- Grand Erie District School Board
- Greater Essex County District School Board
- Green Technology Metals
- Grey County District School Board
- H2CS Hydro Cool Systems Ltd.
- Hack the Valley
- Halton District School Board
- Hamilton-Wentworth Catholic District School Board
- Hamilton-Wentworth District School Board
- HearU
- Honda Canada
- Honda of Canada Manufacturing
- Humber College
- Huron Perth Catholic District School Board
- Hyundai Auto Canada Corp.

- Impala Canada
- Indro Robotics
- Intact Insurance
- Intellectual Property Ontario (IPON)
- Invest Durham
- Invest Ottawa
- Invest Windsor Essex
- Jason's Moving
- Kenney Engineering
- Kettle and Stony Point First Nation, Hillside School
- Kingston Economic Development Corporation
- Kingston Process Metallurgy
- Kinnaxis
- Kirality
- Kiwi Charge
- Lakehead University
- Lakehead University - Orillia
- Lambton College
- Lambton County Sarnia Library
- Lambton Kent District School Board
- Laurentian Chrysler
- Laurentian University
- Laval Tool and Mould Ltd.
- Lawlor Safety Hamilton
- Leddar Tech
- Lego Canada
- Linamar
- London Catholic School Board
- Loyalist College
- Lspark
- MacLean Engineering & Marketing Co. Limited
- Maersk
- Magna International
- Manulift
- McMaster Automotive Resource Centre
- McMaster University
- Mercedes-Benz Canada
- Metrolinx
- Miller Technology Inc.
- Miller Waste Systems
- MineConnect
- Ministry of Colleges and Universities
- Ministry of Education
- Ministry of Economic Development, Job Creation, and Trade
- Ministry of Labour, Immigration, Training, and Skills Development
- Ministry of Mines
- Ministry of Northern Development
- Ministry of Transportation
- MLSE Foundation
- Mohawk College
- Moose Cree First Nation
- Moose Deer Point First Nation
- Morley Consulting
- Mountain View Farms & McCleod Bros
- Mushkegowuk Council
- myBlueprint
- Next Hydrogen
- NextStar
- NGEN
- Niagara College
- Niagara Economic Development
- Niagara Industrial Association
- Niagara Industrial Association
- Nipissing First Nation, Children's Services
- Nissan Canada
- Nobellum
- NORCAT
- NSS Canada
- OK Tire Etobicoke
- Ontario Aerospace Council
- Ontario Council for Technology Education
- Ontario Genomics
- Ontario Mining Association
- Ontario Teachers' Federation
- Ontario Tech University
- Ottawa Catholic School Board
- Ottawa-Carleton District School Board
- Outland Youth Employment Program
- Palette Skills
- Peel District School Board
- Pfaff Automotive
- Pfaff Automotive Partners
- PowerCo

- Premier Truck
- Proventus Global
- QeD Battery
- Quantuity Analytics
- Queen's University
- Queenston Automotive Group
- Queenston Chevrolet
- Race and Disability Canada
- Red Dot Digital Inc.
- Regrain
- Relay Education
- Rock-Tech
- Rogers Communications
- SARIT
- Sarnia Lambton Rebound
- Saugeen First Nation
- Saugeen First Nation Youth Centre
- Saugeen First Nation, Camp Empower
- School College Work Initiative - Regional Planning Team 8
- Science North
- Sensor Cortek
- Sheridan College
- Shooniyaa
- Shopify
- Simcoe County District School Board
- Sissmire Aftermarket Insights
- Six Nations Polytechnic
- Six Nations Polytechnic STEAM Academy
- Smart Prosperity Institute
- St. Clair Catholic District School Board
- St. Clair College
- St. Lawrence College
- Stellantis
- Sudbury Hyundai
- TD Auto Finance
- TD Financial Group
- Team Eagle Ltd.
- Technica Mining
- Thames Valley District School Board
- The Auto Mayors
- The John Aarts Group
- The United Way
- TMetal Inc.
- Toronto Catholic District School Board
- Toronto District School Board
- Toronto Metropolitan University
- Toronto Zoo
- Toyota Canada Foundation
- Toyota Motor Manufacturing Canada
- Transit Plus
- Trent University
- Trillium Lakelands District School Board
- Ubisoft
- Unifor
- University of Ottawa
- University of Toronto - Scarborough
- University of Toronto - St. George
- University of Waterloo
- University of Windsor
- Upper Grand District School Board
- Vale
- Vector Institute
- VentureLab
- Volkswagen Canada
- Volta Energy
- VR Expert
- Wahnapitae First Nation
- Wakefield Canada
- Waterloo Catholic District School Board
- Waterloo Region District School Board
- WE Tech Alliance
- Western University
- White Fish River First Nation, Family Wellbeing Centre
- Windsor-Essex Catholic District School Board
- Wired Auto Works
- Women Enterprise Skills Training (WEST) of Windsor
- Workplace Safety and Prevention Services
- Wyloo Ring of Fire
- YMCA Southern Ontario
- York Region District School Board
- York University
- Zillian Group Business Community