

DATA AND INFORMATION SHARING PROTOCOL

The collection, reporting, and analysis of non-proprietary, non-sensitive data and information associated with this project / engagement shall be governed by the terms of the existing Data and Information Sharing Protocol, attached herewith

1. Introduction

The Ontario Vehicle Innovation Network (OVIN) is a comprehensive initiative, funded by the Government of Ontario and managed by the Ontario Centre of Innovation (OCI). OVIN is driving the development, testing, piloting, commercialization, and deployment of advanced automotive and smart mobility technologies including connected, automated, electric, and low carbon vehicle technologies and solutions in the Province of Ontario. OVIN supports the preparation and adaptation of the province's transportation systems and infrastructure to respond to these advanced and emerging technologies.

Through OVIN, Ontario's investment supports research and development (R&D) projects that foster partnerships among industry, post-secondary institutions, and governments; creates regional sites to grow technology clusters across the province in support of development, testing and commercialization of new technologies; and attracts and grows talent in the automotive and mobility sector.

OVIN brings together technology R&D, industry experts, start-ups, academia and post-secondary institutions, municipal partners, mobility system planners, regulators, and other stakeholders in the automotive and mobility ecosystem, all with the goal of driving Ontario's automotive and mobility sector forward and retaining its leading position as a global automotive and mobility jurisdiction.

2. Objectives

A major component of the OVIN initiative is the collection and analysis of non-proprietary, non-sensitive data and information to support the operation of Ontario's automotive and mobility ecosystem including governments, industry, post-secondary institutions, transportation and mobility authorities, and the public. To achieve this goal, OVIN requires participants of OVIN-funded initiatives, including recipients of funding through OVIN's funding programs and through OVIN-funded programs delivered by OVIN's regional partners, to share non-proprietary, non-sensitive data and information.

The OVIN initiative will not be collecting, analyzing, or otherwise handling and disseminating data and information considered by program partners and participants to be proprietary nor considered by the general public to be sensitive. For a definition of "program partner" and "program participant", please refer to Section 5 of this Protocol. For a definition of "proprietary information" and "publicly sensitive data", please refer to Section 4 of this Protocol. OCI will work with program partners and program participants to ensure that the collection of information supports their interests and reflects their project design and business needs.

The analysis and reporting of the non-proprietary, non-sensitive data and information collected by OCI is essential to advance the development and adoption of advanced automotive technologies and mobility solutions, such as connected, automated, and electric vehicles and infrastructure, across Ontario and benefit all parts of the ecosystem. In particular, the sharing and analysis of information will:

- Advance knowledge and awareness to support the development and commercialization of leading-edge technologies.
- Provide Ontario's automotive and mobility ecosystem with insights and information to improve products, technologies, and processes.
- Inform changes to business models and operations throughout Ontario's economy.
- Help maintain Ontario's position as a leading global automotive parts and technology supply jurisdiction and centre for research and development.
- Allow Ontario and its municipalities to shape their infrastructure and mobility management systems to support and advance the deployment and adoption of emerging transportation and mobility technologies such as connected, automated, and electric vehicles.
- Contribute to government decision-making around technology deployment, including regulation, policy, programs, and investments.
- Contribute to building public education and awareness around automotive and mobility technologies, such as connected, automated, and electric vehicles and infrastructure.

3. General Principles

The OVIN Data and Information Sharing Protocol (the "Protocol") is intended to:

- Support assessment of the performance of the OVIN programs and related investments.
- Enable the collection of relevant data and information by OCI from projects funded through the OVIN programs and its own research.
- Outline the reporting requirements of the OVIN programs.
- Protect the commercial interests of the OVIN participants.
- Foster openness and collaboration within Ontario's automotive and mobility ecosystem.

4. Protocol Scope

The protocol focuses on data and information elements that describe and assess the performance of Ontario's automotive and mobility ecosystem in general and the OVIN initiative in particular. A detailed list of reporting requirements for OVIN's funding streams and partner-delivered initiatives is provided in the Appendix of the Protocol. These elements can be classified into the following categories:

1. Technology, product, and service characteristics: data and information elements that describe the different products developed within the ecosystem, their capabilities, possible adoption scenarios, interoperability requirements, and contribution to the overall automotive and mobility ecosystem.

Examples of these data and information elements include level of automation, communication standards and protocols, safety and mobility impacts, vehicle and infrastructure types targeted, and potential applications.

2. Technology, product, and service performance and efficacy: data and information elements that describe the capabilities of developed products and technologies, their market readiness, associated risks, and performance characteristics under different environmental conditions. Examples of these data and information elements include stage of development, reliability, and factors affecting the environment and road safety for all transportation and mobility system users.
3. External requirements for technology operations such as cellular and WiFi connectivity, remote computing, preferred infrastructure design elements, preferred regulations, and encryption protocols.
4. Program performance: data and information elements that characterize the overall performance of the OVIN initiative such as number and types of prototypes / products / services developed, value of private investment leveraged, jobs created or retained, customer interactions, and events hosted.

Intellectual property, trade secrets information, and publicly sensitive data are outside the scope of the Protocol and will be excluded from any reporting requirements. Information will be considered to be an intellectual property or a trade secret if:

- i. it is required for, or contributes to, a pending patent or copyright publication;
- ii. it is a formula, pattern, program, device, or method which is unique to the business and cannot be shared without risking copy or theft by a competitor; or
- iii. the participant has demonstrated, according to the amendment process described in section 7, that sharing the information or data with OCI and broader ecosystem would be detrimental to the participant's business prospects.

Data will be considered to be publicly sensitive if it reveals personally identifiable data of an individual of the general public without obtaining a data collection and sharing consent from that individual.

5. Roles and Responsibilities: Program Partners and Participants

Program Partners are defined as organizations that are working with OCI to deliver the OVIN Demonstration Zone, Regional Technology Development Sites, and Project Arrow.

Program Participants are parties that utilize the programs, services, and infrastructure funded through OVIN, which include the R&D Partnership Fund, Demonstration Zone, Regional Technology Development Sites, Talent Development, and Project Arrow programs.

- It is the responsibility of program partners and participants to identify, from the list of data and information elements provided in the Appendix, the elements that they consider proprietary or publicly sensitive. OVIN partners and participants shall provide sufficient justification for removing any of these data and information elements from their reporting requirements as per the amendment process discussed in section 7.
- OVIN partners and participants shall gather, assemble, and compile **all** corresponding non-proprietary, non-sensitive data and information elements from the list of elements described in the Appendix, and report them to OCI over the duration of their OVIN-funded projects / engagements and per the reporting requirements in section 7.
- It is the responsibility of the OVIN partners and participants to make sure that the reported data is true, accurate, complete, and updated. The OVIN partners and participants shall acknowledge and agree that failing to provide the reporting requirements indicated in section 7 and the Appendix may result in the termination, suspension, or revocation of OCI's obligations and payments described in the funding agreement.
- OVIN partners must ensure that participants who receive support to research, develop, prototype, test, demonstrate, and / or deploy technologies through, or as a result of, OVIN funding are contractually obligated to provide the reporting requirements indicated in section 7 and the Appendix. Reporting will take place in accordance with the terms of the agreement between OCI and partners.
- All OVIN participants who use the Demonstration Zone, Project Arrow, and / or Regional Technology Development Sites shall have the option to share the data and information elements they report to OCI with representatives from the Demonstration Zone, Project Arrow, and / or Regional Technology Development Site(s) they are engaged with.

Note: Program participants will retain full ownership of the data and information provided to OCI.

6. Role and Responsibilities: OCI

OCI will collect, manage, assess, and provide insights from the data and information gathered from the OVIN programs and conduct additional research and scanning (e.g., literature reviews and surveys), over a period ending December 31, 2027. The collection will take place through OCI's partners that manage the Demonstration Zone, Regional Technology Development Sites, and Project Arrow, and through program participants that are part of the R&D Partnership Fund and Talent Development programs. OCI will also ensure sufficient additional research and scanning is done to publish quarterly specialized reports and annual comprehensive reports on the automotive and mobility sector.

Specific responsibilities of OCI regarding collection and use of the data and information include:

- Design methods and mechanisms through which data, whether quantitative or qualitative, is collected from the OVIN program partners and participants.
- Design data cleansing, data improvement, data inspection, and data monitoring mechanisms to improve the quality of the collected data and information.
- Manage the integrity of the data through collection, curation, storage, security, and access.

- Conduct analysis to generate insights, identify trends, and perform knowledge translation to help bridge technology and policy.
- Develop material and reports to present and share the information with the automotive and mobility ecosystem.
- Provide all public-facing reports and material at no cost to the user.

Data Management and Security

- OCI will store all collected data and information on a secure server.
- All collected data and information will be password-protected.
- Access to collected data and information in its raw format, except for the program performance data listed in the Appendix, will be limited to OCI staff directly involved in the OVIN initiative, unless otherwise specified by the data and information owner.
 - Data and information elements reported to OCI by all OVIN participants who use the Demonstration Zone, Project Arrow, and /or Regional Technology Development Sites will be shared with representatives from the Demonstration Zone, Project Arrow, and / or Regional Technology Development Site(s) they use, upon receiving a consent to share from these participants.
 - Program performance data will be shared with other organizations providing funding or co-funding to the OVIN initiative as per the contractual agreements with OCI and in accordance with the OCI's privacy policy¹.
- OCI will take any further security and privacy precautions that are agreed upon and specified in agreements between OCI and OVIN program partners and participants.

Note: Reported data and information is the sole responsibility of the entity that makes them available. OCI will not be liable for false data or misrepresentation of the data. Additionally, OCI will NOT be liable for any loss or damage that result from the reporting process.

7. Reporting of Data and Information by OVIN Partners and Participants

Reporting Requirements

The Appendix of this Protocol identifies the list of data and information elements required to be reported to OCI as a condition of funding or participation. OVIN program partners and participants shall collect and prepare a complete list of non-proprietary, non-sensitive information and data elements and report them using the data collection methods and mechanisms which will be specified by OCI. The data owner is responsible for identifying any proprietary or publicly sensitive information and justifying requests for this proprietary/sensitive information to be removed from the reporting requirements as per the amendment process described in this section. The frequency of reporting is specified in the Appendix.

¹ <https://www.oc-innovation.ca/privacy-policy/>

As identified in the Appendix, the list of required data and information elements will vary according to the level of maturity and the type of technology, product, or service. The protocol differentiates between seven different phases (i.e., technology readiness levels²) of OVIN projects: proof of concept phase (TRL 3), design phase (TRL 4), development phase (TRL 5), evaluation phase (TRL 6), demonstration phase (TRL 7), productization phase (TRL 8), and deployment phase (TRL 9). OVIN program participants will declare the level of maturity and types of their technologies, products, and / or services as part of their reporting process. If there is disagreement between OCI and program participants, or program partners and program participants, OCI shall determine which elements apply to any particular engagement. The Appendix also highlights the expected analytical outcomes to be produced by OCI, as an output of the data collection processes. These outcomes are defined to support the objectives outlined in section 2 of this Protocol.

Amendments

OVIN program partners and participants may request to amend the list of required data and information specified in the Appendix to reflect their specific engagement, project design, and business needs. When requesting an amendment, OVIN program partners and participants must identify information they cannot report due to the project / engagement not generating that specific data or concerns around the proprietary or sensitive nature of the data, and provide a sufficient justification of why the identified information cannot be reported. OCI will review the amendment requests on a case-by-case basis, and, if applicable, modify the requirements to minimize the effect of the missing information on the overall quality of the collected data.

OCI may change the reporting requirements, specified in the Appendix, based on its internal data monitoring / inspection processes and according to the consultation and review process described in section 9. Changes may include adding, editing, or removing data and information elements; adding, editing, or removing product / technology / service types; and adding, editing, or removing analytical outcomes.

8. Public Reporting of Information and Analysis by OCI

Reporting Structure

OCI will produce, at a minimum, three types of public reports that may use the data and information provided by OVIN partners and participants pursuant to this Protocol, and / or from any additional research and analysis they conduct. Reporting will take place over a period ending March 31, 2027. These types of public-facing reports include, but are not limited to, annual comprehensive reports on the state of the automotive and mobility sector, quarterly updates/reports on a particular topic related to the sector, and monthly bulletins.

All products for public reporting will be made available on the OVIN initiative website, managed by OCI, and may also be distributed in soft and hard copies, as necessary. OCI may also share information and analysis related to the OVIN initiative through additional publications, reports, and / or datasets, as it sees fit.

² <https://www.ic.gc.ca/eic/site/080.nsf/eng/00002.html>

Report Content

- OCI will report, as part of the annual comprehensive reports and / or the quarterly reports described above, on its analysis of the data and information collected from the OVIN programs and its own research.
 - The analytical outputs will be focused on information that is considered to be of use to the automotive and mobility ecosystem in Ontario, as determined through OCI's consultation and ongoing engagement with members of the ecosystem.
 - OCI will determine which information and analytical products should be featured in its reports based on:
 - its understanding of the sector, including areas of knowledge or awareness that require further development;
 - requests from the automotive and mobility ecosystem received by OVIN; and
 - pertinence to developments in the global and Ontario automotive and mobility sector.
- Any information that is shared or used to produce the public reports will be anonymized and, if possible, aggregated across projects / engagements to provide summary-level information.

NOTE: We advise that "OCI" is not an institution for the purposes of the Freedom of Information and Protection of Privacy Act (Ontario) ("FIPPA"). As a result, OCI is not subject to the provisions of FIPPA, including its freedom of information provisions.

OCI is a not-for-profit corporation with a mandate to support the commercialization of technology for the benefit of Ontario. OCI works closely with its funders, including the Government of Ontario, to ensure its mandate is carried out in an efficient, effective, and fair manner.

OCI also carries out its mandate with openness and transparency. OCI-supported projects are listed in the "Projects" section of the OCI website at <https://www.oc-innovation.ca/projects/>, including summary information about each project. This information may be accessed by the public in a manner that is searchable by location, program, company name, and academic institution name.

At the same time, OCI respects the privacy of individuals and the personal information OCI collects. For information on our privacy practices, please visit <https://www.oc-innovation.ca/privacy-policy/>

9. Protocol Updates

On an annual basis, OCI will review and consult with the automotive and mobility ecosystem to ensure that the Protocol is up-to-date and captures all relevant data and information that is of interest to members of the automotive and mobility ecosystem. Any changes proposed as a result of the review and consultation will be subject to approval.

Appendix: Reporting Requirements for OVIN Programs

The tables below specify the data and information types and elements required to be reported to OCI by OVIN program participants and partners. Reporting requirements are designed to adapt to the different types of the technologies developed within the ecosystem and the maturity level of each technology / product / service. Separate data and information reporting requirements are outlined for the five OVIN programs. Within each program, data and information elements will differ according to the category of the technology, product, or service under development and its implementation phase. The five programs are:

- **R&D Partnership Fund** - The program supports collaborative development, prototyping, validation, and commercialization projects at technology readiness levels 3-9, including technologies in vehicles or innovations in transportation and mobility systems- and infrastructure-related R&D. The R&D Partnership Fund includes three streams: (a) connected and autonomous vehicle (CAV) and smart mobility stream, (b) WinterTech stream, and (c) electric vehicle (EV) and battery technology stream.
- **Regional Technology Development Sites** - Entrepreneurs, startups, and SMEs can leverage Regional Technology Development Sites to develop, prototype, and validate new automotive and mobility products and technologies; use specialized equipment, hardware, and software; and access business advisory services.
- **Demonstration Zone** - The Demonstration Zone is a site where SMEs can validate, demonstrate, and pilot technologies in live scenarios and weather conditions using vehicle platforms such as city buses, fleet vehicles, and OEM vehicles.
- **Project Arrow** – Led by the Automotive Parts Manufacturers Association (APMA), in partnership with OVIN, Project Arrow is the first all-Canadian, zero-emission vehicle (ZEV) that will be designed, engineered, and built through the joint efforts of our world-class automotive supply sector and post-secondary institutions. Through development of the prototype vehicle, Project Arrow will provide a platform to enable collaborations with Ontario-based SMEs, demonstrating Ontario’s and Canada’s automotive capabilities and innovation.
- **Talent Development** - The program provides students and recent graduates in Ontario with real-world industry experience to solve industry problems related to automotive and mobility technologies, such as connected, automated, and electric vehicles and infrastructure, battery and related critical mineral technologies, and other relevant areas.

The following tables indicate the data and information sharing required from participants in OVIN programs. Reporting this information to OVIN does not supersede or replace any regulatory reporting requirements to the Government of Ontario that the partner or participant may have. In particular, program partners and participants are still required to comply with Ontario Regulation 306/15 made under the Highway Traffic Act³ and all other reporting requirements, as applicable.

³ <https://www.ontario.ca/laws/regulation/r15306>

R&D Partnership Fund

Program Performance Data	
<p>Expected Analytical Outcome:</p> <ul style="list-style-type: none"> • Measure economic benefits to the Province 	
<p>Reporting Frequency: Applicant: DISP Registration – within 3 months of project activation Economic Survey – as part of the final report Technical Survey – as part of the final report Partner(s): DISP Registration – not required Economic Survey – as part of the final report Technical Survey – not required</p>	
<p>Reporting requirements for all projects</p>	<ul style="list-style-type: none"> • Number and types of prototypes developed and launched • Number and types of products developed and launched • Number and types of services developed and launched • Number of patents developed or filed resulting from program • Licensing of technologies resulting from program • Jobs created or retained • International exports • Follow-on investment received • Incremental sales (in Canada and internationally) • Areas of expertise, certifications and qualifications of the product development team and companies involved in partnerships • Industry partnerships developed as a result of the program • Environmental or social impacts of the program
Technology / Product / Service Characteristics and Performance Data	
<p>Expected Analytical Outcomes:</p> <ul style="list-style-type: none"> • Provide information about technologies / products / services developed within the OVIN project, the capabilities of these technologies / products / services, and potential uses / applications. • Identify potential risks associated with technology / product / service deployment to support making informed decisions about how to manage or avoid these risks. • Identify possible adoption scenarios and highlight the potential applications of the new technologies developed within the automotive and mobility ecosystem. 	

- Identify policies, regulations, and programs that could be changed to accelerate the adoption of the future automotive and mobility technologies, and hence, maintain Ontario's position as a global leader in the space.
- Identify barriers and enablers to future automotive and mobility technologies and products, and potential improvements to processes and business models adopted within the automotive and mobility ecosystem.
- Inform transportation and/or mobility authorities of infrastructural changes and design features that could be considered to support the adoption of future mobility technologies.

Reporting requirements for all projects

Common Technology Classification Requirements

- Type and core functionalities of technology, product, or service being researched or developed (e.g., collision avoidance system, obstacle detection system, positioning and navigation system, vehicle electrification system)
- Stage of technology, product, or service development and its market readiness (e.g., design, testing, demonstration, and deployment)
- If applicable, targeted SAE level of automation supported by the technology, product, or service
- If applicable, targeted type of communication supported by the technology, product, or service
- Types of vehicle and infrastructure supported
- Targeted vehicle service (i.e., passenger vs. commercial vehicle service)

Proof of Concept / Design Phases

- All data elements outlined in the common technology classification requirements
- If applicable, safety considerations and requirements for the safe use of technology, product, or service
- Infrastructure features / systems required to support the deployment of product, technology, or service
- All external data and communication requirements
- If applicable, other external requirements for the technology, product, or service operation including special mechanical and electrical requirements
- Expected impacts of using the designed technology, product, or service including: 1) Safety impacts (e.g., reduced number of accidents); 2) Mobility Impacts (e.g., reduced travel time and increased accessibility); and 3) Environmental Impacts (e.g., reduced CO2 emissions)

- Identified technological, regulatory, cost, and / or social enablers and barriers
- Any additional research- / design-related information that could be beneficial to the OVIN ecosystem

Development Phase

- All data elements outlined in proof of concept and design phases
- Pace of development and anticipated release dates
- Any additional development-related information that could be beneficial to the OVIN ecosystem

Evaluation / Demonstration / Productization Phases

- All data elements outlined in proof of concept, design, and development phases
- Plans after support from OVIN comes to an end
- Anticipated availability to market
- Public acceptance and interaction considerations for technology / service adoption
- Any additional evaluation- / demonstration- / productization-related information that could be beneficial to the OVIN ecosystem

Deployment Phase

- All data elements outlined in all previous phases
- Deployment / offering locations and markets
- Purchase / use price of technology, product, or service
- Technology, product, or service marketing channels, if applicable
- Any additional deployment-related information that could be beneficial to the OVIN ecosystem

Regional Technology Development Sites

Program Performance Data	
<p>Expected Analytical Outcome:</p> <ul style="list-style-type: none"> • Measure economic benefits to the Province 	
<p>Reporting Frequency:</p> <p>For each Participant SME: DISP Registration – within 3 months of project initiation Economic Survey – once per project Technical Survey – once per project</p> <p>For the RTDS: Provide the below data twice per year as part of the interim and year-end report requirements.</p>	
<p>Reporting requirements</p>	<ul style="list-style-type: none"> • RTDS Metrics: <ul style="list-style-type: none"> ○ Number of participants per site (breakdown by name of company, firm size, and area of business), as defined in the RTDS Agreement ○ Private Sector Leverage ○ Number and types of prototypes developed and launched ○ Number and types of products developed and launched ○ Number and types of services developed and launched ○ Customer interactions ○ Events hosted • Participant Metrics: <ul style="list-style-type: none"> • Number of patents developed or filed resulting from program • Licensing of technologies resulting from program • Jobs created or retained • Incremental International exports • Follow-on investment received • Incremental sales (in Canada and internationally) • Value of private investment leveraged • Areas of expertise, certifications, and qualifications of the technology development team • New companies or business ventures generated

Technology / Product / Service Characteristics and Performance Data

Expected Analytical Outcomes:

- Provide information about technologies / products / services developed within the site participation / use, the capabilities of these technologies / products / services, and potential uses / applications.
- Identify potential risks associated with technology / product / service deployment to support making informed decisions about how to manage or avoid these risks.
- Identify possible adoption scenarios and highlight the potential applications of the new technologies developed within the automotive and mobility ecosystem.
- Identify policies and regulations that could be changed to accelerate the adoption of the future automotive and mobility technologies, and hence, maintain Ontario's position as a global leader in the space.
- Identify barriers and enablers to future automotive and mobility technologies and products, and potential improvements to processes and business models adopted within the automotive and mobility ecosystem.
- Inform transportation and/or mobility authorities of infrastructural changes and design features that could be considered to support the adoption of future mobility technologies.
- Provide information / statistics about the strengths and abilities of OVIN's Regional Technology Development Sites.

Reporting requirements for all engagements

Common Technology Classification Requirements

- Type and core functionalities of technology, product, or service being researched or developed (e.g., collision avoidance system, obstacle detection system, positioning and navigation system, vehicle electrification system)
- Stage of technology, product, or service development and its market readiness (e.g., design, testing, demonstration, and deployment)
- If applicable, targeted SAE level of automation supported by the technology, product, or service
- If applicable, targeted type of communication supported by the technology, product, or service
- Types of vehicle and infrastructure supported
- Targeted vehicle service (i.e., passenger vs. commercial vehicle service)

Proof of Concept / Design Phases

- All data elements outlined in the common technology classification requirements

- If applicable, safety considerations and requirements for the safe use of technology, product, or service
- Infrastructure features / systems required to support the deployment of product, technology, or service
- All external data and communication requirements
- If applicable, other external requirements for the technology, product, or service operation including special mechanical and electrical requirements
- Expected impacts of using the designed technology, product, or service including: 1) Safety impacts (e.g., reduced number of accidents); 2) Mobility Impacts (e.g., reduced travel time and increased accessibility); and 3) Environmental Impacts (e.g., reduced CO2 emissions)
- Identified technological, regulatory, cost, and / or social enablers and barriers
- Any additional research- / design-related information that could be beneficial to the OVIN ecosystem

Development Phase

- All data elements outlined in proof of concept and design phases
- Pace of development and anticipated release dates
- Any additional development-related information that could be beneficial to the OVIN ecosystem

Evaluation / Demonstration / Productization Phases

- All data elements outlined in proof of concept, design, and development phases
- Plans after support from OVIN comes to an end
- Anticipated availability to market
- Public acceptance and interaction considerations for technology / service adoption
- Any additional evaluation- / demonstration- / productization -related information that could be beneficial to the OVIN ecosystem

Deployment Phase

- All data elements outlined in all previous phases
- Deployment / offering locations and markets
- Purchase / use price of technology, product, or service
- Technology, product, or service marketing channels, if applicable

	<ul style="list-style-type: none"> Any additional deployment-related information that could be beneficial to the OVIN ecosystem
Regional Technology Development Sites Data	
	<ul style="list-style-type: none"> Identify future needs of Regional Technology Development Sites to improve their efficiency and competitiveness. List of new tools / equipment that were ordered, purchased, and / or installed to support the OVIN initiative including a description of the tool, key functionalities, and the type of engagements that are expected to benefit from this tool. List of existing tools / equipment that are being used at OVIN sites. List of new tools / equipment / resources that are suggested to support OVIN site engagements including a description of the tool / technology.

Demonstration Zone

Program Performance Data	
Expected Analytical Outcome:	
<ul style="list-style-type: none"> Measure economic benefits to the Province 	
Reporting Frequency:	
<p>For each Participant SME: DISP Registration – within 3 months of project initiation Economic Survey – once per project Technical Survey – once per project</p> <p>For the Demonstration Zone: Provide the below data twice per year as part of the interim and year-end report requirements.</p>	
Reporting requirements for all engagements	<ul style="list-style-type: none"> Number of requests to use the Demonstration Zone Number of companies using the Demonstration Zone to demonstrate technology Number of companies visiting the Demonstration Zone to view or purchase technology Names of companies using or visiting the Demonstration Zone Number of customer interactions / meetings facilitated at Demonstration Zone Business Centre Number of visits by members of the public and / or media at the Demonstration Zone Business Centre

- Media tags
- Prototypes, Products, Services developed or launched
- Patents filed resulting from program
- Licensing of technologies resulting from program
- Jobs created or retained
- International exports
- Follow-on investment received
- Incremental sales (in Canada and internationally)
- Number and type of events hosted
- Value of private investment leveraged

Demonstration Zone Characteristics

Expected Analytical outcomes:

- Identify future needs of the Demonstration Zone for displaying the effectiveness of Ontario developed technologies / products through OVIN.
- List of infrastructure changes / field equipment installations required to demonstrate made-in-Ontario technologies / products including a description of the equipment / infrastructure change, purpose, and number of projects requesting this change or equipment.
- List of infrastructure / field equipment features and capabilities that have been valuable to the demonstration of made-in-Ontario technologies / products including a description of the feature / capability and how it is utilized by the demonstrated technologies.

Technology / Product / Service Characteristics and Performance Data

Expected Analytical outcomes:

- Provide information about technologies / products / services developed within the program participation / use, the capabilities of these technologies / products / services, and potential uses / applications.
- Identify potential risks associated with technology / product / service deployment to support making informed decisions about how to manage or avoid these risks.
- Identify possible adoption scenarios and highlight the potential applications of the new technologies developed within the automotive and mobility ecosystem.
- Identify policies and regulations that could be changed to accelerate the adoption of the future automotive and mobility technologies, and hence, maintain Ontario's position as a global leader in the space.
- Identify barriers and enablers to future automotive and mobility technologies and products, and potential improvements to processes and business models adopted within the automotive and mobility ecosystem.
- Inform transportation and/or mobility authorities of infrastructural changes and design features that could be considered to support the adoption of future mobility technologies.

- Provide information / statistics about demonstrated technologies, their uses, functionalities, and characteristics.
- Provide information / statistics about the strengths and abilities of the Demonstration Zone.

Reporting requirements for all engagements

Common Technology Classification Requirements

- Type and core functionalities of technology, product, or service being researched or developed (e.g., collision avoidance system, obstacle detection system, positioning and navigation system, vehicle electrification system)
- Stage of technology, product, or service development and its market readiness (e.g., design, testing, demonstration, and deployment)
- If applicable, targeted SAE level of automation supported by the technology, product, or service
- If applicable, targeted type of communication supported by the technology, product, or service
- Types of vehicle and infrastructure supported
- Targeted vehicle service (i.e., passenger vs. commercial vehicle service)

Proof of Concept / Design Phases

- All data elements outlined in the common technology classification requirements
- If applicable, safety considerations and requirements for the safe use of technology, product, or service
- Infrastructure features / systems required to support the deployment of product, technology, or service
- All external data and communication requirements
- If applicable, other external requirements for the technology, product, or service operation including special mechanical and electrical requirements
- Expected impacts of using the designed technology, product, or service including: 1) Safety impacts (e.g., reduced number of accidents); 2) Mobility Impacts (e.g., reduced travel time and increased accessibility); and 3) Environmental Impacts (e.g., reduced CO2 emissions)
- Identified technological, regulatory, cost, and / or social enablers and barriers
- Any additional research- / design-related information that could be beneficial to the OVIN ecosystem

	<p>Development Phase</p> <ul style="list-style-type: none"> • All data elements outlined in proof of concept and design phases • Pace of development and anticipated release dates • Any additional development-related information that could be beneficial to the OVIN ecosystem <p>Evaluation / Demonstration / Productization Phases</p> <ul style="list-style-type: none"> • All data elements outlined in proof of concept, design, and development phases • Plans after support from OVIN comes to an end • Anticipated availability to market • Public acceptance and interaction considerations for technology / service adoption • Any additional evaluation- / demonstration- / productization-related information that could be beneficial to the OVIN ecosystem <p>Deployment Phase</p> <ul style="list-style-type: none"> • All data elements outlined in all previous phases • Deployment / offering locations and markets • Purchase / use price of technology, product, or service • Technology, product, or service marketing channels, if applicable • Any additional deployment-related information that could be beneficial to the OVIN ecosystem
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Project Arrow

Program Performance Data
<p>Expected Analytical Outcome:</p> <ul style="list-style-type: none"> • Measure economic benefits to the Province
<p>Reporting Frequency:</p> <p>For each SME technology integration: DISP Registration – once Economic Survey – once Technical Survey – once</p>

For APMA:

Provide the below data, **specific to Ontario**, twice per year as part of the interim and year-end report requirements.

Reporting requirements

- **APMA Metrics:**
 - Number of requests to use Project Arrow
 - Number of companies using Project Arrow to demonstrate technology
 - Number of companies visiting the Project Arrow facility to view or purchase technology
 - Number of visits by members of the public and / or media at the Project Arrow facility
 - Media tags
- **Participant Metrics**
 - Prototypes developed or launched
 - Patents filed resulting from program
 - Licensing of technologies resulting from program
 - Jobs created or retained
 - International exports
 - Follow-on investment received
 - Incremental sales (in Canada and internationally)

Project Arrow Characteristics

Expected Analytical outcomes:

- Identify future needs of Project Arrow for displaying the effectiveness of Ontario developed technologies / products through OVIN.
- List of equipment installations required to develop and demonstrate made-in-Ontario technologies / products including a description of the equipment and purpose.
- List of infrastructure / field equipment features and capabilities that have been valuable to develop and demonstrate made-in-Ontario technologies / products including a description of the feature / capability and how it is utilized by the developed / demonstrated technologies.

Technology / Product / Service Characteristics and Performance Data

Expected Analytical outcomes:

- Provide information about technologies / products / services developed within the program participation / use, the capabilities of these technologies / products / services, and potential uses / applications.

- Identify potential risks associated with technology / product / service deployment to support making informed decisions about how to manage or avoid these risks.
- Identify possible adoption scenarios and highlight the potential applications of the new technologies developed within the automotive and mobility ecosystem.
- Identify policies and regulations that could be changed to accelerate the adoption of the future automotive and mobility technologies, and hence, maintain Ontario's position as a global leader in the space.
- Identify barriers and enablers to future automotive and mobility technologies and products, and potential improvements to processes and business models adopted within the automotive and mobility ecosystem.
- Inform transportation and/or mobility authorities of infrastructural changes and design features that could be considered to support the adoption of future mobility technologies.
- Provide information / statistics about developed / demonstrated technologies, their uses, functionalities, and characteristics.
- Provide information / statistics about the strengths and abilities of Project Arrow.

Reporting requirements for all engagements

Common Technology Classification Requirements

- Type and core functionalities of technology, product, or service being researched or developed (e.g., collision avoidance system, obstacle detection system, positioning and navigation system, vehicle electrification system)
- Stage of technology, product, or service development and its market readiness (e.g., design, testing, demonstration, and deployment)
- If applicable, targeted SAE level of automation supported by the technology, product, or service
- If applicable, targeted type of communication supported by the technology, product, or service
- Types of vehicle and infrastructure supported
- Targeted vehicle service (i.e., passenger vs. commercial vehicle service)

Proof of Concept / Design Phases

- All data elements outlined in the common technology classification requirements
- If applicable, safety considerations and requirements for the safe use of technology, product, or service
- Infrastructure features / systems required to support the deployment of product, technology, or service

- All external data and communication requirements
- If applicable, other external requirements for the technology, product, or service operation including special mechanical and electrical requirements
- Expected impacts of using the designed technology, product, or service including: 1) Safety impacts (e.g., reduced number of accidents); 2) Mobility Impacts (e.g., reduced travel time and increased accessibility); and 3) Environmental Impacts (e.g., reduced CO2 emissions)
- Identified technological, regulatory, cost, and / or social enablers and barriers
- Any additional research- / design-related information that could be beneficial to the OVIN ecosystem

Development Phase

- All data elements outlined in proof of concept and design phases
- Pace of development and anticipated release dates
- Any additional development-related information that could be beneficial to the OVIN ecosystem

Evaluation / Demonstration / Productization Phases

- All data elements outlined in proof of concept, design, and development phases
- Plans after support from OVIN comes to an end
- Anticipated availability to market
- Public acceptance and interaction considerations for technology / service adoption
- Any additional evaluation- / demonstration- / productization-related information that could be beneficial to the OVIN ecosystem

Deployment Phase

- All data elements outlined in all previous phases
- Deployment / offering locations and markets
- Purchase / use price of technology, product, or service
- Technology, product, or service marketing channels, if applicable
- Any additional deployment-related information that could be beneficial to the OVIN ecosystem

Talent Development

Program Performance Data	
Expected Analytical Outcome: <ul style="list-style-type: none"> • Measure economic benefits to the Province 	
Reporting Frequency: DISP Registration – not required Economic Survey – as part of the final report Technical Survey – not required	
Reporting requirements for all applications	<ul style="list-style-type: none"> • Number and types of prototypes developed and launched • Number and types of products developed and launched • Number of patents developed or filed resulting from program • Licensing of technologies resulting from program • Jobs created or retained • International exports • Follow-on investment received • Incremental sales (in Canada and internationally) • Areas of expertise, certifications, and qualifications of the product development team and companies involved in partnerships • Industry partnerships developed as a result of the program • Environmental or social impacts of the program
Talent Characteristics	
Expected Analytical Outcome: <ul style="list-style-type: none"> • Identify talent needs and opportunity areas 	
All applications	<ul style="list-style-type: none"> • Discipline • Level of education • Job title • Responsibilities