Report to: Development Service Committee Meeting Date: May 5, 2026

SUBJECT: Markham Demonstration Zone (DZ) Program Final Report (2023-2025)

PREPARED BY: Huyen Hare, Manager, Economic Development

RECOMMENDATION:

1. THAT the Report dated May 5, 2025 entitled "Final Report: Markham Demonstration Zone (DZ) Program (2023-2025)" is informational with the purpose to share program results and lessons learned based on the completion of the program be received; and,

2. THAT Staff be authorized and directed to do all things necessary to give effect to this resolution.

PURPOSE:

The purpose of the report is to share with Council the program results and lessons learned based on the delivery of the Markham OVIN Demonstration Program (2023-2025).

BACKGROUND:

In Ontario's 2021 Budget, the Government committed $56.4 million over four years to create the Ontario Vehicle Innovation Network (OVIN). OVIN focuses on maximizing investments and impacts across Ontario's entire automotive value chain, including a shift towards smart and clean technologies. Through a range of programs, OVIN is linking large companies (partnering with original equipment manufacturers, fleet operators, municipalities and utilities with Ontario start-ups and small- to medium-sized enterprises to encourage product innovation and open collaboration.

One of OVIN's programmatic streams includes supporting the creation of Demonstration Zones (DZs), which are dedicated physical locations for showcasing advanced automotive technologies and smart mobility solutions.

In 2023, in partnership, the cities of Markham and Vaughan jointly applied and successfully secured a total grant amount of $2.5M for a 2-year program (2023 - 2025) from OVIN (based on even allocation to each city at a $1.25M) to deploy DZ in each municipality. The DZs were identified as dedicated physical locations for showcasing advanced automotive technologies, smart mobility solutions, and their integration into urban environments. The DZs also provided opportunity for Markham and Vaughan to explore solutions to transportation and mobility challenges they face, such as first and last-mile connectivity, pedestrian safety and reducing greenhouse gas emissions. Markham Centre was selected as the DZ within Markham, that provided companies that have smart mobility technologies and solutions opportunities to test, validate and

showcase to potential customers, partners and residents in a controlled, real-world environment and accordance with applicable laws, regulations and approvals.

Markham's DZ also aligned with the Digital Markham Strategy, which continues to transform Markham into a "frictionless city" that provides streamlined services and experiences. As part of the Digital Markham Strategy, a main objective is to foster "The City as a Platform" by developing "living labs" in Markham for rapid prototyping new initiatives. It also aligns with the new Markham Secondary Plan and the planned Markham Centre Secondary Plan Smart City Strategy, which aims to use smart technology to achieve the outcomes associated with creating dense, livable, walkable, healthy, sustainable, and connected communities.

DISCUSSION:

Markham DZ program (2023-2025)

Markham DZ program was established and delivered between March 2023- March 2025. OVIN DZ program also retained CIMA Canada Inc., a multidisciplinary consulting organization (also specializes in infrastructure and transportation) to provide support towards the design and implementation of DZ programs for Markham and Vaughan.

Over a period of 16 months Markham DZ program supported several innovative technology companies to demonstrate their innovative projects related to the transportation sector. Public calls for proposals were released through OVIN and in coordination with the City of Vaughan. The objective of the calls for proposals was to solicit proposals from companies that would allow them to work with the City to showcase and demonstrate advanced automotive and smart mobility technologies and solutions including connected, autonomous, shared and integrated mobility, robotics and electric vehicle solutions.

The intent of the demonstration program was to help push small and medium sized technology companies forward in allowing them to showcase how their innovative technologies as a on street testbed to:

- Support research and development
- Grow local economic activity and talent
- Advance smart mobility related objectives through innovation
- Foster collaboration to advance the commercialization of automotive technologies in Ontario

Companies applied through one of two streams. *A challenge stream* for solutions to the City's specific challenge (to address a problem, such as first and last mile public transportation) and *an open call stream* for all other mobility technologies. Applicants were able to express interest to demonstrate their technologies with either Markham, Vaughan or both.

Overall, Markham DZ program successfully delivered 8 demonstration projects over a 16-month period. Also, in partnership with Vaughan, OVIN, Markham co-delivered 2 major OVIN DZ Technology Showcase Events. The companies that successfully participated in Markham's DZ program include:

1. **SCOOTY Inc.** – offers micromobility e-scooters with a mobile application. The e-scooters are geofenced and operate at a controlled maximum speed of 20 km/h.
2. **HopIn Shared Mobility Solution** –offers a Business to Business (B2B) mobility as a service software application that would help bridge the first and last mile commuter gap.
3. **RideAlike** – provides a shared mobility solution that offers a peer-to peer (P2P) car sharing marketplace for residential buildings. They connect owners of idle cars with renters who are looking for short term use of vehicles.
4. **Real Life Robotics** – offers an electric autonomous robot solution for cargo delivery.
5. **Tappy Technology** – offers a transportation accessibility application that provides point to point navigation assistance for seniors and people with disabilities.
6. **Municipal Parking Services (MPS)** – provides a solar powered bollard looking parking detection device that remotely monitors parking spaces on street to identify parking violations.
7. **KIWI Charge Inc.** – provides portable electrical charging packs as portable EV chargers.
8. **NavMobility** – uses mobile mapping platform to collect and process roadway data generate HD map transit/roadway networks and helps identify the condition of such assets.

OVIN DZ Program Findings

Overall, the goal of the of OVIN DZ Program was based on partnership collaboration between OVIN and the selected municipalities (Vaughan and Markham) to co-create and pilot a program that utilizes downtown zones to support companies test and bring to market their smart mobility solutions. Critical to the program is also to obtain relevant observations and lessons learned from the piloting experiences of the cities to help improve future demonstration zone programs initiated by other communities in Ontario.

Key Successes

Based on the observations from OVIN DZ program consultant (CIMA Canada Inc.)'s report and City staff's project delivery experience, the program achieved the following key successes:

- **Successfully showcased emerging technology companies in Ontario:** program provided promotional and marketing opportunity to the piloting companies for their respective technologies and facilitated industry partnerships beyond the DZ program.
- **Further strengthened Markham's innovation/tech brand:** in particular, DZ program helped to showcase and strengthen Markham innovation and tech brand build out the City's existing autotech cluster mobility solutions building on autotech industry cluster.
- **Enhanced municipal understanding of complexity in delivering demonstration program:** OVIN DZ program helped the 2 municipalities to understand the level of complexity in implementing new technologies on a demonstration basis and the importance of these demonstration projects in helping them to understand the implementation and operational details that need to be considered when launching innovative technologies.
- **Access to city mobility solutions:** Markham was also able to identify several companies/technologies that can help provide solutions to improve mobility for the public.
- **Enhanced companies' understanding of how their innovative technologies can be applied:** The program also helped the participating companies to better understand where their innovative technologies can assist municipalities in solving mobility concerns. It helped them understand the harsh operating environment and need for public protection when implementing their technologies and helped them understand that although they had a technology that had potential benefits, a municipality looks for turnkey solutions that can be implemented dealing with a single company instead of multiple suppliers and installers. Several companies identified the need to align themselves with contractors and suppliers that have experience in working within public right-of-way and city facilities. The demonstration program also helped the innovative companies recognize potential market opportunities beyond just one community.

Examples of pilot projects with broader impact

Company	Piloting Technology	Impact beyond Markham DZ Program
SCOOTY Inc.	An Ontario based company offering micromobility e-scooters with a mobile application. The e-scooters are geofenced and operate at a controlled maximum speed of 20 km/h.	Following SCOOTY's 4-month demonstration under Markham DZ program, the company also partnered with City of Markham's Transportation Division to assist the division in obtaining additional data to help inform the City's Micromobility Strategy that is being developed as

	Technology proposal for Markham DZ program was directed towards City Challenge Stream: technology to help solve first and last mile public transportation challenge. The company deployed 50 zero-emissions micromobility vehicles (e-scooters and e-bikes) operating as a shared service connected by a mobile application to provide info related to pick up/drop off locations, parking zones.The service was integrated into nearby transit hubs (Unionville GO Station and York Region Transit VIVA bus rapid transit stops) within the Demonstration Zone. The 50 devices were spread across 12 parking locations signed and marked using a heavy rubber parking matt.	part of Markham's Transportation Master Plan Study Project.
Real Life Robotics (RLR)	An Ontario based company offering electric autonomous robot solution for cargo delivery. Technology proposal entered the Open Call Stream: all other mobility technologies. Under Markham DZ program, RLR partnered with Remington Group, Rogers and Serve Robotics to provide last-mile food delivery services in downtown Markham using robots (MUD's) that can be controlled by an operator walking with the robot, although ultimately the desire would be to have the robot delivery vehicle operate autonomously.	Following RLR's 2 weeks demonstration under Markham DZ program, the company was able to gain interest from ecosystem partners and aligned Remington Group and key industry partners of the Markham DZ program. For example, the Remington Group and a third-party food service delivery business collaborated on an industry-based piloting of RLR delivery robots, which extended beyond the OVIN program for an additional 3 months following RLR's completion of OVIN piloting in April 2025.

Recommendations based on Lessons Learned

Aside from the successes achieved by the OVIN DZ program, the following are key identified program areas that could be improved for future program initiation:

- **Implement longer piloting time:** the timeframe for projects should be extended and remain flexible depending on the technology being implemented. To draw better conclusions on the effectiveness of the pilot, it may be necessary to extend the evaluation period a product for 2-3 years, enabling the collection of enough data to be statistically significant (i.e. collision reduction).

- **Reduce the number of projects in short timeframe:** it should be recognized that given the limited resources and numerous other priorities within municipalities, a reduced number of demonstration projects should be undertaken at any one time. Managing 8 projects within a 16-month period becomes overwhelming and not conducive to a wholesome evaluation of demonstration projects.

- **Align appropriate staff resources to support program:** sufficient staff resources to manage future program initiatives should come primarily from within the municipality so that the demonstration projects can be properly supported and coordinated with internal stakeholders. Any needed additional resources required for specialized expertise support can be procured to support the development of future demonstration projects.

- **Streamline review/selection process for technology proposals:** the process to evaluate proposals from each intake and selection decision was onerous and could be significantly streamlined to save time. An initial screening based on constructability and relation to a specific mobility issue can be used to shortlist technologies. This could be followed by an interview with the technical team to ascertain the companies' understanding of how their technology would be applied and how it solves a mobility use case.. Using a review committee for final decisions was a non beneficial final step and that Markham eliminated for Intake 2.

- **Future mobility demonstration projects should be led by Transportation Division:** in Markham's case, any future demonstration projects/program should be led by the Transportation Division (leverage transportation/mobility expertise and building on existing transportation plans) so that the key benefits can first be considered from a mobility solution perspective as opposed to an economic benefit which is really a secondary consideration given the mandate of a municipality. This will also help to achieve the highest efficiency in mobility technology and innovation that best aligned and further advances the city's transportation vision/plan. So that the evaluation of new technologies for implementation can be focused on the innovation aspect of the technologies and companies' understanding of the problem statement and their potential solution.

Further information on the 8 piloted projects and OVIN DZ Program Consultant (CIMA)'s final report (executive summary) are accessible in the attached Appendices (A and B).

FINANCIAL CONSIDERATIONS
Not Applicable

HUMAN RESOURCES CONSIDERATIONS
Not Applicable

ALIGNMENT WITH STRATEGIC PRIORITIES:
Growth Management, Transportation/Transit

BUSINESS UNITS CONSULTED AND AFFECTED:
Transportation Engineering and Information Technology Services have been consulted for this report.

RECOMMENDED BY:

Vinay Sharda Director, Economic Development	Trinela Cane Commissioner, Development Services

ATTACHMENTS:

Appendix "A" - City of Markham OVIN Demonstration Zone Program (2023-2025): Demonstration Project Profiles

Appendix "B" - CIMA Final Report (executive summary) 2025 – Markham OVIN DZ Program