



Going Autonomous on the Greens: Connected and Autonomous Vehicle (CAV) Trial Launched in Canada's Largest Technology Park

The Ottawa L5 Powered by Invest Ottawa, Aurrigo, Kanata North Business Association and Strategic Partners Launch Public CAV Trial at The Marshes Golf Club in Kanata North

Ottawa, Ontario – August 26, 2019: The Ottawa L5 Connected and Autonomous Vehicle (CAV) Test Facilities led and powered by Invest Ottawa, and Kanata North Business Association, today announced the launch of a trial that enables the public to experience a CAV operating in autonomous mode on a golf course – in the heart of Canada's CAV Capital.

Ottawa L5's *Ride the Pod* trial, hosted by Invest Ottawa with Aurrigo, leaders in first and last mile autonomous shuttle technology, Kanata North Business Association, and fellow strategic partners, will support the development, validation and safe implementation of CAVs. Together with KRP Properties, the Brookstreet Hotel and The Marshes Golf Club, this project will enable more than 350 community members to ride in the self-driving Ottawa L5 'pod' over three days on a custom-designed route across the golf course and share feedback about their experience. It represents the first Ottawa L5 pilot trial in Canada's Capital, and Aurrigo's first low-speed Autonomous Pod pilot in North America.

Directly addressing the goals of the Ottawa L5, which leverages critical support from Ontario's AV Innovation Network (AVIN), and many public and private partners, this project will explore how the pod:

- Operates on golf course terrain; the pod will traverse a complex route that includes a hill, a tunnel, narrow tree covered bridges and many twists and turns;
- Utilizes the communications capabilities of the Ottawa L5 Public CAV Test Track in Kanata North;
- Interacts with CAV technology developed by an Ottawa SME (small and medium-sized enterprise) to further enhance the safe operation of L5 pod; SmartCone Technologies will inform golfers and community members along the route of the on-coming shuttle;
- Creates an impactful experience for community members; Aurrigo and Transport Canada will gather rider feedback from this autonomous shuttle use case that will help to enhance the user experience and support on-going CAV policy research.

The trial will enable community members, including employees from over 40 Kanata North companies, to ride the pod in autonomous mode on a route from the Brookstreet Hotel to the Marshes Golf Club and back. With a focus on safety, the Aurrigo engineering team contributed to the pilot project design, testing and implementation, and it will oversee operations of the pod throughout the trial. In addition, Invest Ottawa and Kanata North have established two information centres to provide community members with an overview of the project and CAVs more broadly.

Leaders from industry and government launched the trial at the Brookstreet Hotel, which serves as the launch point of the CAV pilot route, with remarks, a ribbon cutting and inaugural rides. This special event brought together:

- His Worship Jim Watson, Mayor of Ottawa;
- The Honourable Merrilee Fullerton, MPP for Kanata-Carleton; Ontario Minister of Long-Term Care;
- Karen McCrimmon, MP for Kanata-Carleton; Parliamentary Secretary to the Minister of Public Safety and Emergency Preparedness, Government of Canada;
- Jenna Sudds, Councillor, Kanata North, City of Ottawa;
- Sir Terry Matthews, Founder and Chairman of Wesley Clover International;

- Kelly Daize, Director of Connected and Autonomous Vehicle Programming, Invest Ottawa;
- Veronica Farmer, Director of Operations for Kanata North Business Association;
- David Keene, Founder and CEO of Aurrigo; and
- Michael Tremblay, President and CEO, Invest Ottawa and Bayview Yards.

“Building on our strong public-private sector collaboration, this Ottawa L5 pod pilot project further strengthens Ottawa’s capabilities as Canada’s CAV Capital and directly supports the safe implementation of CAVs,” said Michael Tremblay, President and CEO, Invest Ottawa and Bayview Yards. “Anchored by BlackBerry QNX, our city is home to more than 90 companies, post-secondary institutions and other organizations contributing intelligence and technology to CAVs of the future. This trial builds on our collective strengths, and puts them to work in a community use case to support the ongoing development and safe deployment of CAV shuttles.”

“With thanks to all our partners that worked together with us to make this trial happen, we are thrilled to bring this truly unique and fun opportunity to experience connected and autonomous technologies to our member community,” said Veronica Farmer, Director of Operations for the Kanata North Business Association. “This Ride the Pod trial is another first for Kanata North, home to Canada’s Largest Tech Park, and follows the hugely successful Blackberry QNX connected car demonstration held in October of 2017.”

“As we saw with that event, anticipation and excitement has been building with over 40 companies participating and all the spots for our Community Day rides claimed almost overnight,” Farmer added.

“The Ottawa L5 powered by Invest Ottawa represents one of the early adopters of our Pod Zero technology, said David Keene, President and CEO of Aurrigo. “Over the last 18 months, we have developed a strategic relationship that truly leverages our respective strengths. Our latest trial in Ottawa in Kanata North Tech Park, the largest of its kind in Canada, will allow us to work with local companies to test the technology and learn from user experiences so we can refine our autonomous offer even further.”

“Our pods represent impactful first and last mile transport solutions with deployment opportunities in a commercial, leisure, educational or retail environment. We are even working with Blind Veterans UK to explore how we can use the pods to help provide greater independence for people with disabilities,” Keene added.

“With the future of transportation at our doorsteps, we are excited to be a part of this innovative trial in Ottawa at the Kanata North Tech Park,” said Tenille Houston, Chief Executive Officer, AutoGuardian by SmartCone. “Being a local SME, we are proud to see the boundaries of first and last mile transit reimaged right in our backyard. With such innovative technology, the AutoGuardian solution aims to bring awareness to pedestrians by alerting them to the presence of an oncoming shuttle, helping to make safer roads for all.”

Backgrounder

About the Ottawa L5 Powered by Invest Ottawa

The Ottawa L5 CAV Test Facilities established and led by Invest Ottawa with critical support through the Autonomous Vehicle Innovation Network (AVIN) provides world-class integrated testing grounds for the safe implementation of CAVs. These facilities support V2X (Vehicle-to-Everything) testing and validation of CAV technologies in Ottawa's true four-season climate on public and private testbeds. Building on Ottawa's internationally-recognized strengths in telecommunications and security, the Ottawa L5 is equipped with V2X connectivity including: GPS (RTK), DSRC (Dedicated Short Range Communications), Wi-Fi, 4G/LTE and 5G infrastructure, making it the first integrated CAV test environment of its kind in North America. This enables R&D in communications, as well as CAV operations in inclement weather; systems that pinpoint the location of hidden objects, cybersecurity, interoperability and use of CAV-generated data.

Currently valued at more than \$11 million, the Ottawa L5 leverages:

- \$5 million in anchor provincial investment through the Ontario AV Innovation Network (AVIN) delivered by the Ontario Centres of Excellence; and
- More than \$6 million in contributions from internationally recognized founding strategic public and private partners. These include: Accenture; Avanade; BlackBerry QNX; the City of Ottawa; Ericsson; Juniper Networks; the National Capital Commission (NCC); Microsoft; and Nokia.

In addition to founding strategic public and private partners, the Ottawa L5 also leverages critical contributions of expertise and technology from:

- **Technology Partners:** Aurrigo; Canal Geomatics; Cohda Wireless; Hexagon NovAtel; MH Corbin; Swift
- **Research Partners:** Algonquin College, Carleton University, La Cité collégiale, University of Ottawa and
- **Ecosystem Partners:** Kanata North Business Association; CAVCOE
- **Sponsors:** Farm Credit Canada (FCC)

The Ottawa L5 is catalyzing Ottawa's contribution to the economy, and Ontario's global CAV innovation leadership more broadly, by promoting the growth of CAV firms, and the development new CAV solutions, firms, talent, and high-value jobs. With the fit-up of the Ottawa L5 well underway, more than 40 SMEs and firms are already using the public and private tracks to support CAV R&D, commercialization and testing.

For additional information, please visit: <https://www.investottawa.ca/ottawal5/>

About the Ottawa L5 Pods and the Pilot Project

In the spring of 2019, Invest Ottawa procured two first and last-mile self-driving shuttles or pods from Aurrigo for the Ottawa L5 CAV Test Facilities. Leaders in 'first and last mile' transport solutions, Aurrigo designs, manufactures and deploys autonomous vehicles across the globe.

Working closely with the Global Expansion team of Invest Ottawa, this United Kingdom-based firm selected Ottawa for the establishment of its first North American location in early 2018. The company is working with Invest Ottawa to test and validate these two pods at Ottawa's L5 Connected and Autonomous Vehicles Test Facilities, and in pilot project locations across the region. This includes the inaugural CAV pilot test in Kanata North.

With more than 30 pods in operation across six countries, this trial also represents Aurrigo's first low-speed Autonomous Pod pilot in North America. It will enable the firm to build on the outcomes of pilot tests hosted in the United Kingdom and Australia, and continually refine capabilities of the pod and user experience.

Building on strong collaboration with Kanata North Business Association, Invest Ottawa selected The Marshes in the Kanata North Tech Park as its first Ottawa L5 pilot test location given the strength of its collaboration with Kanata North; its proximity to the 9-kilometer public CAV testbed; the terrain of the golf course and potential to create a complex test route; and facilitated access to Kanata North companies and the general public.

The Kanata North Business Association, an organization that represents and advocates for over 540 businesses in the Kanata North business community, is excited to partner with Invest Ottawa and fellow Kanata North leaders on this inaugural pod project. The organization sees this trial as a critical step towards educating the public on the application of emerging technology solutions to solve real-world challenges. The high potential of autonomous technologies to improve current commuting challenges is key to ensuring Kanata North member businesses can attract and retain talent needed to sustain business growth and success.

The Ride the Pod pilot project is made possible by critical support from Invest Ottawa, Kanata North Business Association, KRP Properties, the Brookstreet Hotel, and the Marshes Golf Club.

About Invest Ottawa

Invest Ottawa is the lead economic development agency for knowledge-based industries in Canada's Capital, facilitating economic growth and job creation in the City of Ottawa. Guided by a vision to help realize Ottawa's full potential as a globally-recognized, innovative and future-ready city, and the best place to learn, work, live, and play, Invest Ottawa delivers venture development and global expansion programs and services that catalyze the growth and success of entrepreneurs and firms. These include: small business training; mentorship; acceleration for technology firms; foreign business and investment attraction; local business retention and expansion in targeted sectors; commercialization; and marketing Ottawa's diversified economy and high quality of life. Since 2012, Invest Ottawa has worked with thousands of startups, scale-ups and SMEs; helped firms to attract more than \$565 million in capital; contributed to the creation of more than 7,670 jobs; and attracted more than \$446 million in domestic and Foreign Direct Investment. For additional information, please visit: www.investottawa.ca

About Aurrigo

Aurrigo is the autonomous vehicle division of Coventry-headquartered RDM Group, which is leading the world when it comes to 'first and last mile' self-driving transport solutions. With more than 25 years of experience in providing automotive technology and transport solutions, the firm designs and develops autonomous vehicles from the ground up using Aurrigo's in-house autonomous software platform. The company, which employs more than 80 people across its UK engineering centre and offices in Australia, Canada and the United States, has achieved global recognition for its Pod Zero, a four-seater autonomous pod that travels up to 60 miles and can reach a top speed of 15mph. Aurrigo is now using the lessons learned in this arena to transfer its technology to other autonomous applications. This is an approach that is already working, with an autonomous luggage carrying dolly at Heathrow Airport, and a 12-seater shuttle for potential use in Cambridge, UK. For additional information, please visit: <https://aurrigo.com>

About Kanata North Business Association (KNBA)

The Kanata North Business Association is committed to representing and advocating for the best interests of the over 540 member businesses located in Canada's Largest Technology Park. As a critical engine behind Ottawa's economic development and a globally recognized technology and innovation hub, the Kanata North Tech Park is home to a robust and vibrant tech ecosystem. The KNBA fosters success for its member companies by having a strong voice at all levels of government and supports an integrated multi-partner promotions strategy to build awareness about Kanata North as a centre for innovation and a destination for

business that supports growth, collaboration and talent for member businesses. For more information visit www.kanatanorthba.com

About KRP

KRP is the landlord of choice in Ottawa, owning and operating 33 buildings spanning over 3.1 million square feet of space across two fully-developed business parks in Kanata North. A substantial portion of their portfolio are tech-based with more than 160 technology-sector companies in Kanata North having chosen to do business with them. They're some of the biggest names and most established companies in the industry, as well as some of the biggest names to come: ambitious start-ups with the latest disruptive ideas. For additional information, please visit: <http://krpproperties.com/>

About AVIN

The Autonomous Vehicle Innovation Network (AVIN) builds upon Ontario's position as a world-leading automotive manufacturing and supply jurisdiction in addition to the large cluster of information and communication technology companies operating in the province. Through resources such as research and development (R&D) funding, talent development, technology acceleration, business and technical supports and demonstration grounds, AVIN provides a competitive advantage to Ontario-based connected and autonomous vehicle (C/AV) companies – allowing Ontario to reinforce its position as a North American leader in transformative automotive technologies, as well as transportation and infrastructure systems. For additional information, please visit: <https://www.avinhub.ca/>

-30-

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