AREA X.O

Accelerate time-to-market and commercial adoption of your next-gen technology.

Located in Ottawa, Canada's Capital, Area X.O is the futureplex of innovation and collaboration operated by Invest Ottawa. Leveraging powerful public-private partnerships, this state-of-the-art, multi-disciplinary R&D facility offers a safe and secure environment to create, test and demonstrate and implement next generation technologies. Combining diverse expertise with Ottawa's internationally recognized strengths in telecom and cybersecurity, Area X.O operates one of the most advanced communications infrastructures in the world.

The state-of-the-art facilities offer a safe and secure environment to create, test and demonstrate future connected technologies. Area X.O fuels the creation, commercialization and adoption of breakthrough innovations. Whether in the air, on the ground, or in a combination of environments – Area X.O is built to elevate global tech innovations. Any innovation. Any application. Any sector... from transportation and delivery services, defence, security and emergency response to smart agriculture, aerospace, and smart cities.

Operated by Invest Ottawa, lead economic development agency for Canada's Capital, Area X.O is positioned within one of North America's hottest, most diverse global tech hubs.

AREA X.O

Operated by
Invest Ottawa | Investir Ottawa

Area X.O offers:

- One of the most advanced, integrated communications test infrastructures in the world with numerous GPS systems, 4G/LTE, WiFi, LoRa, TV White Space and 5G (including mmWave) and satellite communication systems
- V2X (vehicle-to-everything) testing, validation and demonstration in a four-season climate with temperatures from -39 to +39 degrees Celsius (-38 to +102 degrees Fahrenheit)

- Cybersecurity solutions, and industry-leading data gathering, analysis and cloud capabilities
- Unrivalled proximity to policymakers and regulators: 65 federal research labs, 130 embassies, government departments, 1,750 innovative tech companies and five post-secondary institutions
- Access to investors looking to invest in new high-tech products and service
- The highest concentration of tech talent per capita in North America.

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Area X.O is a significant development that recognizes the potential of autonomous systems to impact both on-road and off-road applications, providing engineers a test bed to develop autonomy that improves safety for motorists and makes a variety of industries more efficient and sustainable.

John Buszek, Hexagon | AutonomouStuff Vice President of Products and Services

For Cheetah Networks, Area X.O has been an invaluable resource to expand, test, and strengthen our IoT network analytics capabilities in a rugged, industrialized environment. Ottawa is a recognized leader in technology innovation, and the smart cities testbed provides an important hub of innovation for local tech firms. It keeps Ottawa on the map nationally and internationally as the world advances quickly toward greater digitization and automation where smart cities are a critical element of the future.

Michael McCallen, President and CEO, Cheetah Networks

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The Area X.O facilities have been designed with a "plug and play" environment for all-weather experimentation. There are numerous connected technology infrastructures on the test sites and they have been wired with power and fiber to enable easy sensor connectivity and data collection. We are also home to the Ottawa Smart Farm which brings together a host of technologies, data analytics and smart fields on 100 acres of farmland.

AreaX.O Private Facility

A complex complex

Private R&D Facility

The Area X.O private R&D facility is an 1,866 acre, fenced and gated facility. The largest secure test facility of its kind in Canada, the Area X.O facility is equipped to be a proving ground for future mobility and connected technologies.

Area X.O is the only integrated smart city/V2X living lab and test facility of its kind in North America.

The site features:

- Training rooms, storage and touch-down space
- 16 KM of paved roads
- Advanced V2X communications infrastructure
  - 4G/LTE, WiFi, LoRa, TV Whitespace, 5G including mmWave, GPS and satellite backhaul
- Sensors for air and pavement temperature, humidity, barometer and wind
- Two traffic intersections enabled with CV2x/ DSRC, cameras, and sensors suites.

The site is organized into testing zones that focus on different types of testing:

- A School Zone
- A Railway Crossing Zone
- A Smart City Zone
- A Suburban City Zone
- A Drone Testing Zone, and
- A Smart Farming Zone featuring demonstration fields.

Proprietary assets companies can use to test and validate their technologies include:

- The Ottawa Smart Farm – an agritech innovation playground
- The Area X.O Command Centre
- The Area X.O Mobile Command Centre
- The Area X.O autonomous Lexus
- A level 2 and level 3 charging station from ChargePoint
- Numerous sensors and EVAL boards (LIDAR, Thermal, Radar, Optical...)

- 2 low-speed Aurrigo automated shuttles
- A smart railway crossing
- Crash avoidance equipment including child, adult and cyclist motorized test targets
- Safety and situational awareness monitoring
- Access to multiple partners including BVLOS drone operators.

Public R&D Facility

The Area X.O public R&D facility, located in Kanata North, the largest technology park in Canada, provides a test environment of public roads and a connected, live city infrastructure available for companies to deploy and test their technologies.

The site features:

- 9 kilometers of paved roads
- A smart intersection featuring:
  - CV2x/DSRC, 4G-LTE and 5G for V2X
  - Multiple sensors including precipitation, visibility, LIDAR, thermal, humidity, barometer and wind

- Data, cloud and analytics platform and services
- 9 traffic lights (DSRC), crosswalks, and communications technologies including GPS
- High-definition cameras
- Multiple speeds and lanes of traffic.

To submit a request for services and support at Area X.O or to book space for development, testing, validation and/or demonstrations, visit areaxo.com

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