
OVIN
AUTONOMOUS • CONNECTED • ELECTRIC
Ontario
Ontario Vehicle Innovation Network
Ontario Smart Mobility Readiness Forum
OCI
Where Next Happens

Transforming Municipal Fleet Operations with Geotab

Brian King

GEOTAB

Ready to meet your needs, wherever you are

25 YEARS
driving transformation

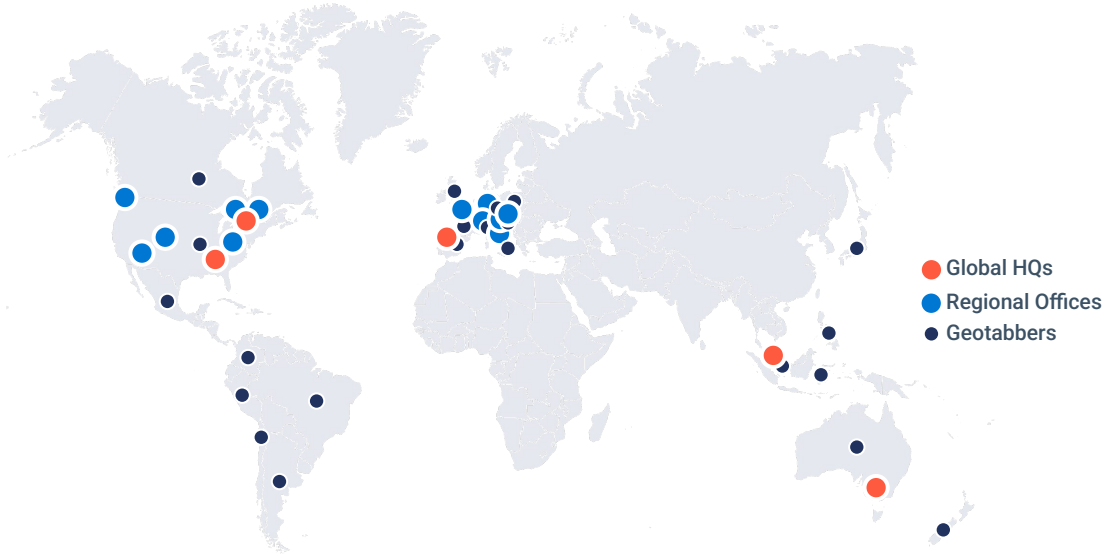
3200+ GEOTABBERS
in 21+ countries

700+
Partners globally

100K+ CUSTOMERS
in 160 countries

5.7+ MILLION
subscriptions

>100B DATA POINTS
processed daily



Deepest penetration in **FORTUNE 500**

Biggest connected commercial vehicle data set fueling the next generation of AI.

GEOTAB

The Operational Challenge

Municipal fleets face unprecedented pressure from multiple directions

+ 

Rising Costs

Fuel, maintenance, and vehicle replacement costs continue to climb while budgets tighten

+ 

Safety Concerns

Driver behavior, accident liability, and regulatory compliance (ELD, FMCSA) demand attention

+ 

Limited Visibility

No real-time insight into fleet utilization, vehicle health, or driver performance

+ 

Sustainability Mandates

EV transition requirements, emissions reporting, and green fleet goals require new tools

+ 

Public Accountability

Citizens and elected officials demand transparency and data-driven spending decisions

GEOTAB

Why it’s urgent today

67% Of municipal fleet managers report they lack real-time data for decision making

3-5X Cost of reactive vs. preventive maintenance on aging municipal vehicles

2030 Deadline for many state and federal EV transition mandates

$4.2B In federal infrastructure funding requires data-driven fleet reporting

GEOTAB

How Technology Transforms Workflows

Real-Time Tracking

GPS tracking and dispatching for Public Works crews, transit vehicles, snow plows, and waste collection routes

BEFORE	AFTER
Manual radio dispatch	Automated GPS routing

Automated Reporting

Replace manual driver logs with automated maintenance scheduling, fuel tracking, and driver scorecards

BEFORE	AFTER
Paper-based logs	Digital dashboards

Predictive Maintenance

Engine diagnostics and fault code monitoring trigger proactive service before breakdowns occur

BEFORE	AFTER
Fix when it breaks	Service before failure

System Integration

Seamless connection with CAD, AVL, fuel management, and existing municipal IT infrastructure

BEFORE	AFTER
Siloed data systems	Unified fleet view

Roles affected across the organization

Fleet Managers

Complete visibility into vehicle status, maintenance needs, and driver performance from a single dashboard

Public Works Directors

Route optimization for snow plows, waste collection, and road crews with real-time progress tracking

Transit Supervisors

On-time performance monitoring, passenger safety analytics, and ADA compliance reporting

Safety Officers

Driver behavior scorecards, incident reconstruction, seatbelt and speeding alerts

Finance & Budget Teams

Fuel cost tracking, TCO analysis, right-sizing recommendations, and grant compliance data

Elected Officials

Constituent-facing dashboards showing fleet efficiency, sustainability progress, and cost savings

Early Outcomes Expected Within First 6-12 Months

Measurable improvements across efficiency, safety, cost, and visibility

+

10-15%
Fuel Cost Reduction

Optimized Routing & Idle Reduction

+

30%
Fewer Breakdowns

Predictive maintenance alerts

+

25%
Safety Event Reduction

Through driver behaviour coaching

+

80%
Less Manual Reporting

Automated compliance data

GEOTAB

What Success Looks Like

Efficiency Gains

- Right-size fleet based on utilization data
- Optimize routes to reduce mileage and fuel
- Eliminate unnecessary idling (up to 20% fuel waste)

Safety Improvements

- Speeding and harsh braking event reduction
- Seatbelt compliance monitoring
- Accident reconstruction with second-by-second data

Cost Savings

- Predictive maintenance extends vehicle life 2-3 years
- Reduce roadside breakdowns and towing costs
- Lower insurance premiums through risk reduction

Visibility & Reporting

- Real-time dashboards for department heads
- Automated grant and compliance reports
- Sustainability and EV readiness metrics

GEOTAB

Lessons from Deployment

Procurement

- Leverage cooperative purchasing (Sourcewell, NASPO, OMNIA)
- Streamline RFP process with pre-negotiated contracts
- Plan for phased procurement to spread budget impact
- Include installation and training in total cost evaluation

IT & Data

- Cloud-hosted SaaS eliminates on-premise IT burden
- SOC 2 Type II certified with FedRAMP authorization
- Open API platform for custom integrations
- Data sovereignty and retention policies aligned to government standards

Change Management

- Secure executive sponsorship early
- Start with a pilot department to build internal champions
- Communicate benefits to all stakeholders proactively
- Phased rollouts reduce disruption and build momentum

Operator Adoption

Frontline Experience

- Plug-and-play hardware installs in minutes with no vehicle downtime
- Intuitive Geotab Drive app for drivers — no training required for basic use
- Minimal disruption to daily operations during rollout

Training & Enablement

- Self-service MyGeotab training modules for all user levels
- Role-based dashboards tailored to each stakeholder group
- Geotab Community forum and dedicated public sector support team

Other Considerations

- Position telematics as a fleet optimization tool, not surveillance
- Engage union representatives early with transparent data use policies
- Share safety improvements and positive outcomes with drivers
- Driver privacy controls built into the platform

GEOTAB

From Pilot to Scale

1

PILOT

Months 1–3

Deploy 25–50 vehicles in one department. Establish baseline KPIs and quick wins.

2

EXPAND

Months 4–8

Roll out to additional departments. Integrate with municipal IT systems. Train power users.

3

OPTIMIZE

Months 9–12

Leverage data for fleet right-sizing, budget forecasting, and policy decisions.

4

SCALE

Year 2+

Enterprise-wide deployment. Add Marketplace solutions. Share data across departments.

What differentiates Successful Municipalities

Executive Buy-In

Leadership champions who tie fleet data to strategic outcomes and budget decisions

Dedicated Fleet Champion

An internal advocate who drives adoption, trains users, and measures success

Data-Driven Culture

Organizations that use telematics data in weekly operations reviews and planning

Cross-Department Collaboration

Sharing vehicles, data, and best practices between Public Works, Transit, and Safety

Marketplace Expansion

Leveraging Geotab's open platform for EV planning, camera solutions, and custom integrations

Scalable Architecture

Same platform from 50 vehicles to 5,000+ — no rip and replace as the fleet grows

Let’s stay connected

@geotab

GEOTAB

PASSENGER by REAL LIFE robotics

The **OS layer** for the Automation Economy

Robotics in Municipal Operations:
From Pilot to Scalable Deployment

www.realliferobotics.com

Cameron Waite
Founder & CEO, Real Life Robotics
Ontario Smart Mobility Readiness Forum
March 11, 2026

Built by robotics, automation, and AI **operators**

Founded in 2022, Real Life Robotics is a Canadian automation and robotics company operating real life deployments across municipalities, campuses, and public infrastructure. We sit at the intersection of robotics, IoT, geospatial intelligence, and operations.

60+ years combined domain experience

Deep exposure to real deployments, not lab environments

Global Market exposure, network, and track record

Goal: help cities adopt automation safely and operationally

Why Municipal Automation Is Hard

Why Municipal Automation is Hard

Municipal environments face unique constraints:

- Multiple departments & stakeholders
- Procurement & regulation constraints
- Legacy systems and IT security requirements
- Unionized workforces
- Public safety and liability

“Most technology pilots fail to scale because they are deployed as isolated experiments.

Operational Challenge

The Problem Municipalities Are Trying to Solve

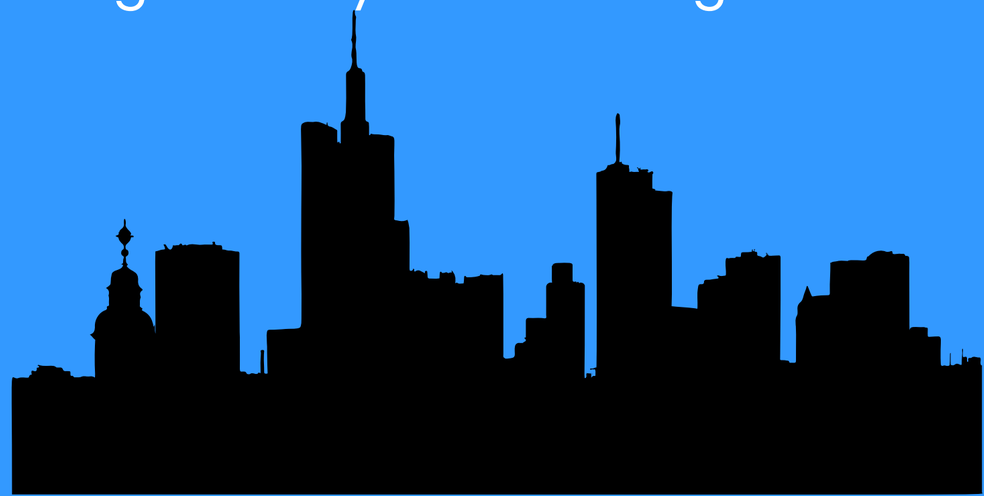
Cities are under pressure to:

- deliver more services with fewer staff
- improve operational visibility
- manage growing infrastructure
- modernize legacy systems

But struggle with:

- integrating new technology
- managing operational data
- coordinating across departments
- long-term system management

“Automation and robotics are increasingly part of the solution.



Case Study 1: Markham Pilot

City of Markham – Autonomous delivery pilot in a municipal environment

Pilot objectives:

- Autonomous delivery pilot in a real municipal environment
- Partnership between the city and robotics providers
- Testing operations, public interaction, commercial validation and safety frameworks
- Valuable learning experience for both vendors and municipalities

“Early pilots typically involve a single technology provider. Future deployments will involve many.

Key Lessons from Early Pilots

What Pilots Actually Reveal

Early pilots often assume single-vendor environments

Most important lessons:
Technology works — **integration** is the challenge

- Data ownership matters to municipalities
- Departments evaluate technology differently
- Operational workflows must change
- Scaling requires cross-department coordination
- Real municipal deployments will involve multiple automation providers

Case Study 2: City of Kitchener

Moving From Pilot to Deployment

City of Kitchener partnership

- automation deployment in municipal golf facilities
- Focus on operational automation and visibility
- integration of multiple sensor technologies
- centralized operational visibility

What changed compared to pilots:

- Procurement alignment
- Integration with municipal systems
- Operational support
- Multi-year contract

Case Study 2: City of Kitchener

Early Operational Observations

- 10,000+ weekly data points
- 15+ separate tracked systems

- Peak beverage cart revenue times
- High traffic sales locations
- Pace of play and guest movement across large geographic areas
- Significant hole-to-hole variance in play time

Operational Results (6–12 Months)

Early Operational Outcomes

Municipal benefits emerging within first year:

- improved operational visibility
- reduced manual monitoring
- data-driven decision making
- measurable revenue improvements
- better reporting for leadership

Key takeaway:
Automation becomes valuable when it becomes part of the operating system of the city.

Operational Impact and Expansion

How Automation Changes Municipal Workflows

Automation changes how work is done:

Examples:

- staff redeployment
- automated monitoring
- centralized reporting
- improved safety oversight
- operational visibility across departments

Departments impacted:

- facilities
- transportation
- operations
- economic development

Lessons from Deployment

What Cities Must Plan For

Cities that succeed treat automation as infrastructure, not a gadget.

Successful deployments require:

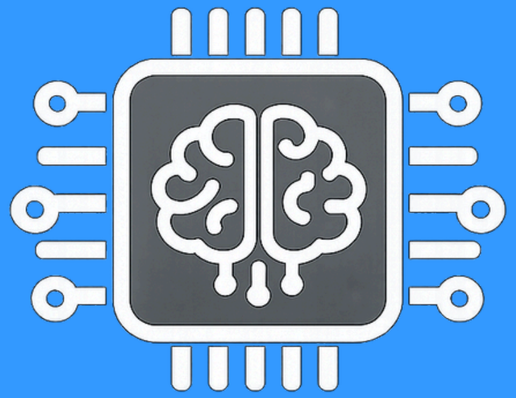
Procurement alignment
IT and cybersecurity review
Cross-department coordination
Operator training
Governance

From Pilot to Platform

Municipalities are moving beyond isolated pilots.

Future model:

Robots
Vehicles
IoT sensors
Operational systems

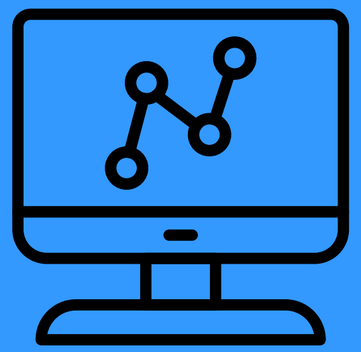


All connected into a unified operational platform.

This is where Passenger comes in.

Passenger: the operating layer for automation

Any vendor. Any device. One operational layer.



Visibility

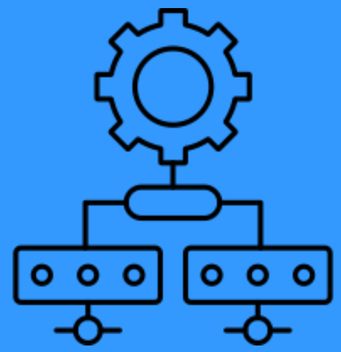
see all automation in one place

" I can't see my operations"

AI Insights

understand operational data

"I can't easily make sense of my operational data"



Orchestration

an agentic layer for the physical world

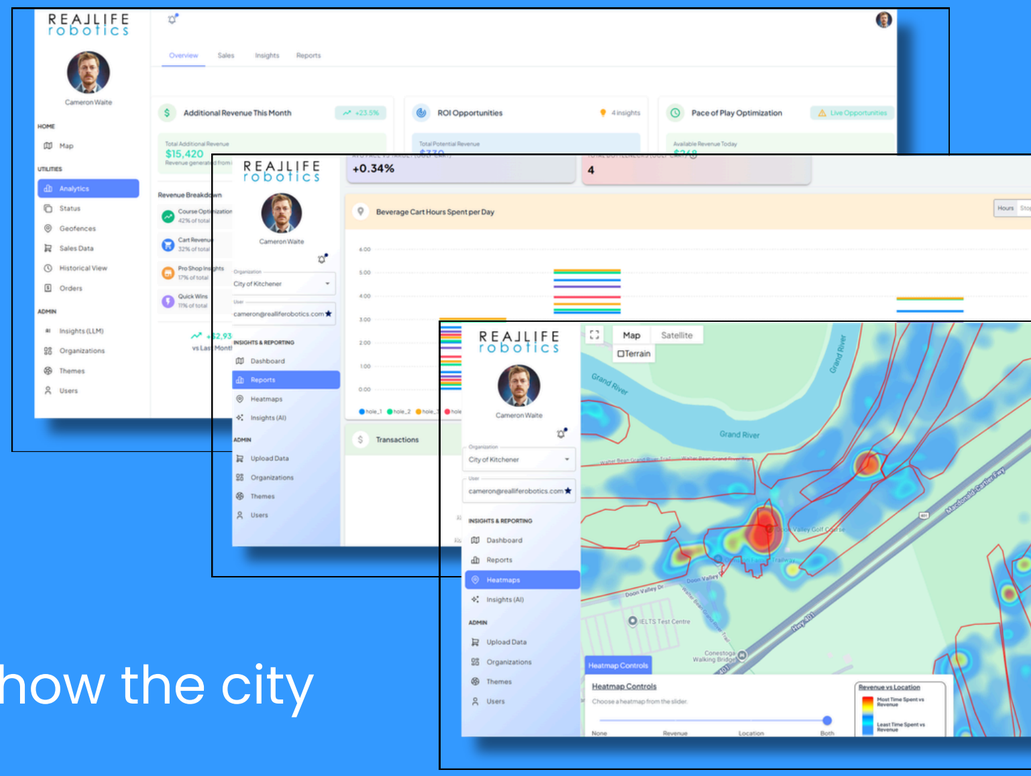
"I can't easily act on insights"

From Pilot to Platform

Key Takeaway

For municipalities considering automation:

1. Start with real operational problems
2. Plan for integration early
3. Treat pilots as the beginning of a system
4. Focus on long-term operational value



Automation works best when it becomes part of how the city operates every day.

Automation is scaling across every sector.

PASSENGER is the layer that makes it economically viable.

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www.realliferobotics.com

Raven Connected

Virtual Inspectors for your Road Network

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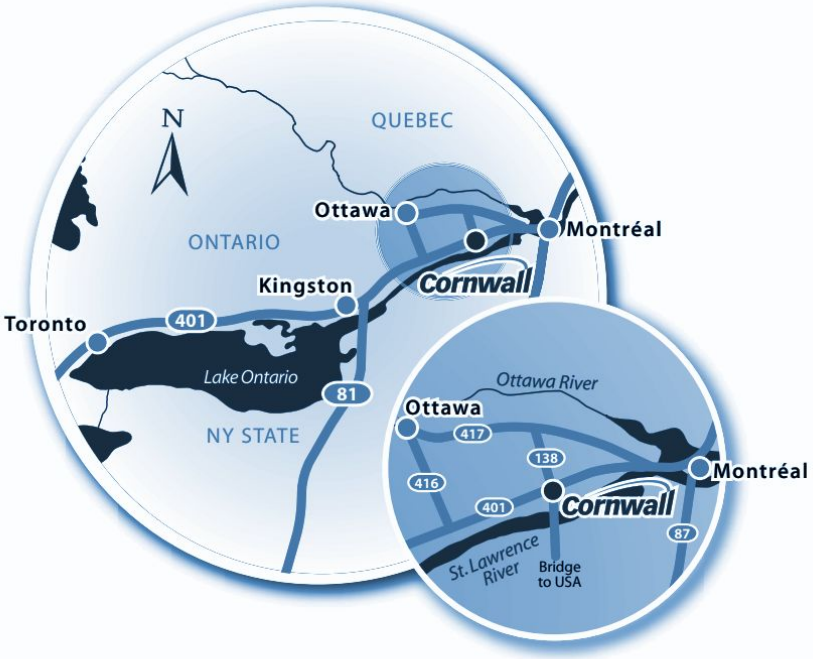
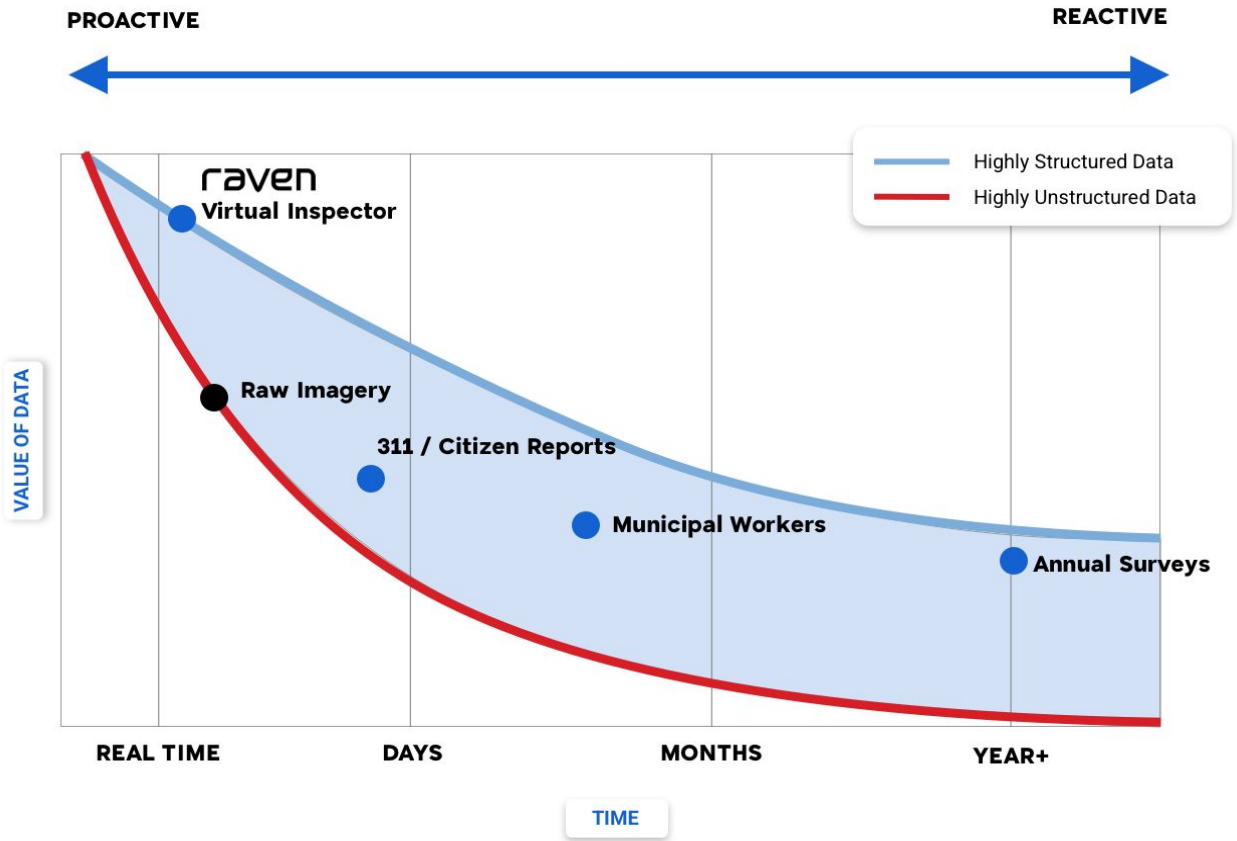
ravenconnected.com

Raven Connected Inc.
A made in Canada Solution

- Ottawa HQ
- Founded in 2016
- Manufacture in Cornwall, ON
- 80,000+ Devices Deployed
- In-House:
  Hardware, Firmware, Cloud and AI
- ~40 Employees
- TELUS Ventures (Series A)
- Access to TELUS Sovereign AI Compute Factory and Montreal AWS region





The Pothole Problem:

311 Call = Potential Liability

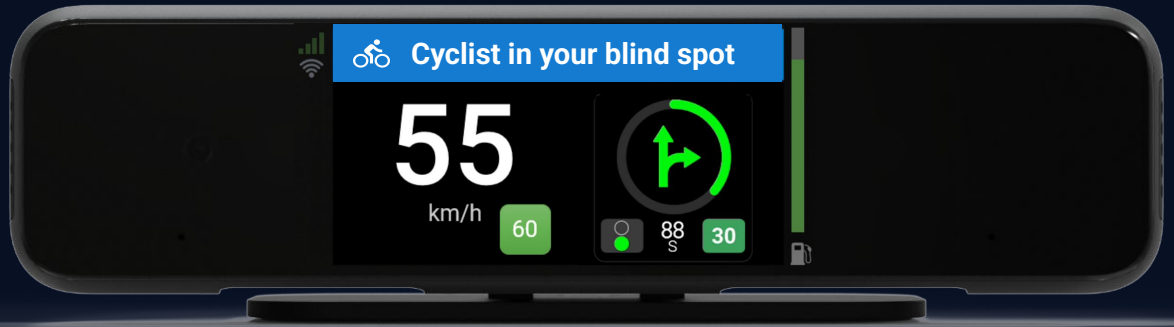
Annual Survey = Capital Expense

Virtual Inspector = $50 fix

Raven's next-gen device

raven pro

4k, RTK, V2x, world cell



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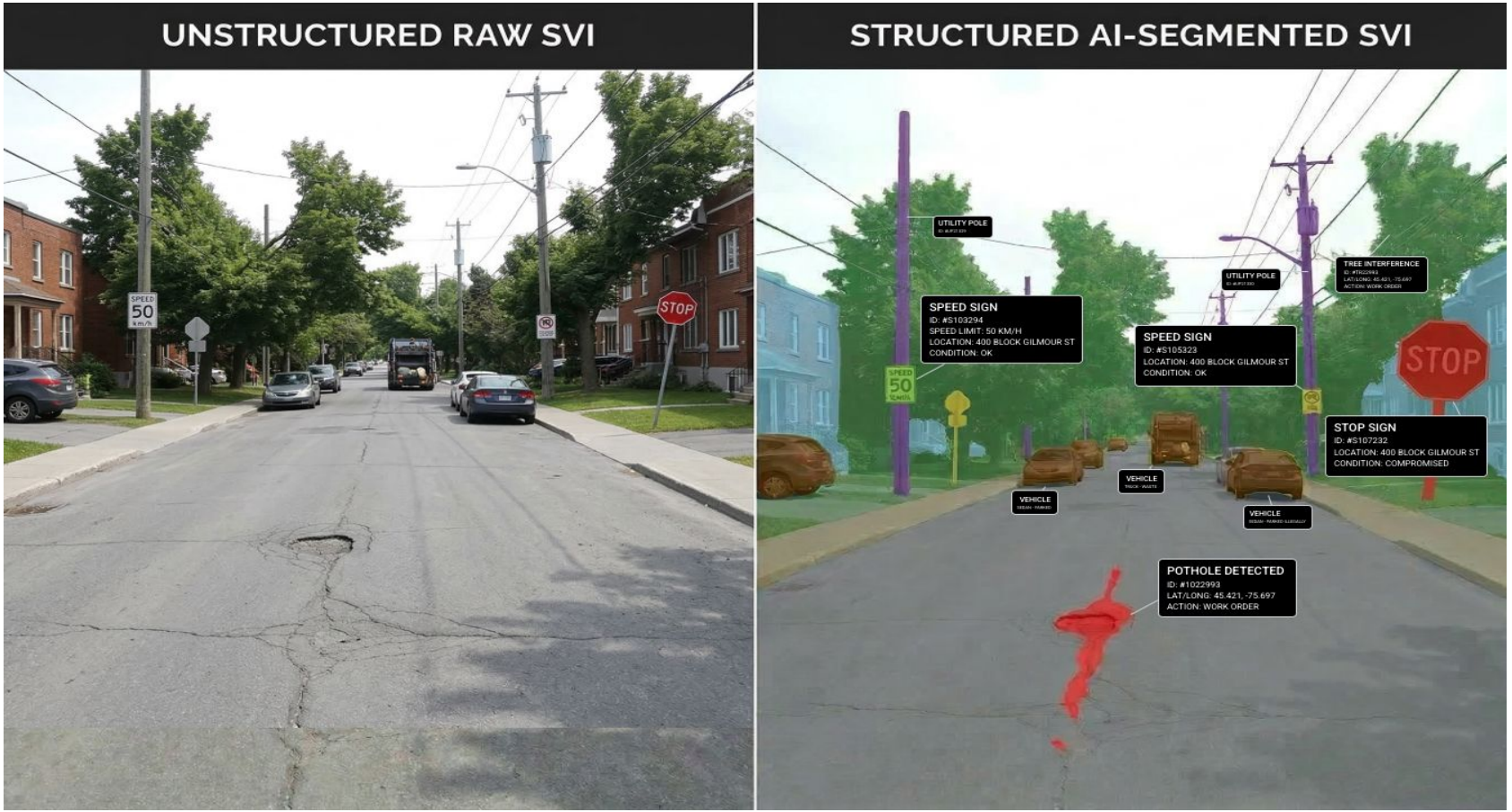
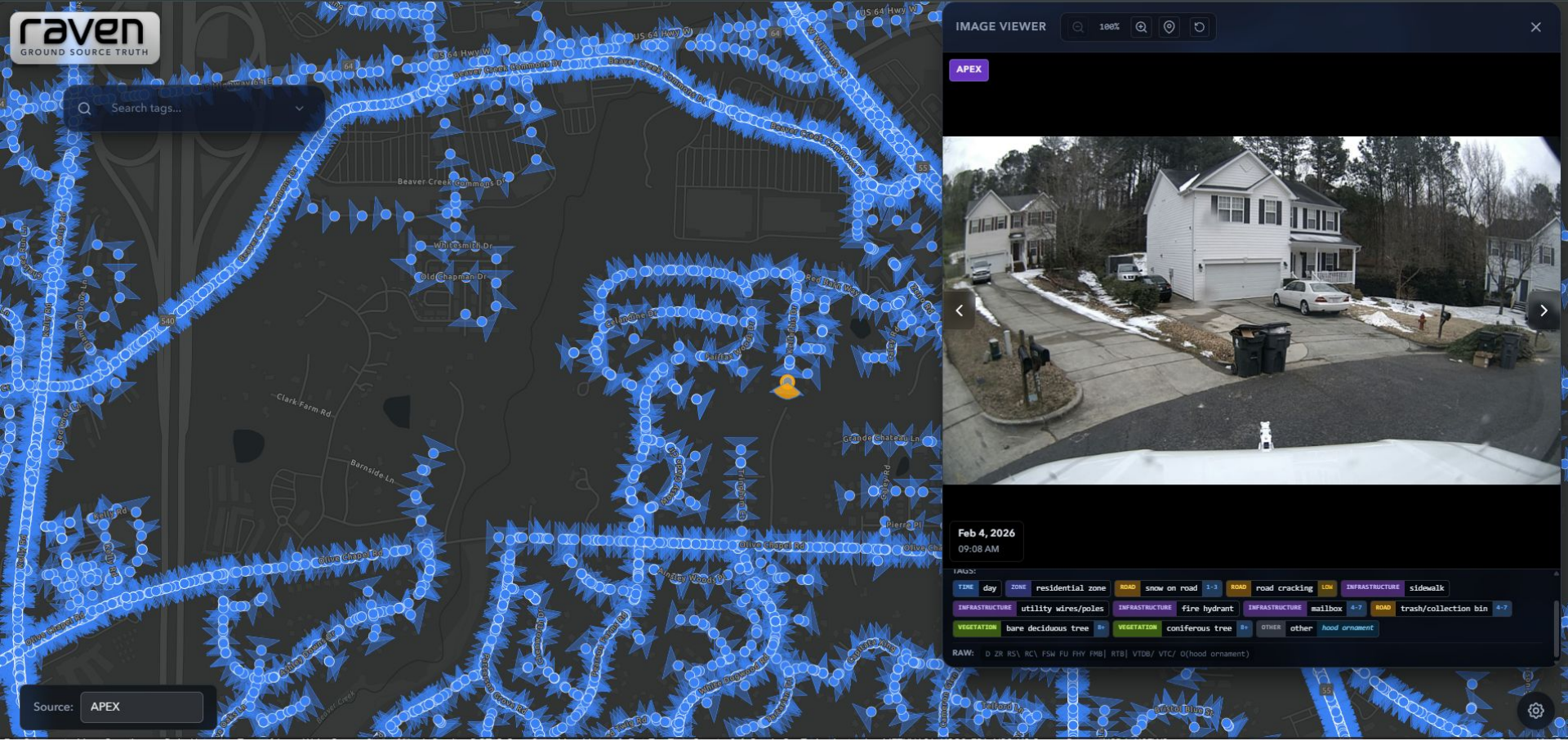
A picture is worth a 1000 words… Or 1000’s of data points





The biggest lesson from our pilots? The 'Hidden ROI' isn't in finding potholes; it's in the **reduced liability** and the **automated reporting** that feeds your **ESRI maps** impacting every division across your Municipality.

Cross-Divisional Value

Your vehicles drive your Road Network daily.
Raven virtual inspectors turn those trips into
Actionable Information & Automated Workflows

Municipal Division	Virtual Inspector
Water & Sewer	Blocked Catch Basin
By-law	Illegal dumping
Utilities	Tree Interference
Transit	Vandalized Bus stops
Fire & Safety	Obstructed Hydrants
Traffic	Zombie Work Zones

Contact Us: gov@ravenconnected.com

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Thank you!

Learn more and connect with us at **ovinhub.ca**