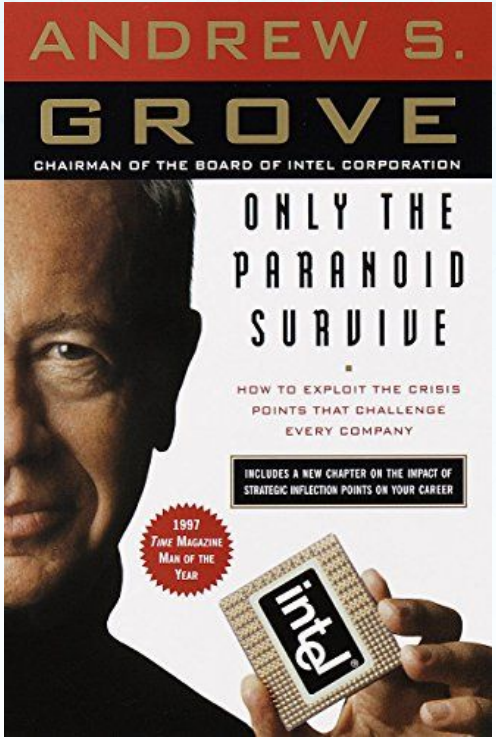
NEUTRALVEHICLE
PLATFORM

Keeping the Connected Car Connected-

A Multi-Stakeholder Approach to Connectivity, Security, and Innovation

Dirk Schlimm
Geotab

Why Are We Talking About This?



"Just because you're paranoid, doesn't mean they are not out to get you."

Joseph Heller

Photo: books.google.ca

Plenty of Reason to Be Paranoid About the Future of Transportation in the Digital Economy!

1. Data is the new “everything”.
2. Data-driven business models and innovation are the future.
3. In the commercial space, the “connected car” is a reality (and has been for the past 15+ years).

In the Commercial Space, the Connected Vehicle via OBD Data Link is a Reality.

- Fleet Safety
- Operations
- Productivity
- Compliance
- Air Quality
- Road Safety
- Traffic
- And more

1. Geotab alone connects 950,000+ comm/leasing/gov vehicles from small to global mega-fleets
2. ***Essential*** for fleet safety and operations, deeply integrated into the business.
3. ELD, gov, smart communities are the next wave
4. Increasingly global: US, EU ++

Commercial + “Next Wave” Customers Demand:

1. Mixed fleet capability
2. Real time data
3. High quality, rich data sets - *efficiently* delivered (in-vehicle processing)
4. Integration of a host of services
5. Innovative use cases
6. Competitive offerings
7. Security
8. Privacy features (EU - GDPR)

Today’s interoperable (“open”) OBD data link adds economic, innovative and social value.

IEEE
ASAM
NMFTA National Motor Freight Traffic Association, Inc.
AUTO-ISAC Automotive Information Sharing and Analysis Center
NHTSA NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
SAE INTERNATIONAL
U.S. Department of Transportation Volpe
NAFA® Fleet Management Association
CYBER CORPS Defending America's Cyberspace
SSP System Security Plan
U.S. DEPARTMENT OF HOMELAND SECURITY
UNIVERSITY OF MICHIGAN TRANSPORTATION RESEARCH INSTITUTE
Boulder
MIT CSAIL

Actively engaged with security community to advance security and optimize value for all stakeholders (avoid unintended consequences of security approaches).

The Idea of "Disconnecting"/Isolating* the Car Has Created Huge Concern

1. Challenges entrenched notion of car "ownership".
2. Would disable current, advanced fleet management practice
3. Impedes competition, innovation, and consumer choice
4. **AND: Would affect the data economy as a whole - not just vehicle owners - e.g. smart communities and *public use cases***

EU regulators have become especially active (transportation, digital, competition, SME, … touches all departments!). Latest "Type Approval" revision (in draft) calls for real time data access via OBD.

*i.e. Single brand connected car, "extended vehicle" w/o in-vehicle processing in the name of security, privacy, or for other reasons.

Data ***AND*** Collaboration Is the Future

1. Commercial vehicle space shows today what "smart" customers, government and communities will demand (mixed fleet, in-vehicle processing).
2. When competing with new entrants, an "open" transportation ecosystem/sector leverages the installed base and existing auto-industry expertise as a whole (vs single brand only).
3. Collaboration among ALL transportation stakeholders will enable/strengthen security practices and governance (and root out substandard products)

Requires vehicle "design for" interoperability and security.

Getting to Work: www.neutralvehicle.com

1. Multi-stakeholder initiative for open & secure connected vehicles.
2. Well received by security community, fleets, leasing, government & others.
3. *Concrete* but not married to a single approach/solution - allows for competing solutions.
4. To include security certification to a public standard and open to independent security/privacy governance.

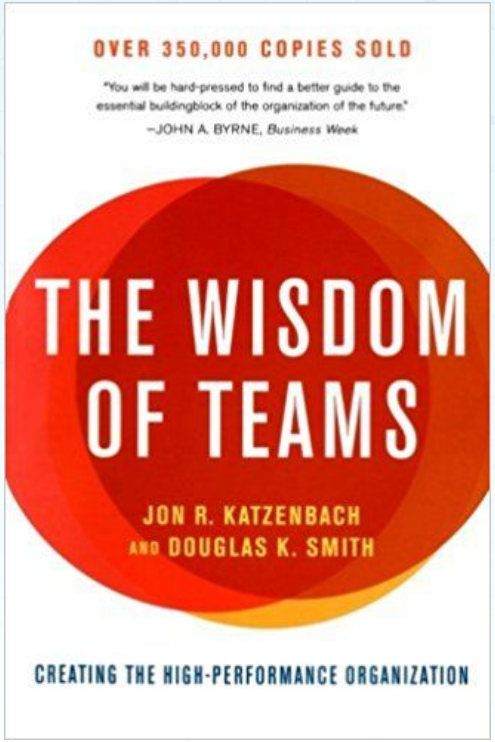


Photo: strategy& - Katzenbach Center

One Final Thought.

"The most ambitious goals can only be achieved through teamwork."

Jon Katzenbach

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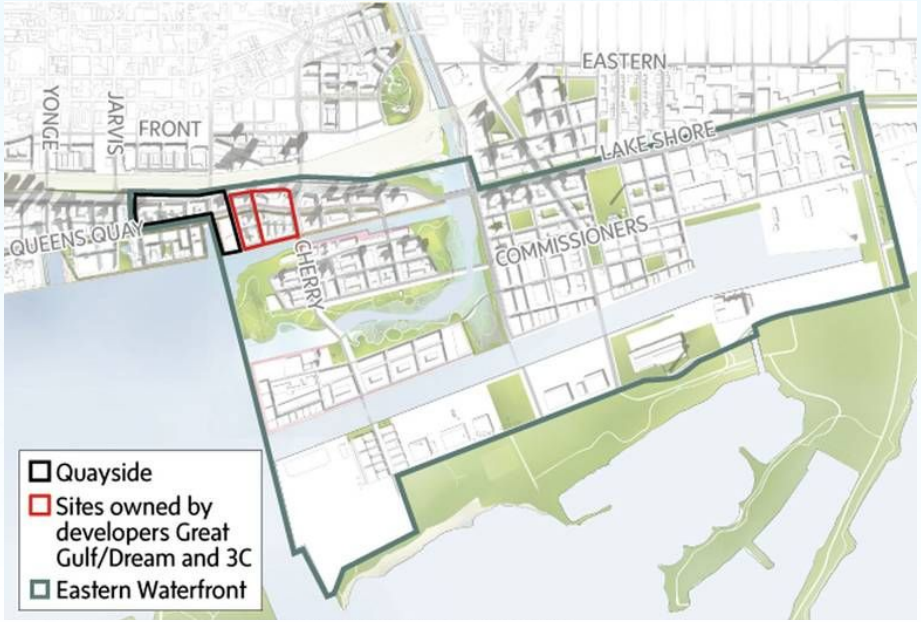
The Building Blocks of Smart Communities

Innovation in Transportation Data Analytics that Power Today's Communities

Mike Branch
Geotab

The Time is Now
Communities are Reinventing Themselves

Smart City Initiatives Across the Globe are building from the "Internet Up"



Transportation Data can Impact the ***Whole*** Community

Environment	Operations	Public Safety	Infrastructure	Mobility

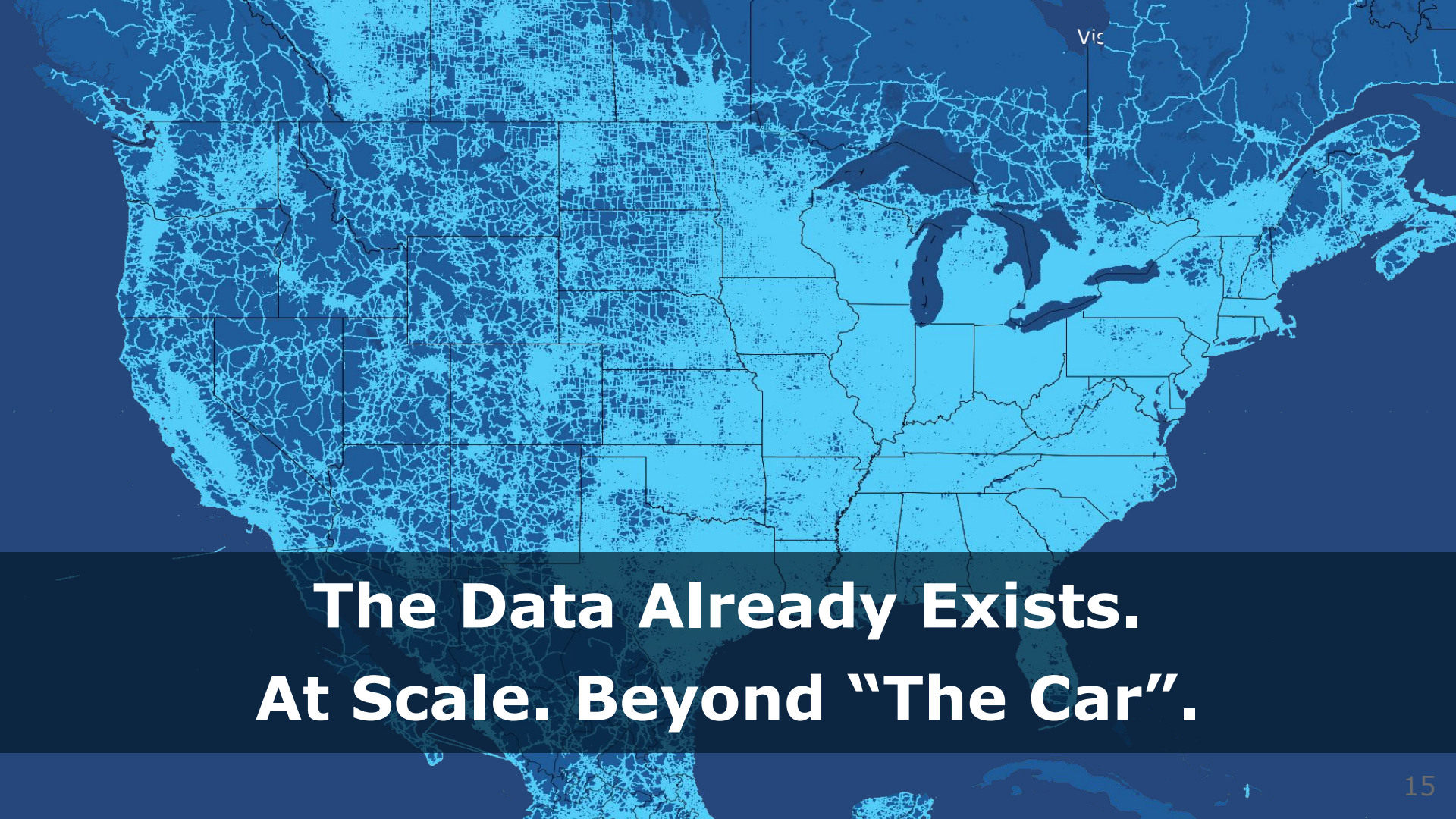
What types of Decisions are Enabled?

Edge Decisions

Instantaneous Reaction Needed
Am I following too closely?
Should I slam on the brakes?
Is there a pedestrian about to cross the street?

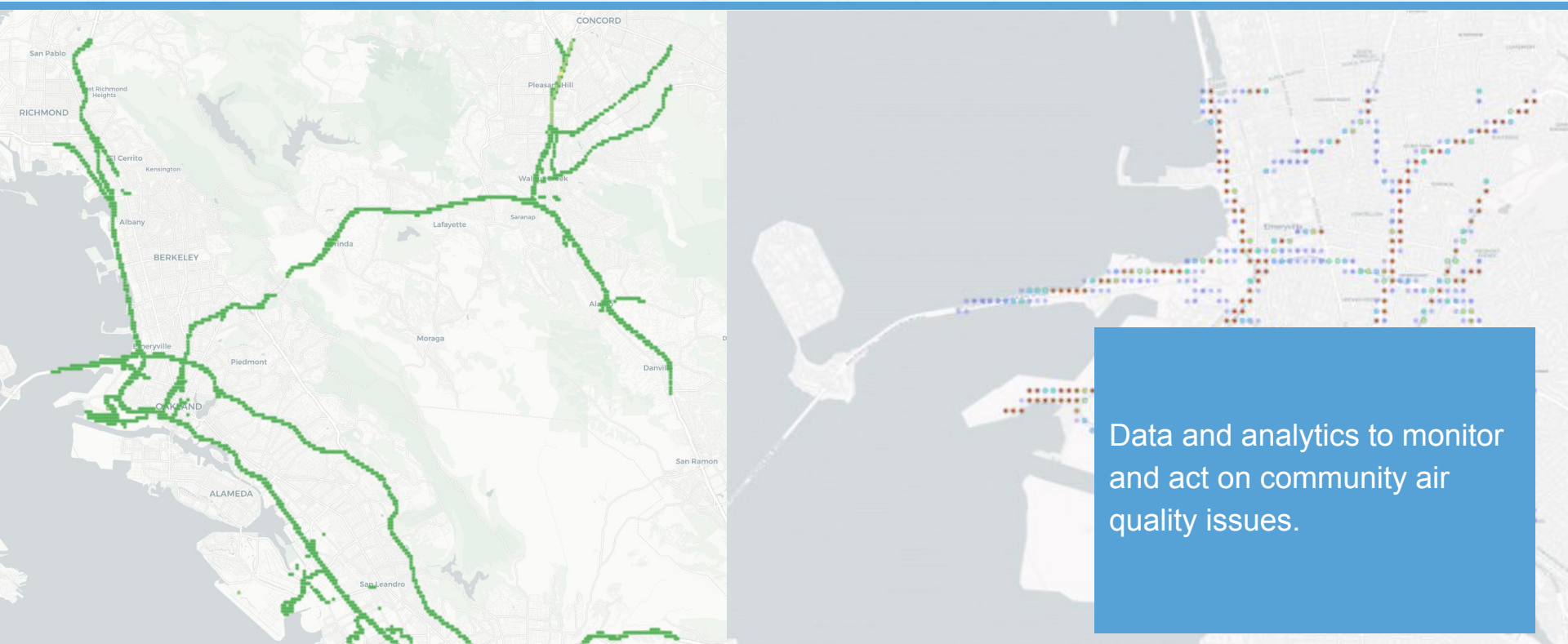
Cloud Decisions

Near Real-time is Sufficient
Is there poor visibility up ahead?
Should I re-route due to an accident ahead?
Should I ride-share in 5 km?
Do I have an air quality issue?



The Data Already Exists.
At Scale. Beyond “The Car”.

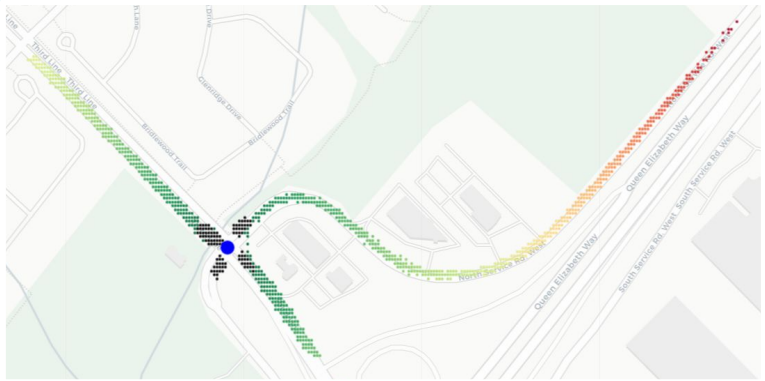
Environment

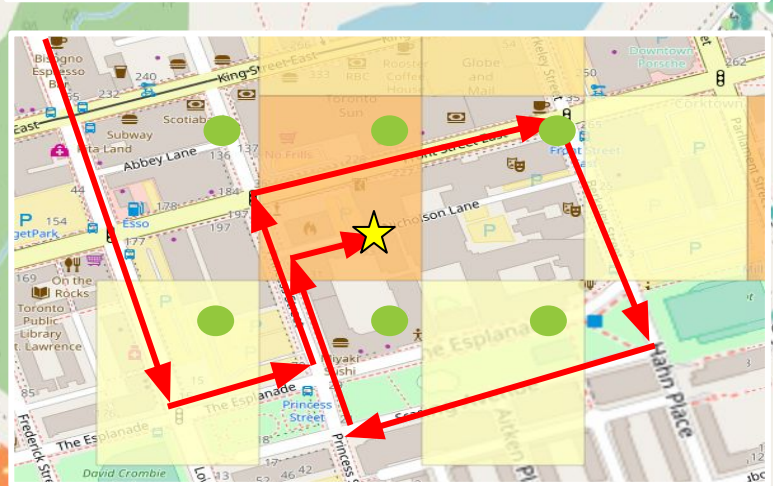


Data and analytics to monitor and act on community air quality issues.

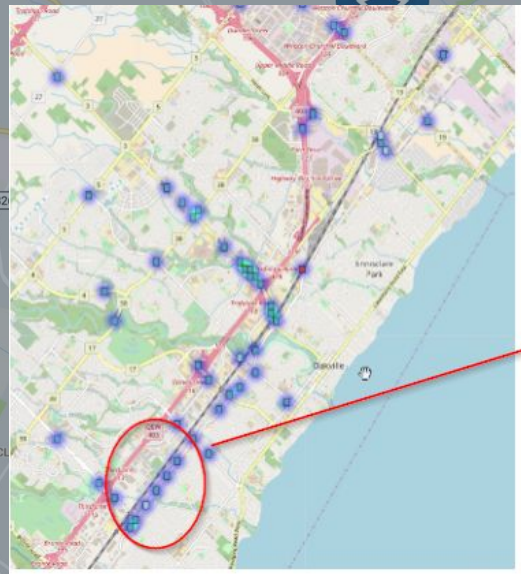
Infrastructure

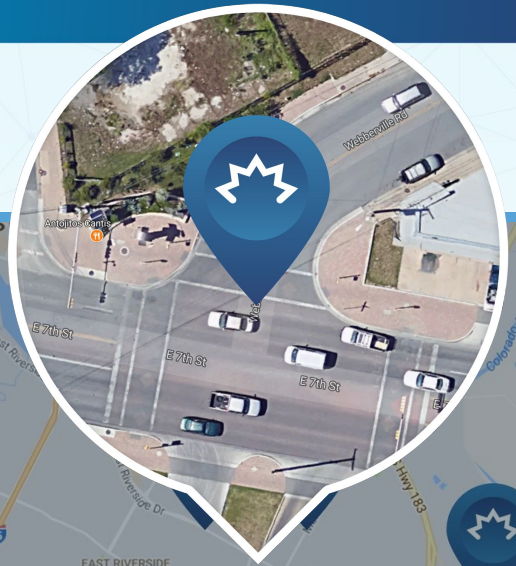
Data and analytics to help communities design more liveable cities and adapt to changing mobility patterns.





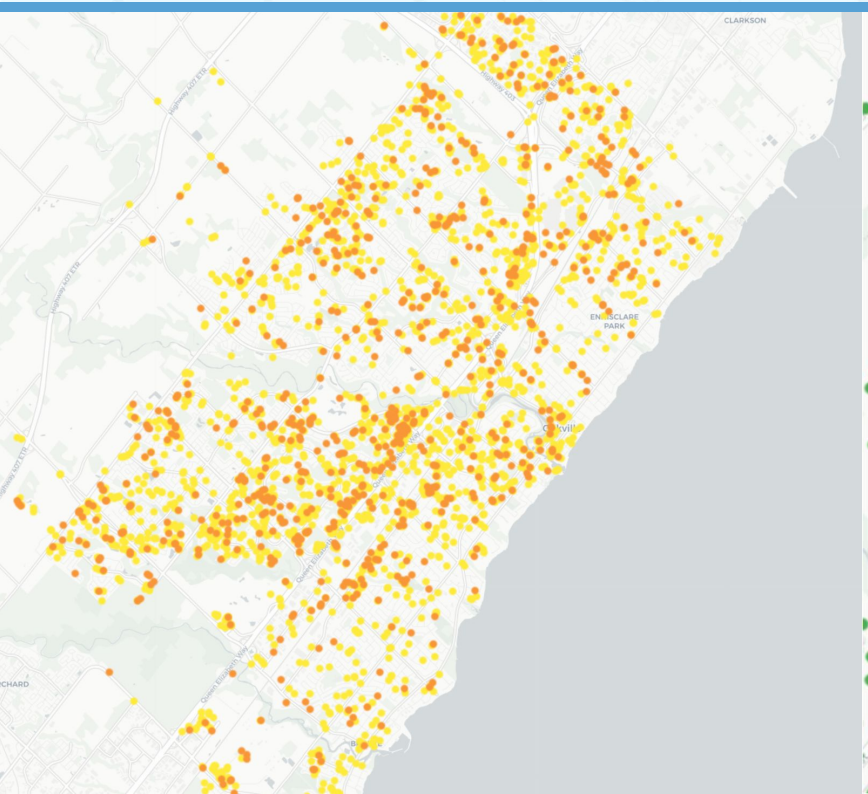
Public Safety

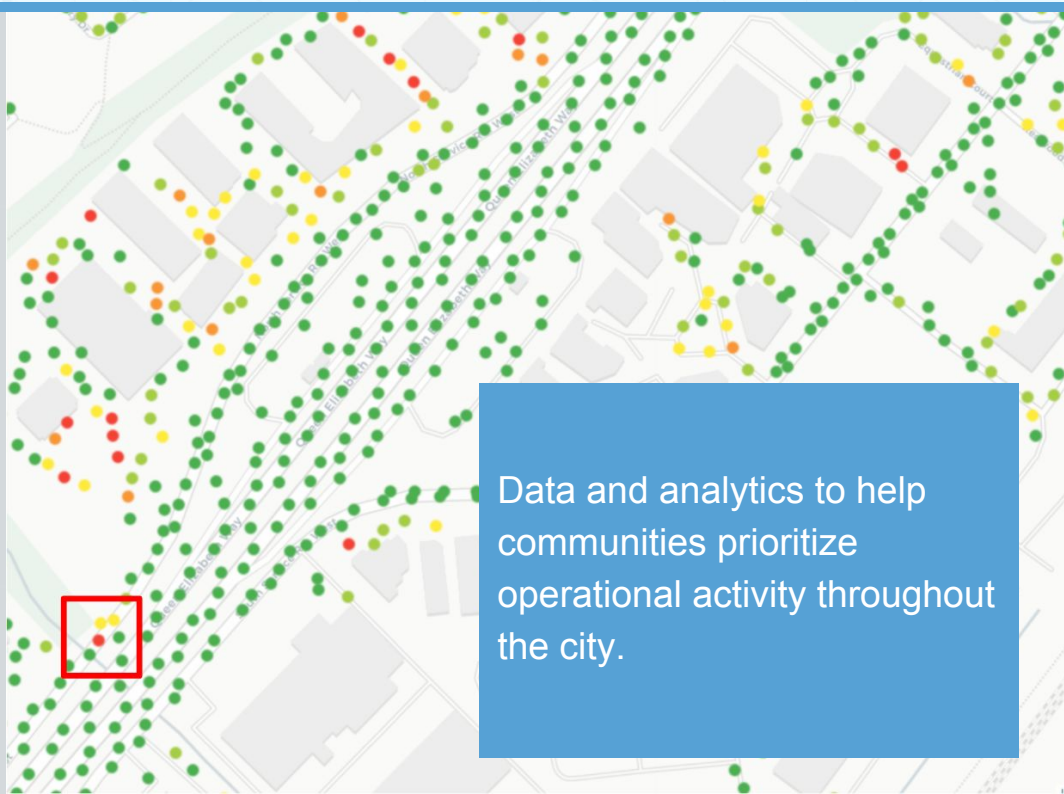




Data and analytics to help identify persistent and spontaneous road safety issues.

Operations





Data and analytics to help communities prioritize operational activity throughout the city.

Mobility

Data and analytics to allow effective movement of vehicles in communities.

Data Challenges for Smart Communities

1. Thriving communities will be built on data. Communities will be handcuffed to innovate and provide essential services if data isn't open.
2. Maintaining strong privacy standards whilst still enabling smart community innovation.
3. Enabling ubiquitous insight for communities through strong partnerships. The whole is better than the sum if its parts.