Video Analytics Towards Vision Zero Partnership

Transportation Research Board Surrogate Measures of Safety Subcommittee

January 8, 2018

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Principal Transportation Planner
City of Bellevue, WA

City of Bellevue, WA

Microsoft
CenturyLink
amazon
unity
CONCUR
tableau
EMC²
Socrata
hp Cloud
Google Cloud Platform Live
BOEING
T-Mobile
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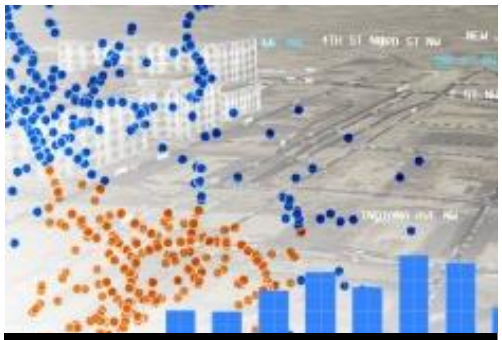
salesforce
ENVELOP VR
Expedia
The Pokémon Company INTERNATIONAL
VALVE
BUNGiE
inspur

Smart City Solutions

ADAPTIVE SIGNAL SYSTEM

VIDEO ANALYTICS PARTNERSHIP

CONNECTED VEHICLE PILOT

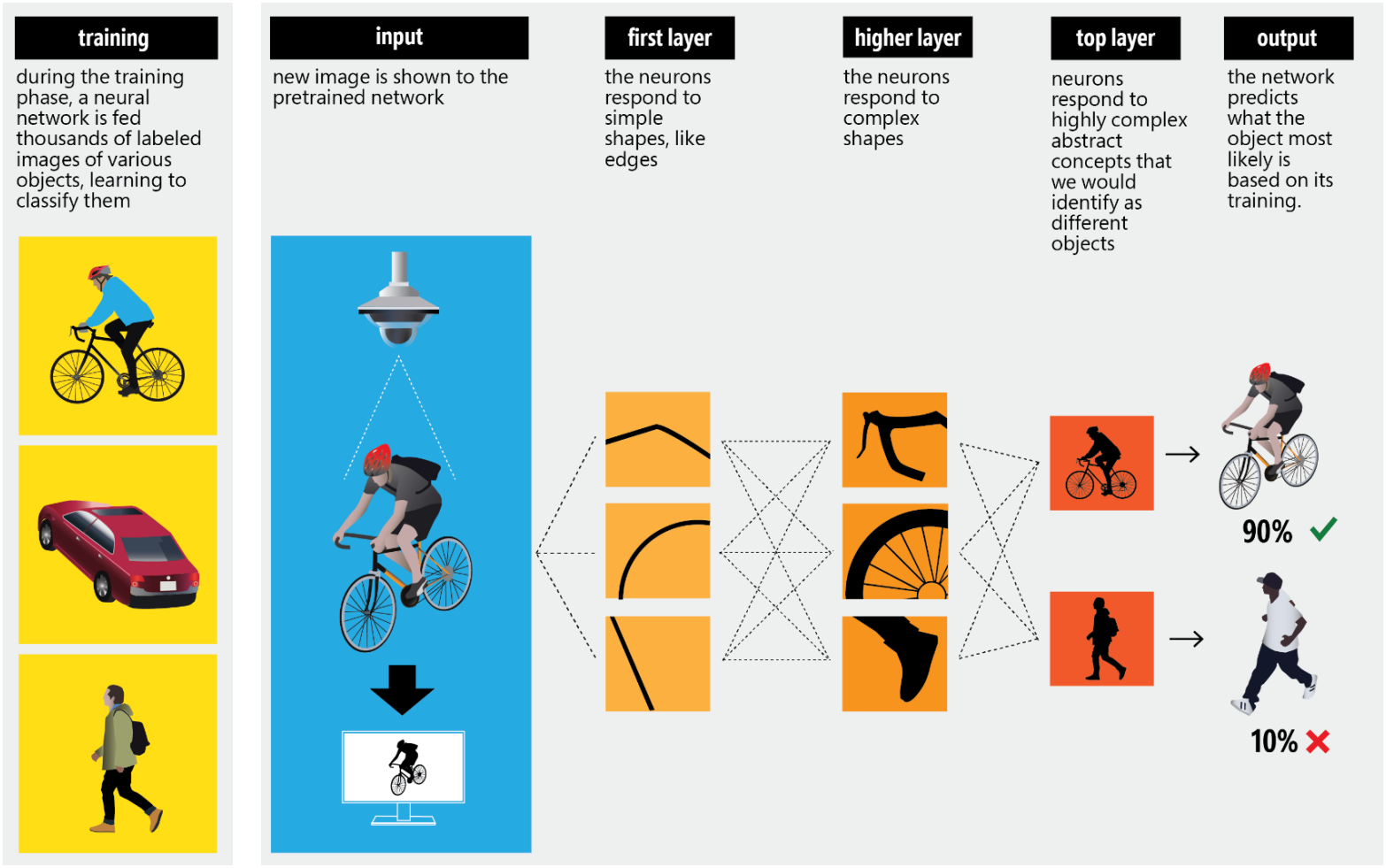


PERFORMANCE MEASURES

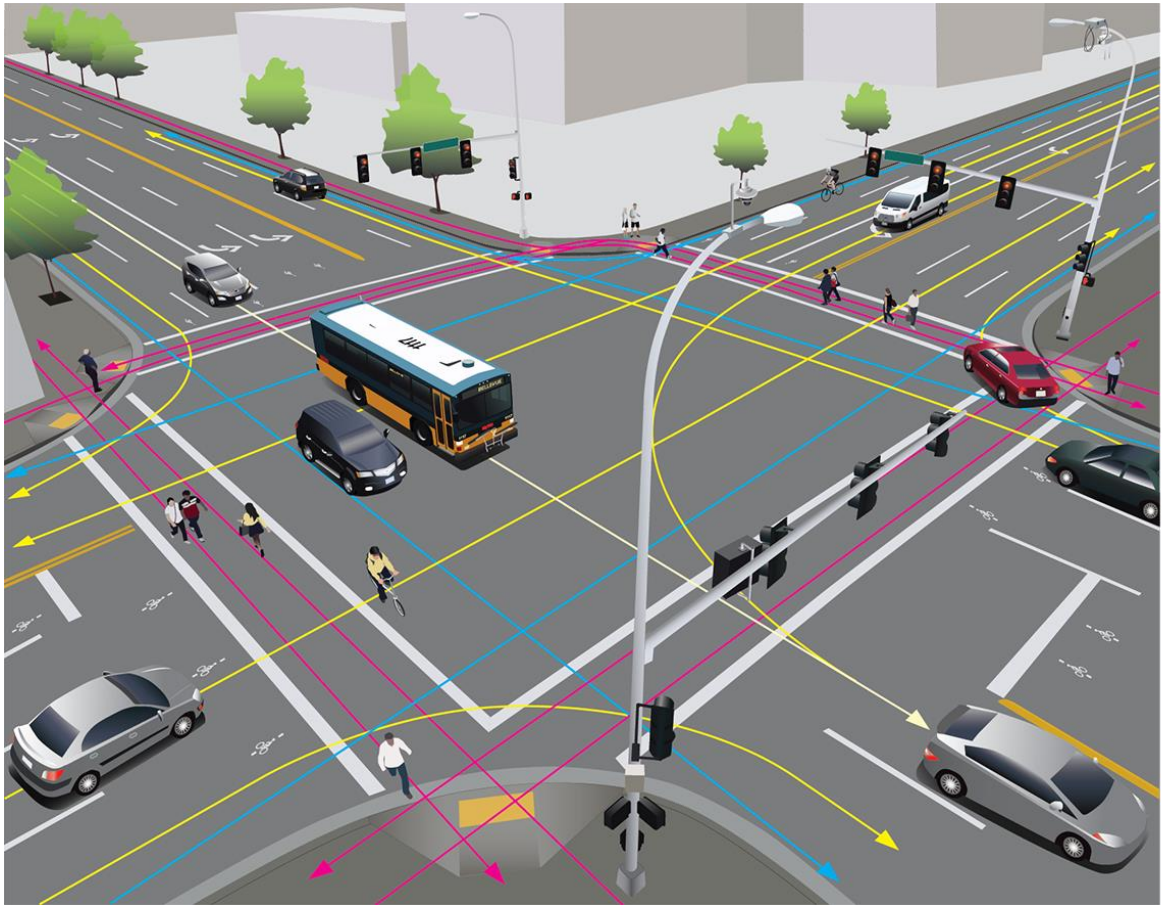
TRANSIT SIGNAL PRIORITY

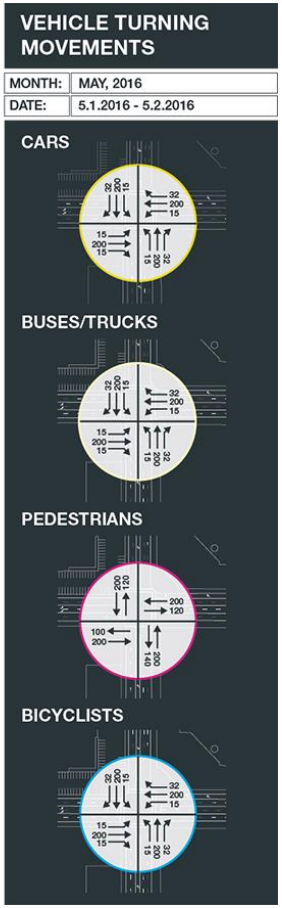
LIGHTING CONTROLS

DNN Architecture

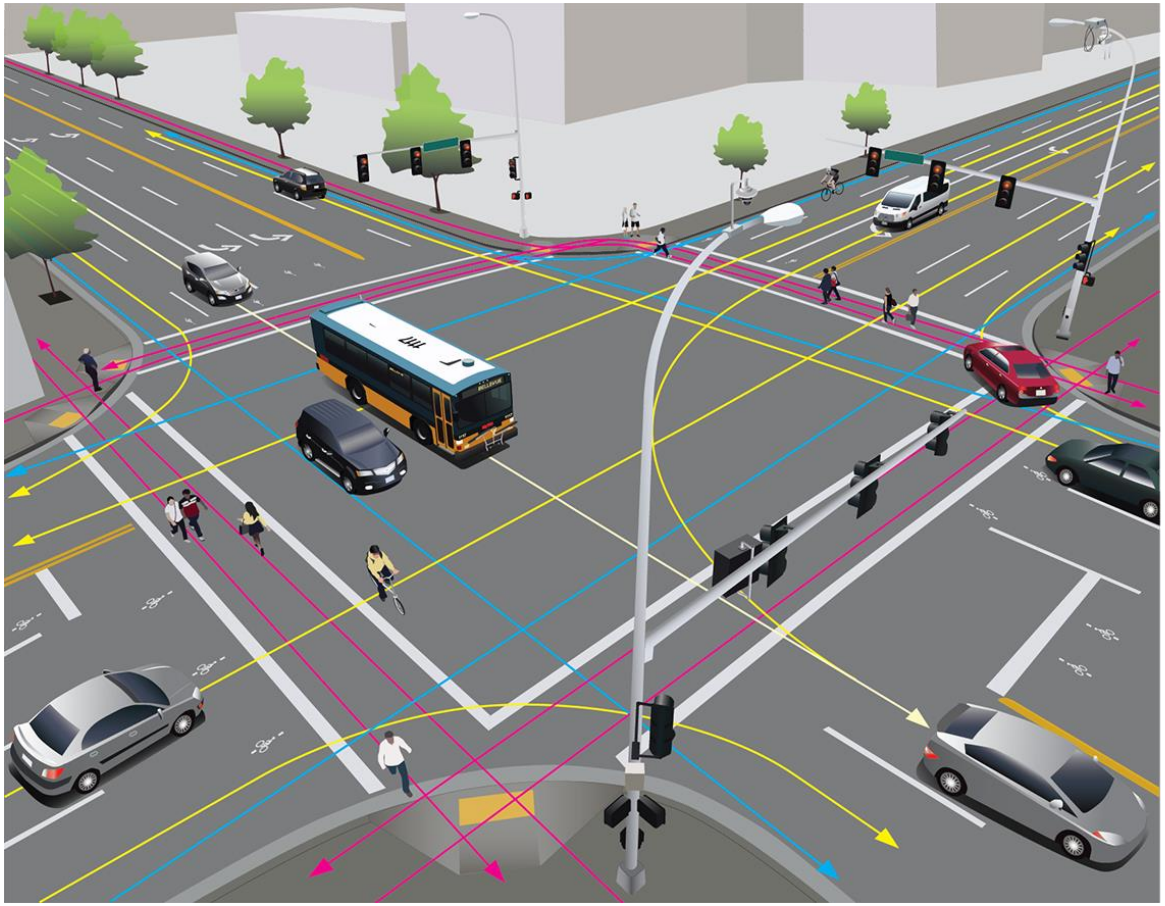


Turning Movements





Volume Charts



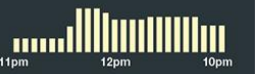
VEHICLE DISTRIBUTION CHARTS BY TIME OF DAY

MONTH:	MAY, 2016
DATE:	5.1.2016 - 5.1.2016

CARS

30,000 cars/day

BUSES/TRUCKS



400 buses & trucks/day

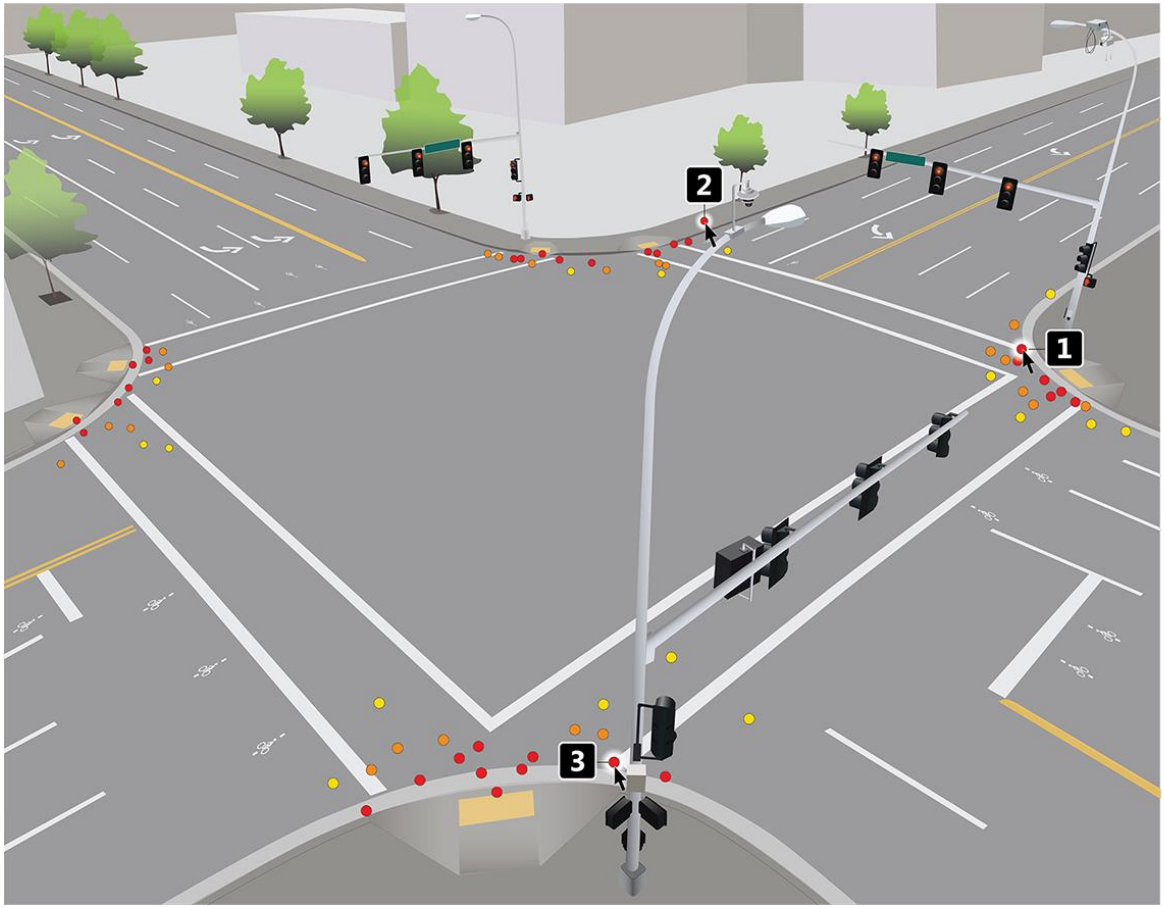
PEDESTRIANS

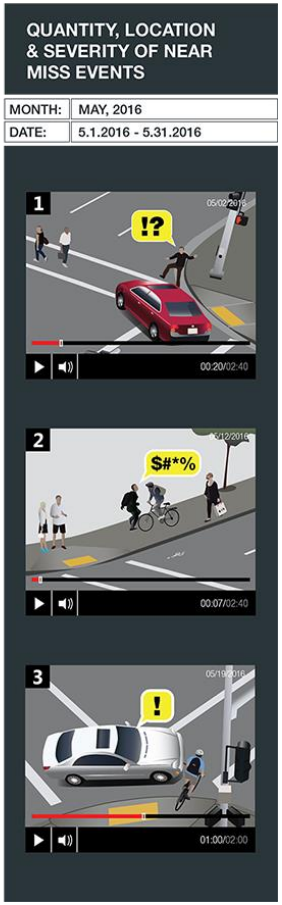
1,000 pedestrians/day

BICYCLISTS

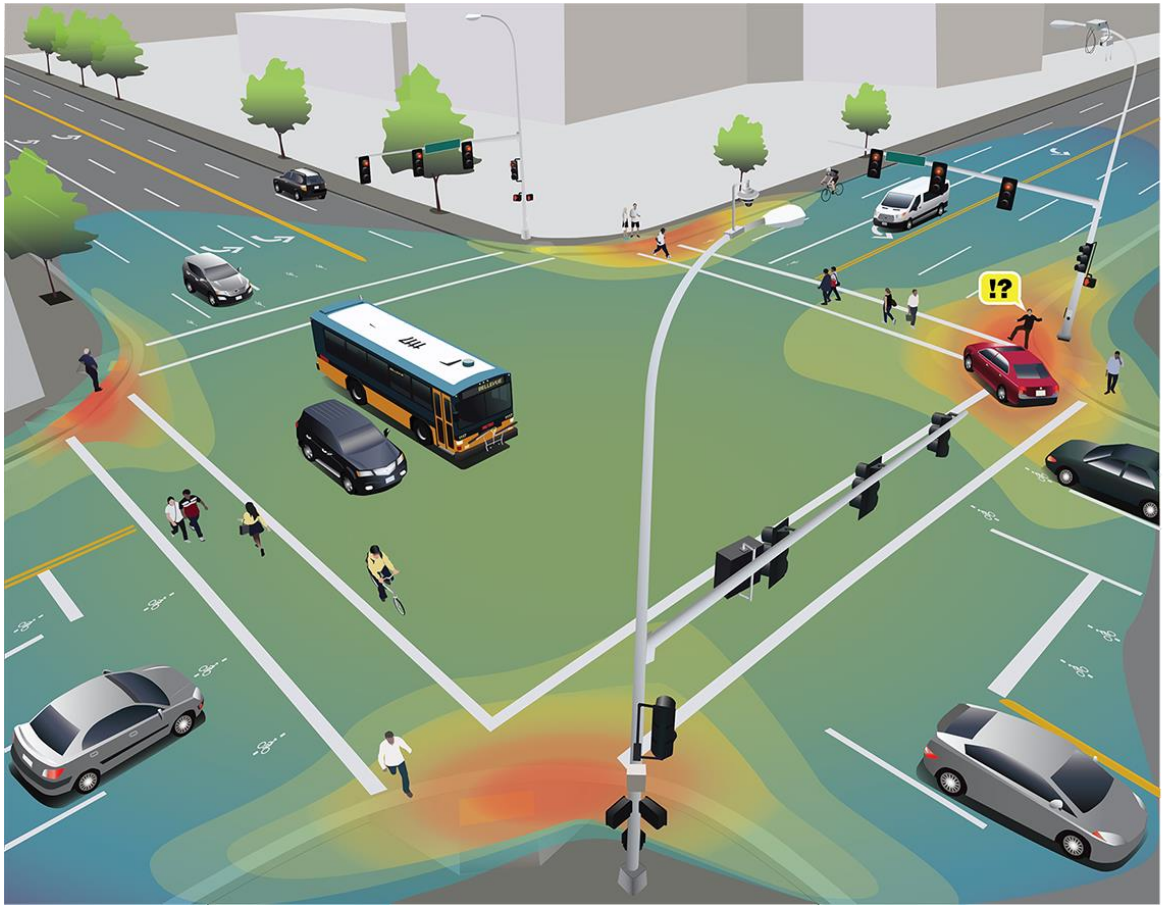
100 bikes/day

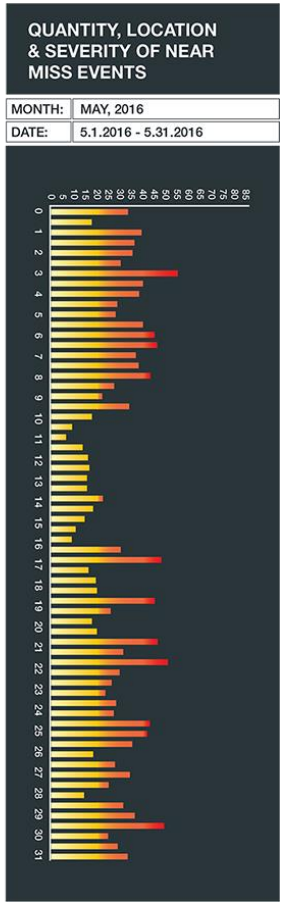
Traffic Conflict Detection



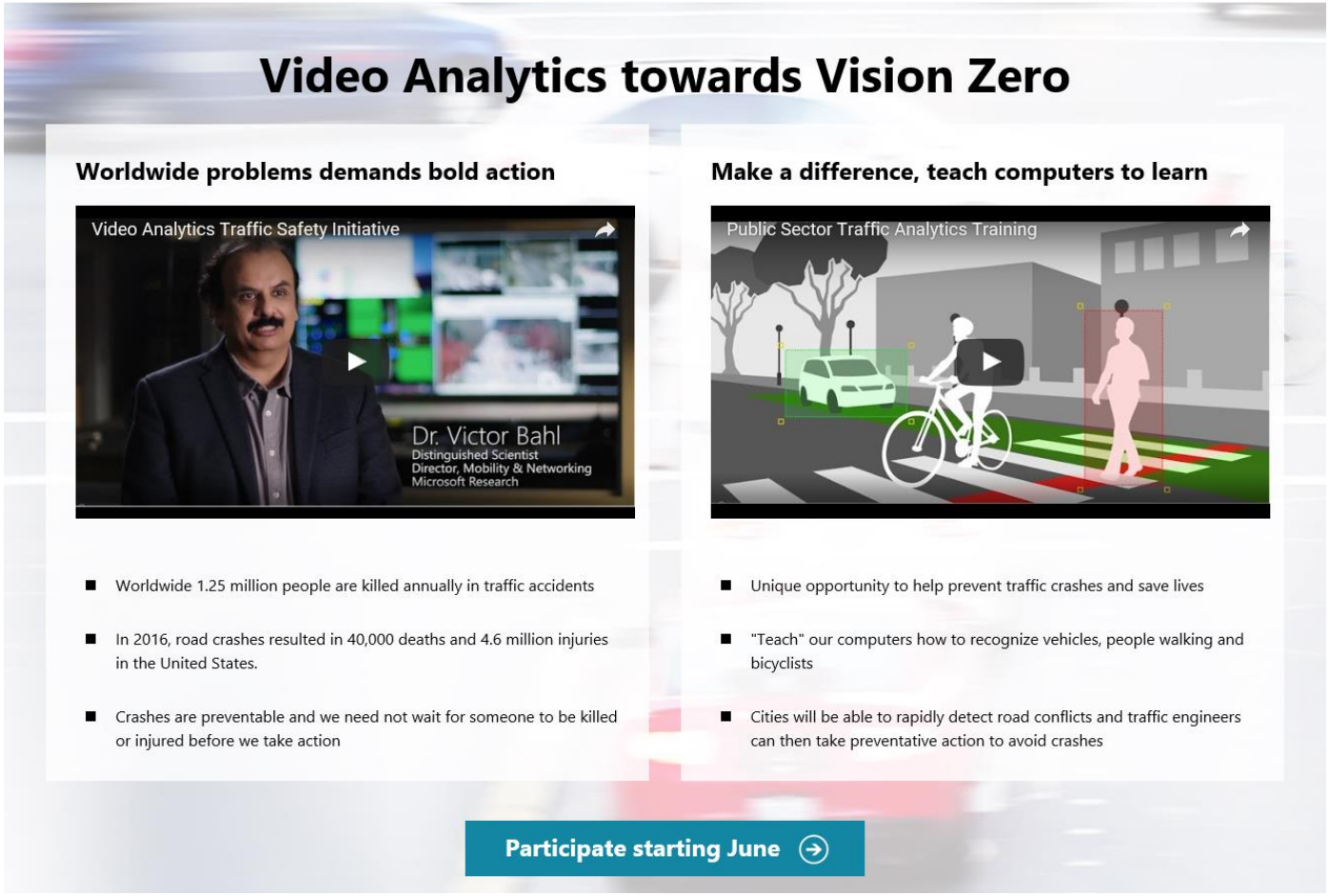


Traffic Conflict Detection





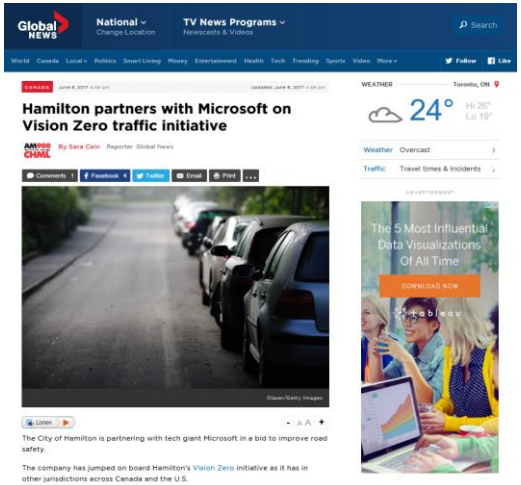
Crowdingsourcing Initiative



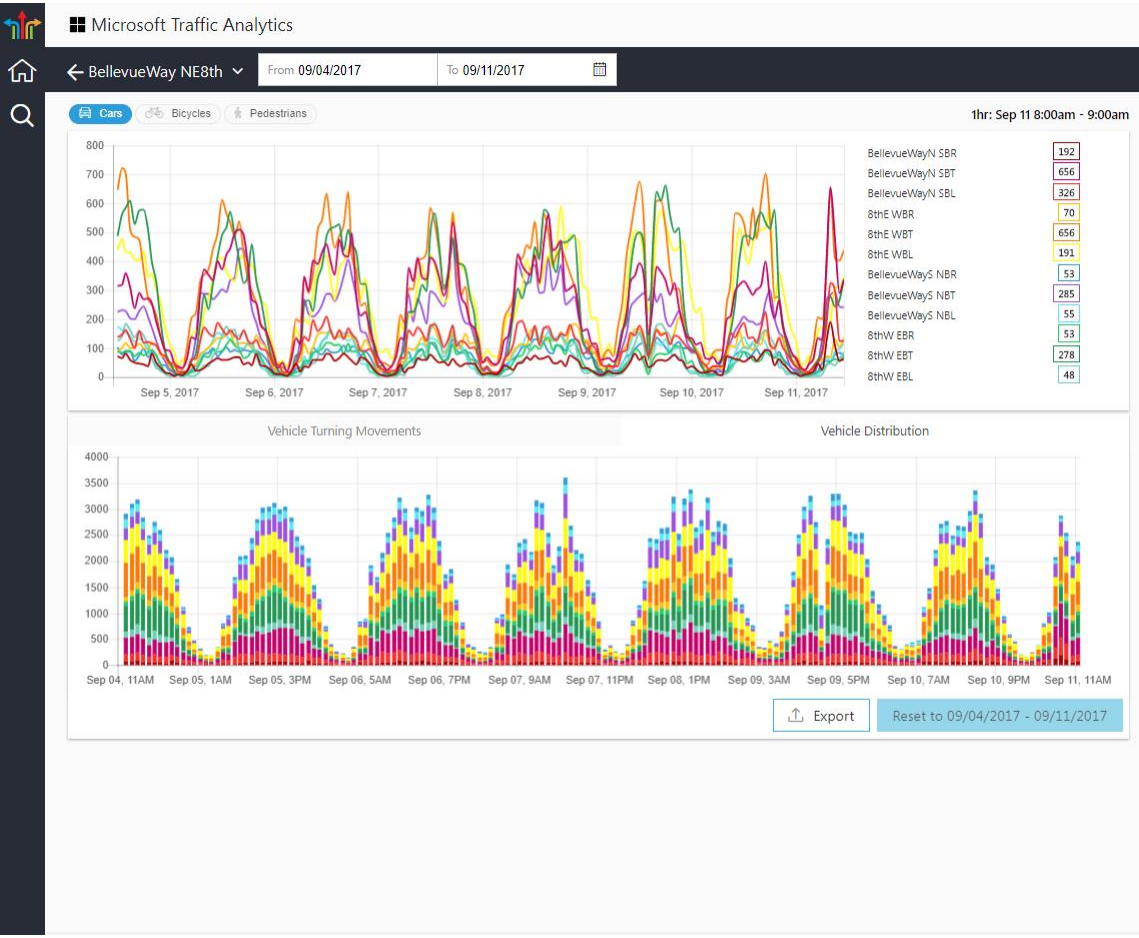
http://www.ite.org/visionzero/videoanalytics/

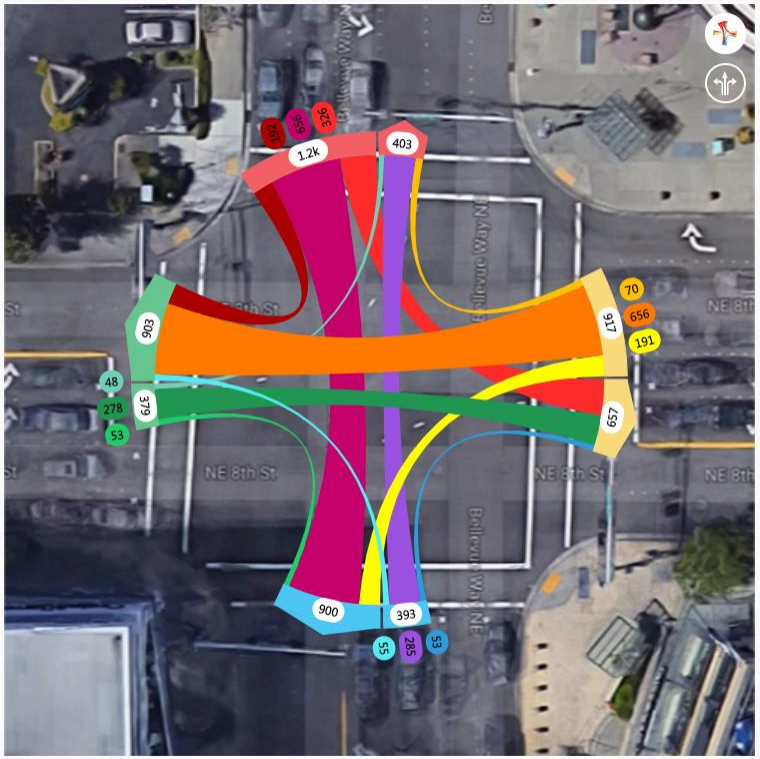
Crowdsourcing Initiative

Media Coverage



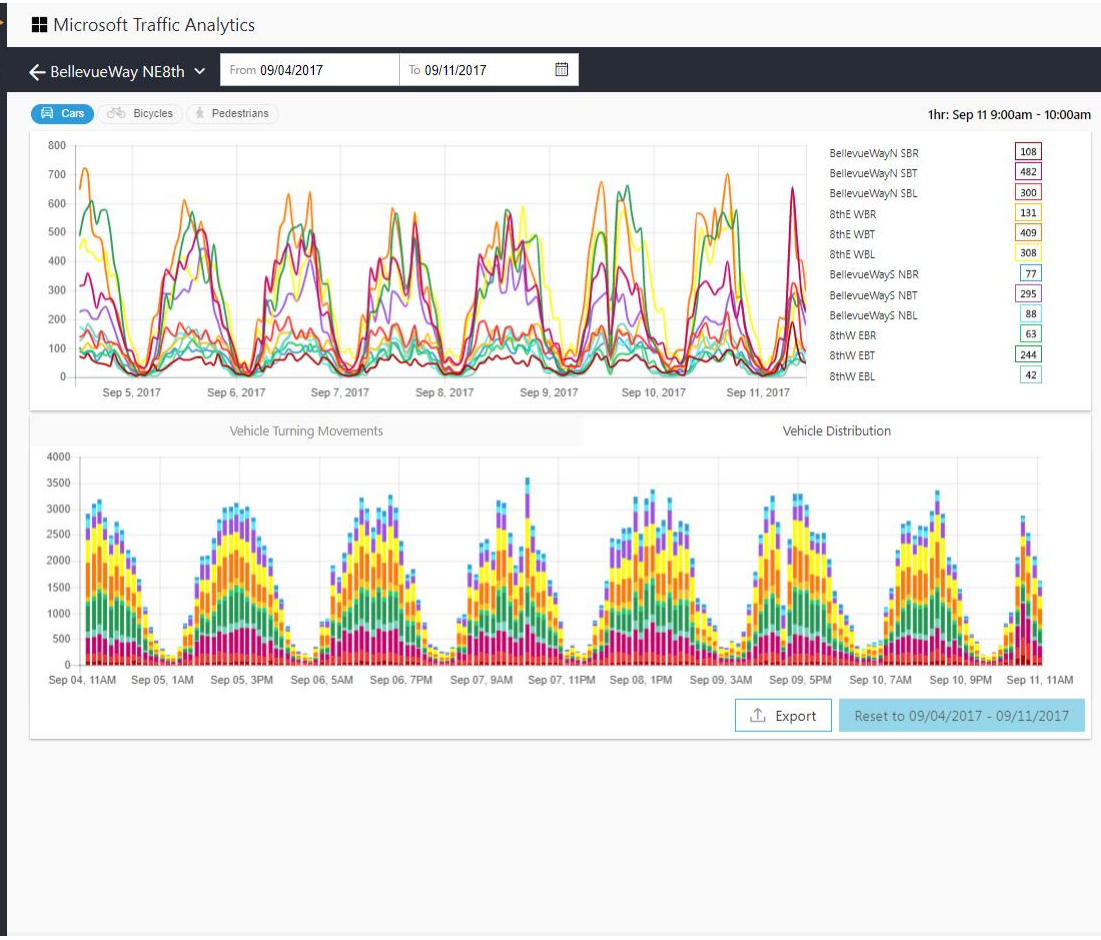
Traffic Analytics Dashboard: 9/11 (8 – 9 AM)

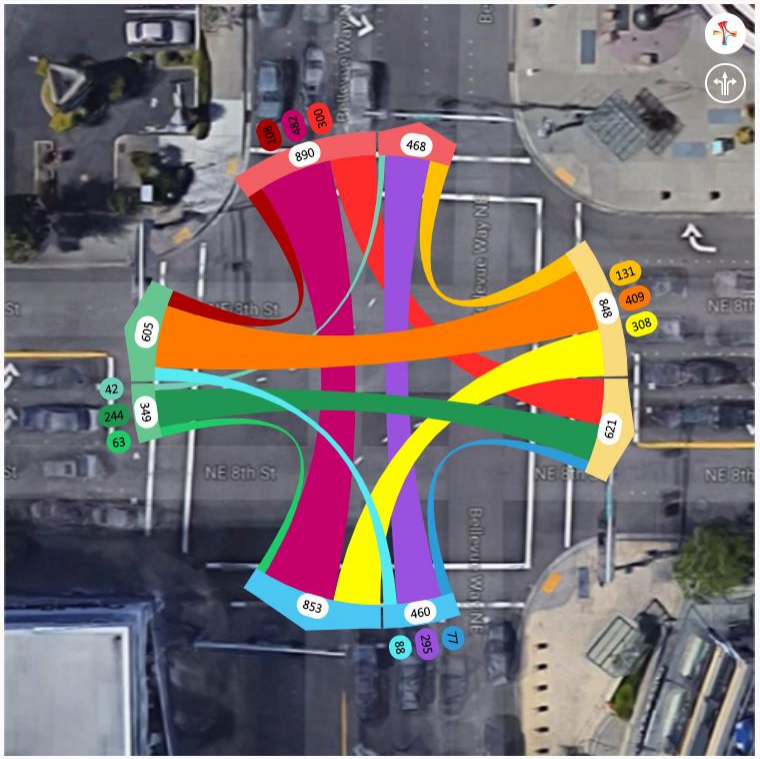




https://vavz.azurewebsites.net/

Traffic Analytics Dashboard: 9/11 (9 – 10 AM)





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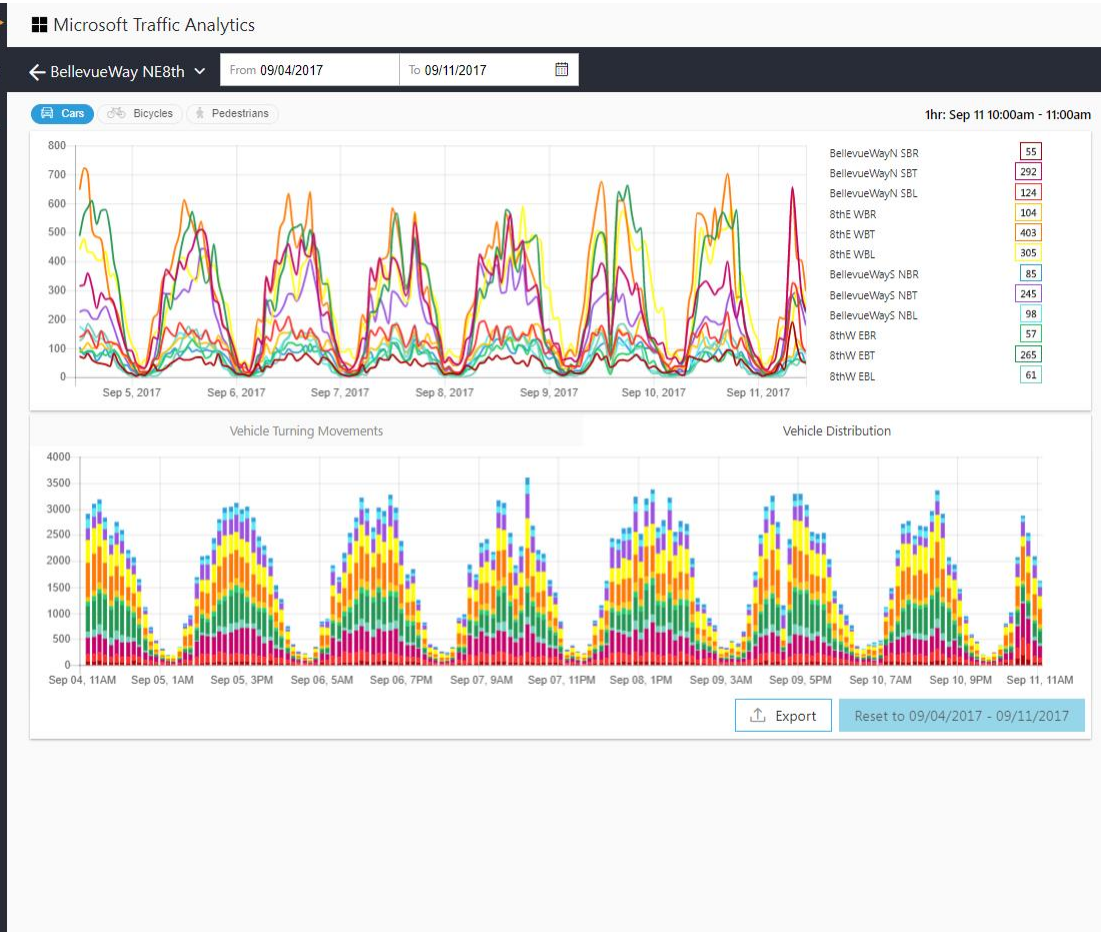
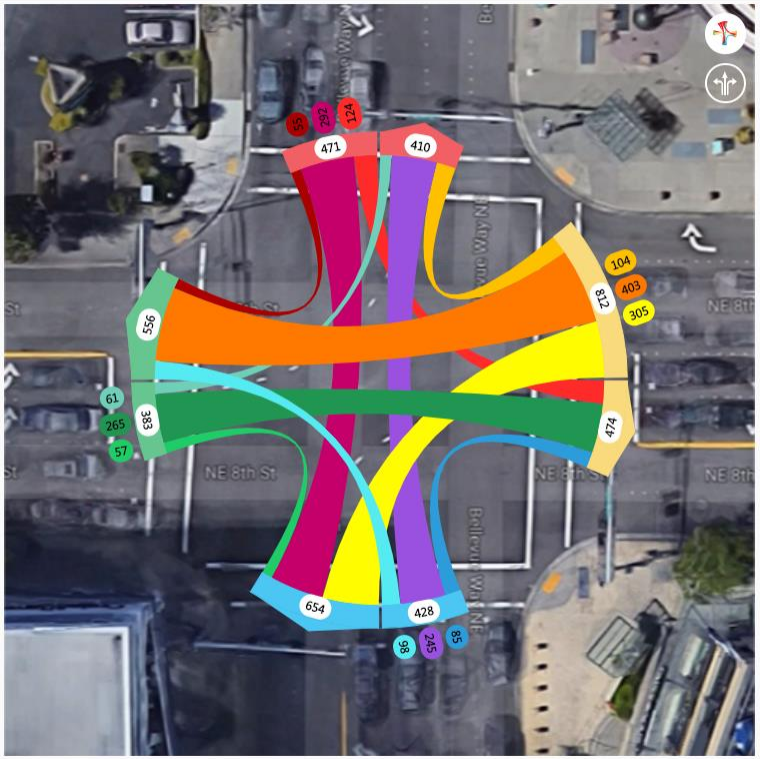
Traffic Analytics Dashboard: 9/11 (10 – 11 AM)





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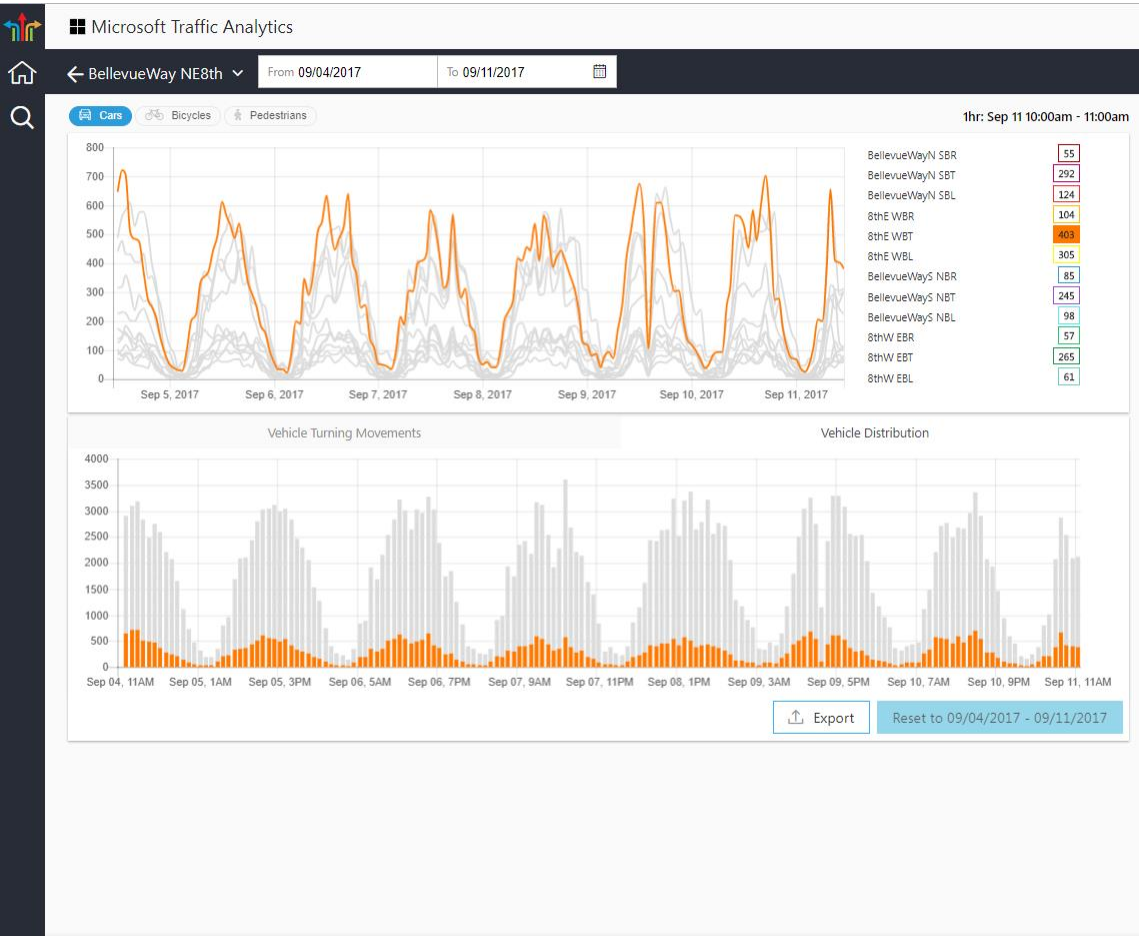

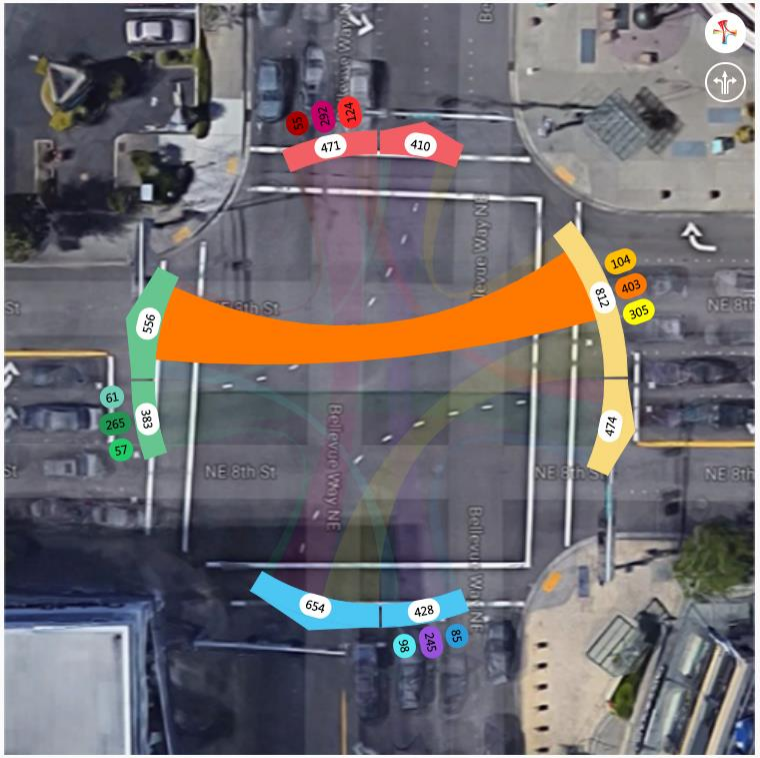

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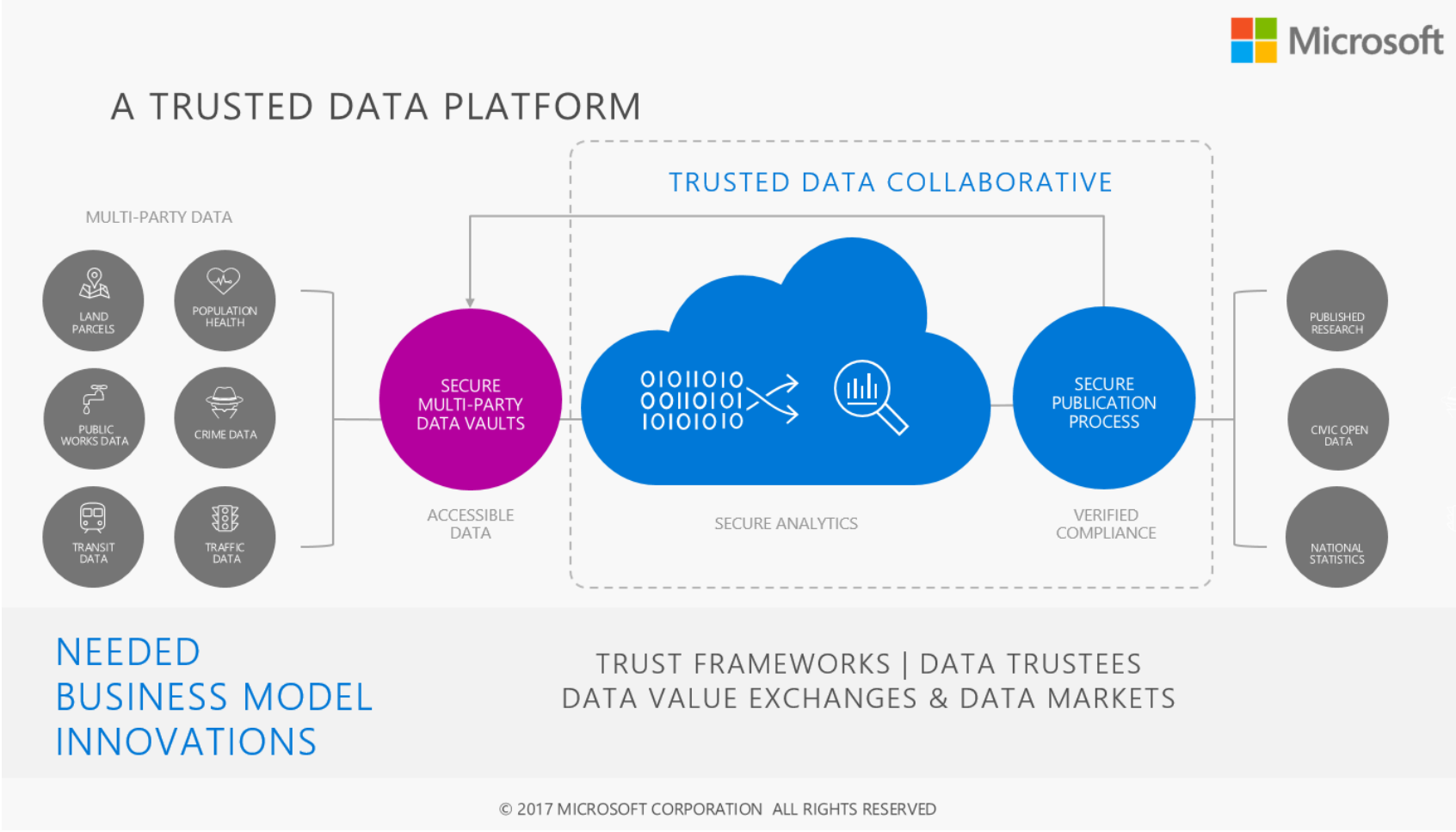
Enhancing Pedestrian & Bicycle Accuracy

https://youtu.be/I0UmWQJiiN8

Consensus Standards

SAE International is creating a committee dedicated to developing open, consensus standards on surrogate (near-miss) measures of safety.

Deployment Strategy



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Seeking Non-USA Partner Cities

- Continent: South America, Africa, Europe and Asia (except China)
- Number of cameras installed: 1,000-2,000
- Willingness to share video feeds

For More Information

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