



KINGHACKS 2026

Powered by the AI Collective Kingston



Theo Lemay and Claire Hu
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Julia Trinca
Queen's student, Kingston local



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Queen's student, Kingston local

"I hit a bump in the road and I spilled my coffee all over myself!"

"There's this one corner that's always so icy, my car goes sliding every time."

"There's graffiti everywhere now. I see so much driving to campus."



**100,000+ more Kingstonians
witnessing infrastructure
damages every day.**



In Q1 2025, over 3,200 potholes have already been repaired in Kingston.

A faint, grayscale photograph of a chain-link fence. Behind the fence, there's a brick wall with some faint, illegible graffiti. The overall tone is muted.

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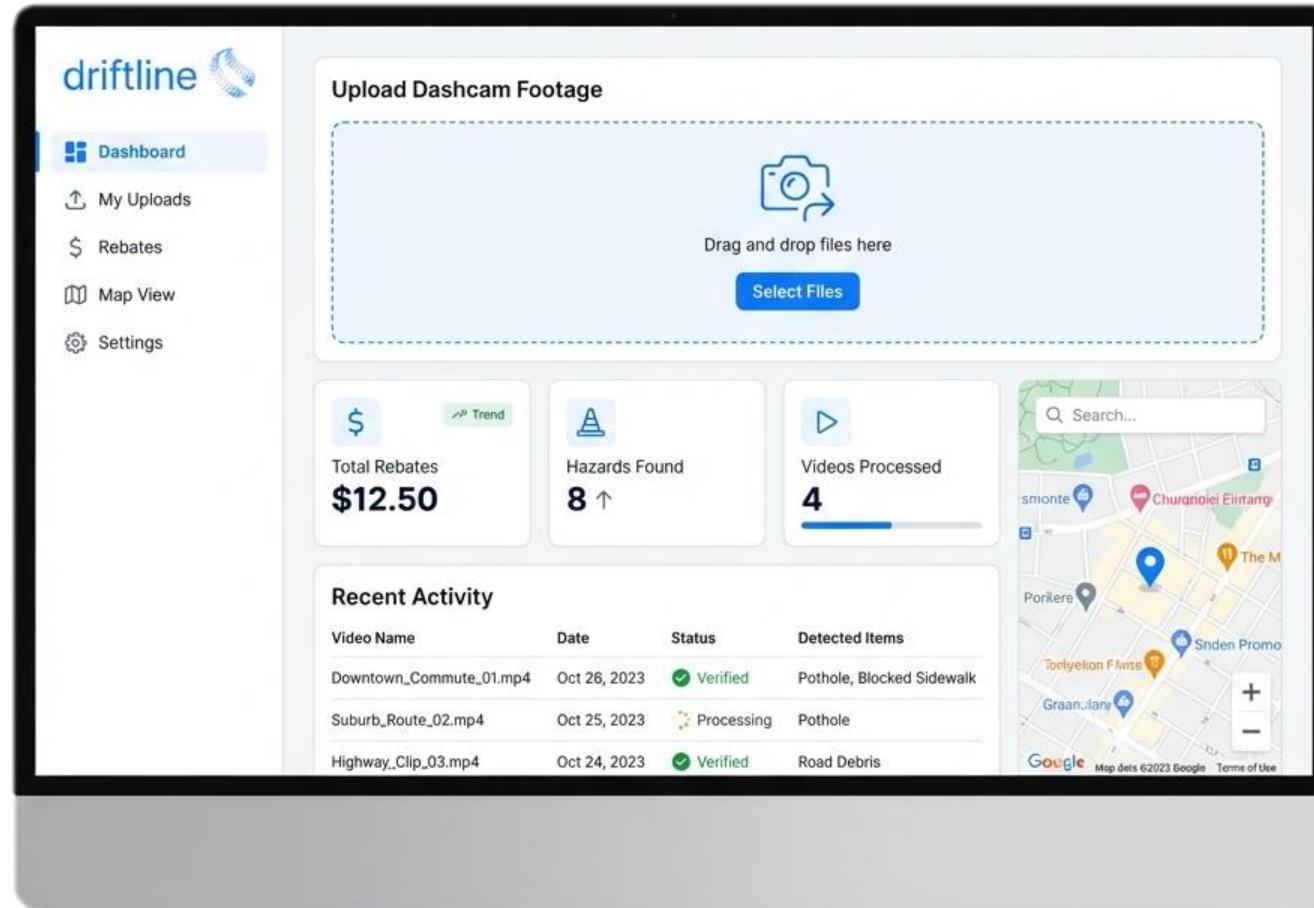
In 2025, the City of Kingston invested \$40M in infrastructure repair.



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Kingston's mobile data collection tool. Leveraging our community to build for our community.





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**Roadway
Infrastructure
Hazards**



- Potholes
- Pavement cracks
- Sinkholes
- Faded lane markings



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Roadway Infrastructure Hazards



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- Pavement cracks
- Sinkholes
- Faded lane markings

Seasonal / Weather-Related Risks



- Icy road patches
- Snow drifts
- Flooded road sections



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Physical Obstructions & Debris



- Fallen trees/branches
- Road accident debris
- Illegal dump piles



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Urban Blight & Code Violations



- Graffiti on walls/signs
- Trash buildup
- Bylaw infractions (e.g. unsafe building exteriors)

driftline | Product Demo

The screenshot displays the driftline product demo interface, which integrates a map, a camera feed, and a data timeline.

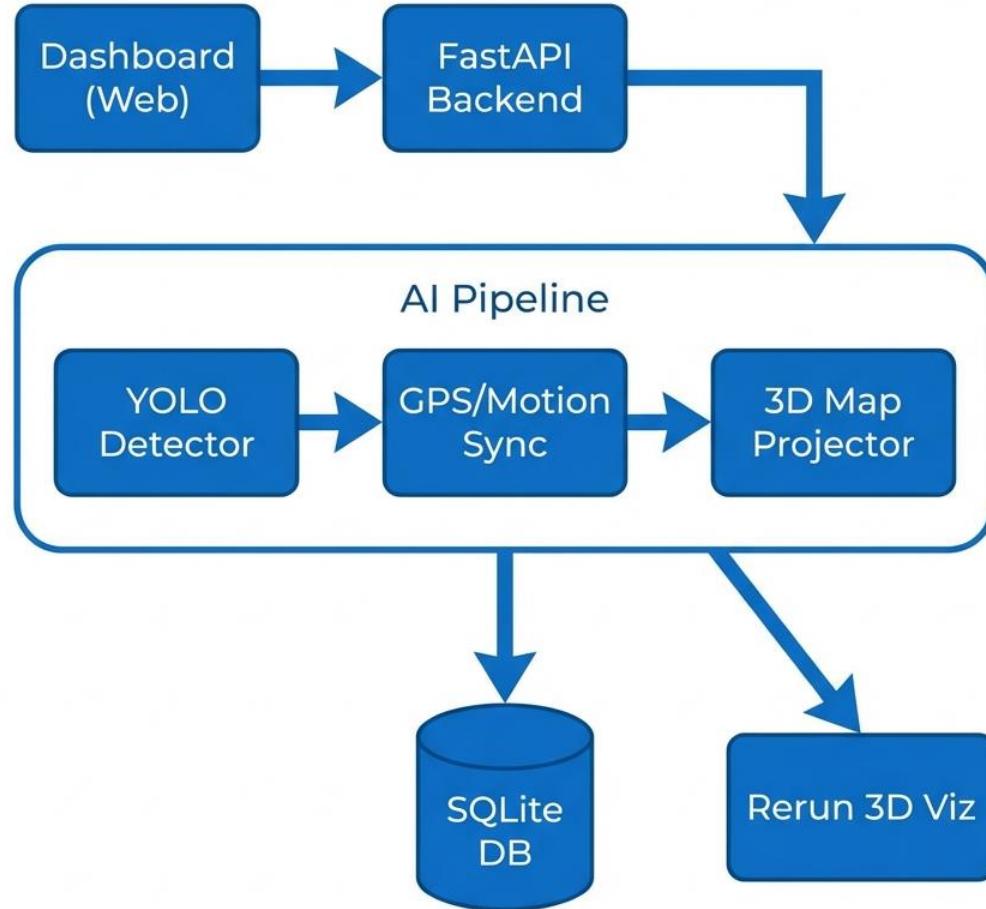
Top Left: A map titled "Kingston Map" showing a street view of a city area. The map includes labels for "Boucher Park", "Market Street", "Clarence Street", "Johnson Street", "Empire Financial Group", "The Landmark", "Harbour Place", and "Cannery Wharf". A red line highlights a specific route or detection path.

Top Right: A camera feed showing a street scene with several cars parked along the side. Three types of road damage are labeled: "pothole", "transverse_crack", and "longitudinal_crack".

Bottom Left: A "Detections Timeline" graph showing the count of detected road damages over time. The Y-axis represents the count (0 to 4), and the X-axis represents time in seconds (0s to +20s). The legend indicates five categories: transverse_crack (green), total (purple), pothole (pink), longitudinal_crack (light green), and alligator_crack (cyan).

Bottom Right: A "Selection" panel showing details for a selected stream entity. The entity is identified by the path `/map/detections/items/06`. It is set to be visible and interactive. The "Data" section shows a GeoPoint at position $+44.228205^\circ, -76.481690^\circ$ with a radius of 2.445984 ui points and a color of blue. An "Image" section shows a thumbnail of the road scene with a bounding box around the crack. A "TextLog" section shows the text "D28 (0.78)". The "Image format" is listed as "RGB UB 192x95".

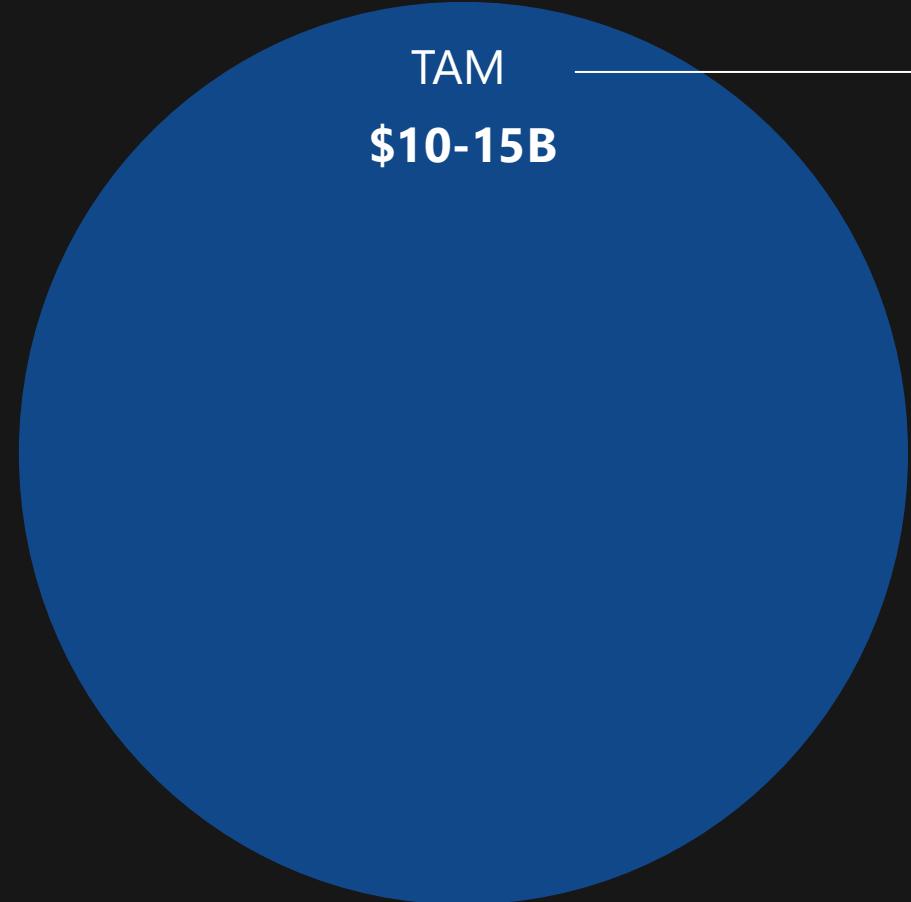
driftline | Technical Architecture





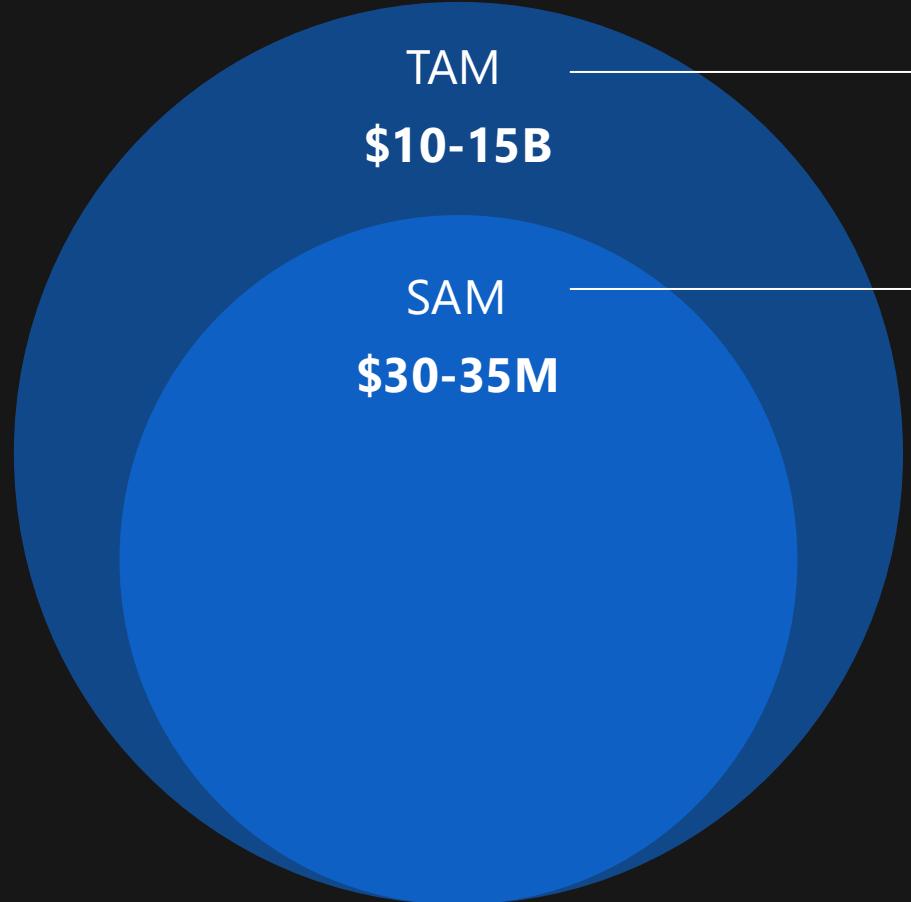
driftline | Technical Architecture

Processing Pipeline



Total Addressable Market:

Annual Canada-wide municipal spending on road, infrastructure, and related hazard management.

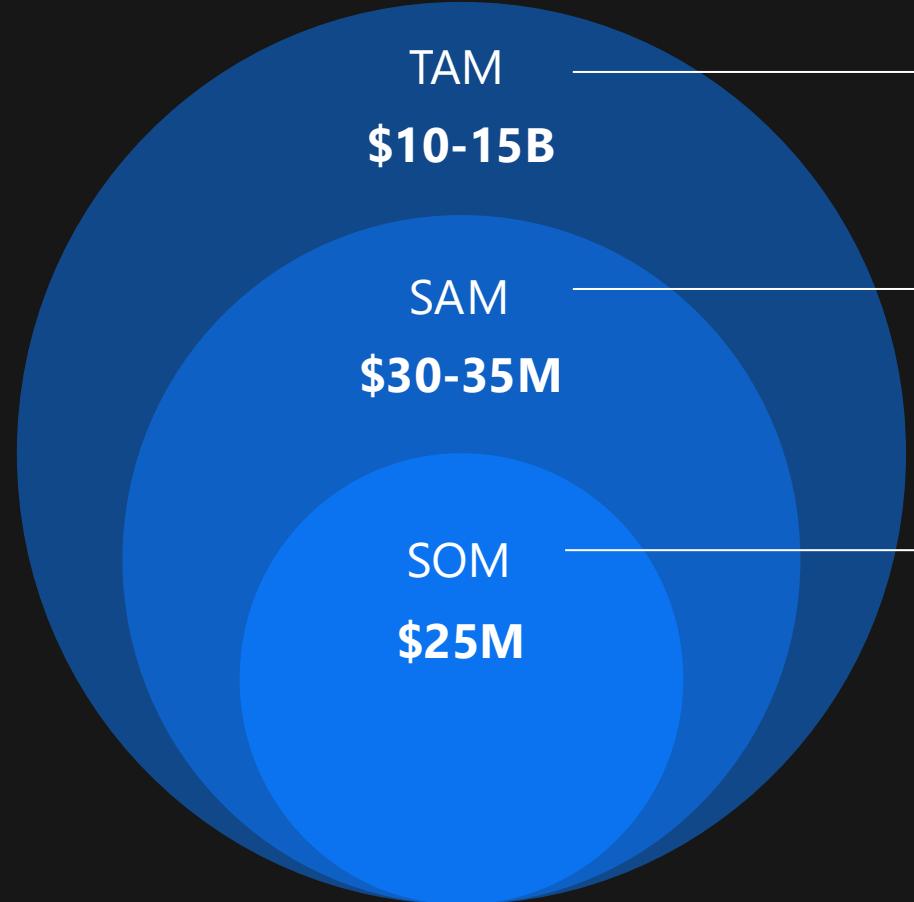


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Segment Addressable Market:

Annual City of Kingston spending on infrastructure maintenance, monitoring, and cleanup.



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Segment Obtainable Market:

Annual City of Kingston spending specifically on road and transportation infrastructure maintenance.

We are **people-first** from ideation to implementation.

Drive Kingston forward.
Earn **gas credits**.

Fuel change.
Fix our streets.



Leveraging regularly commuting Kingston locals to inform infrastructure decisions.



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