



Anthony Incorvati, Transportation Segment Lead, Americas

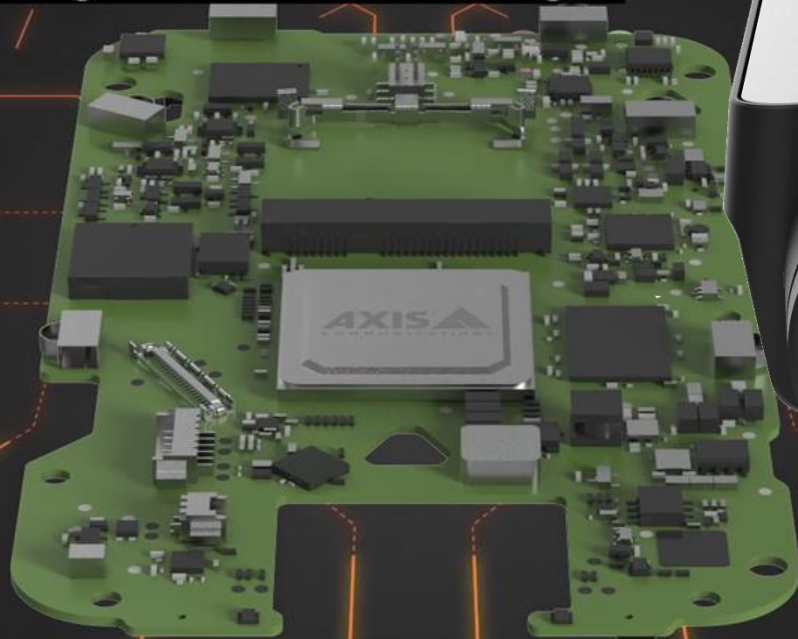
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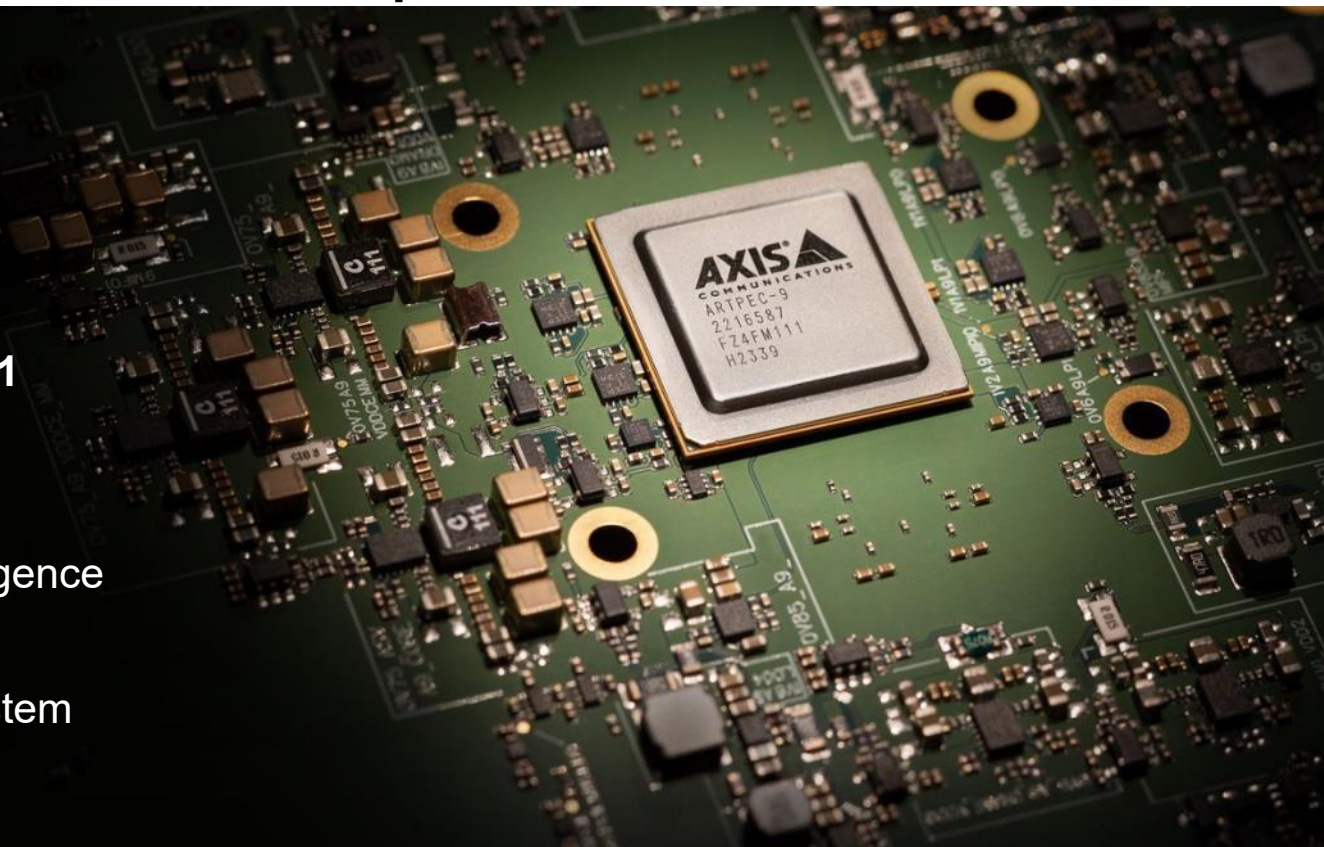


Artificial intelligence on the edge



ARTPEC-9: The key to unmatched performance

- ▲ Increased performance
 - ▲ Higher pixel throughput
 - ▲ New CPU, more cores
 - ▲ Updated DLPU
- ▲ **New video encoder AV1**
- ▲ Much lower bitrate
- ▲ Improved image quality
- ▲ Better Axis Scene Intelligence
- ▲ More overlay graphics
- ▲ Updated security subsystem



The camera is a Computer Vision Sensor



Computer Vision Sensor: collects, processes, analyzes – communicates

MQTT publish – event rules conditions



METADATA and STATE



Use Cases

- Classification
- Near-miss
- Redlight runner
- Parking
- Actuated traffic
- Gaps
- Highway monitoring
- Traffic jam detection
- Animals
- Public transport
- Visibility

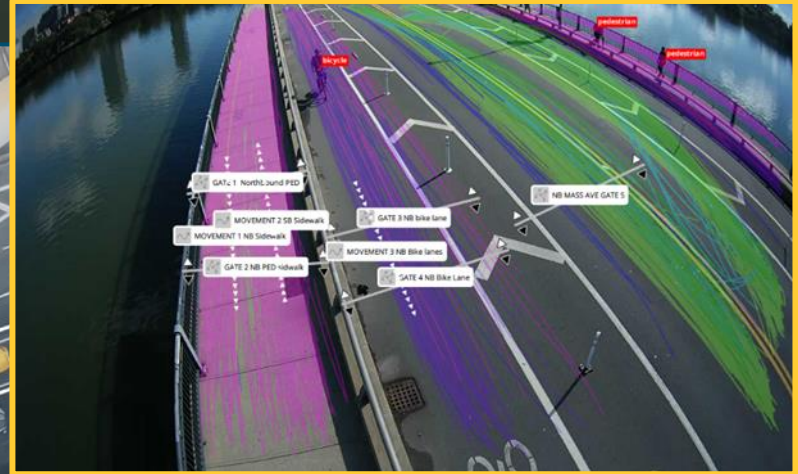
FL TRAFFIC **W.**

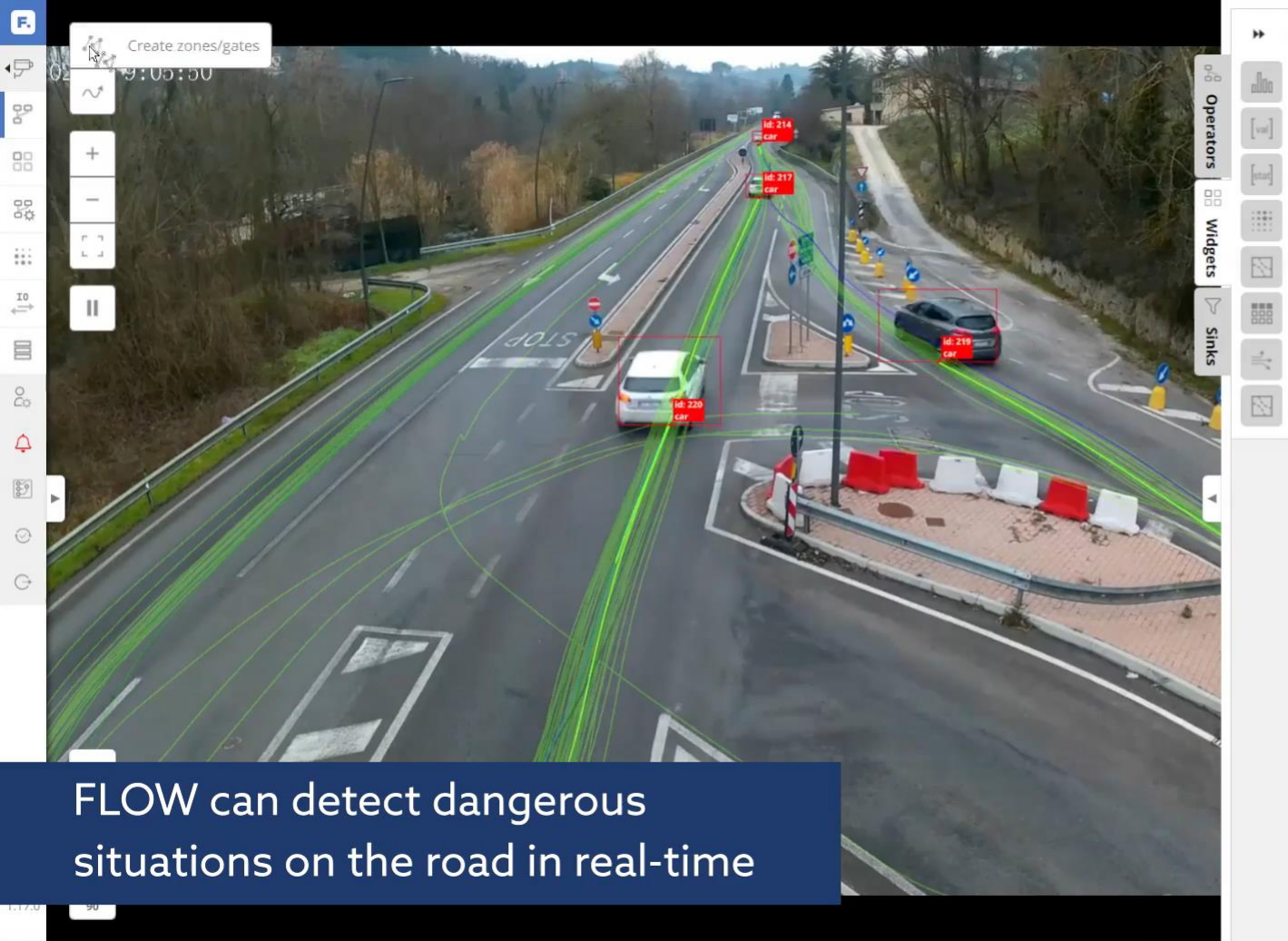


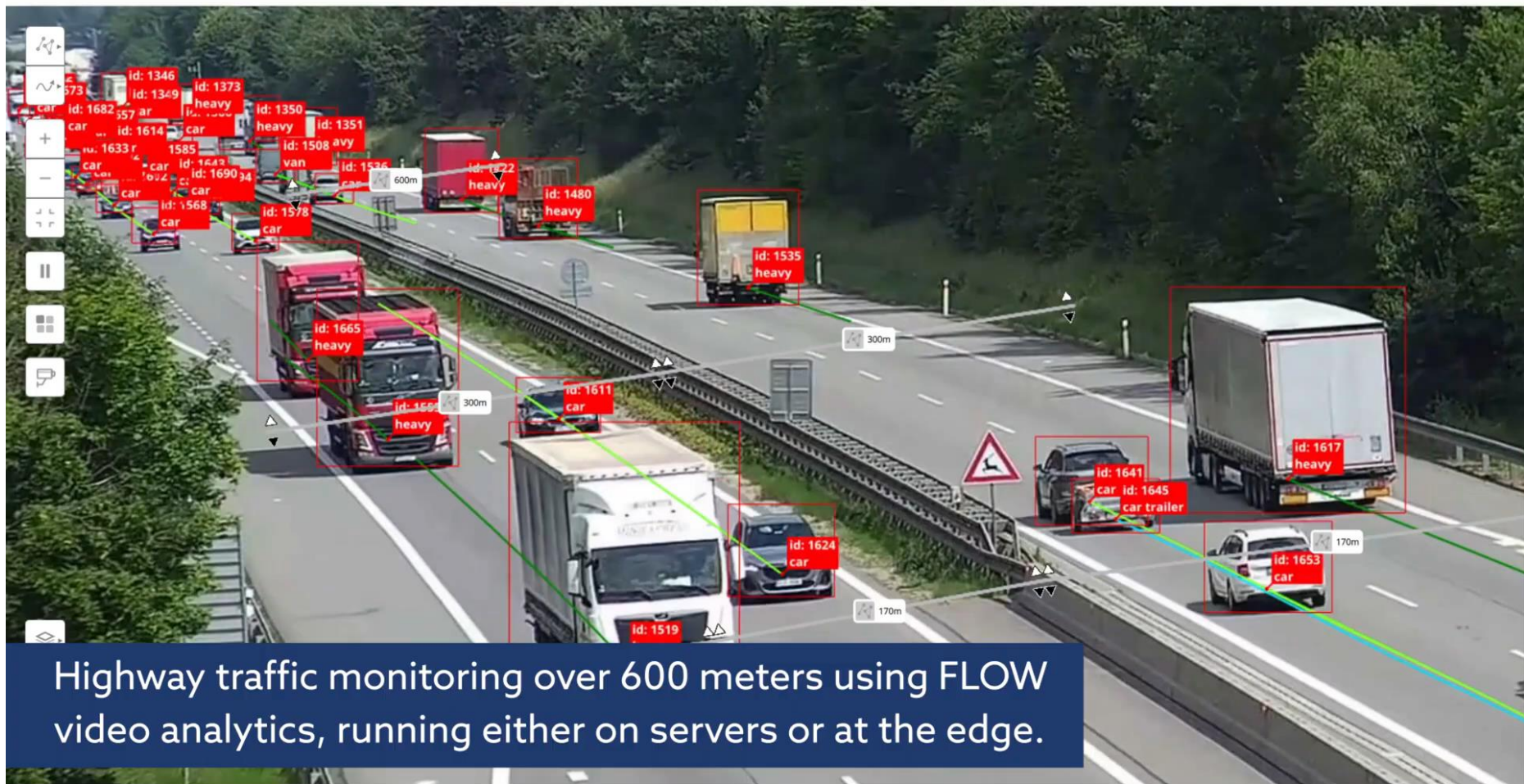
Turn a camera view into data

Mass Avenue Example

FLOW. TRAFFIC







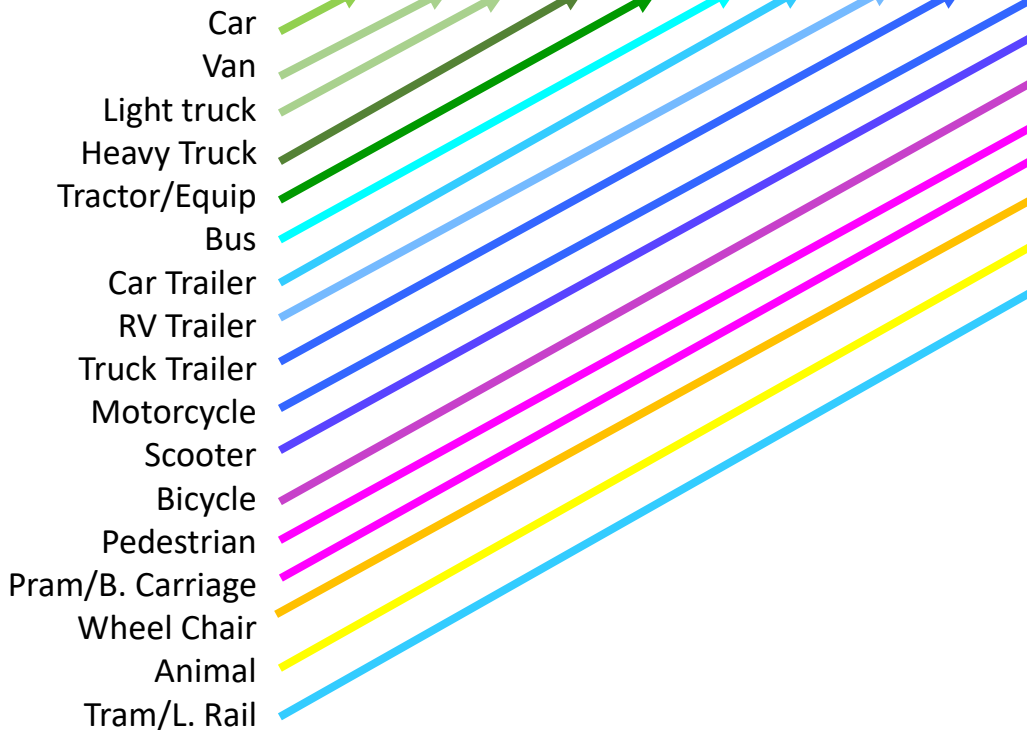
DFS FLOW Current Classifications of Objects

Video Analytics vs. FHWA axel/length scheme

Currently 17 +

Unknown

Object Classes

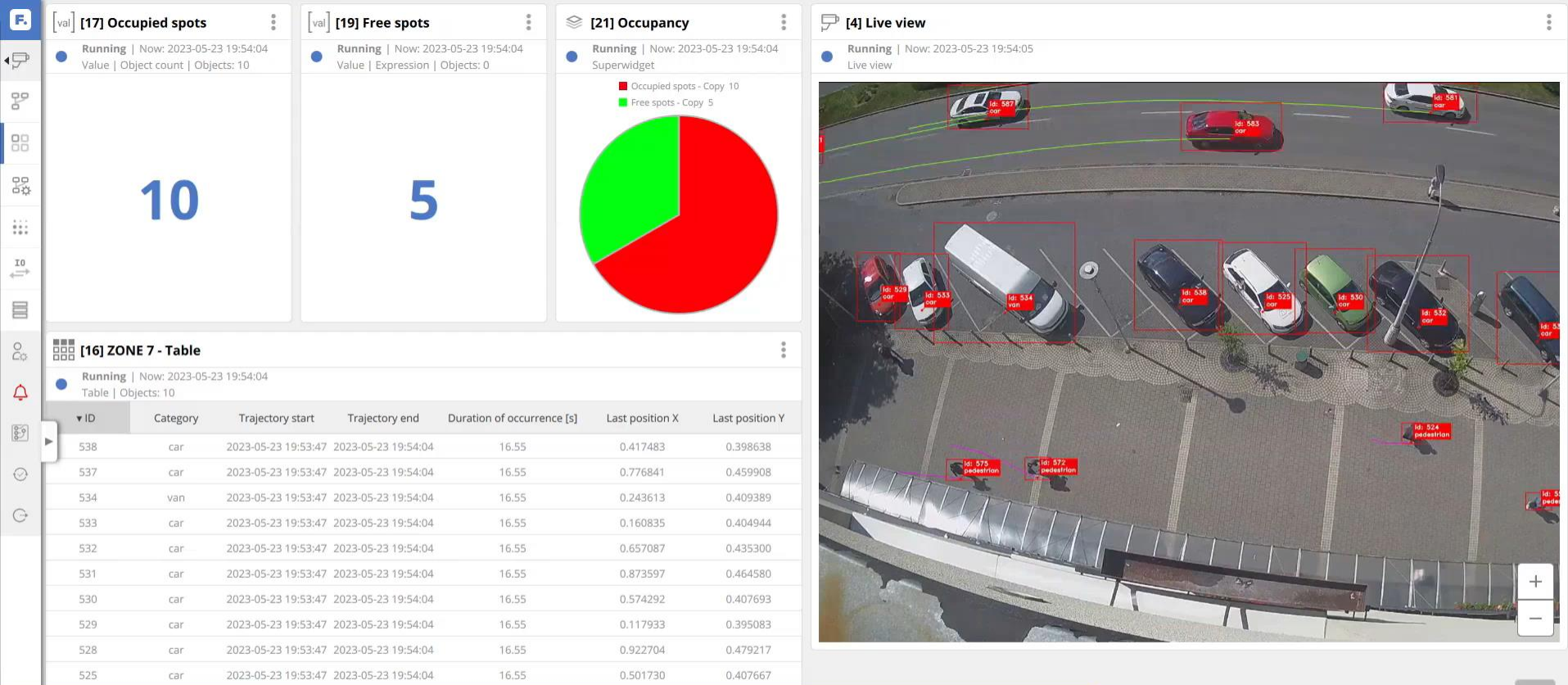


US FHWA Scheme

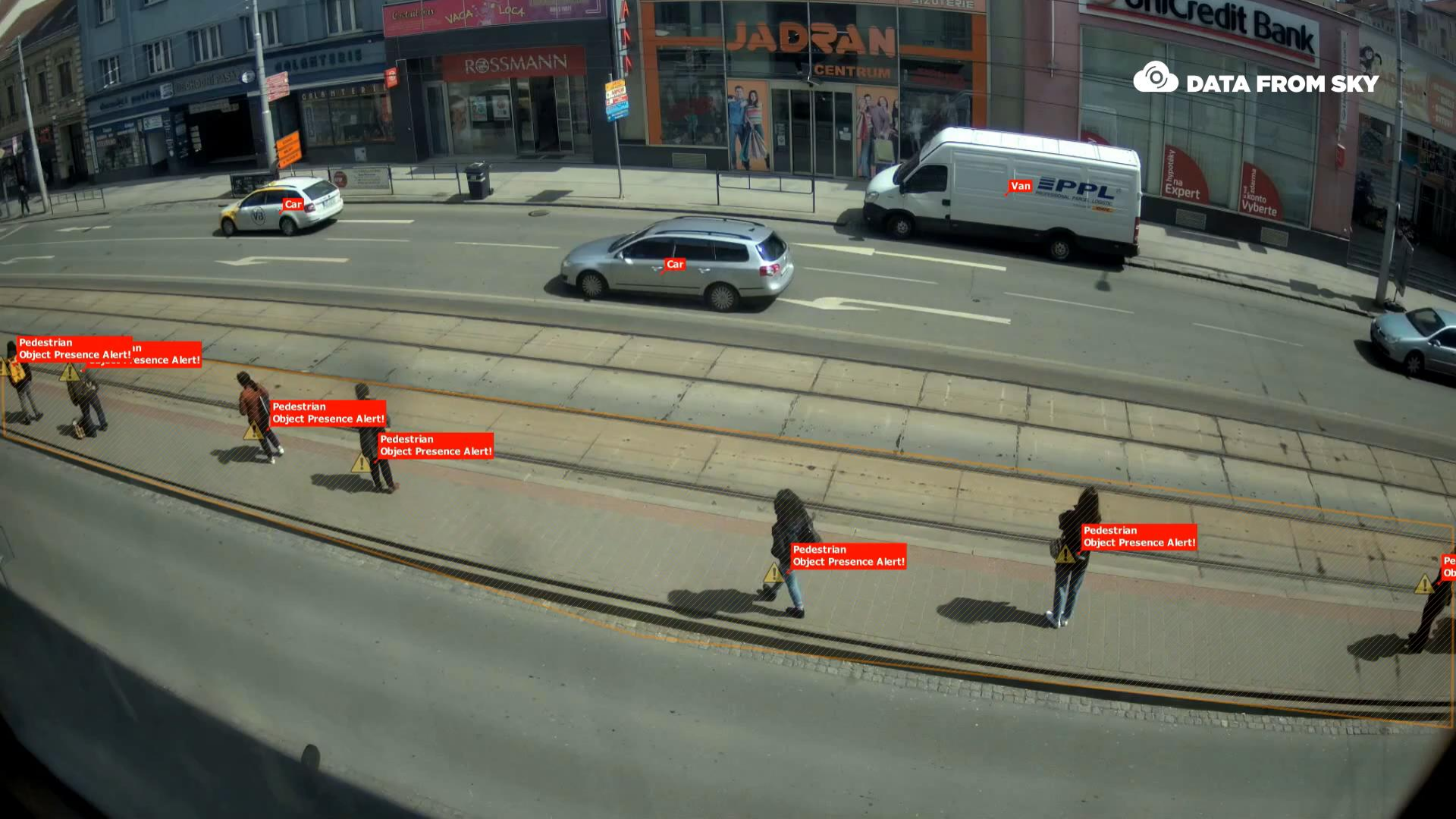
Vs. AI Analytic scheme

US FHWA Scheme	FLOW Category
Motorcycles	Motorcycle
Passenger Cars	Car
Other Two-Axle, Four-Tire Single Unit Vehicles	Van
Buses	Bus
Two-Axle, Six-Tire, Single-Unit Trucks	Light
Three-Axle Single-Unit Trucks	Light
Four or More Axle Single-Unit Trucks	Heavy (Light)
Four or Fewer Axle Single-Trailer Trucks	Heavy (Light)
Five-Axle Single-Trailer Trucks	Heavy
Six or More Axle Single-Trailer Trucks	Heavy
Five or Fewer Axle Multi-Trailer Trucks	Heavy
Six-Axle Multi-Trailer Trucks	Heavy
Seven or More Axle Multi-Trailer Trucks	Heavy

Detect RED LIGHT RUNNING and traffic lights state with FLOW 1.13!







Pedestrian
Object Presence Alert!

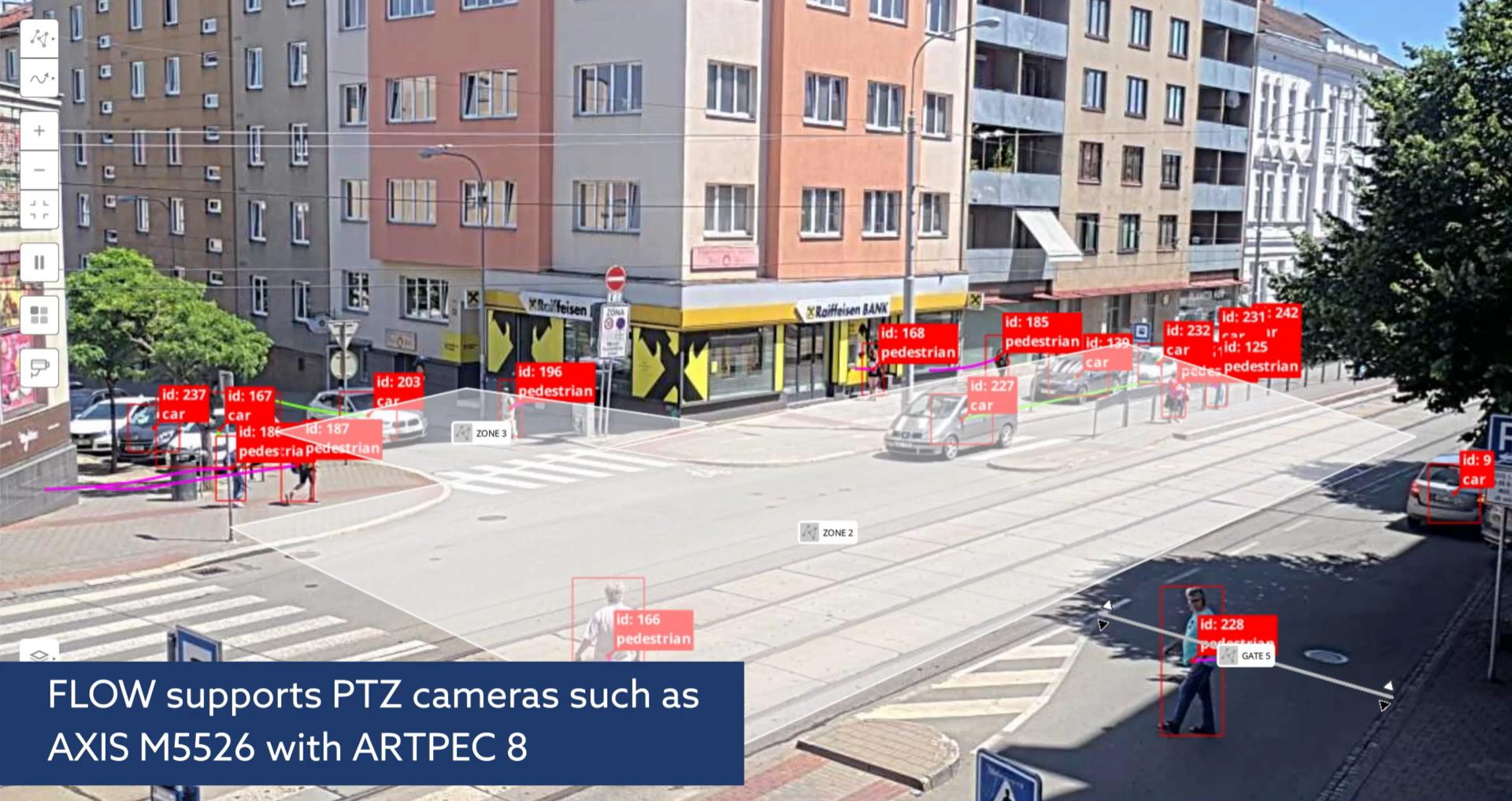
Pedestrian
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Pedestrian
Object Presence Alert!



FLOW supports PTZ cameras such as
AXIS M5526 with ARTPEC 8

FLOW.
the sixth traffic sense

One **traffic framework.**
Any **video source.**
For all **smart city tasks.**

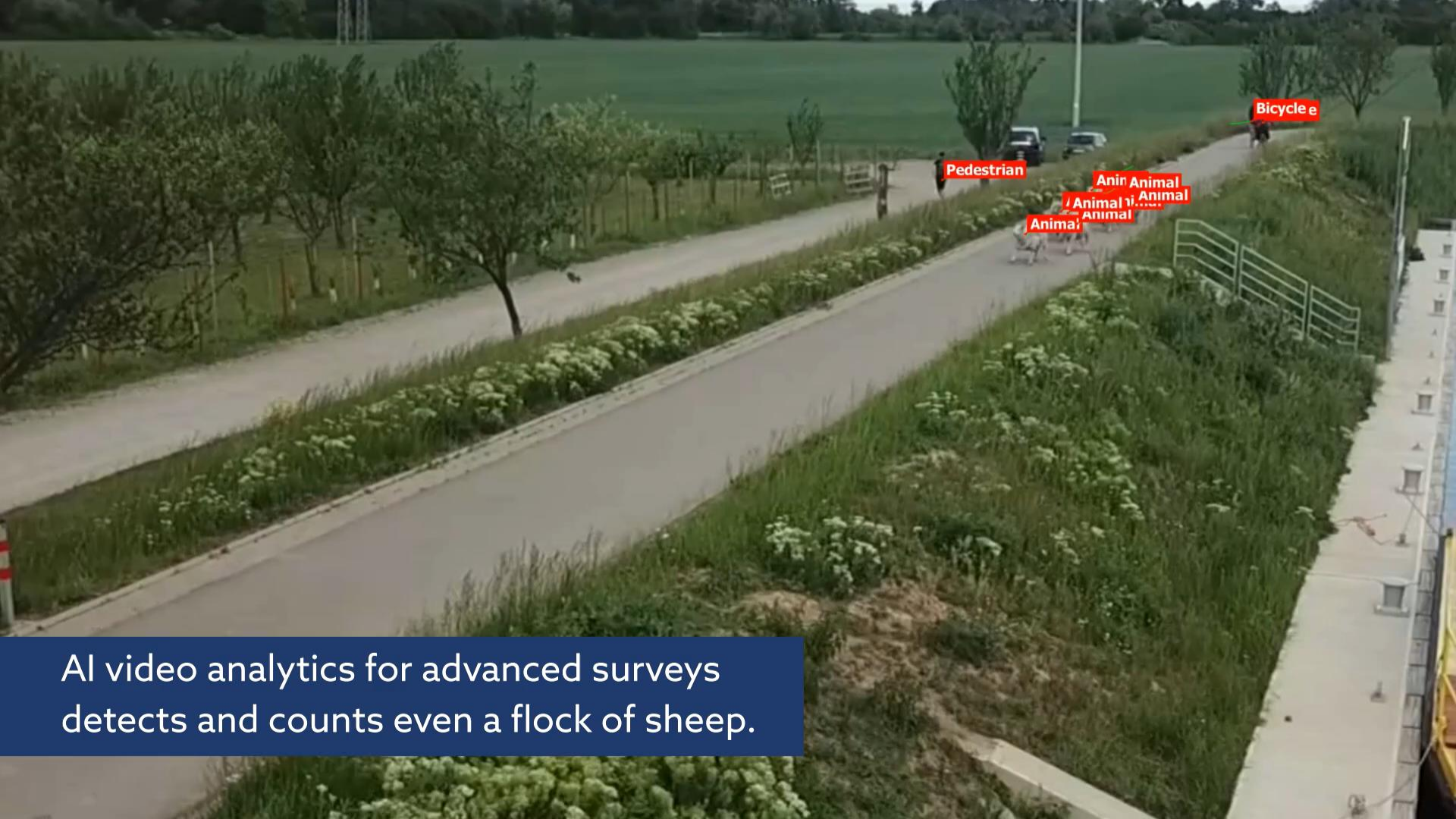


THANK YOU





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AI video analytics for advanced surveys
detects and counts even a flock of sheep.



New feature: Visibility status detection

Available from FLOW v. 1.16+



Edge/server traffic video analytics solutions

Car
reliability score: 85%
Light vehicle
reliability score: 69%

Car
reliability score: 82%

Car
reliability score: 94%

Heavy vehicle
reliability score: 99%

Car
reliability score: 97%

datafromsky.com



Pedestrian

Pedestrian

Pedestrian

Pedestrian

Pedestrian

Car
Section speed: 34 km/h

 Crossroad speed section

CENSORED

Pedestrian
Pedestrian

Pedestrian

Range of highly customizable anonymization options are available from FLOW 1.11