Smart Traffic Management

- use traffic data to optima urban traffic control

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About Tim

=NOW=

- President, **TMS Technologies Co., LTD.**
- Deputy Chairman, Transportation Group, Organization for Data-driven Application.
- Director, Intelligent Transportation Society of Taiwan
- Director, Taiwan Telematics Industry Association

=**Judge E**xperience=

- 2015-2019 Asia open data Hackathon
- 2015-2019 Taiwan Open Data Hackathon
- 2015-2019 International ICT Innovative Services Awards

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Urban Traffic Management Center

ATMS – Advanced Traffic Management System

Information Collection

CCTV

Police Dept.

Unmanned cameras

From users

Loop detector

Sudden incidents

Information Processing & Monitoring

Traffic Information Management

Traffic Information Center

Information Provision

Internet

VMS

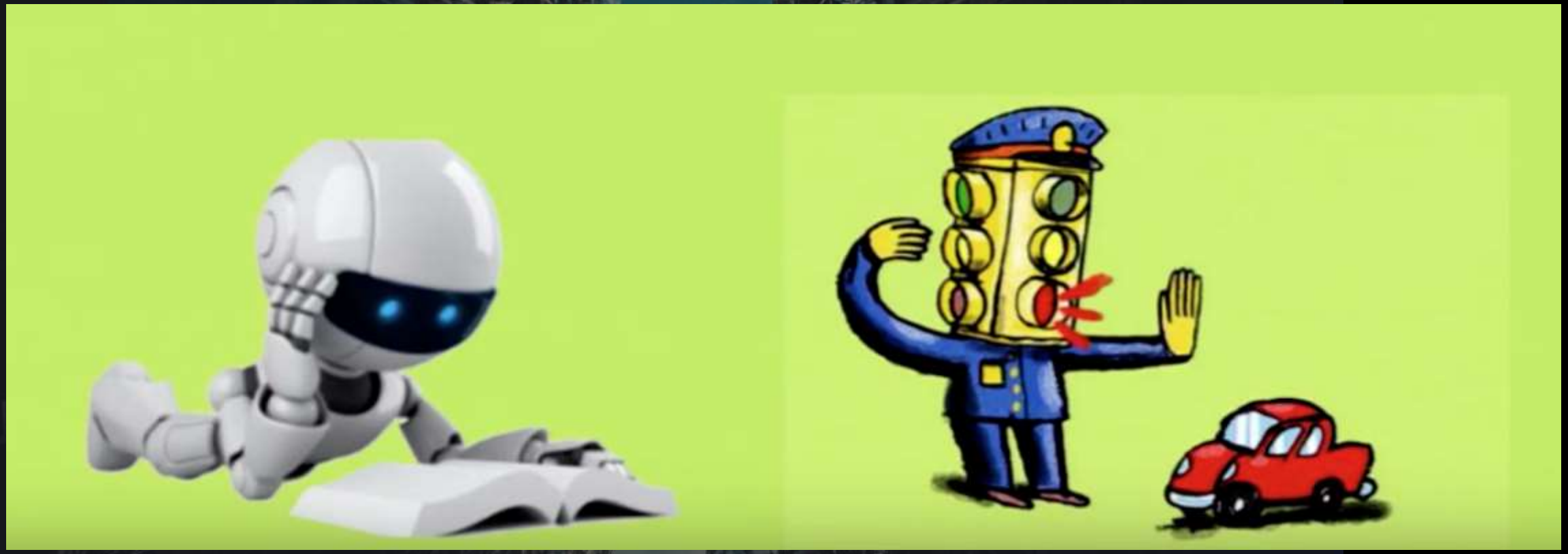
Emergency management

Traffic management

Parking availability info

Traffic signal controls

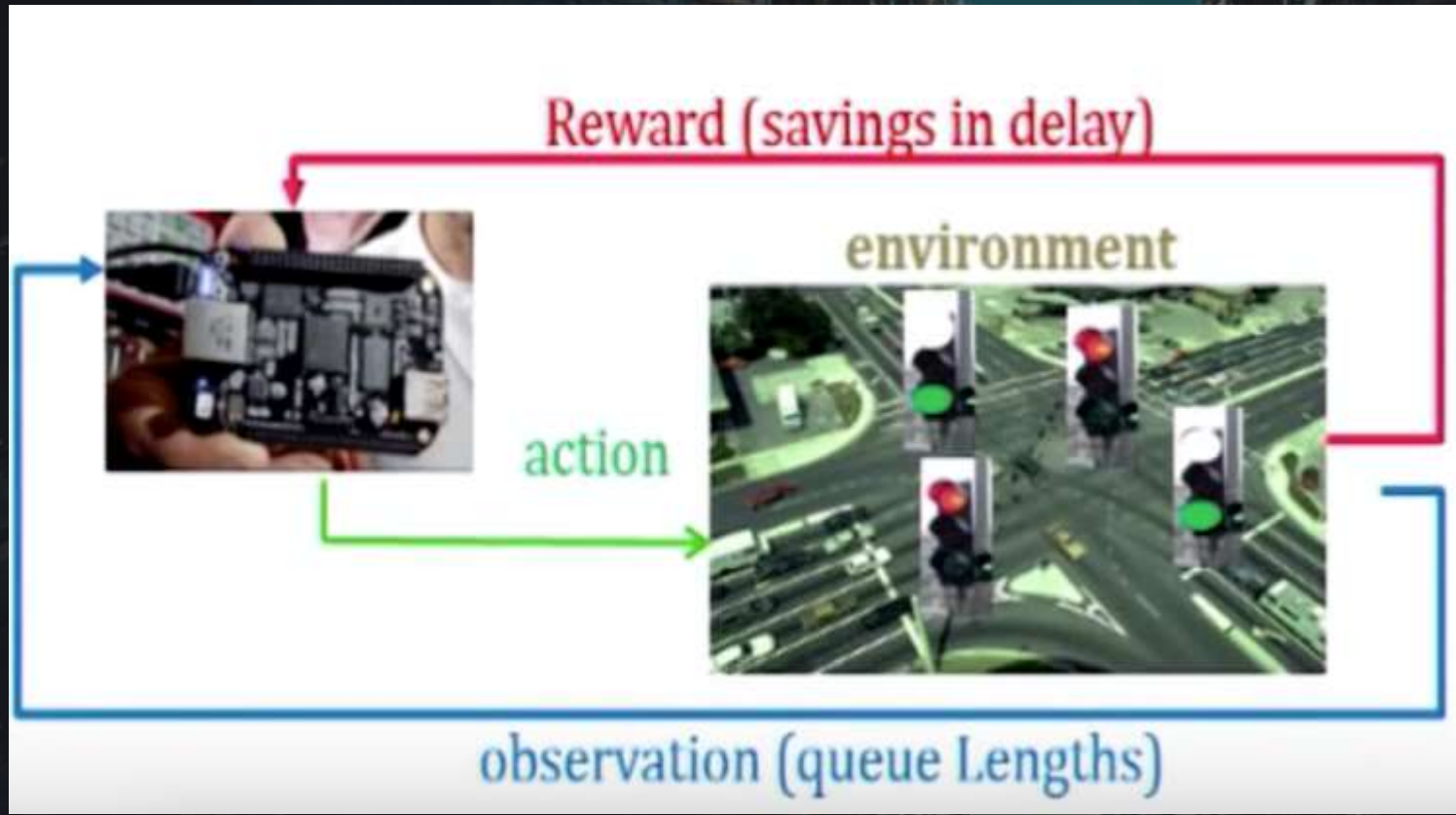
Can Traffic lights learn to deal with traffic complexities?

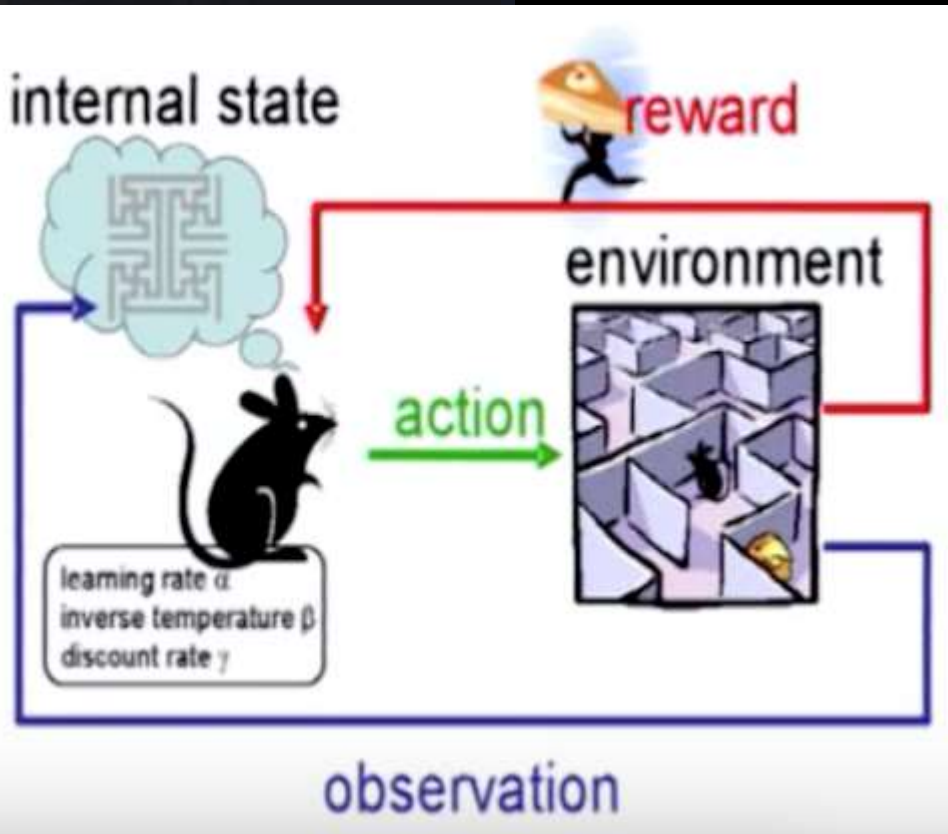


Learning from Big traffic data

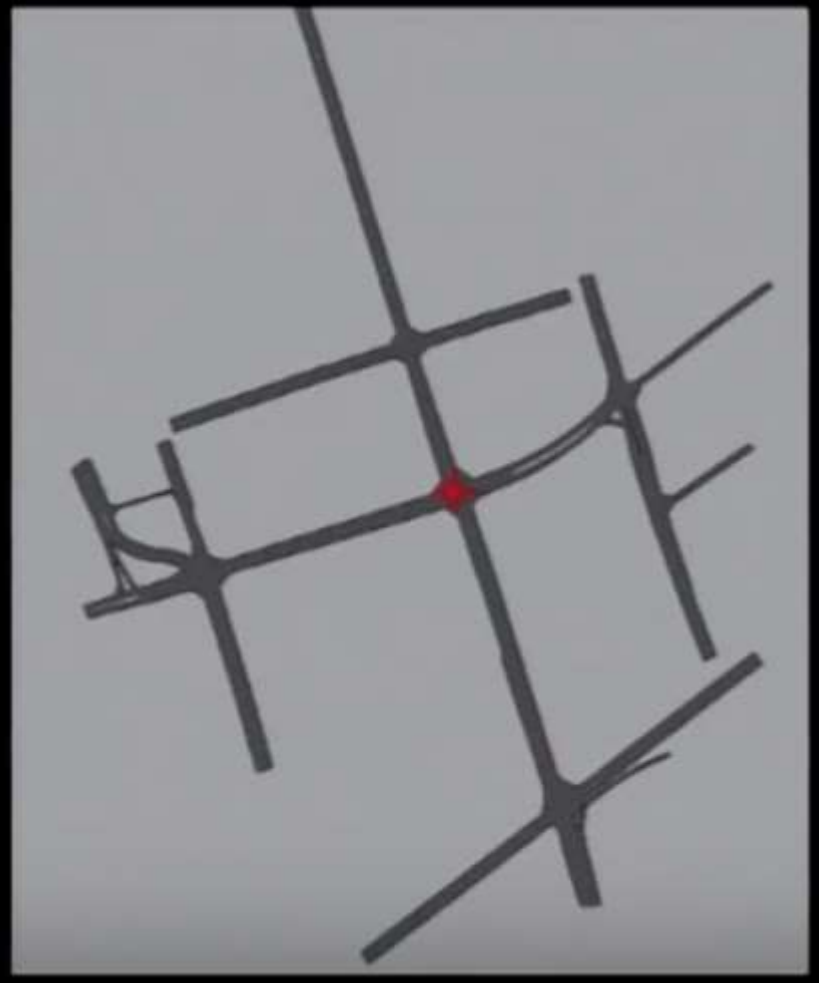
Historical data: VD , Etag
Model : OD model
Real time data: VD, GPS Probe

Learning how to do right action





Collaboration traffic control strategy



Taichung City Profile

Geography

The Second Largest Municipality in Taiwan

No.2

Taiwan's Central Core

Industry

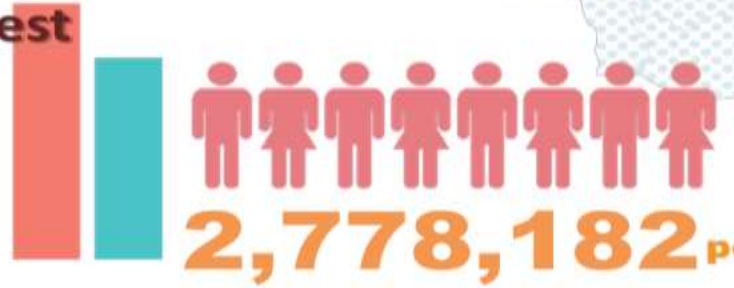
World No.3

World No.2

Population

The Second Largest Population in Taiwan

No.2



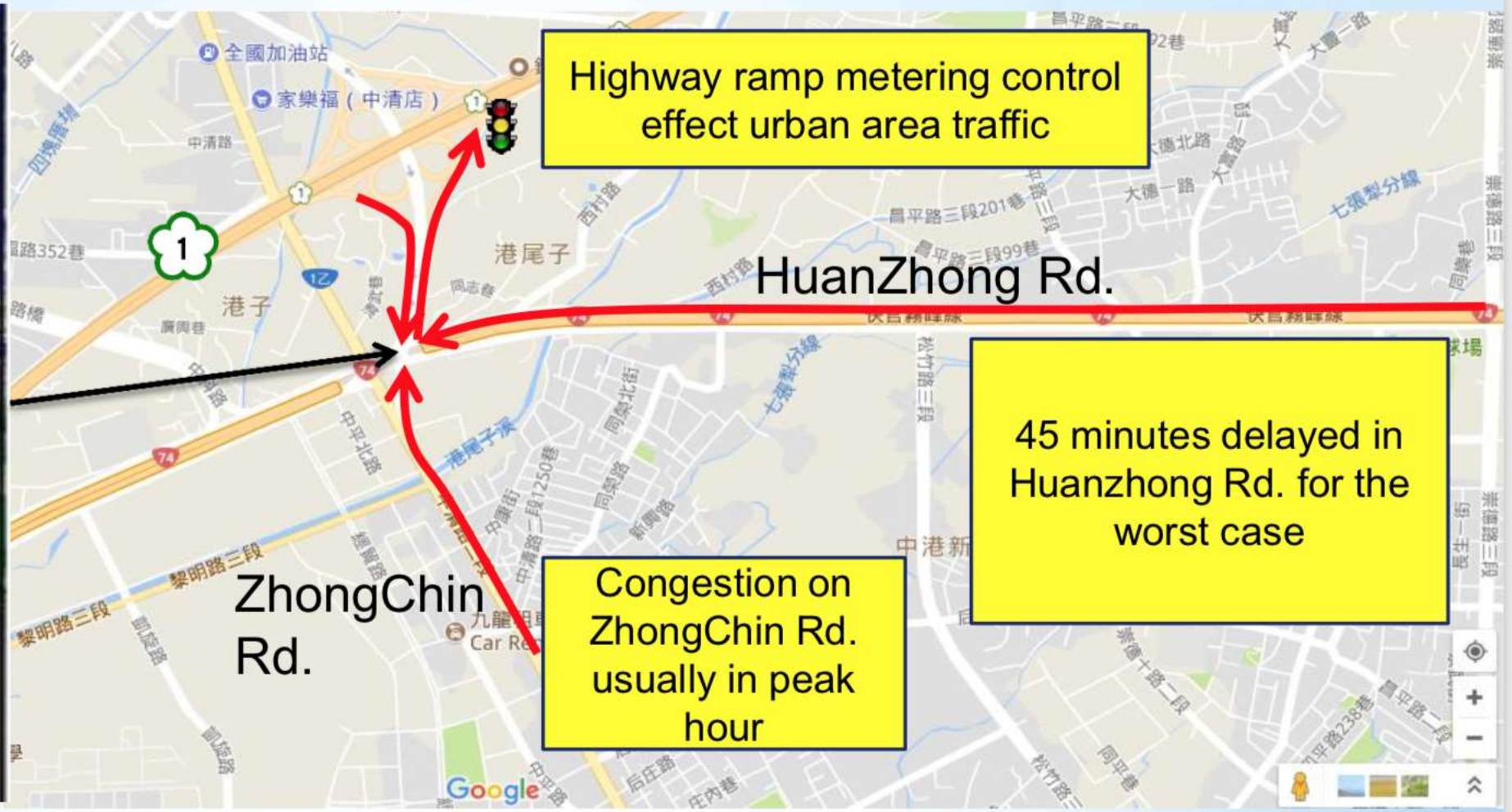
Traffic

HSR + Intl. Airport & Harbor

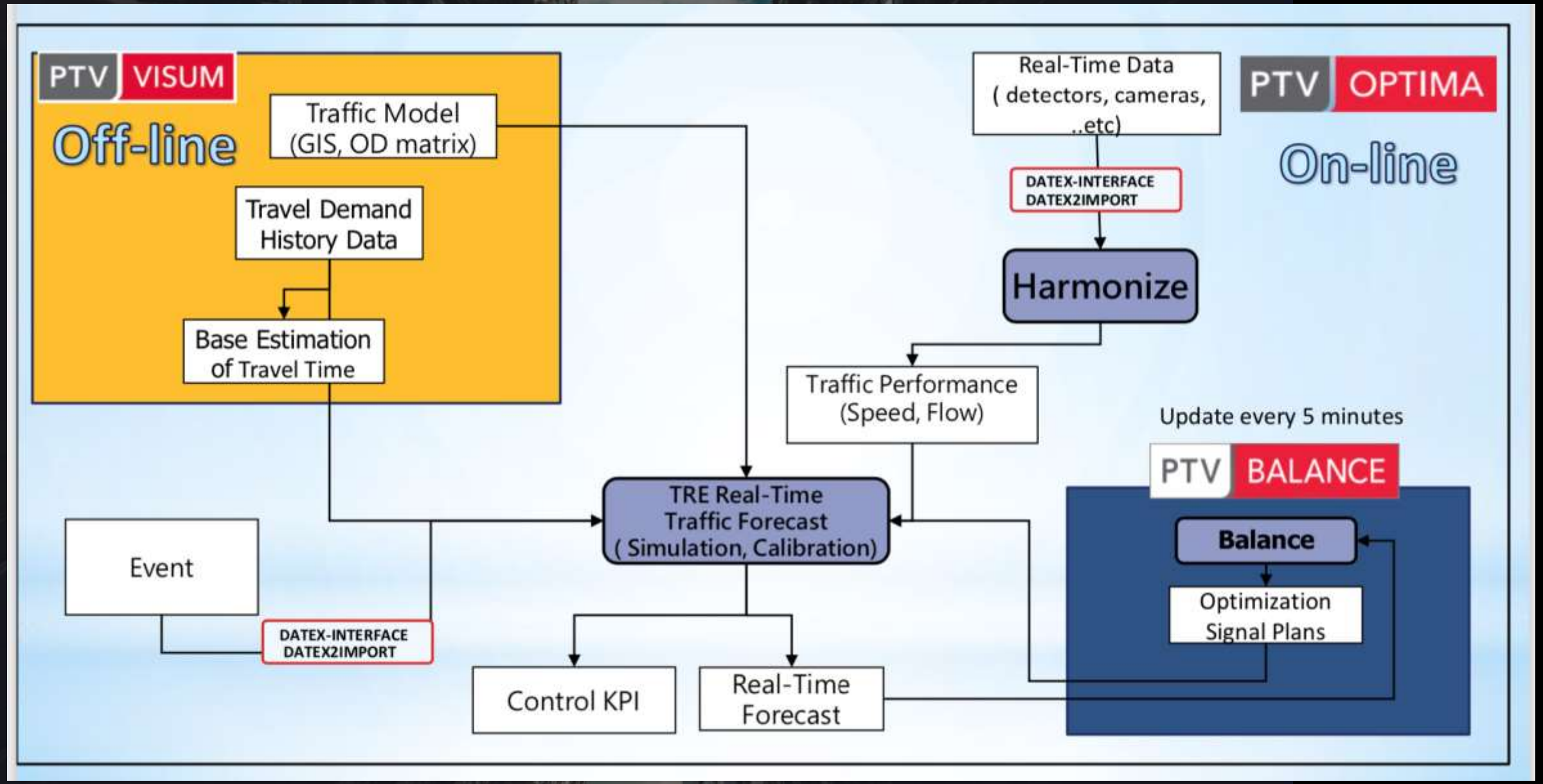
1,060,518
1.12 per household

1,665,116
1.76 per household

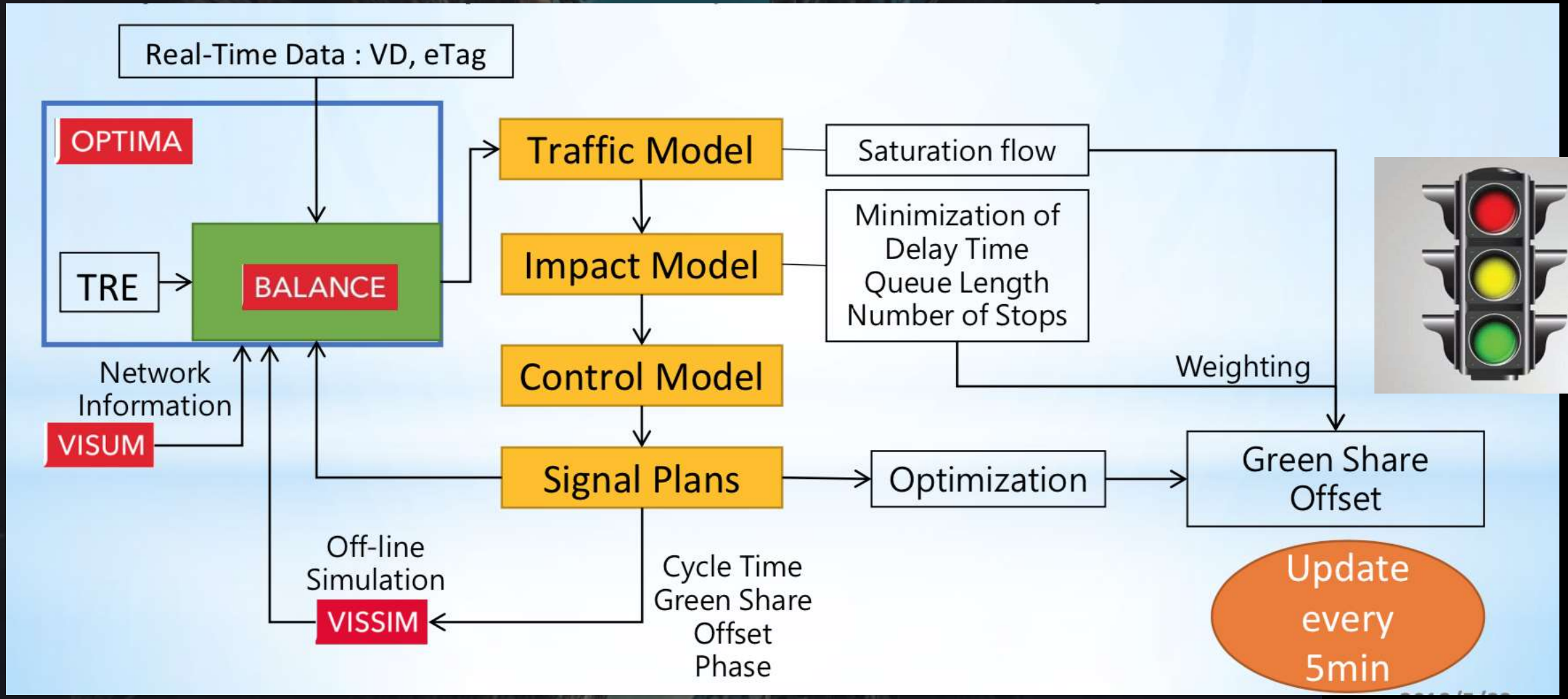
45 minutes delayed in Daya Interchange area



Model-based Traffic management System

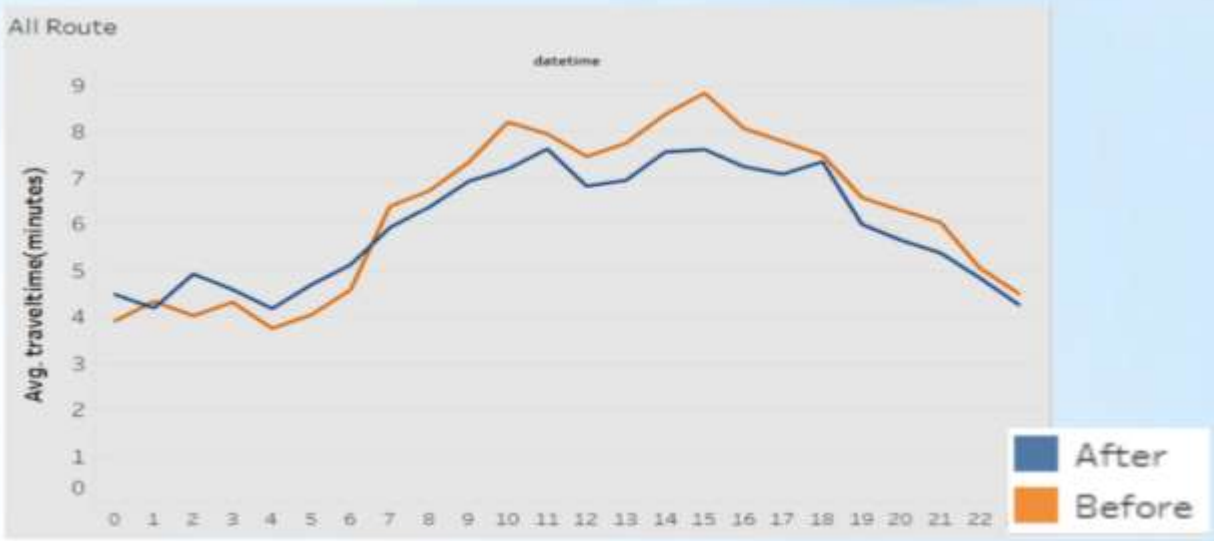


Adapted signal control



Our Performance

* Area-wide traffic travel time



Analysis items	Statistics	Difference percentage(%)	
Before average travel time (min)	6.8	-9.4%	*Total travel time decrease !*
After average travel time(min)	6.2		
Before passing flow (pcu)	59,931	+7.6%	*Total passing flow increase !*
After passing flow (pcu)	64,490		
Before average speed (kph)	16.1	+8.4%	*Total average speed increase !*
After average speed (kph)	17.5		

Thank you!
Data4Matching