



CIRCIE 2019

Challenges for the Islands in the era of the Circular Economy

Available Data from ITS Systems in Cyprus

*Aristotelis Savva, Executive Engineer
Public Works Department*

Under the auspices of



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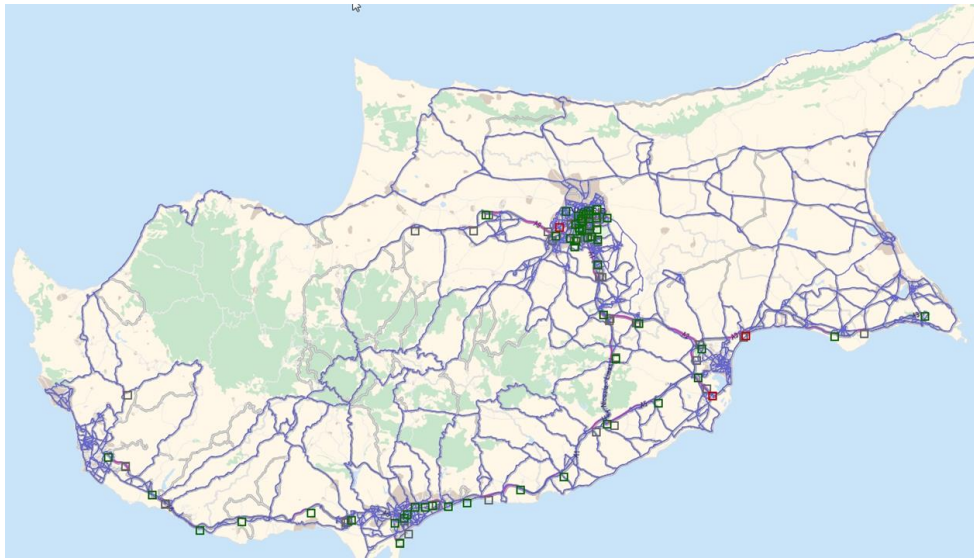
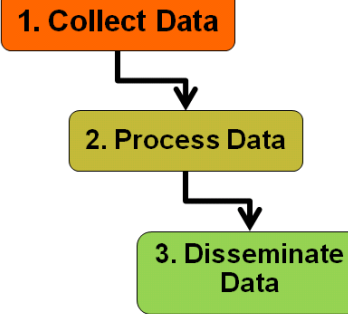
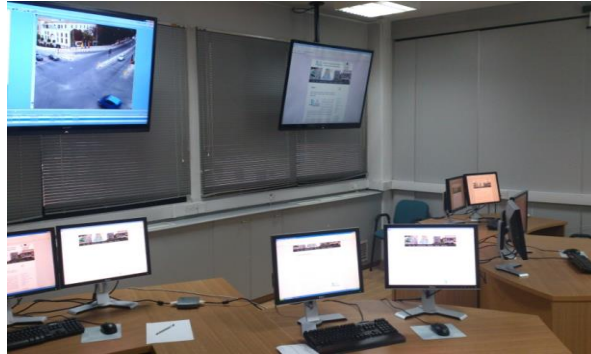
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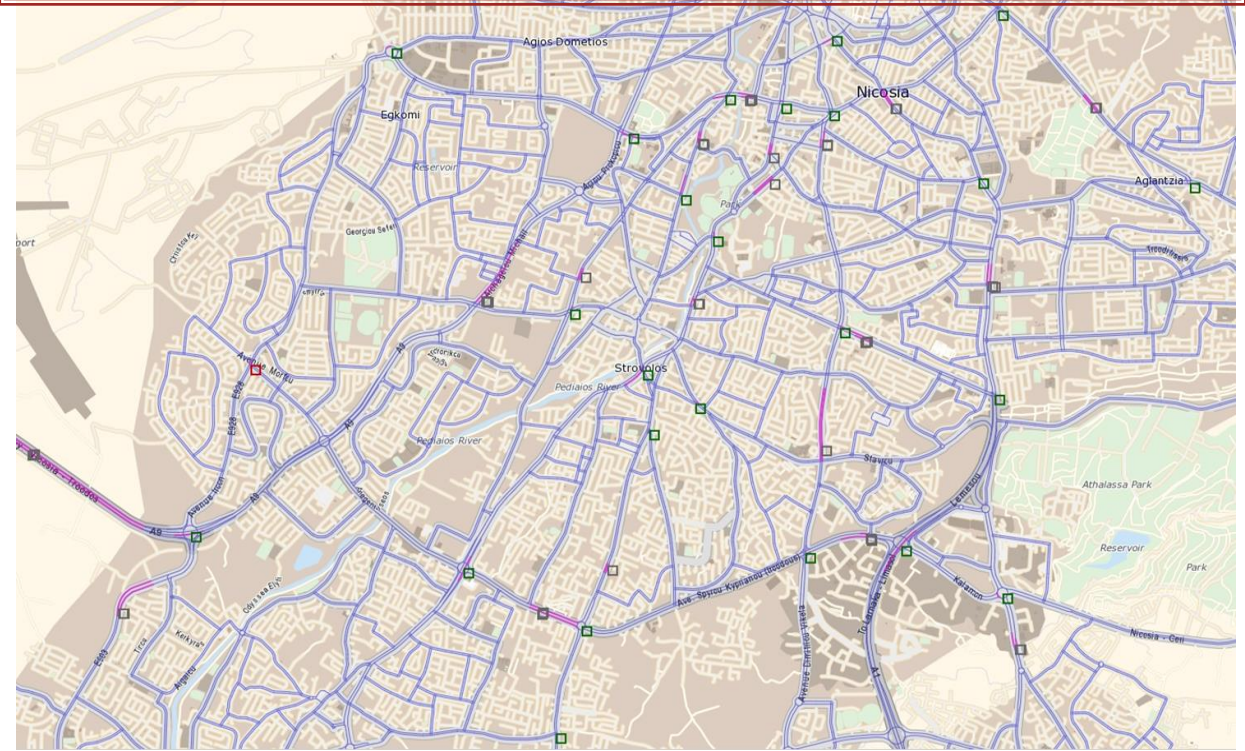
INTELLIGENT TRANSPORT SYSTEMS (ITS) IN CYPRUS



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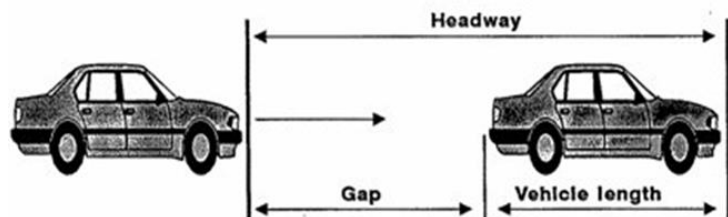
Setup for Detection time within 5', but
also prediction for next 30'



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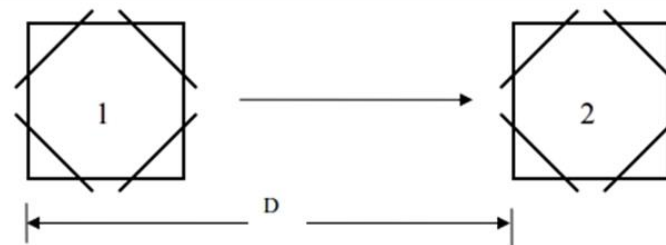


Data from 47 Inductive Loop Counters:

- Can be given out in an open directory with 47 folders (one for each loop), each containing 12 xml files (one for every 5 minutes for the last hour). The 13th xml will overwrite the 1st etc..
- CSV or XML file with Name και Geolocation for every Loop (live).

Measuring:

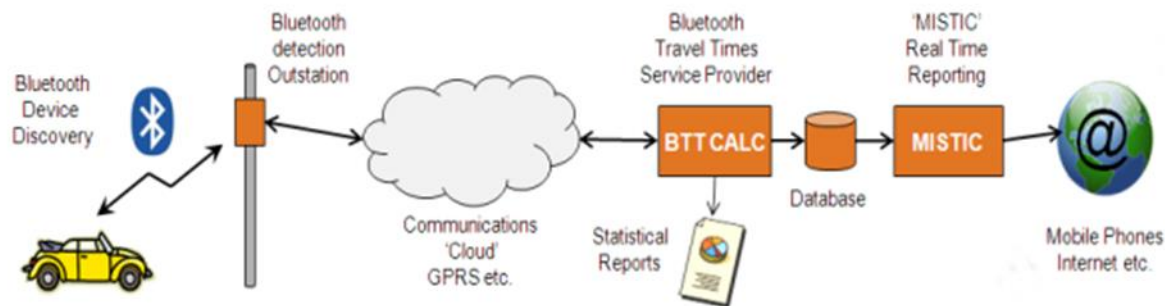
- Vehicle Numbers
- Speed
- Vehicle Type
- Headway
- Axle Weight



$$\text{Speed} = \frac{D}{(\text{Time of Start of Pulse}) - (\text{Time of Start of Pulse})}$$

(Detector 2) (Detector 1)





Bluetooth Live Data – Path Live Data

Can be provided in a unique .xml file renewed every 5 minutes with the same name giving the following information for 214 paths of the system:

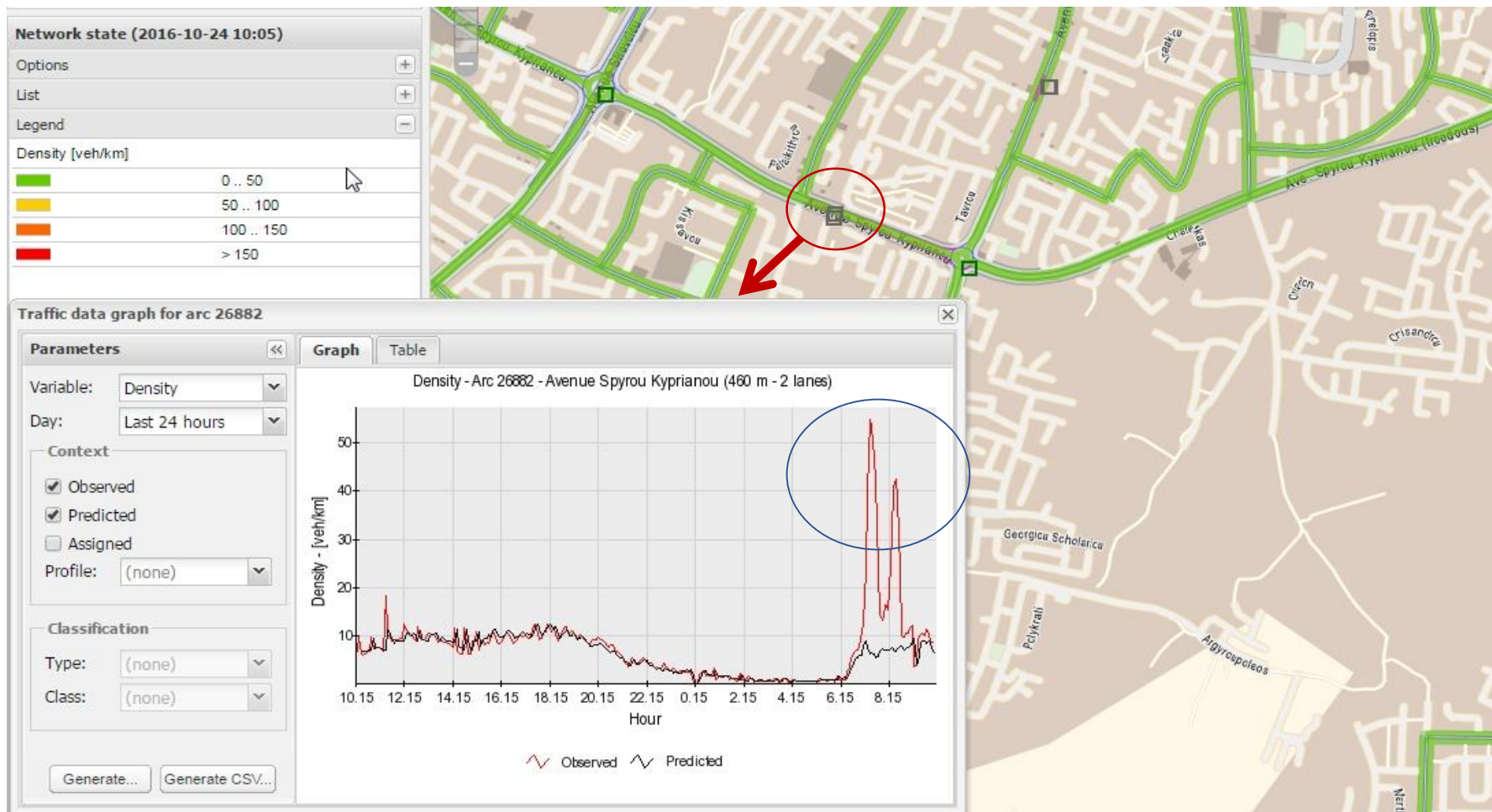
- Date and Time
- Path Code (eg. 1017 – 1025)
- Path Length
- Average Speed
- Average Time
- CSV or XML file with Name και Geolocation for every Bluetooth (live)



Key to Incident Detection/Prediction is Live Monitoring – Density



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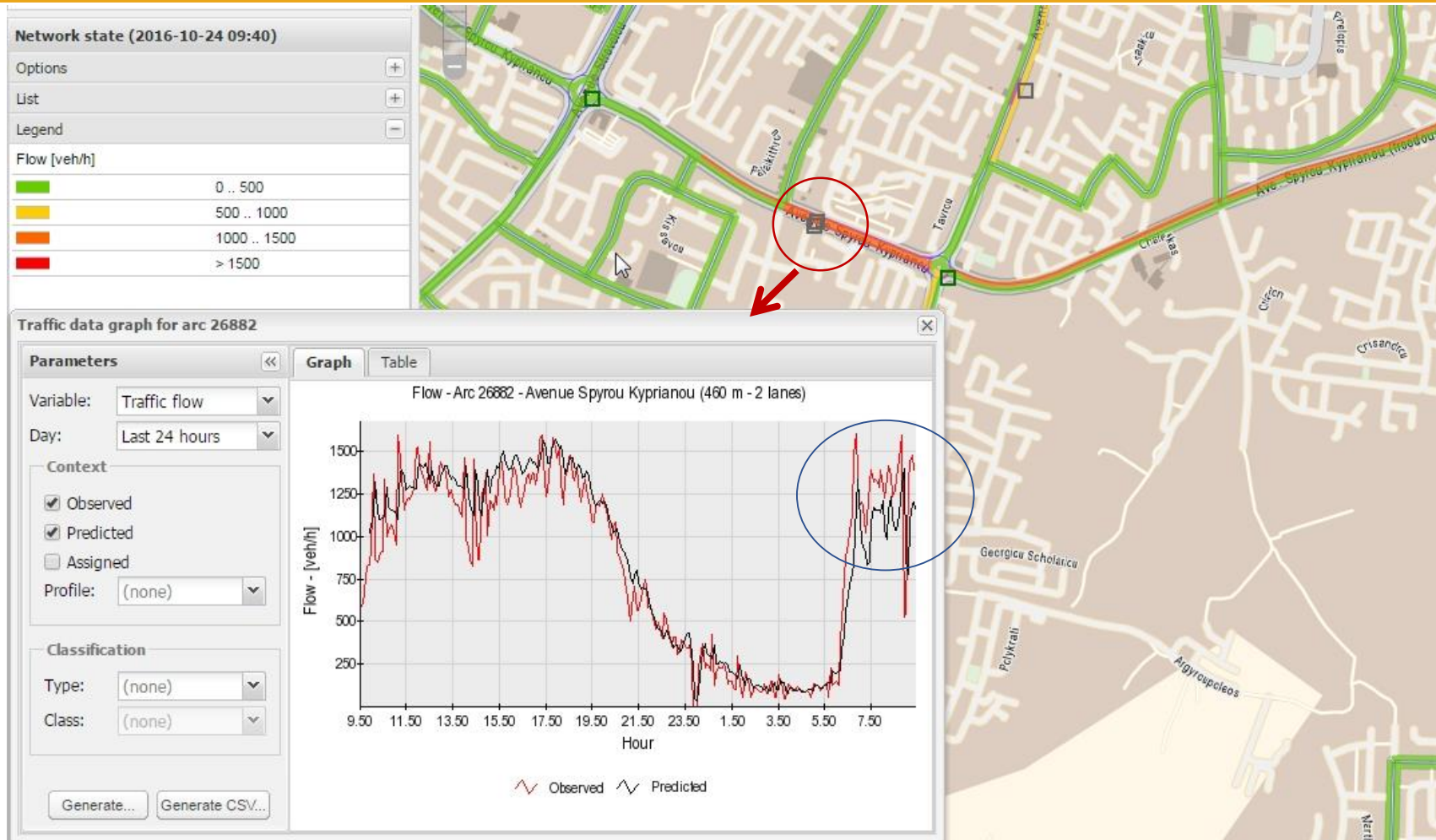


Key to Incident Detection/Prediction is Live Monitoring - Traffic Flow



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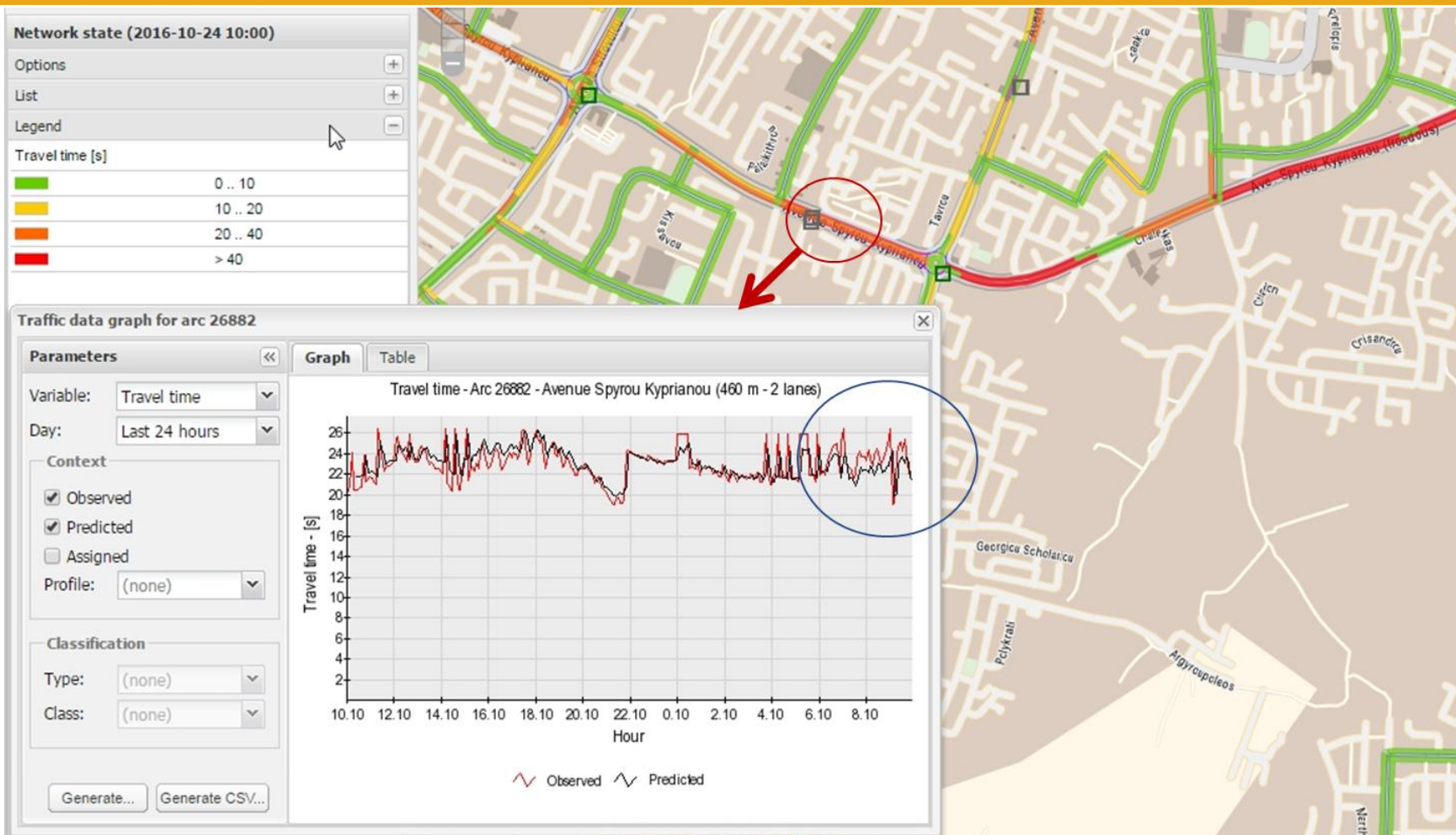
Key to Incident Detection/Prediction is
Live Monitoring – Travel Time



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Key to Incident Detection/Prediction is Live Monitoring – Traffic Flow



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Events – Incidences:

Can be provided via Application Programming Interphase in XML file for:

1. Historical Event data
2. Current Event data

Geolocation & Description to DATEX II Standard.

Also available through website:

www.traffic4cyprus.org.cy

and Facebook

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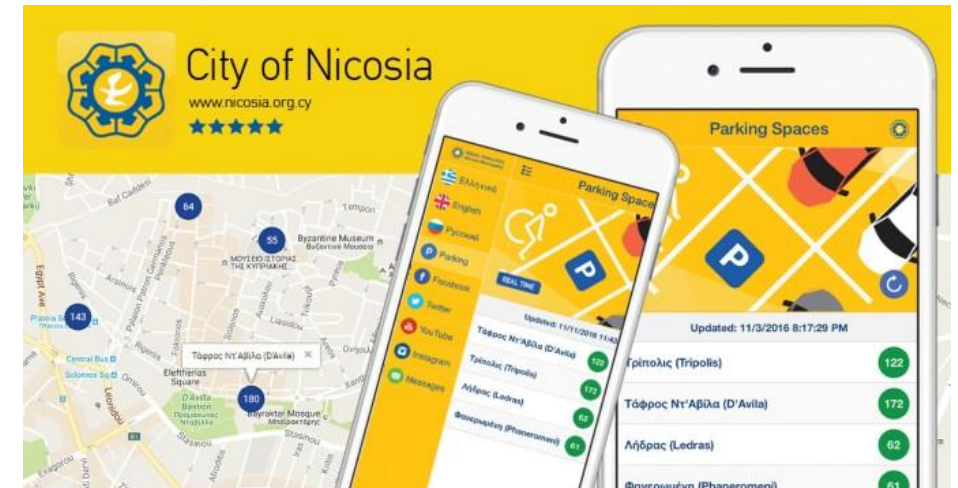
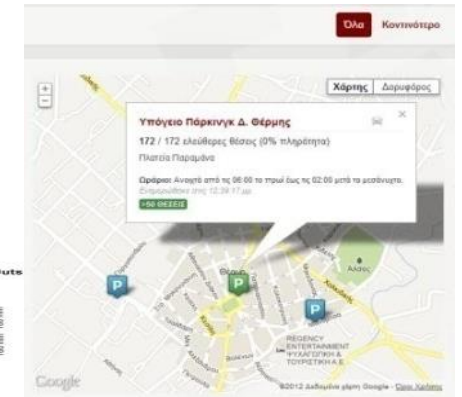
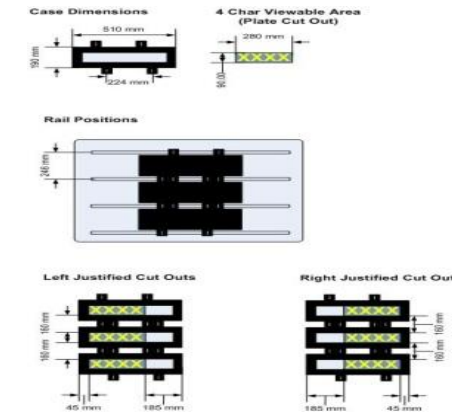




Parking Management:

Parking Availability Live Data in (xml) – for 5 off street parking lots in Nicosia City Centre.

- Name of Parking Lot
- Parking Geolocation
- Parking Spaces Capacity
- Current Availability of Parking Spaces
- The data from DIAVLLOS is made available to Nicosia Municipality who developed a smart phone application.
- It is also available on Street VMS and our website www.traffic4cyprus.org.cy
- It can be expanded to cover more parking areas in the whole of Cyprus.





Public Transport Telematics:

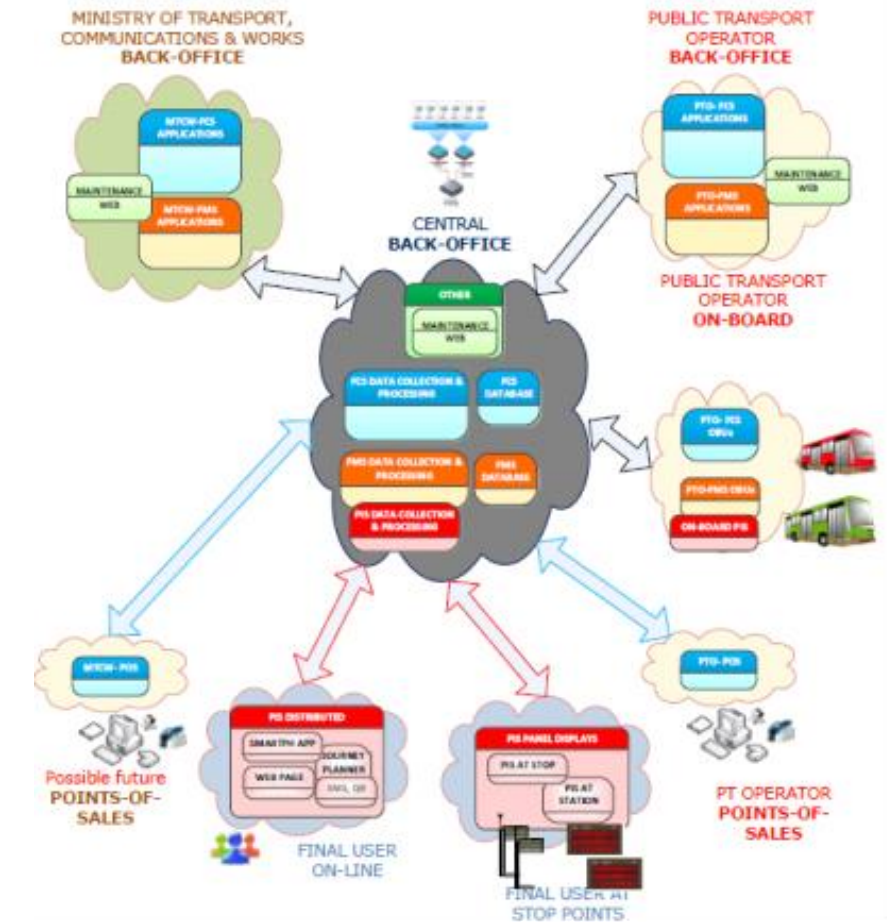
- Automated Fare Collection System with the use of Smart Cards,
- Bus Fleet Management &
- Passenger Information

In GTFS files – the following information can be provided:

- Location of bus stops (5,158 across Cyprus)
- Routes
- Timetables/Schedules

Live Data using SIRI Protocol – on request basis:

- Scheduled time of arrival at Stop
- Expected time of arrival according to GPS location and calculations made by the system.

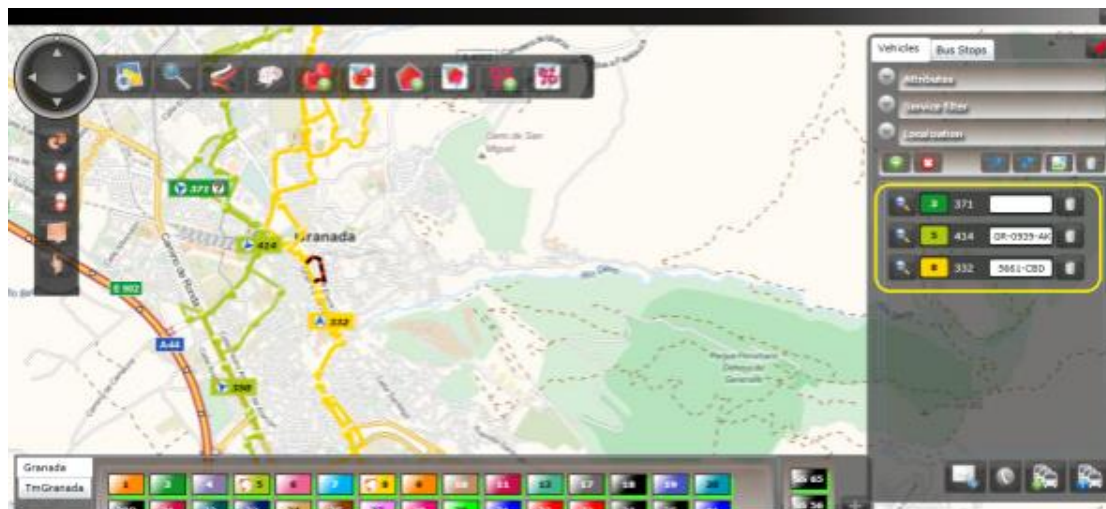
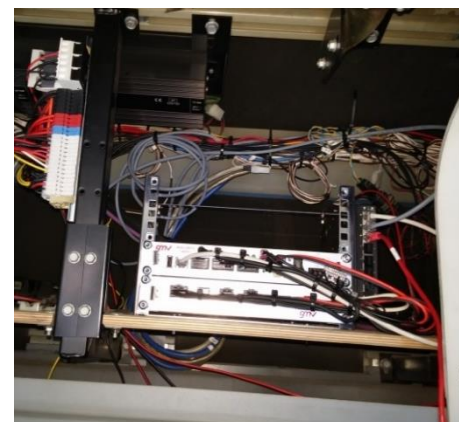




Public Transport Telematics:

➤ Bus Fleet Management

- Installation in 803 buses across Cyprus (7 Operators)



European Union
Cohesion Fund



Republic of Cyprus



Διαρθρωτικά Ταμεία
της Ευρωπαϊκής Ένωσης στην Κύπρο

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Public Transport Telematics:

➤ Passenger Information

- Integrating with third parties such as Solomou Square Passenger Information System
- 30 more LED Displays at central locations

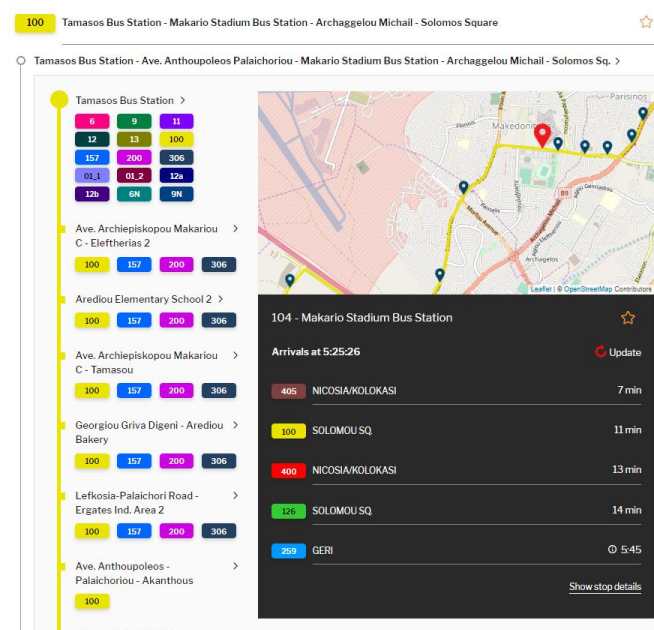
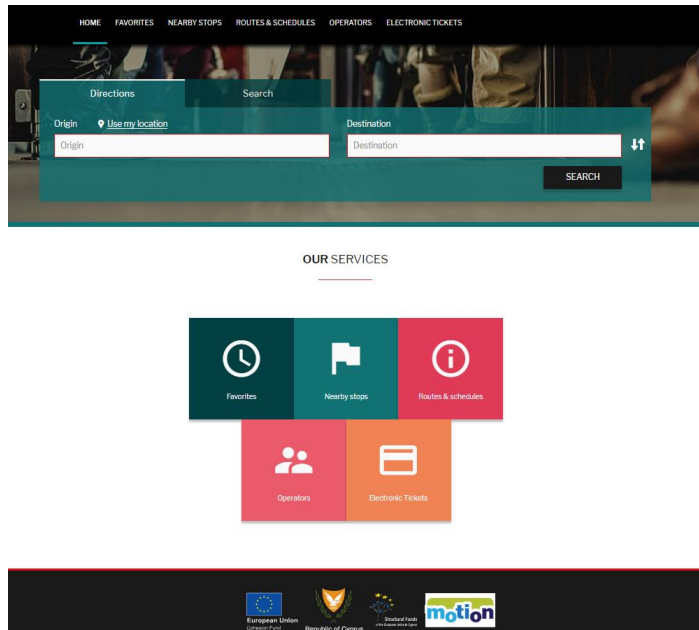




Public Transport Telematics:

➤ Passenger Information

- Cyprus Bus – Mobile App
- Web: www.motionbuscard.org.cy

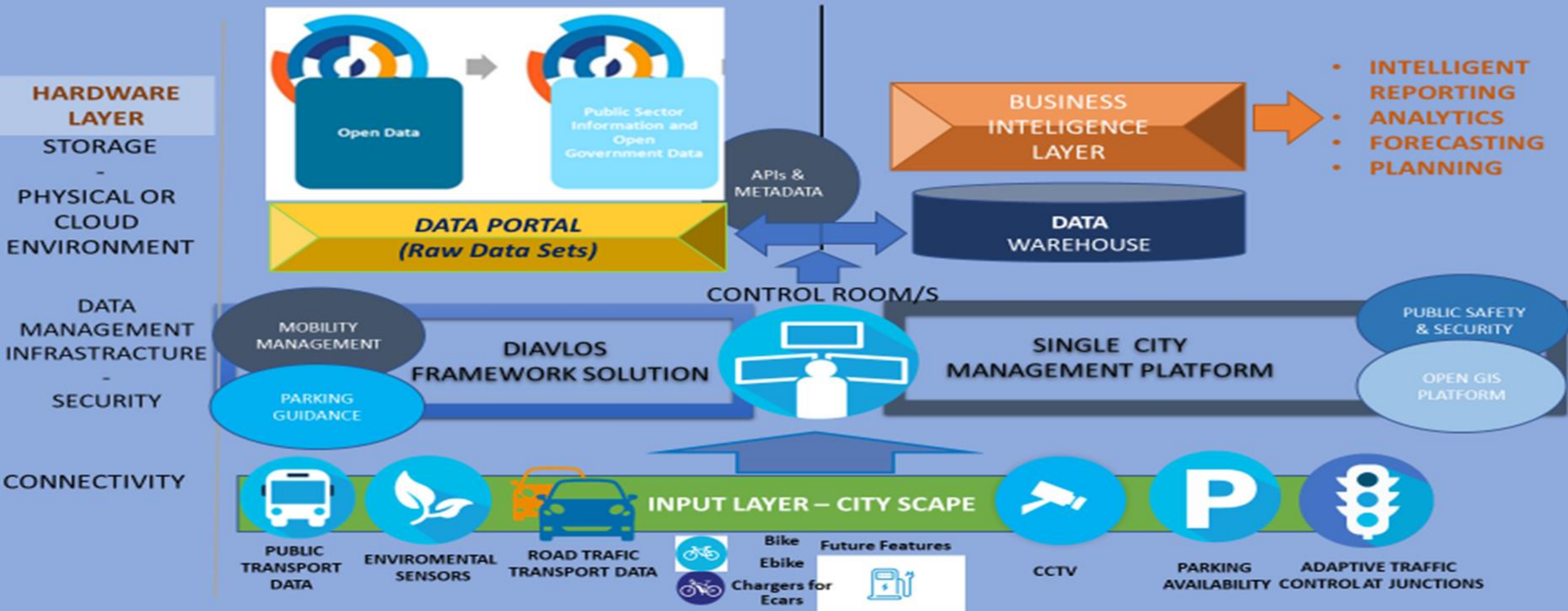




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Thank You

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