



# **From ETC to Smart Transportation**

## **– A Successful Case of Taiwan's Digital Transformation**

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**Far Eastern Electronic Toll Collection Co.,Ltd.**

# Taiwan ETC Overview



<b>ETC Customer with RFID Tag</b>	<b>6.7 M</b>
<b>ETC daily Transactions</b>	<b>Daily average: 16 M</b>
<b>eTag Usage Rate</b>	<b>94%</b>
<b>Successful Tolling Rate</b>	<b>99.98%</b>





Correct plate number is **340 – ZF**  
But we thought it was **340 – ZP**

- **High Standard Performance:** Audited by the third party and supervised by the government

<b>Audit period (2014/02/01-2014/04/30 )</b>	<b>Audit result</b>	<b>Remark</b>
<b>Total Audit Transactions</b>	<b>4,805,610</b>	<b>3 months</b>
<b>Tolling Accuracy Rate</b>	<b>99.9999%</b>	<b>only 7 cases</b>

# Taiwan ETC Overview



## Windshield Tag



## Headlamp Tag



# Taiwan ETC Overview



## License Plate Tag

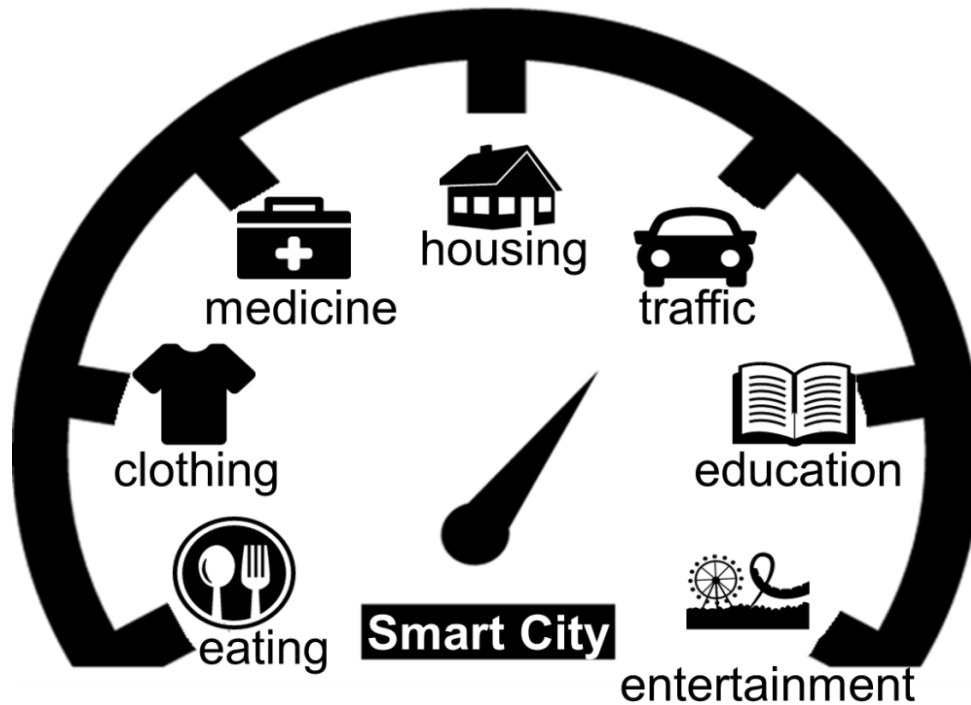


# Taiwan ETC Overview



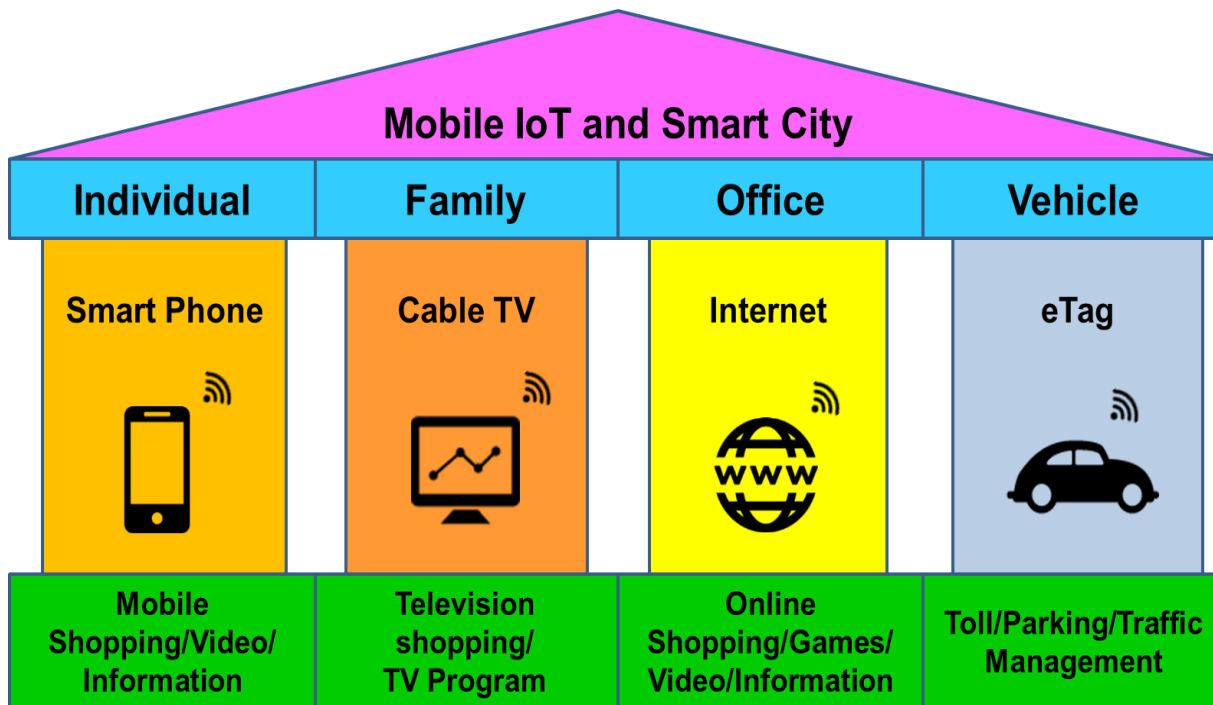
- Taiwan ETC, Winner of the 2016 IRF Global Road Achievement Awards
- 2015 Toll Excellence Award Winners Customer Service & Marketing Outreach
- Taiwan ETC, Winner of 2015 ITS World Congress Hall of Fame--Industry Award
- Taiwan ETC, Winner of 2015 eASIA Awards in private sector
- Taiwan ETC, Winner of 2016 ISO 9001 Plus Award





- Digitalization
- Personalization
- Mobility

# Smart City & Smart Transportation



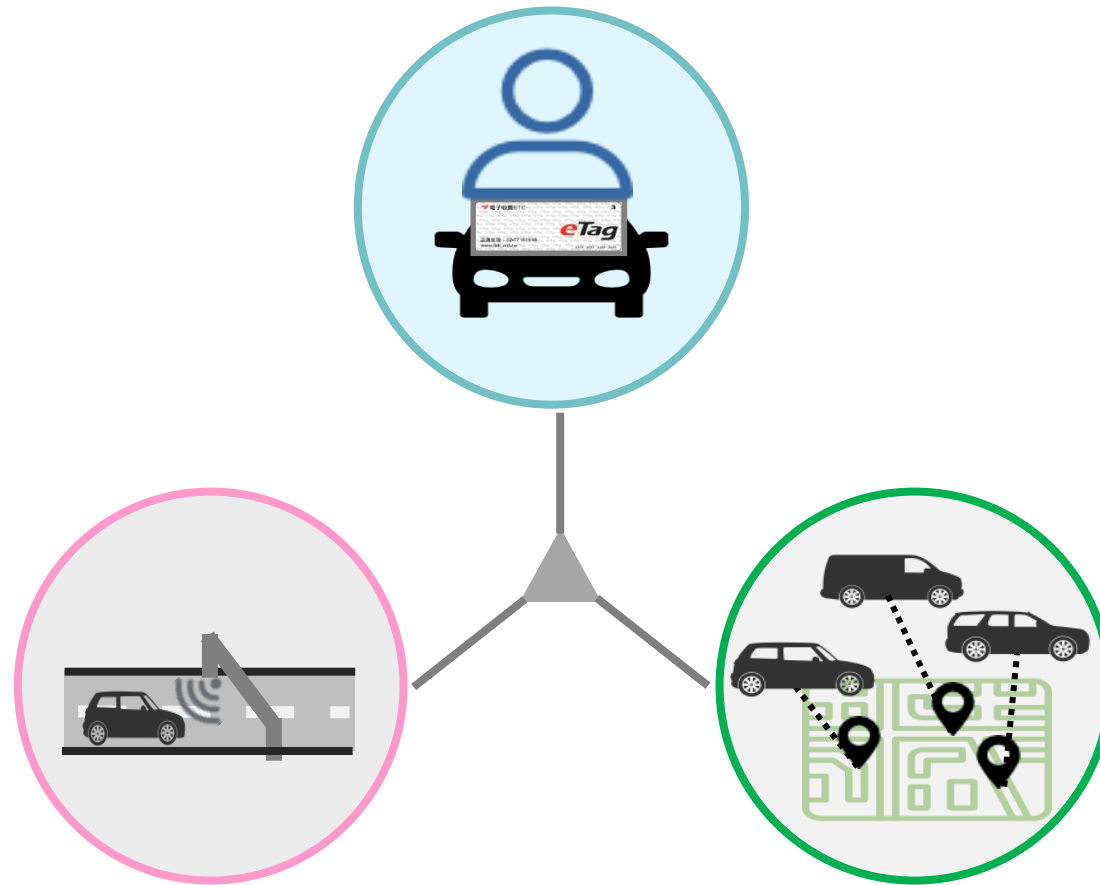
■ Infrastructure

■ Penetration

■ Integration

# Digital Transformation in Smart Transportation

## Identity Validation

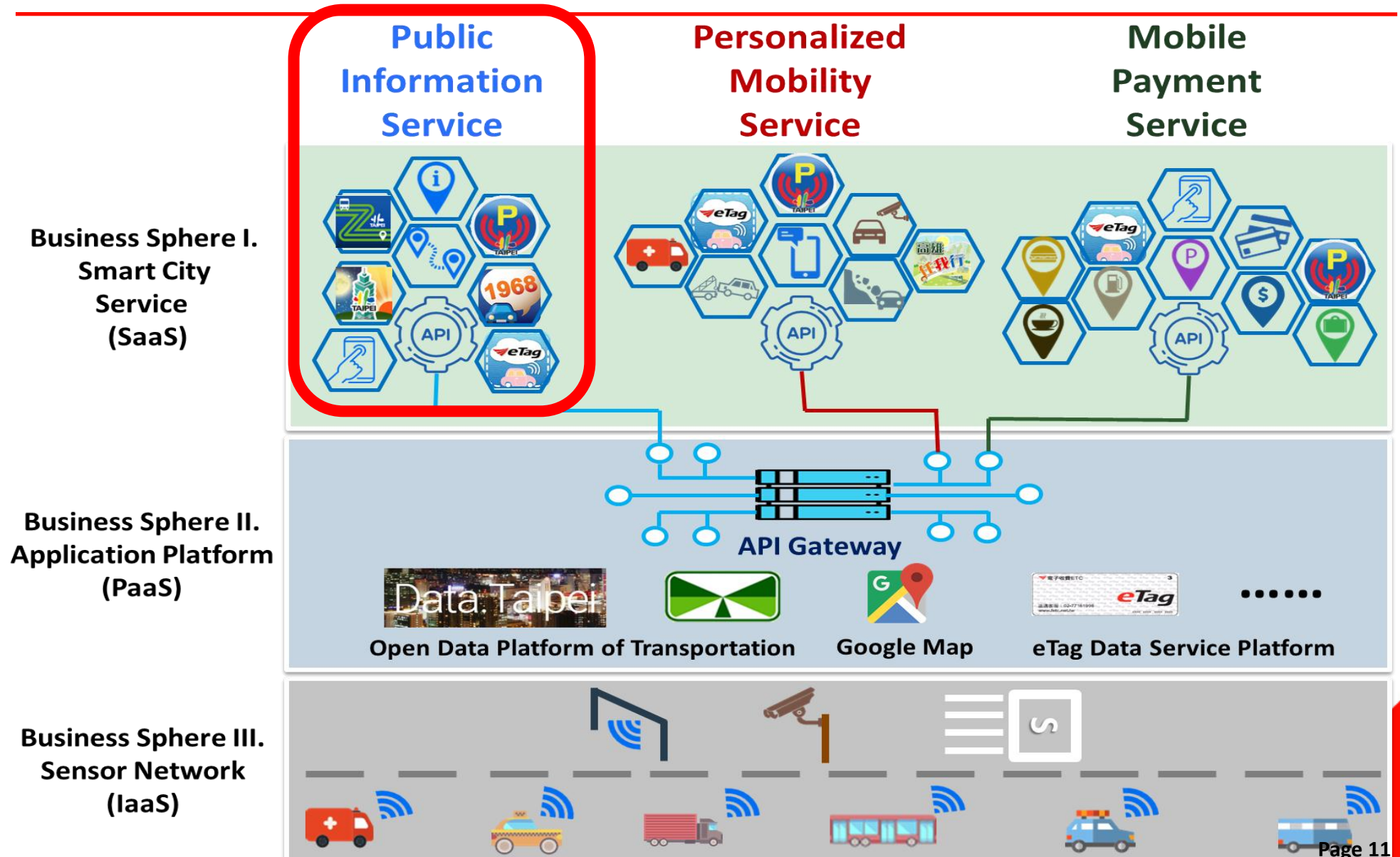


**Transaction Validation**

**Location Validation**

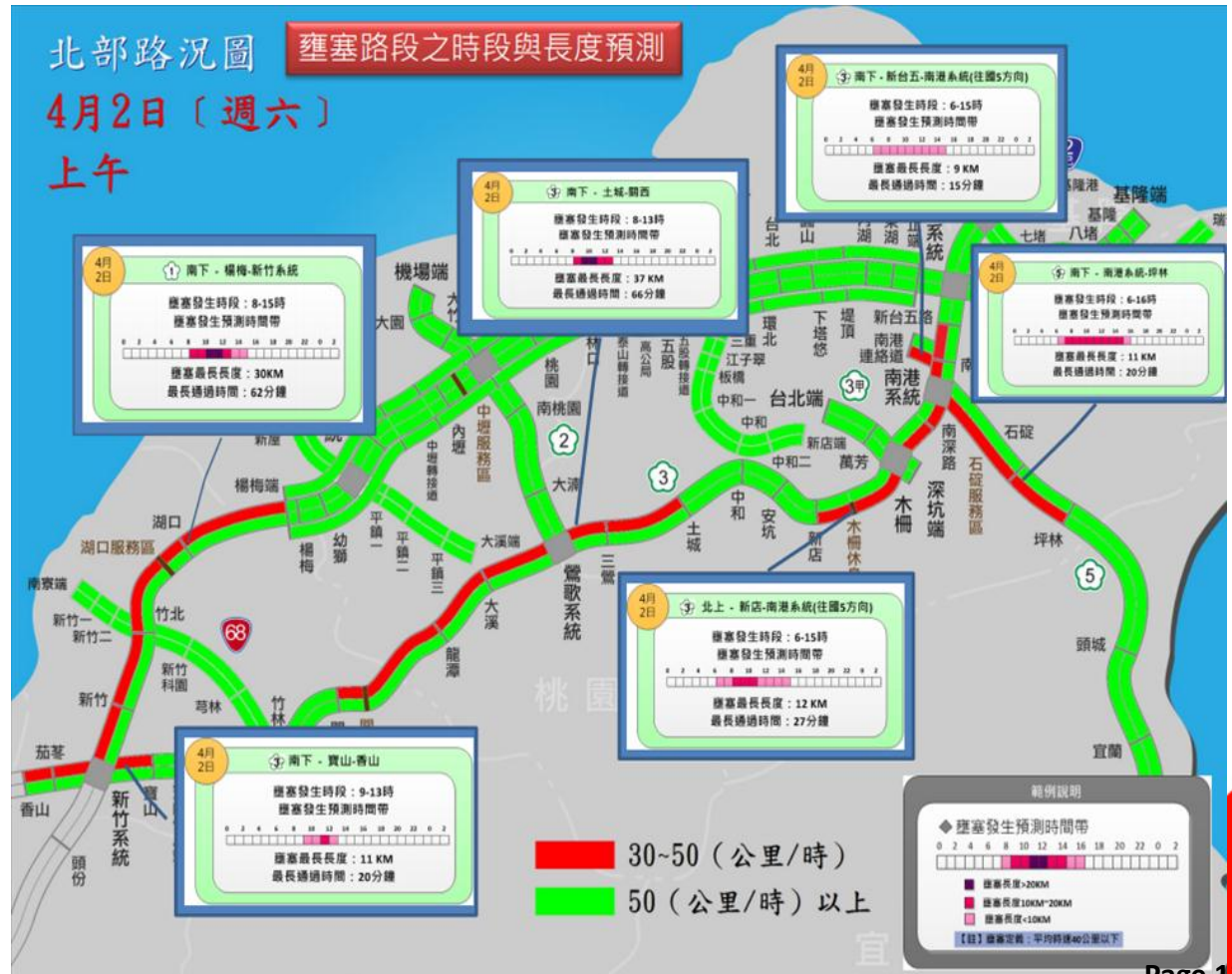
# Digital Transformation to Smart Transportation

## MaaS Infrastructure based on ETC



# Digital Transformation - Public Information Service

## Smart Traffic (Freeway 1968 APP)



# Digital Transformation - Public Information Service

## Smart Traffic



# Digital Transformation - Public Information Service

## Smart Traffic



# Digital Transformation - Public Information Service

## Smart Traffic



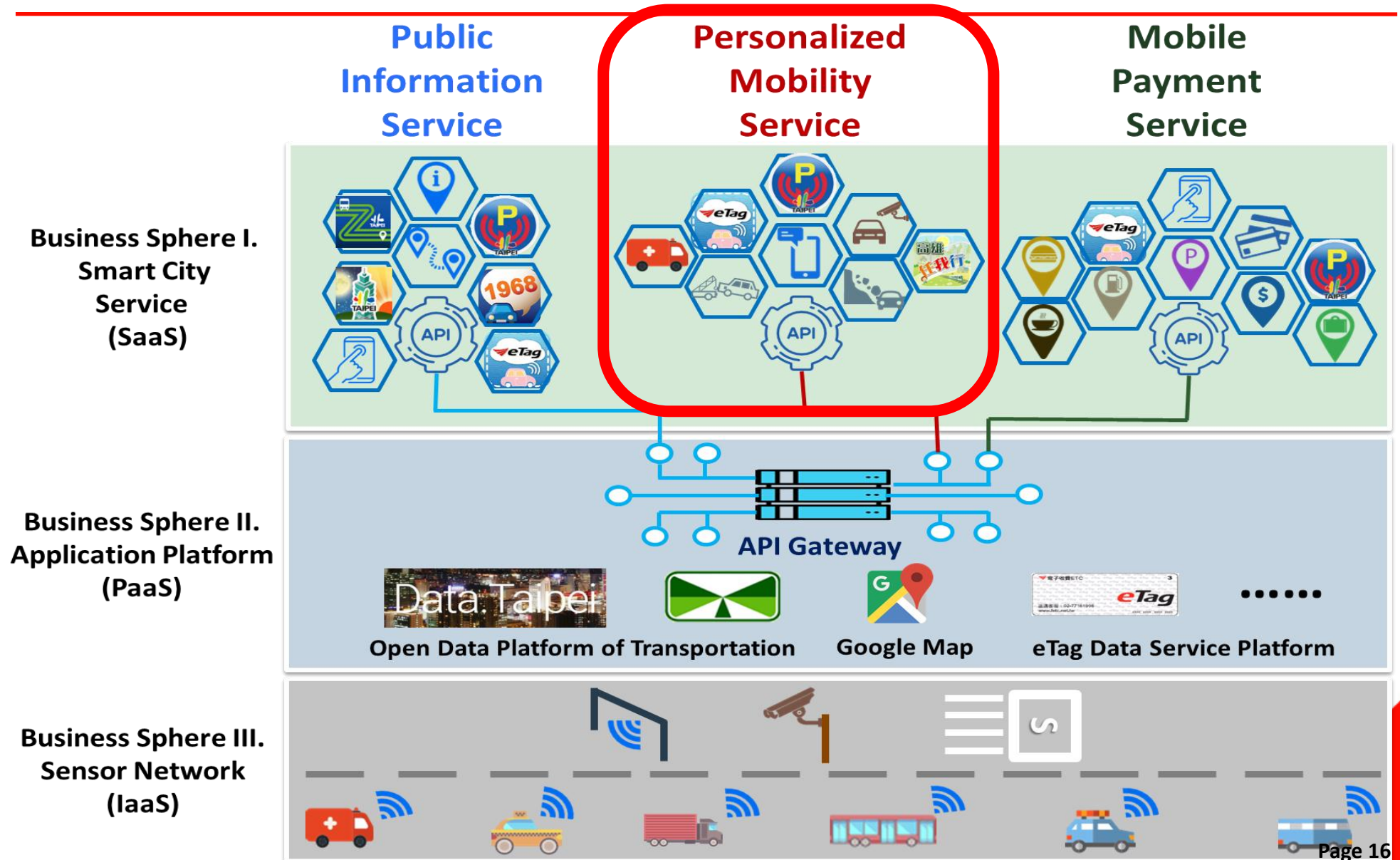
- a. Network interface
- b. Camera
- c. Microprocessor

**Traffic Control Unit**



# Digital Transformation to Smart Transportation

## MaaS Infrastructure based on ETC



# Digital Transformation – Personalized Mobile Service

## Smart Safety



# Digital Transformation - Personalized Mobile Service

## Smart Safety



### Logistic Management



**Shipping Container  
Logistic Management**



**Hazardous Goods  
Transport Management**

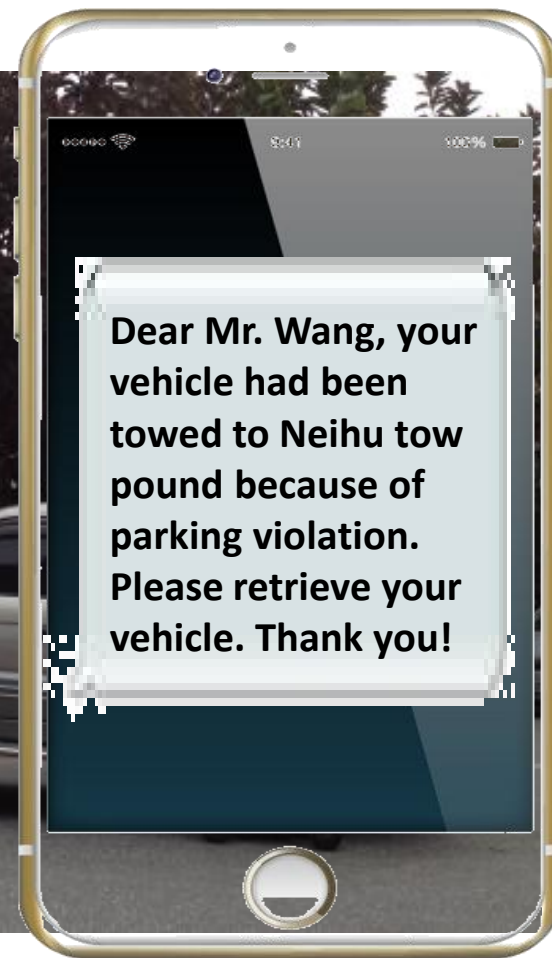
# Digital Transformation – Personalized Mobile Service

## Smart Safety



# Digital Transformation – Personalized Mobile Service

## Smart Safety



# Digital Transformation to Smart Nation

## MaaS Infrastructure based on ETC



Public Information Service

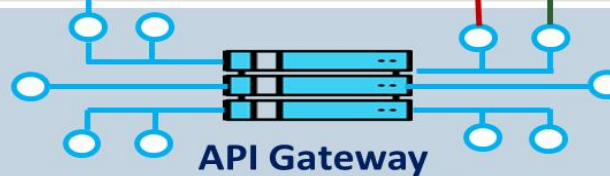
Personalized Mobility Service

Mobile Payment Service

Business Sphere I.  
Smart City Service  
(SaaS)



Business Sphere II.  
Application Platform  
(PaaS)



Open Data Platform of Transportation

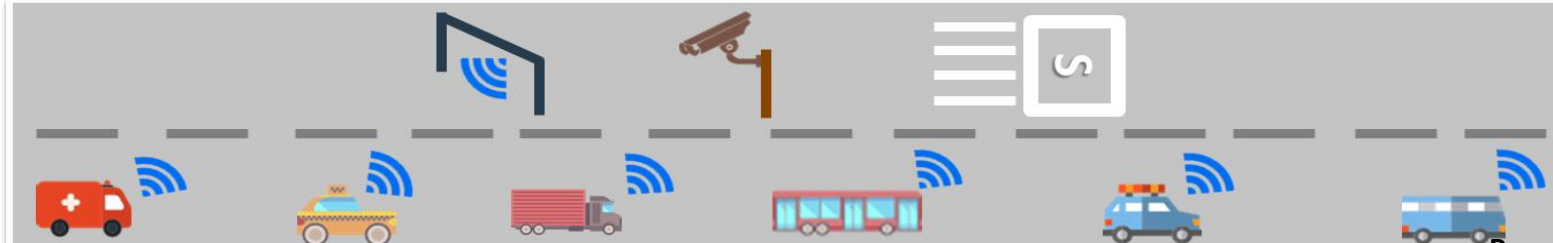


Google Map



eTag Data Service Platform

Business Sphere III.  
Sensor Network  
(IaaS)

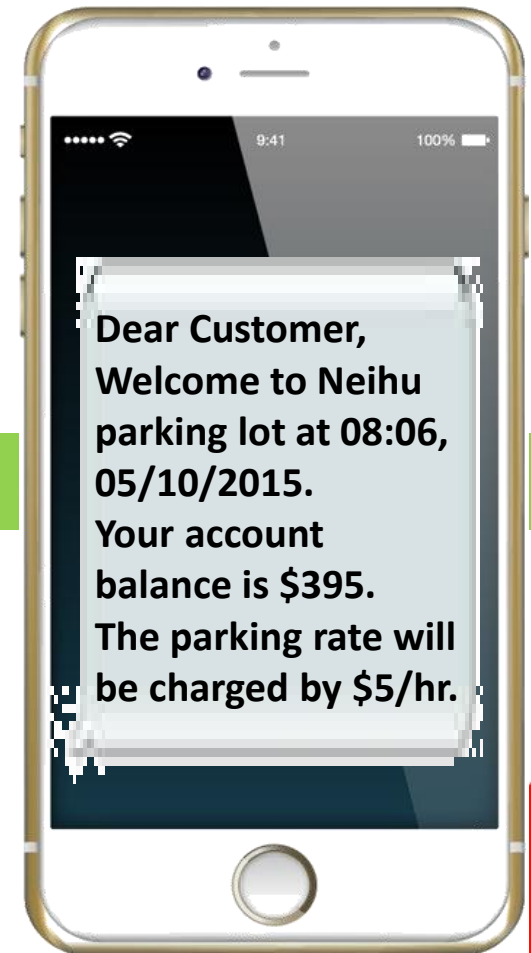
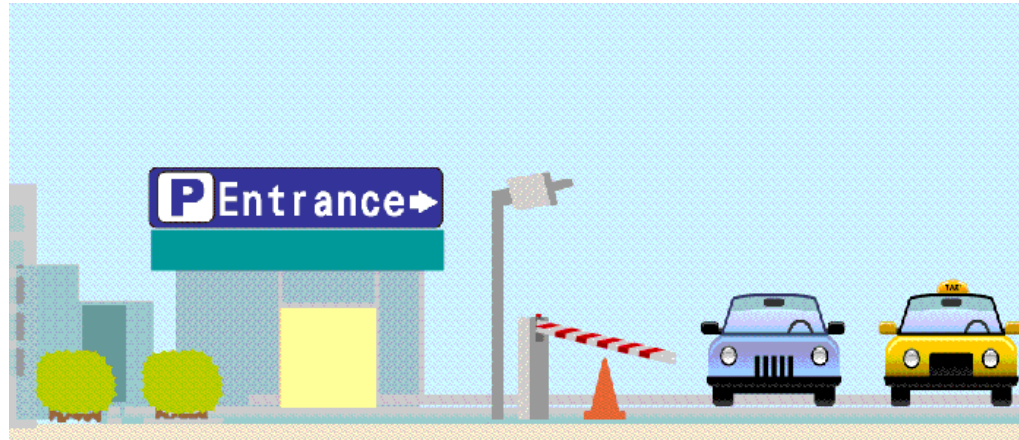


# Digital Transformation – Mobile Payment Service

## Smart Parking



**Entrance**



**Exit**

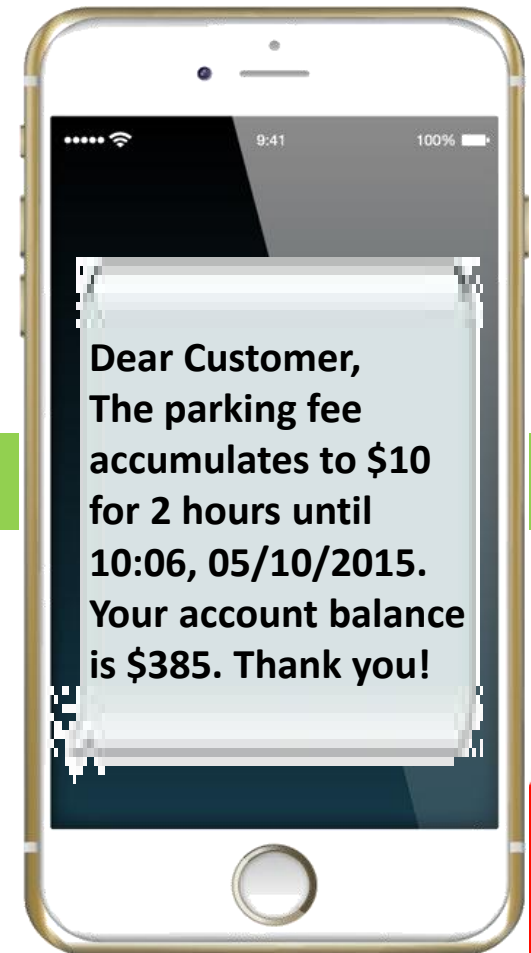


# Digital Transformation – Mobile Payment Service

## Smart Parking



**Entrance**



**Exit**

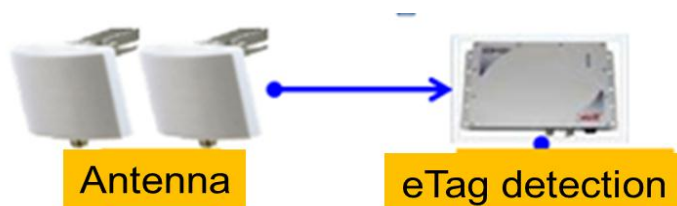


## Smart Parking



# Digital Transformation – Mobile Payment Service

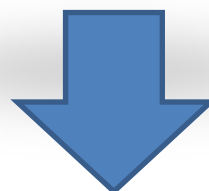
## Smart Payment



+

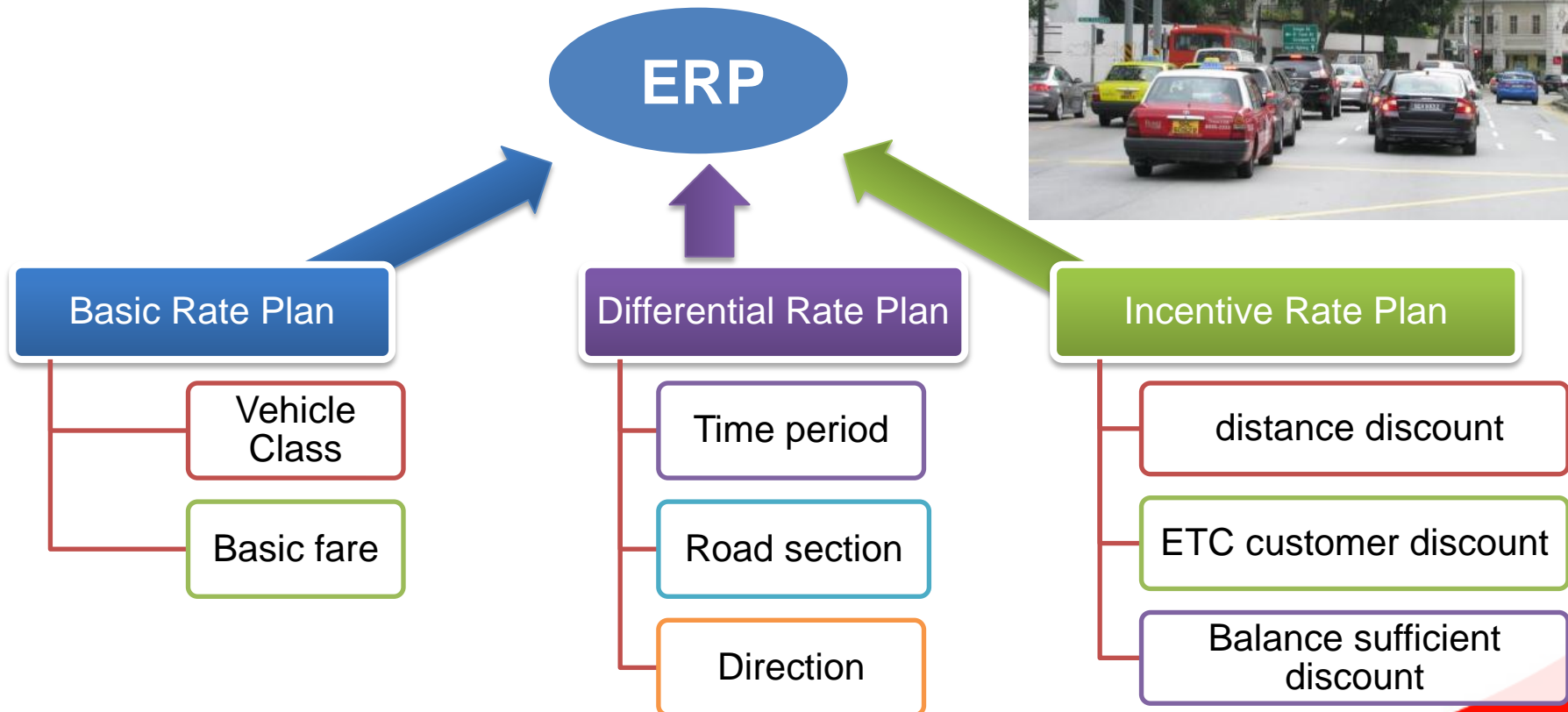


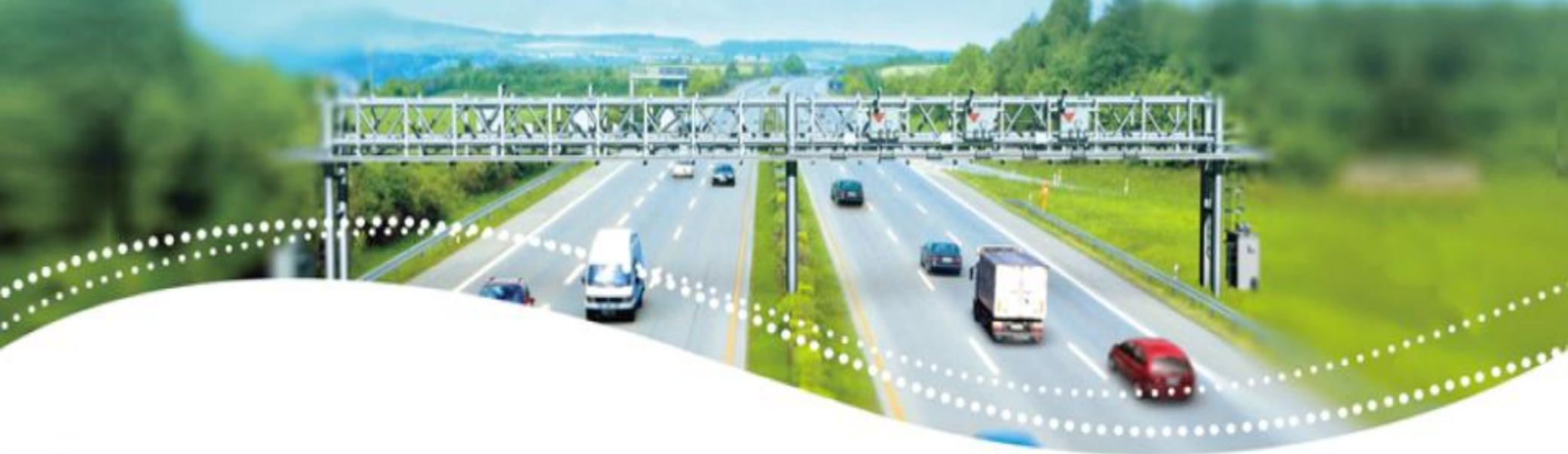
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**eTag Payment Platform**

### Dynamic Road Pricing Congestion Charging

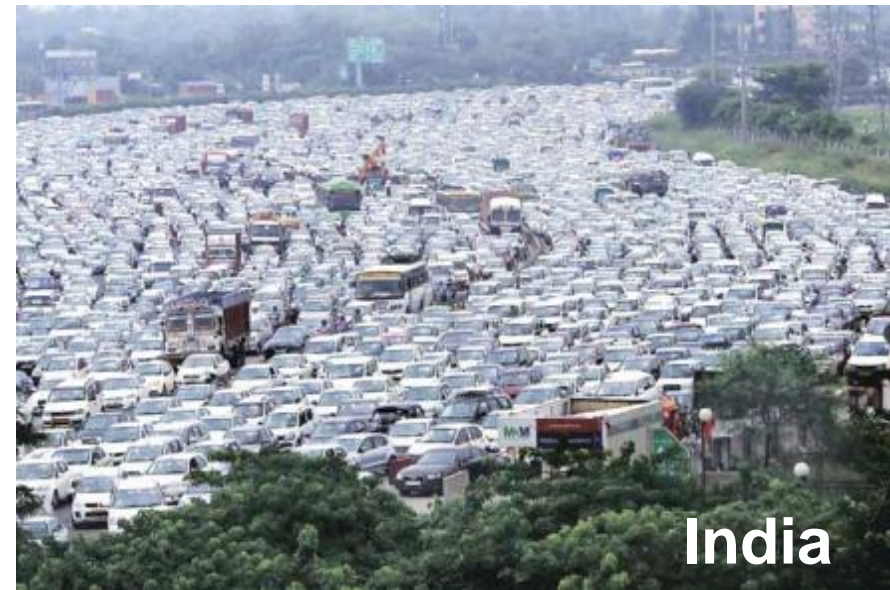




**Thank you**

[www.fetc.net.tw/en/](http://www.fetc.net.tw/en/)

# Plan the total digit infrastructure in advance



# Plan the total digit infrastructure in advance

- ▶ From Current ETC to Future ETC / ERP / ITS ?

