



# 44<sup>TH</sup> ASECAP STUDY & INFORMATION DAYS 2016

## The Path Towards an Integrated And Sustainable Mobility in Europe

Intercontinental Hotel  
23-25 May 2016

[www.asecapdays.com](http://www.asecapdays.com)



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## AGENDA

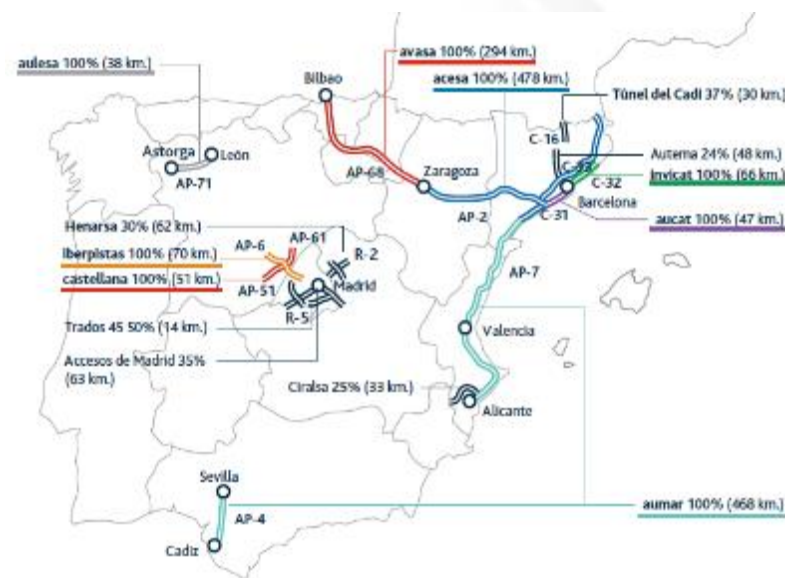
1. Abertis Autopistas (aAE) motorways network
2. aAE Tolling system
3. Automation and remote supervision
4. Mobility policies in Catalonia region
5. Conclusions

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# TOLLING AUTOMATION AND NEW MOBILITY POLICIES FOR ROAD CHARGING IN HIGH CAPACITY ROADS

## Abertis Autopistas motorways network



- 12 countries (Europe and America).
- Manages more than **7.000** kilometers directly.

- Manages **1,512** km directly.
- Manages **251** kilometers indirectly.

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## aAE Tolling system (Facts & Figures)

one system for 8 concessionaires

**129** Toll stations

**1.450** Toll lanes

**366** ATM VTP

**More than 1.000.000**  
transactions per day

**Customer services** eInvoice  
and eReceipt

**15,000** average daily traffic

**14,142** millions km travelled

**17,2%** HGV

**84,7%** Electronic payment  
(credit card+ ETC)

**47,3%** ETC payment

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## Automation goals



Improve the customer service perception



Provide a centralized and homogeneous management



Infrastructure and tolling system is being monitored continuously 24x7



Improve job conditions and safety for the toll cashers



## Technology deployment

- 366** ATM machines
- 2.220** intercoms
- 1.191** CCTV Lane
- 1518** CCTV document
- 248** CCTV Toll Plaza

### INTEGRATION

- Audio.** Light and HGV level.
- Video.** Lane, document, and toll plaza CCTV.
- Remote Control** of each PC lane
- Tolling monitoring systems:** alarms, states, faults, infrastructure



## Call Centers & remote supervision

### Call Center services

- 10 call centers distributed
- 63 operators simultaneously
- 1.095 total staff trained



### KPI

- 1.993.488 incidents in 2015
- 855.213 1<sup>st</sup> Quarter 2016 (x2)
- 0,72% incidents vs total traffic
- 97,21% Inc. solved remotely
- 2,79% Inc. solved on site

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## Background

In the period 2012-2015, Catalonia Government launched a package of Mobility Policies linked to **commuter mobility and with the focus on efficient use of the motorways by the drivers and cars**. Those Mobility Policies are linked to **VIAT payment method** due to the fact its the fastest and best service for the customer and motorway operation point of view.



## Mobility policies goals

1. **Discounts policies linked to the VIAT payment method (Electronic toll Collection).**
2. **Promote the efficient use of the road transportation network, favoring car sharing and the upgrading to the latest cars. Type of discounts:**
  - **By frequency** : 30% discount. More that 16 trips a month.
  - **By High Occupancy Vehicles (HOV)**: 40% discount. Applies to vehicles with 3 or more passengers in light vehicles.
  - **By low emission cars (ECO)**: 30% discount. Electric vehicles can reach up to 100%. (registering web site) [WWW.ECOVIAT.COM](http://WWW.ECOVIAT.COM)
3. **Apply policies to pay per real distance travelled** within the homogenized plan in order to achieve a fair mobility in the road transportation.



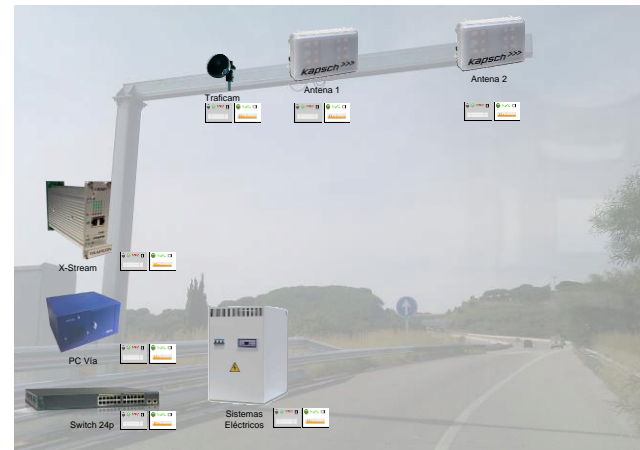
## Technology deployment

Control points– pay per use / real distance

- **13** Control points based on ETC (VIAT) in INVICAT
- **6** Control points based on ETC (VIAT) in AUCAT
- Has been in operation since 1<sup>st</sup> January 2015.



RSU control point



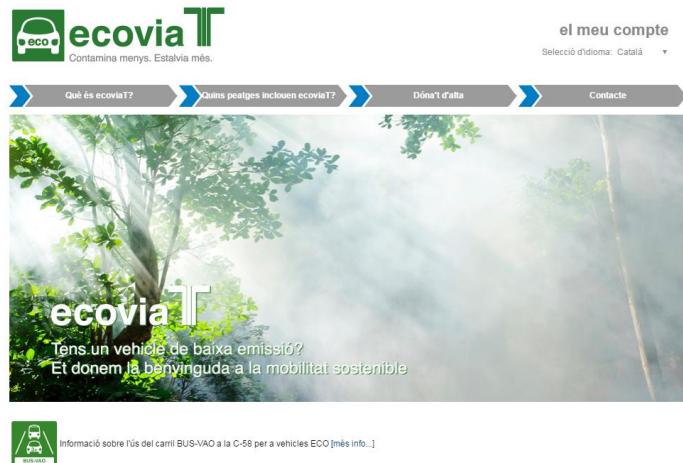
Maintenance tool

## Technology deployment

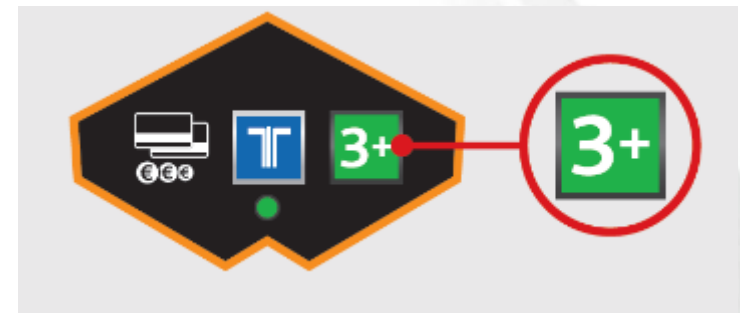
HOV / ECO lanes

- **42** ATM machines in INVICAT
- **16** ATM machines in AUCAT

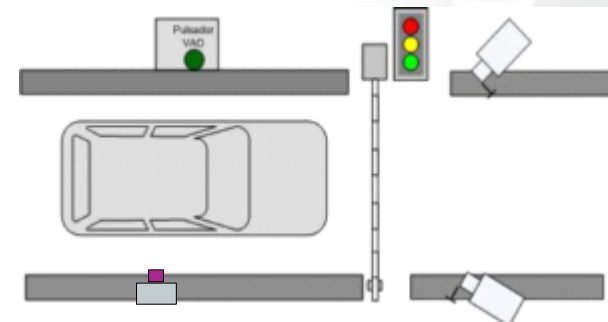
### ECOVIAT Web site



### Signage

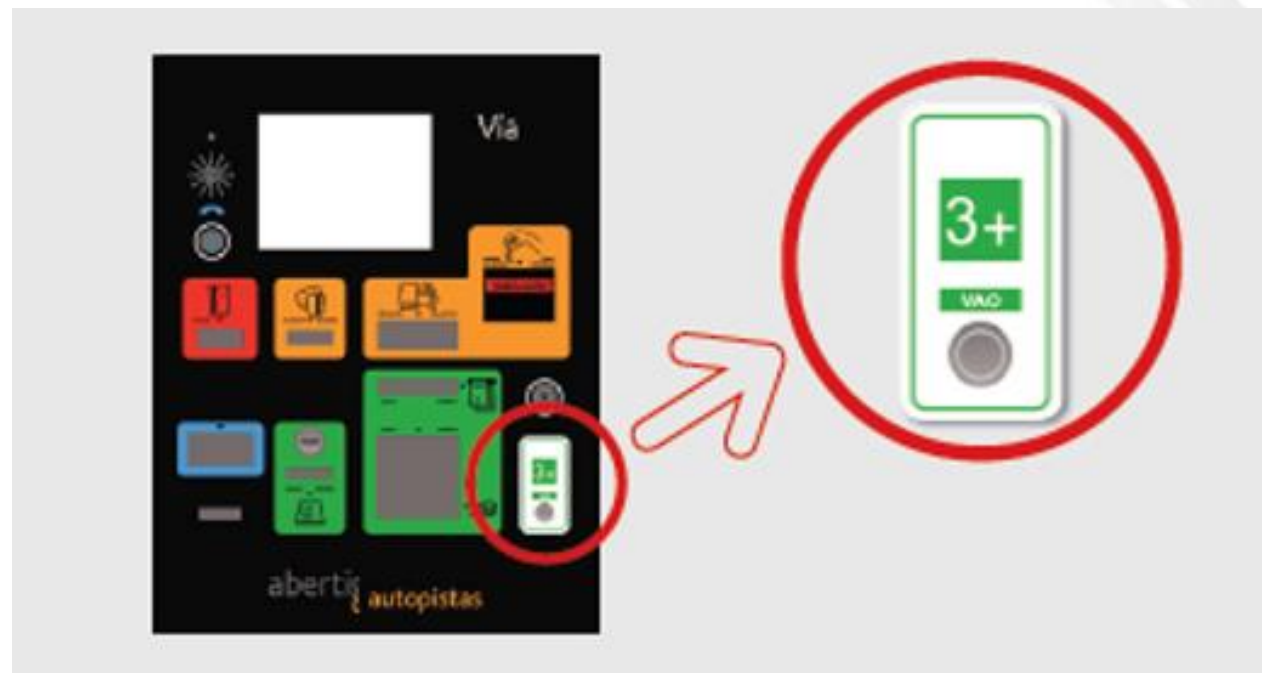


### HOV/ECO cameras



## HOV declaration

Customer request

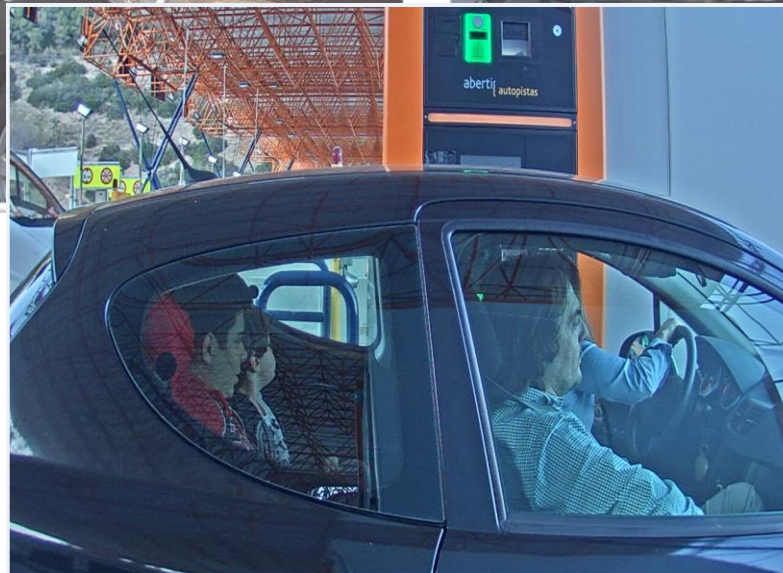




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## HOV validation

Central system - Manual validation



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## Conclusions

1. **Automated payments method with ETC and ATM** machines, in traditional toll plazas with barriers, have brought advantages for both operations and customers e.g. **more efficient and effective** management and better customer service perception.
2. **The application of new policies**, e.g.: HOV, ECO and real pay per use discounts, to **encourage and improve the mobility** in the road transportation system, more sustainable for the environment, and promoting the use of the **"Safest Roads", the motorways.**

# TOLLING AUTOMATION AND NEW MOBILITY POLICIES FOR ROAD CHARGING IN HIGH CAPACITY ROADS



# Thanks!