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## 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

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Organized by



# AUTOSTRADA GROUP AT A GLANCE

*5,000 km*

*Of tolling highways  
in Italy, Brasil, Chile, India, Poland  
2 airports in Italy*

*More than 5 milions*

*Of customers per day  
on the highways owned by the group  
44 milions of passengers per year on  
transit trough Rome airports*

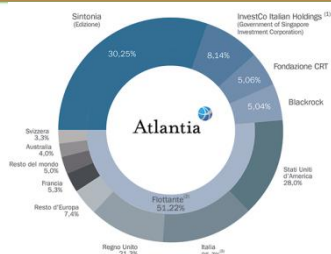
*first player on ETS, Leader on  
technologies, tolling, automation  
airport management and  
infomobility*

*€ 5.1 billions turn over*

*€ 3 billions Ebitda*

*€ 1.1 bilions on investiments*

# SHAREHOLDER'S STRUCTURE



Fonte Consob, Al 31.04.2016.  
 Sono rappresentati gli azionisti con partecipazioni superiori al 3% come previsto dal regolamento Consob.  
 (1) Include 0.082% detenute direttamente da Government of Singapore Investment Corporation.  
 (2) Esclude le azioni proprie detenute da Atlantia S.p.A. (0.29% del capitale).  
 Fonte Thomson Reuters al 31.12.2015.  
 (3) Include investitori retail



**autostrade** // per l'italia

**ADR** Aeroporti di Roma

**Tolling, Engineering, Construction, O&M**

## Italian concession

- Società italiana per il Traforo del Monte Bianco
- Raccordo Autostradale Valle d'Aosta
- Società Autostrada Tirrenica
- Tangenziale di Napoli
- Autostrade Meridionali
- Telepass
- **Autostrade Tech S.p.A.**

## International concession

- Brasile**
  - Triangulo do Sol Auto-Estradas
  - Rodovia das Colinas
  - Concessionaria da Rodovia MG050
  - Concessionaria Rodovias do Tieté
- Cile**
  - Costanera Norte
  - AMB
  - Litoral Central
  - Autopista Nororient
  - Vespuccio Sur
  - Los Lagos
- Polonia**
  - Stalexport Autostrada Molopolska
- India**
  - Pune Solapur Expressways Private <sup>(1)</sup>

- SPEA Engineering
- Pavimental
- ETC—Texas/US <sup>(2)</sup>
- Soluconsa conservação Rodoviária <sup>(2)</sup>

<sup>(1)</sup> owned directly by Atlantia  
<sup>(2)</sup> owned directly by Autostrade per l'Italia

# AUTOSTRADe TECH'S POSITIONING

Launched in January 2010 as a spin off from Autostrade per l'Italia of the respective technological division, it leverages all know-how and intellectual properties developed in the field during the last 15 years

- **Technology Provider**

Develops and provides basic technological components addressed by key trends and by market dynamics

- **System Integrator**

Provider of integrated "turnkey" solutions based on proprietary and on the market (by means of partnership) solutions

- **Service Provider**

Provider of services in the mobility and tolling fields, related to the management of integrated solutions (including outsourcing agreement)

**Autostrade Tech unique positioning combines technological/integration/provisioning skills with thorough knowledge of motorway operators' needs**

# IN-HOUSE ITS ARCHITECTURE

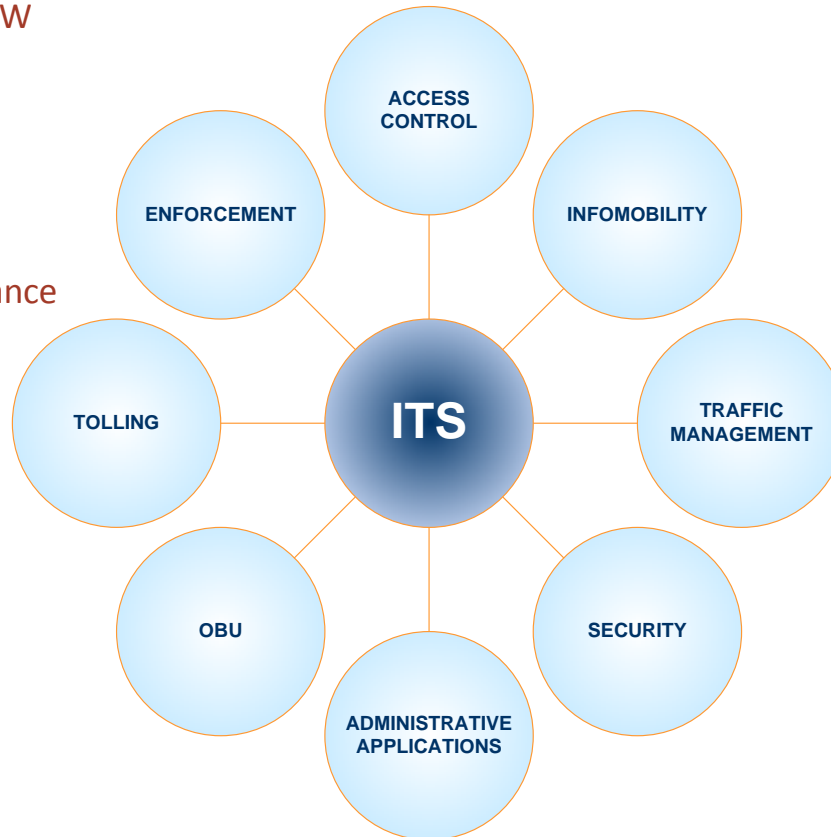
## *CAPABILITIES*

- System Design, HW & SW Development
- Project Management
- System Integration
- Installation & Maintenance
- System Operation
- IT Infrastructure Mgmt
- Outsourcing



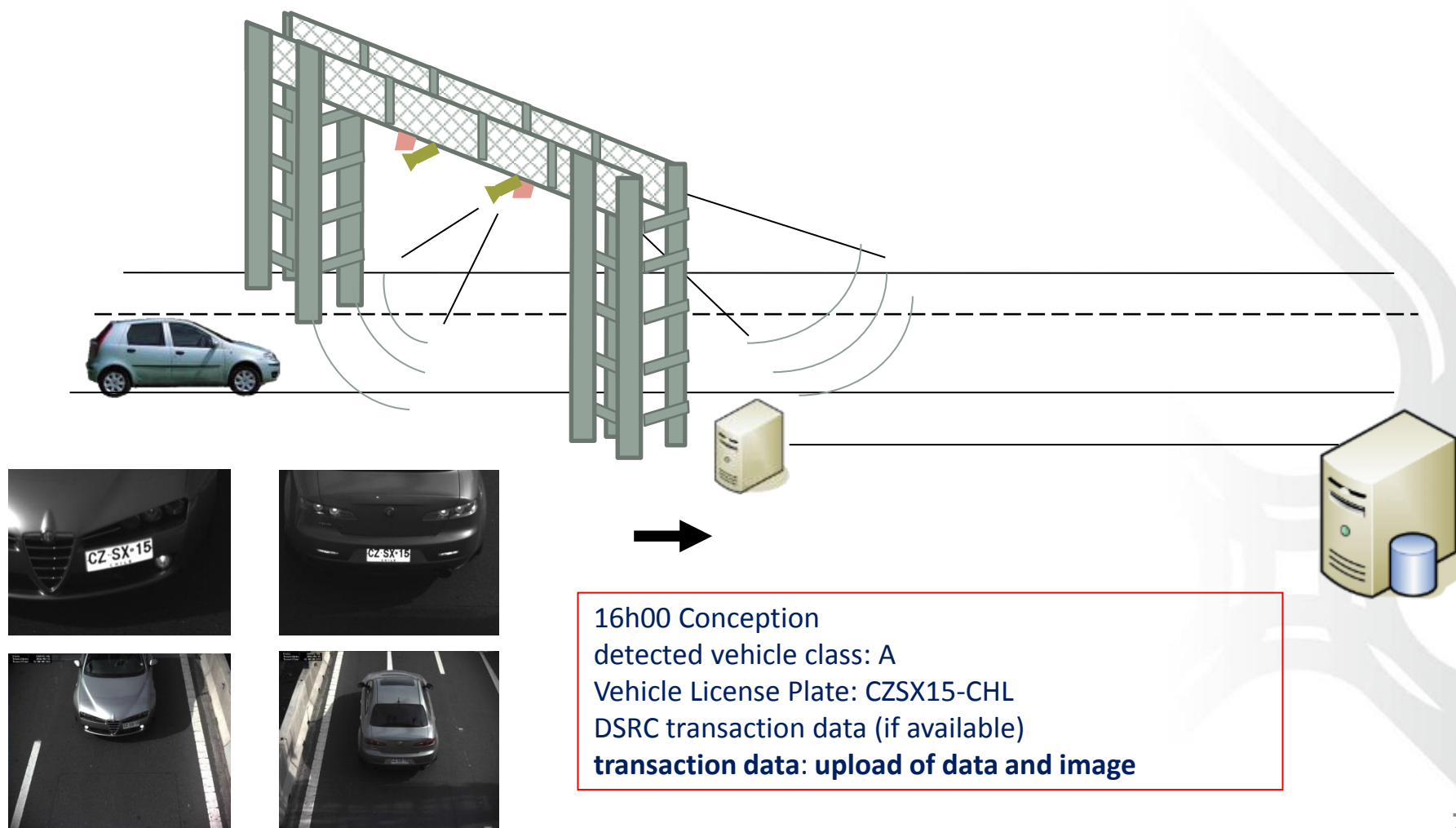
## *TECHNOLOGIES*

- DSRC 5.8 GHz CEN TC278 & UNI 10607 (TELEPASS)
- DSRC 5.8 GHz CEN TC278
- RFID (13,56 MHz & 840 MHz)
- Free-Flow dynamic systems
- GNSS
- GSM/GPRS
- ANPR & Image Processing
- IC Cards
- Laser Cameras
- Video Cameras
- TUTOR safety system





# MLFF SYSTEM: FUNCTIONING PRINCIPLE



# CHILE MOTORWAY

**Costanera Norte** is a 43 km-long motorway, from 3+3 lanes up to 5+5, passing across the metropolitan area of Santiago along the East-West axis, with 15 existing gantries where a technology update has been operated and 8 new tolling gantries.

**Vespucio Sur** is a 30km-long motorway, from 3+3 lanes up to 4+4, passing across the south part of Santiago, with 15 tolling gantries



open free-flow tolling system. OBU CEN TC278 technology is interoperable with the other 3 toll motorways in Santiago;

Currently 98% of new vehicles registered in Santiago (over a total of 900,000 units) are endowed with OBUs;

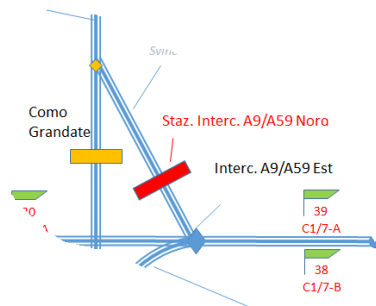
Tariffs are automatically raised in line with the inflation rate, and vary according to the traffic intensity.

Autostrade Tech managed the **hot-swap update of the system** from previous technologies, without service interruption.



# PEDEMONTANA LOMBARDA MOTORWAY

**Autostrada Pedemontana Lombarda** is actually 3 motorway sections, 32 km-long, on the northern part of Milan metropolitan area, with 18 3+3 lanes tolling gantries and 6 tolling interconnection gantries equipped with optical barrier.



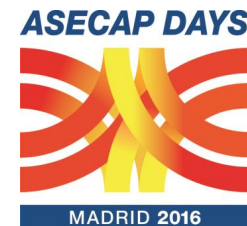
APL is an open free-flow tolling system with interoperable and interconnected tolling technology with Autostrade per l'Italia toll motorways;

APL is the first MLFF operating in Italy, with both ETSI200674 DSRC and video toll on the same gantry. Pre-paid tolling based on video toll is ready to be introduced.

Tariffs are automatically identified summing up all the single sections detected during the journey.

**Autostrade Tech managed the design; construction and delivery of the system, interconnected with other tolled highways**

# AUTOSTRADE TECH



Thank You for your attention



**autostrade // Tech**

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