

# **ITS and Safety Management: the Experience of Italian Motorway Sector**

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## Safety along Italian Tolled Motorways

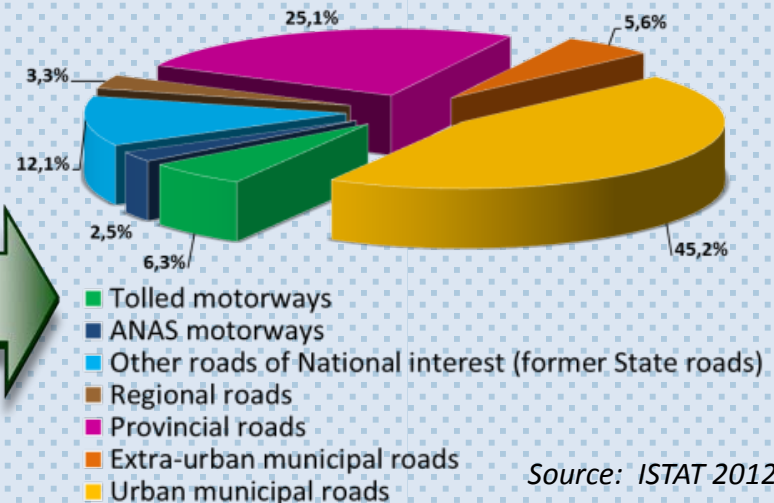
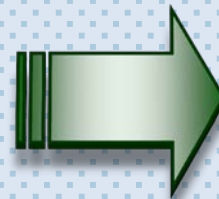


### THE ITALIAN TOLLED MOTORWAYS

- ✓ About 5,900 km (2% of total road extension)
- ✓ About 25% of total National traffic is on tolled motorway network

**TOLLED MOTORWAYS:  
THE SAFEST ROADS**

(more than 93% of deaths are referable to other road types)

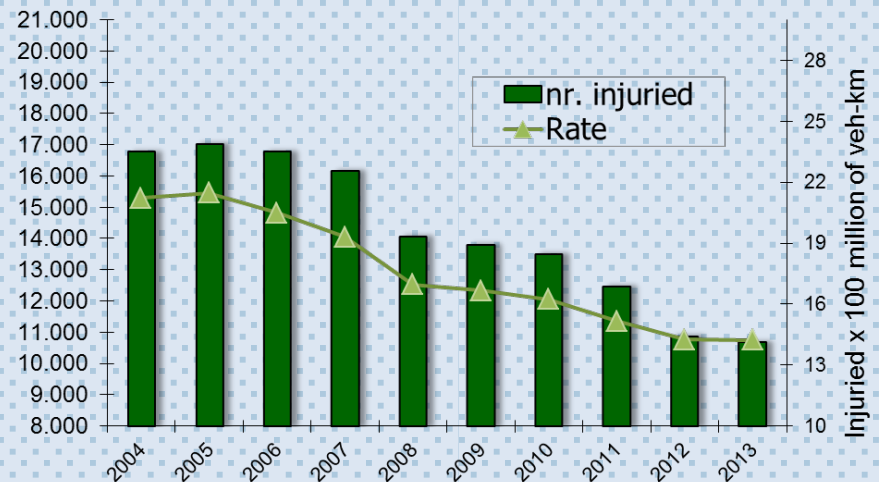
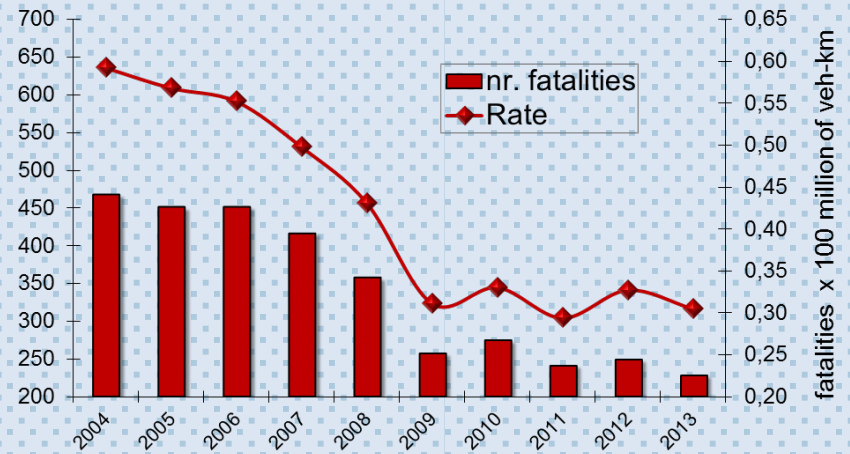


Source: ISTAT 2012

# Safety along Italian Tolled Motorways

## SAFETY 2004-2013:

- Accidents\* -3,541 (-36%)  
\* with fatalities
  - Accident Rate -32 %
- Fatalities -239 (-51%)
  - Rate -49%
- Injured -6,088 (-40%)
  - Rate -33%



## Some Success Factors

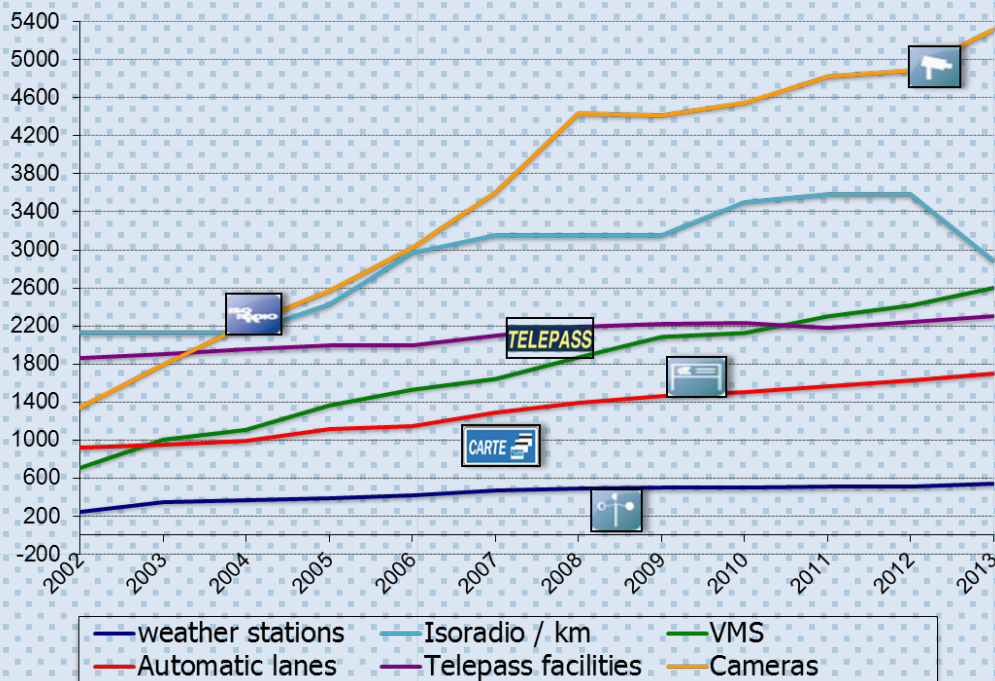
- Design Characteristics
- Road Equipment
- Network Development and Maintenance
- Traffic Management and Operation
- **ITS – Intelligent Transport Systems**

## ITS along the motorway network

- Mobility and network management
  - 35 Traffic Control Centres operating 24h per day
  - More than 5,300 monitoring cameras
  - More than 7,200 SOS posts
  - More than 1,050 weather monitoring devices
- Information to the users
  - About 2,600 Variable Message Signs
  - Call-centre and Info points
  - TV and Radio broadcast, web



# Improvement of ITS (2004-2013)



+297% monitoring cameras



+270% VMS



+127% weather stations



+60% ice detectors



+80% fog detectors



+35% radio broadcasting



+85% automatic lanes

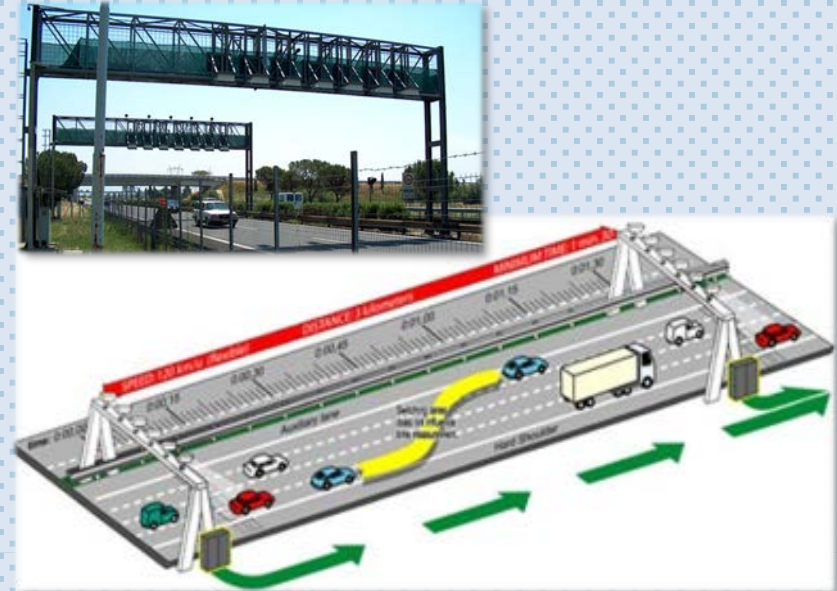


+24% Telepass facilities

# ITS - Traffic control

## TUTOR

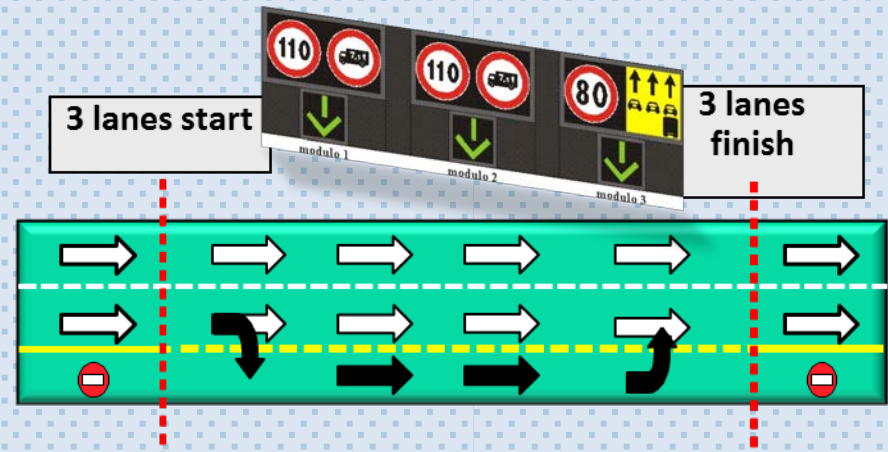
- System to record vehicle **average speed** basing on covered distance and time ➡ reducing (in the first year):
  - average speed (-15%)
  - maximum speed (-25%)
  - death rate (-51%)
  - rate of accidents with injuries (-27%)
  - accidents rate (-19%)



## THIRD DYNAMIC LANE

- Temporary use of **emergency lane**

- ➡ increase vehicular capacity
- ➡ reduce traffic congestion
- ➡ reduce of accident



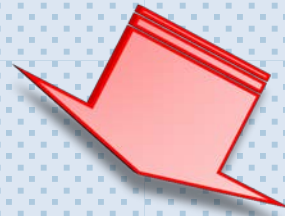
## ITS - Monitoring of Dangerous Goods



- Devices along the network
- Intelligent cameras for passing vehicle monitoring and decoding of vehicle plates and Kemler – ONU (by o.c.r.)
- Industrial PC for storing traffic data



- Operational center
- Data collection
- Data processing
- Data display on user interface

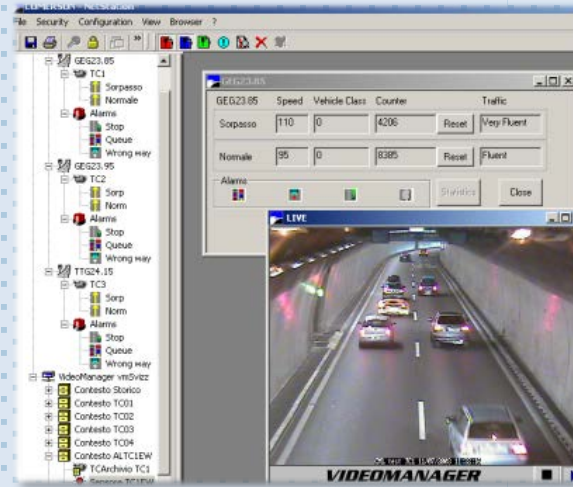


 Improve emergency management



## ITS - Tools for Integrated Management

- Control Interface to check network and mobility conditions
- Specific Operational Procedures
- Cooperation with other involved subjects:
  - Road Police
  - Fire Brigades
  - Medical Assistance
  - Mechanical Assistance



## Food for Thought

- **Toll Motorway system = reference model** (for safety management)
- **ITS = Safety**



**INVESTMENT**



- **Pay per use** = efficient solution to develop and implement technologies and improve safety

## Aiscat Servizi



- Subsidiary Company of AISCAT
- Operating since 2005, the Company is well-experienced in:
  - Transport Engineering
  - Administrative and Financial Consulting
  - Transport Planning
  - Transfer of Know-How



## Main Clients





*Thanks for  
Your Attention!*

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