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 2004-2013:

- **Accidents** -3,541 (-36%)
  - 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

• 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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