

46TH ASECAP STUDY & INFORMATION DAYS

The Role of the Infrastructure Investments in the New EU Road Mobility Package

*Grand Hotel Union, Ljubljana, Slovenia
6-8 June 2018*

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TITLE: Autostrade per l'Italia initiatives for Monitoring of Bridges and Management of Exceptional Transit

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Organized by



Introduction to ASPI



- 2,854.6 km of road network
- 4M customers per day
- > 47Bn km travelled per year
- > 5,000 employees



- 9 Regional HQ
- 2 Central HQ
- 234 Tolling Station
- 83% Automated Tolling



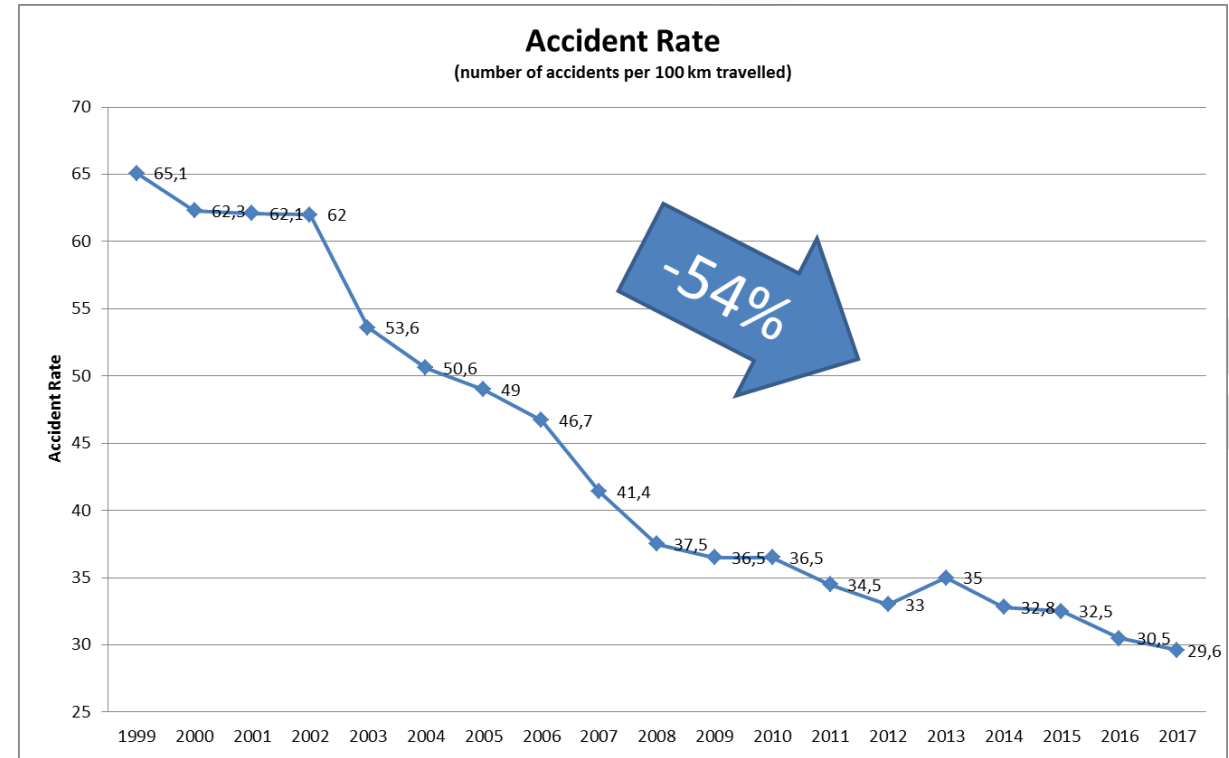
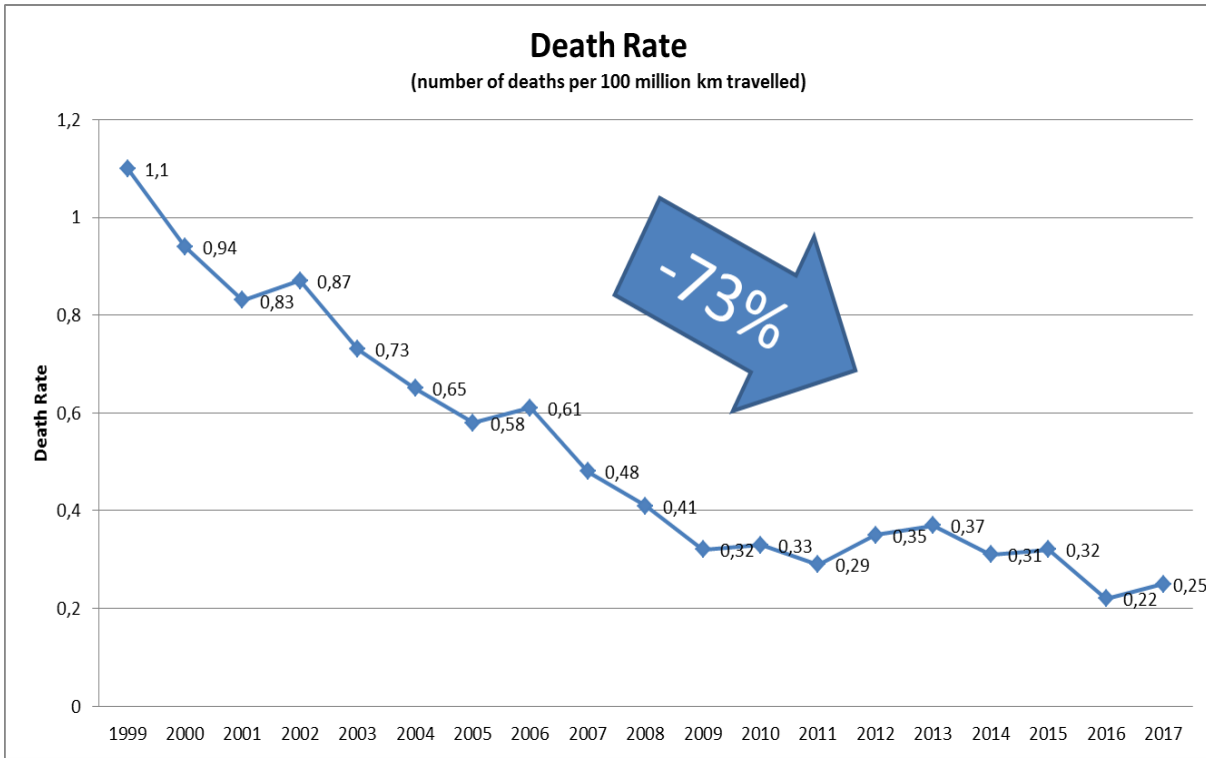
- > 1,900 Viaducts and Bridges
- > 1,900 Overpasses
- 568 tunnels (including 22 with a length > 2000 m)

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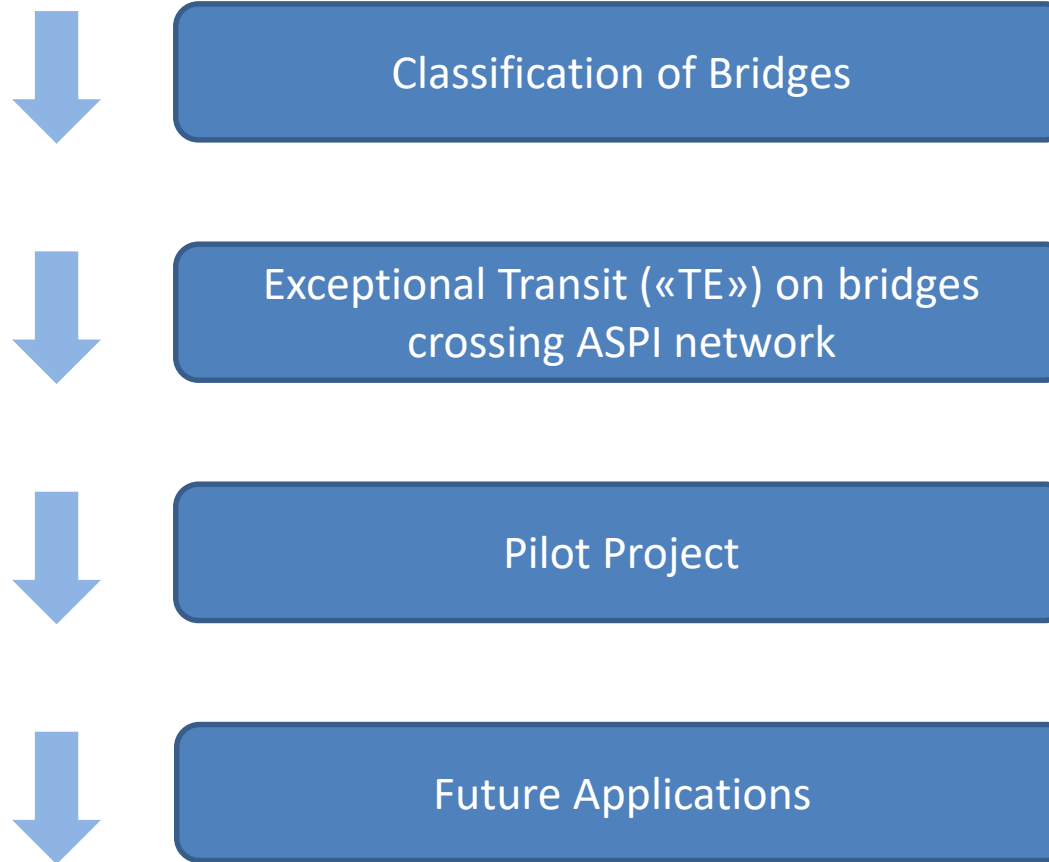


- 49,160 Average Daily Vehicles
- > 380 TE authorization in 2017
- 1,669 VMP
- 3,308 CCTV

Safety Records



Agenda



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Classification of Bridges



Two different typologies of bridges:

- **1° category:** carriageway's width $\geq 5\text{m}$, with «free traffic» for those vehicles having a total weight and a shape according to Italian Road Code;
- **2° category:** bridges made before 1990 (secondary roads) which can be crossed only by vehicles which weight is < 12 tons.

ASPI network:
ONLY **1° category** of bridges



TEonLine: a web tool to keep track of TE authorization and itinerary through the whole Italian Highway network

Bridges crossing ASPI network (managed by «Third Party»):
1° & 2° category of bridges



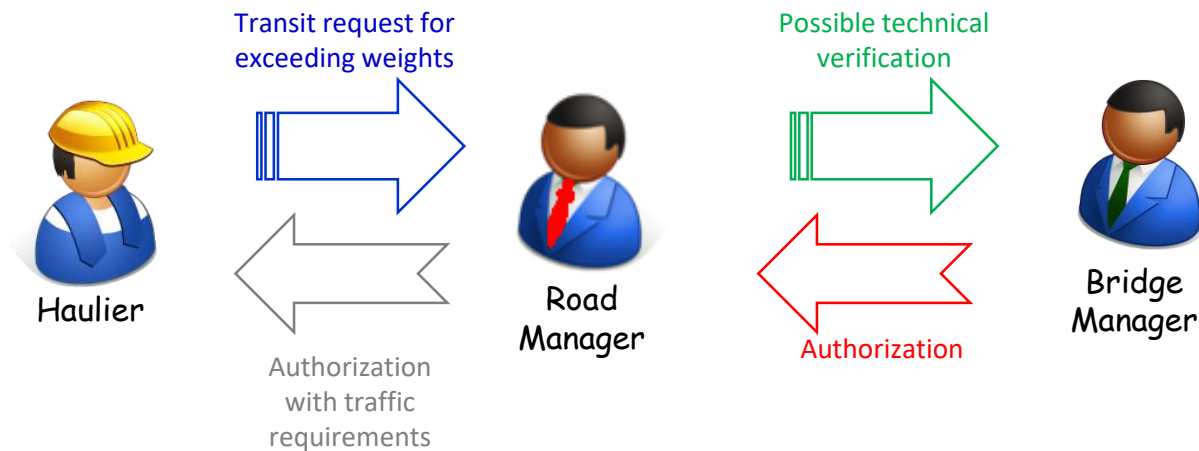
Standards of Monitoring
to be developed

Exceptional Transit “TE” on bridges crossing ASPI network

Awareness Campaign since 2014 towards the owners of bridges crossing ASPI network, to remind:

- Technical characteristics and load limits of ASPI bridges
- Procedure to authorize TE that exceed the collapse load of the infrastructure → ASPI technical “go-ahead”
- The installation of vertical signs to forbid TE over bridges

Improving the service time of the infrastructure



Pilot Project

First steps...

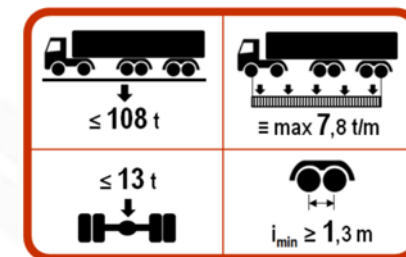
Meetings with road hauliers' association

Meetings with «Third Party» managing bridges crossing ASPI network

International Benchmarking

PILOT PROJECT STRUCTURE

- ✓ Deployment of a specific database for bridges crossing ASPI network considering:
 - Technical & Geometrical analysis
 - Identification of load limits
- ✓ Deployment of an Informatic tool able to streamline request and release authorization process
- ✓ Sharing of light procedures to manage the whole process



- ✓ Applied on 70 bridges with high priority due to the higher number of TE;
- ✓ Vehicle classification, with load limits, subdivided into *cranes* and *normal convoy*;
- ✓ Web Portal «**TE Crossing**» developed by ASPI which allows to:
 - consult the qualified map of the bridges;
 - formalize the request for permission;
 - facilitate the payment of any technical verification charges;
 - request and obtain, via internet, the authorization in digital format.

Future Applications

★ "TE Crossing" to be extended to the whole ASPI network ➔ ≈ 1900 bridges

★ **AGE Project (Autostrade Google Earth)**

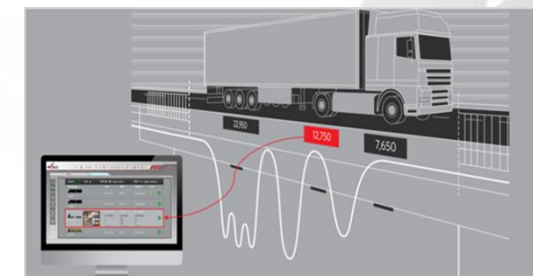
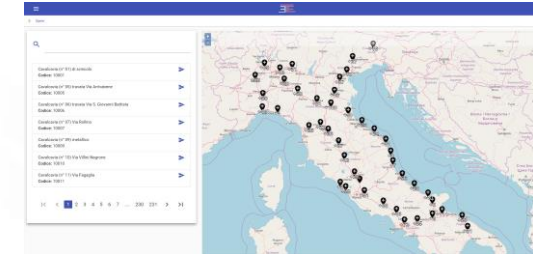
- Creation of a register containing all the bridges and overpasses of ASPI network, which could be viewed through On-Line portal or Application (My Way / My Way Truck).

★ **Smart Monitoring Project**

- Real time monitoring system for exceptional transit in order to observe total weight, axle weight and speed

★ **Additional Improvement**

- Identification of TE's itinerary along non-highway routes, whose structures (bridges, overpasses, etc.) will have to be upgraded in order to guarantee a safe passage for those vehicles



Thanks for your attention

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