

ETP 2010 Conference

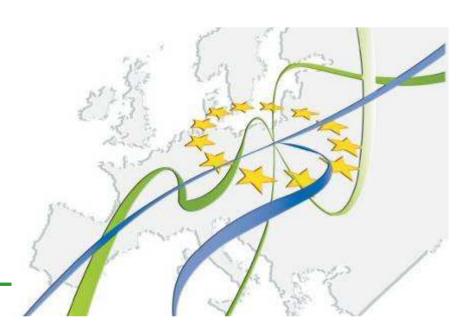
Working together on societal challenges

...towards a greener, safer and smarter European Road Transport System

ERTRAC – improving road transport safety and security

Nevio Di Giusto

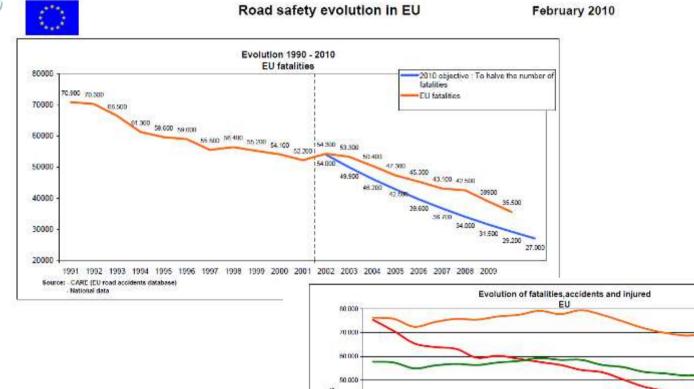
Centro Ricerche Fiat





Road Safety

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Source: CARF (FII road accidents database) or national publications

1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009

-Fatalities

2,000,000 1,800,000 1,800,000 1,400,000

500,000 500,000 600,000 200,000



Road safety: still a challenge

- Reduction not only of fatalities, but also of severe injuries, number of accidents
- ERTRAC Indicators 2030
 - 60% of accident with severe injuries and fatalities
 - 70% loss in freight transport (theft and damage)

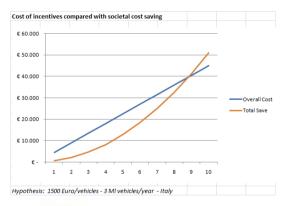




Factors

- **Mobility demand increase**
- True societal cost
- **Aging of population**
- **Evolution of vehicle types**
- **Economic downturn**
 - Demand for inexpensive vehicles
 - Less resources for infrastructures
- **Enabling technologies + eliminating** bottlenecks to implementation







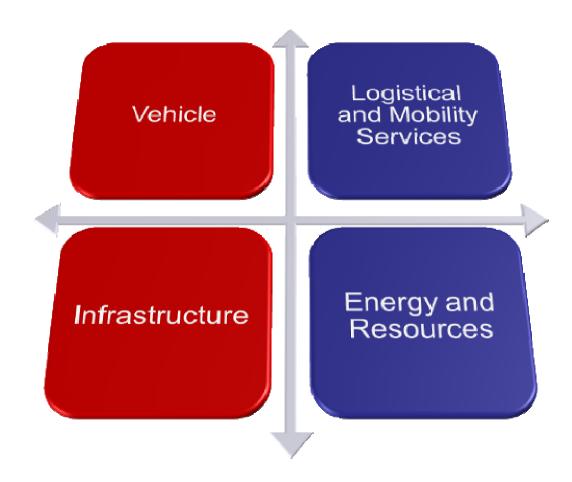








Research perspectives





Vehicle

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Safety of Low Carbon vehicles



- Knowledge of
 - Tyre-pavement interaction
 - Kinematics and Biomechanics models
 - Vulnerable users
 - Driver behaviour
 - Accident models









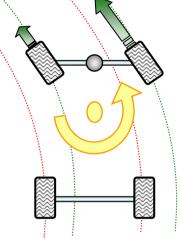


Vehicle

...towards a greener, safer and smarter European Road Transport System Advanced Driver Assistance/Support Systems

- Driver Vehicle Interface
- Intelligent Driving Dynamics
- Driver Impairment





- Automated systems
 - collision avoidance
 - in specific scenarios or supervised by the driver







Infrastructure



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Forgiving and self explaining roads





- Self-explaining roads show road users with a clear road layout where they should be and what they should do to keep safe.
- Forgiving roads are designed to protect road users in the event of a crash.



Cooperative systems



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- Large Pilot tests
- Solving bottlenecks: business model, liability, ...





Security in freight transport

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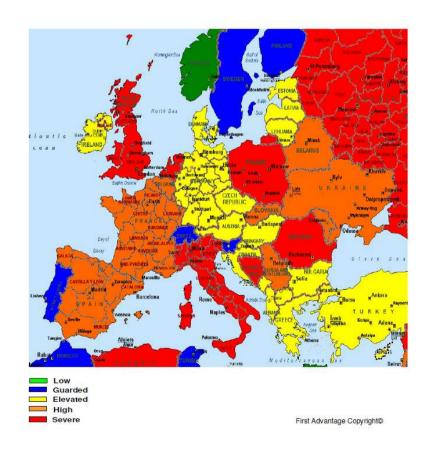
Trends in cargo theft

- No official statistics
 - 17% of all drivers have suffered an attack during the 5-year period investigated
 - 30% of attacked drivers have been attacked more than once
 - 21% of attacked drivers were physically assaulted

(report study on the 2000-2005 period)

ERTRAC indicator

 70% reduction of lost due to theft and damage





Security

- Secure roads
 - Safe parking place



- Safeguarding Systems against Theft and Damage
 - Vehicle and freight tracking
 - Integrated solution to prevent theft and freight damage

ERTRAC

ERTRAC Role



















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THANK YOU

Nevio Di Giusto

