

ESV CONFERENCE 2011 - ITALIAN GOVERNMENT STATUS REPORT

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ABSTRACT

This paper provides an overview of the main results achieved by Italy in the field of road safety during recent years. It focuses on the follow-up of the “National Plan on Road Safety”, adopted nine years ago and subsequent introduction of new provisions in the “Highway Code”.

After a general descriptions of main road safety results, this paper describes the principal measures adopted during the last period, focusing on regulatory policies and enforcement.

Weak factors and the main unresolved problems are described: regional and local gaps, safety of urban areas, high risk road network, urban crossing roads, two-wheeler safety, vulnerable users.

A brief descriptions of the research activities in the field of vehicle safety is given as well as a summary of the main recommended actions to be taken to improve road safety.

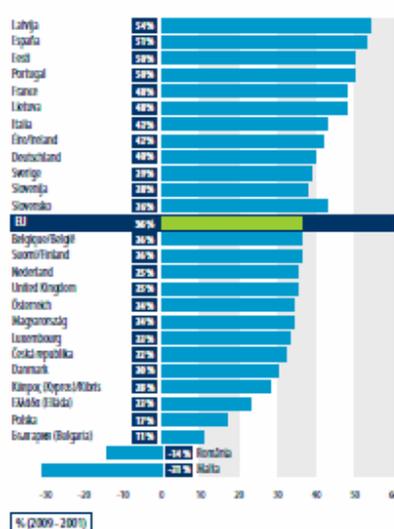
GENERAL

Road Safety in Italy

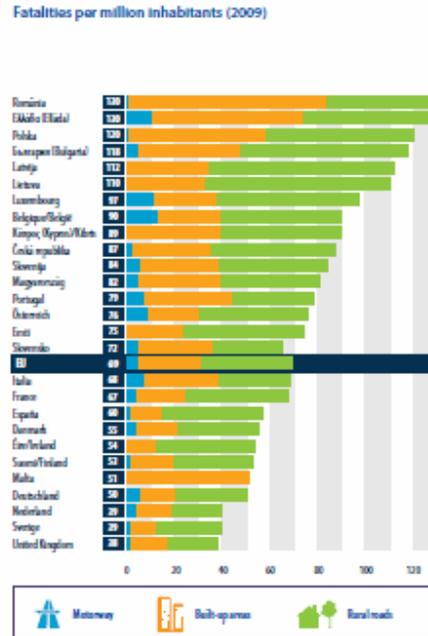
In the period 2001-2009, Italy recorded a 43 % reduction of fatalities which is the fifth best value in the European Union (EU27).

According to the report presented to the Parliament by the Ministry of Infrastructure and Transport, Italy is progressively bridging the gap with the other Member States which originated in the period 1990 - 2002.

Reduction in fatalities by country between 2001 and 2009



In spite of the progress made, Italy remains an European country with high number of fatalities (4,237 in the year 2009); Therefore, further and continuous improvements are necessary to become one of the best five countries in Europe.



The present report describes the principle measures adopted at national level to improve road safety in Italy, makes an analysis of the principle problems and suggest some actions to be taken.

THE MAIN ADOPTED MEASURES

The recent improvements in road safety are mainly due to the following factors:

Regulatory policies

The national highway code has been amended several times. In particular three major changes relating to

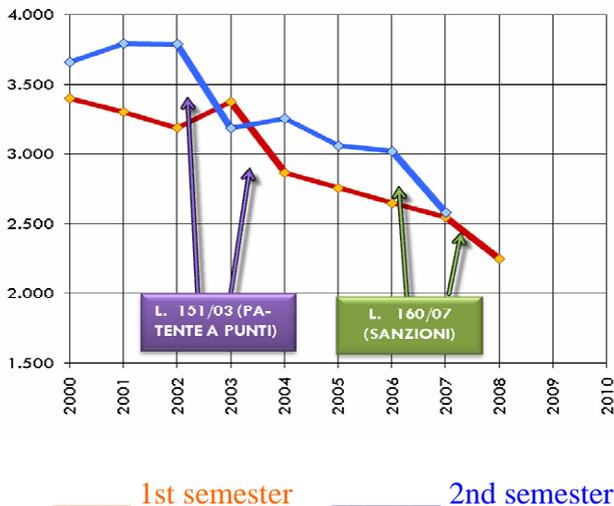
- the introduction of a penalty point system based driving license (Law 150/2003);
- revision of penalties (Law 160/2007);
- more action against drinking and driving (Law 120/2010)

need to be mentioned.

During the first two semesters of application of laws.151/03 and 160/07 a reduction of 1846 deaths has been recorded. This represents about the 86 % of the reduction of fatalities recorded between 1st January 2003 and 30 June 2008.

In the six preceding years (1997-2002) no reduction had been recorded.

THE EFFECT OF NATIONAL REGULATORY POLICIES
ON THE FATALITY RATE



Assessment on the effect the last amendment is not possible yet (Law 120/2010), anyway the major measures concern:

- Novice drivers (holding a driving license for less than three years), young people aged up to 21 and professional drivers (taxi, truck, bus) can not drive if they have taken alcohol or drugs: → **no alcohol tolerance, BAC= 0 g/l;**
- More severe penalties when driving under the influence of alcohol or drugs: → **drivers can be arrested when BAC is more then 0,8 g/l;**
- Drug tests for novice drivers and professional drivers (at the time of renewing the driving license): → **no driving license for drivers taking drugs;**
- Motorway rest areas are not allowed to sell spirits from 10 p.m. to 6 a.m. During the night hours (2 a.m. to 6 a.m.) it is also prohibited to sell any kind of alcoholic beverage : → **no alcohol on motorways;**
- Restaurants, bars, cafes, discos, nightclubs, cannot sell alcohol after 3 a.m. If they are open after midnight, they should be provided with an alcohol test device which has to be made available to customers who want to check their state of fitness to drive before leaving : → **no alcohol in the night.**

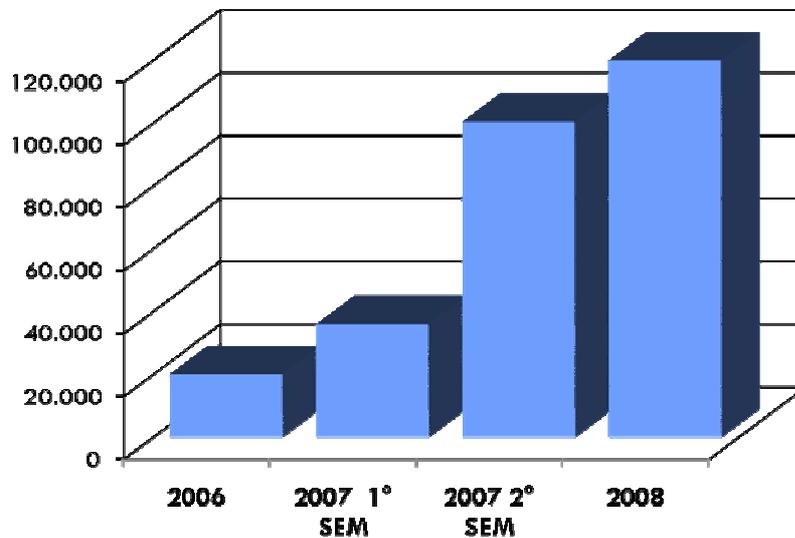
Better Enforcement

Compared to the year 2006, the number of controls carried out on the roads has increased .

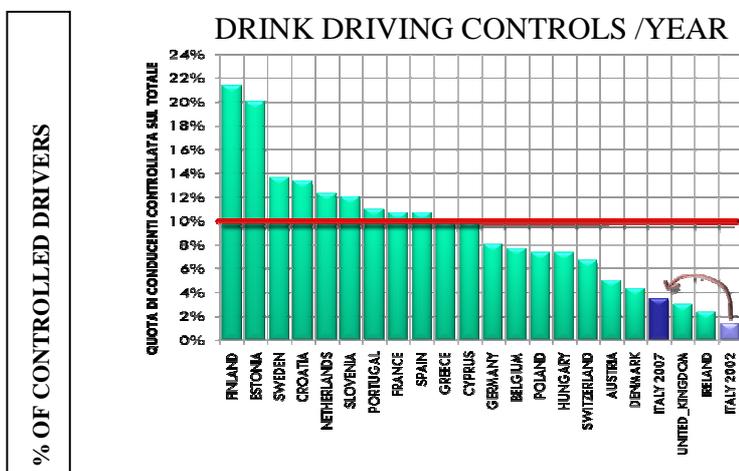
In particular, starting from 2006, the number of checks on drink and driving, compared to the number of driving licence has increased by six times (from 20,000 to 140,000 controls per month).

As for other European countries, automatic controls, made by cameras and radars have been increased and the results are quite encouraging.

CONTROLS/MONTH



The increasing number of controls has allowed to reach the target to make drivers aware of the certitude to be punished in case of high risk behaviour (e.g. drink and driving, speeding, aggressive driving, no use of safety belts and helmets).



On some of the motorways network, the introduction of the “Tutor” system that records the average speed of every vehicles passing through a specific road section, has delivered a 19% accident reduction as well as 51% fatalities reduction.

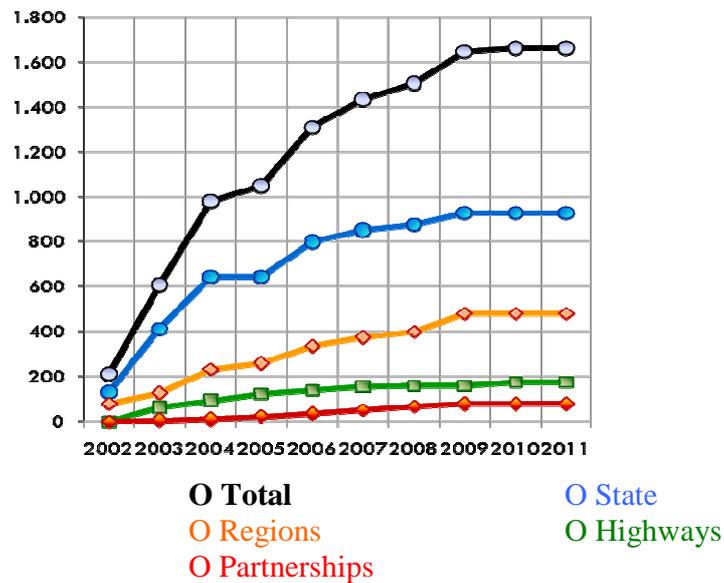
At present the Tutor system is installed on about 20 % of the highway network.



The adoption and implementation of Road Safety National Plan;

The plan, adopted in the year 2002 has been progressively implemented and financed at national and local level.

ROAD SAFETY PLAN FUNDING (MILLION €)



The last budget law introduced limits to public investment due mainly to economic crisis and to budget constraints.

Better road safety risk awareness.

The adoption at national and local level of information campaigns has increased driver's awareness with regard to drink driving, speeding, use of helmets and safety belts.

WEAK FACTORS

Road Infrastructure Inadequacy

The road network is not adequate to the present traffic flows and characteristics.

During the last 30 years we have passed from an average of 50 vehicles/km to 110 vehicles/km.

Italy has the highest vehicle/inhabitants ratio in the EU (846/1000).

Although the number of motor vehicles has increased from 22,1 millions to 51,9 millions the road network has not changed substantially.

Moreover, the quality and the maintenance degree of the existing network (with exception of motorways) needs to be improved as well as the road signs which are not always well maintained and well positioned along the roads.

Traffic regulations

Sign management plans are not adopted in a coordinated way, in urban area as well in rural areas. They should be adopted taking in due consideration road safety analysis (e.g traffic flows, black spots) rather than public opinion requests.

Education

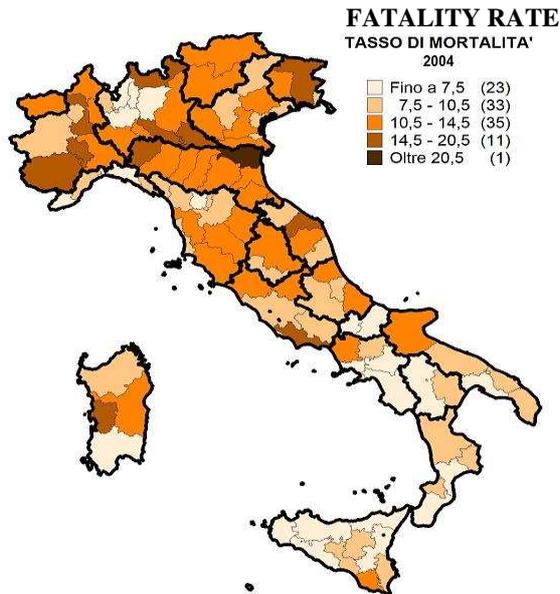
Better education is needed starting at school level and including certain categories of citizens and those people responsible for road safety.

MAIN UNSOLVED PROBLEMS

As already said, in spite of the improvements made between 2003 and to 2007, Italy presents some safety problems which still need a solution.

Regional and local gaps

Road safety risk index varies among Italian cities so that one citizen may have seven times more probability to be involved in an accident according to the region he/she is living in.



The fatality rate varies from 3 to 21 dead per 100,000 inhabitants.

Between 2002 and 2003, 12 provinces recorded an increase of fatalities between + 10% and + 50% while 10 provinces recorded abatements between -30% and -50%. In other terms, one part of Italy has difficulties on maintaining the step of Europe while the other can achieve both, the European and national goals before the year 2010.

Urban areas

Urban areas represent a major problem since the 45 per cent of fatalities recorded in 2009 happened there. In summary:

1,892 fatalities (45% of total)
223,166 injured, (73% of total)

High risk road network

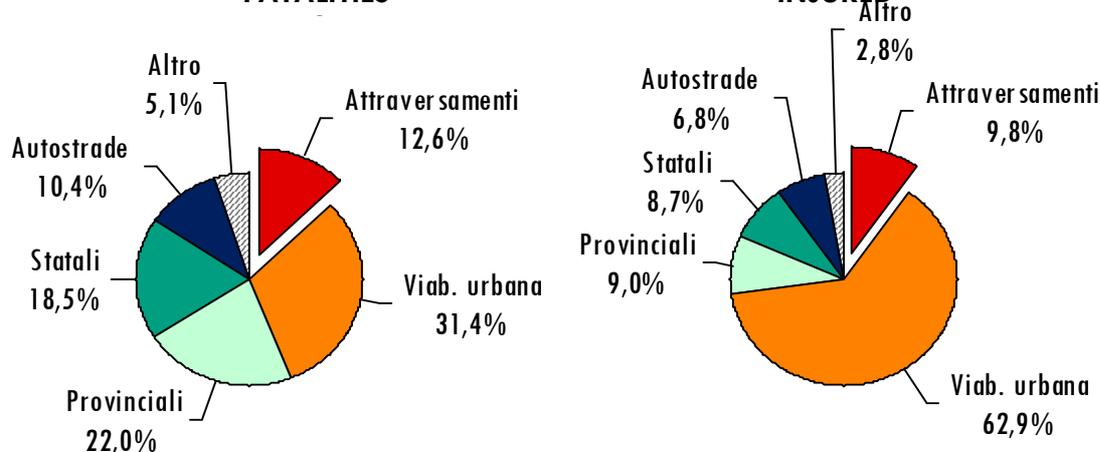
Following a study made by the Italian Ministry of Infrastructure and Transport, a network of about 6.000 km roads presenting the highest level of road accidents has been identified; Economic resources will be invested on these selected roads, on the basis of road safety priorities.

Urban crossing roads

A high victims concentration is due to accidents happening on roads crossing urban areas. This is particularly evident on roads crossing villages where road traffic conditions change completely passing from rural to agglomerate areas.

712 fatalities have been recorded in 2006, namely 12,6% of total amount, 32,700 injured (9,8%) with a social cost of 3.399 million Euros (10,5%).

ROAD ACCIDENTS SHARE ACCORDING TO THE TYPE OF ROADS



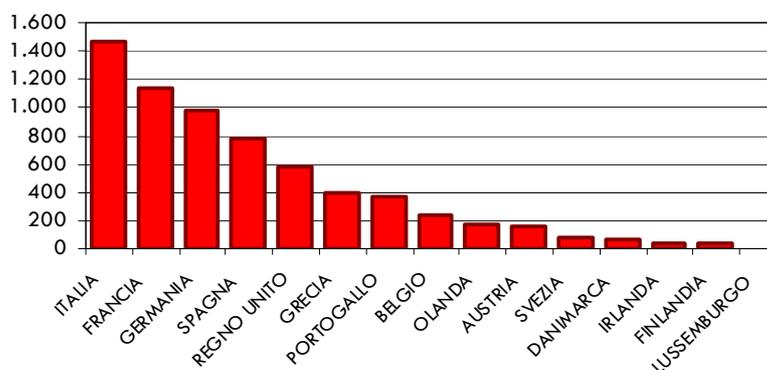
- urban roads
- urban area crossing roads
- national roads
- highways
- provincial roads
- other roads

Two wheeler mobility

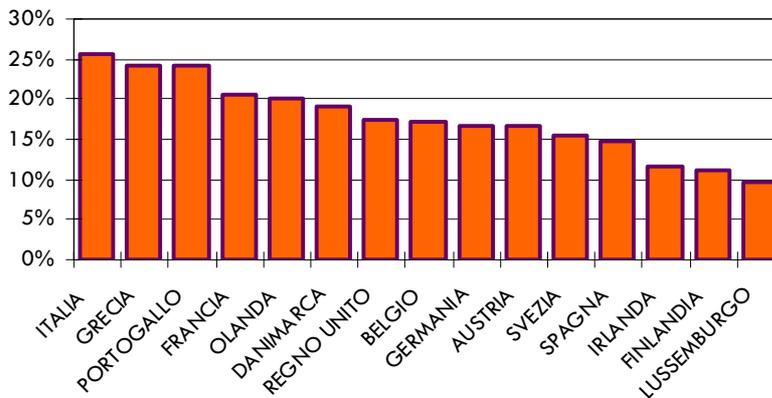
Italy has the highest number of victims in the EU15. In fact, road accident involving two wheeler users caused in the year 2007 1.540 fatalities (about 30,0% of total) and 90,551 injured (27,8%) with a social cost of 8,812 million Euros (28,3%).

About 60% of fatalities and 80% of injured people are recorded in urban areas; Therefore, a clear link between urban area road safety and two wheeler road safety exists.

Number of fatalities – motorcycles and mopeds



Percentage of fatalities – motorcycles and mopeds



The typical victim of a two wheeler accident is represented by an adult citizen using the vehicle to commute to and from the working place, running on an urban road at low speed.

Pedestrians, cyclists and elderly people

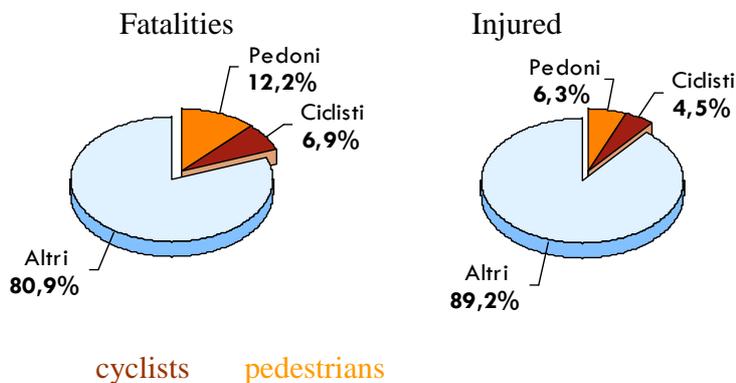
Italy has recorded the highest number of fatalities among pedestrians.

As for two wheelers, these accidents mainly happen in urban areas determining a clear safety link between urban areas and road vulnerable users

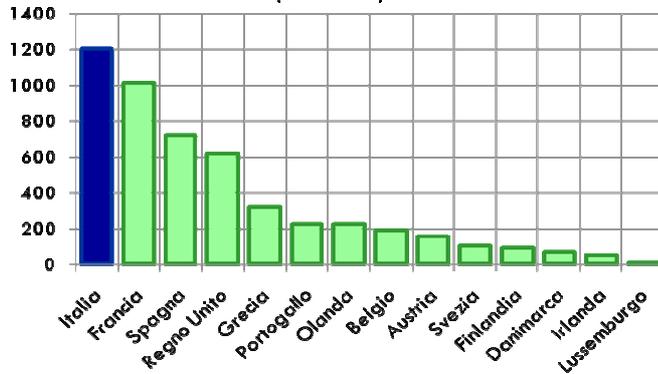
The constant increasing of number of elderly people has made the safety of this category of strategic importance.

In the year 2007 road accidents involving elderly people have led to:
 1,105 fatalities (21,5% of total) which is the highest rate in the EU
 27,000 injured (8,4%) with a social cost of 3.553 million Euros (11,4%).

VICTIMS AMONG PEDESTRIANS AND CYCLISTS



FATALITIES OF ELDERLY PEOPLE

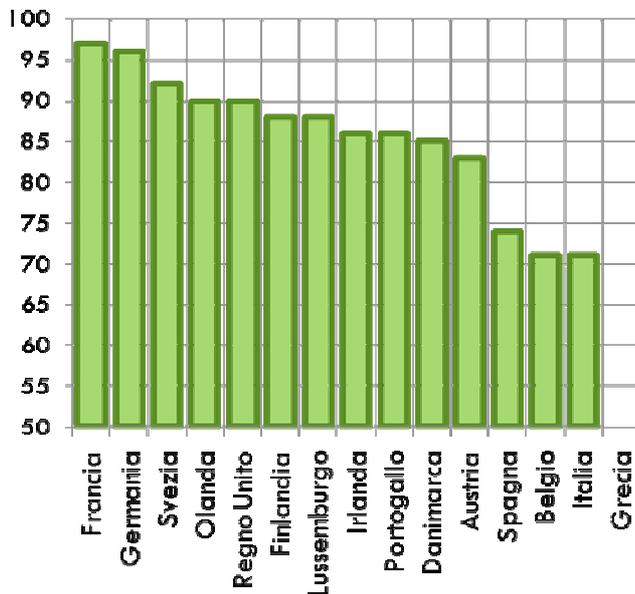


Use of safety belts and helmets

Italy has the lowest rate in EU regarding the use of safety belts (71.6 %)

According to the European Transport Safety Council (ETSC) the use of seat belts by all drivers and passengers would save about 800 lives every year.

USE OF SAFETY BELTS (% RATE)



Regarding the use of helmets the gap among regions is quite evident. In the northern and central regions the percentage of use of helmets is quite close to 100 per cent while in the southern regions

the available data show lower percentages which can reach 50 per cent at local level.

VEHICLE SAFETY RESEARCH

Research in the field of vehicle safety is mainly carried out in the framework of the activities of the European Enhanced Vehicle-safety Committee – EEVC of which Italy is member.

Researches conducted by EEVC are taken into account by the European Commission when preparing new legislation on road vehicle safety and by the UNECE which adopts technical regulations under the framework of the 1958 and 1998 Agreements.

The EEVC technical work is made by nine working groups, six of them dealing with passive safety, two with active safety and one with accidentology.

In the future, further progress in vehicle safety is expected more, in the area of active safety than passive safety.

In the field of child safety it is worth mentioning the CASPER project (Child Advanced Safety Project for European Roads) aiming at reducing fatalities and injuries of children transported in cars. The project, co-founded from European Community's Seventh Framework Programme, is managed by a consortium of 15 partners from 7 countries bringing together universities, research centres and car manufacturers (PSA, TUB, Université de Strasbourg, IDIADA, INRETS, Loughborough University, FGA, Medizinische Hochschule Hannover, Chalmers, Bast, TNO, Humanetics, Ludwig-Maximilians-Universität München, CESAR, Verein für Fahrzeugsicherheit Berlin), in the fields of automotive and human factors research, accidentology, biomechanics research, devices & technology for CRS (Child Restrain Systems).

Two are the main objectives of CASPER:

- to improve the number of correctly restrained children.
- to improve the quality of the restraint systems through the improvement of the tools (dummies, sensors, models,...) that can be used to design and develop new systems according to new test procedures that are more realistic because based on the real-life observations.

For more info: <http://www.casper-project.eu/>

An important task accomplished by Italian Partner is the collection of information on children restraint in cars through an extensive internet survey with the objective of better understand this topic and make proposals for dissemination of the findings and subsequent actions to be taken.

In the field of frontal impact protection the main research programme in Europe is the FIMCAR project (Frontal IMPact and Compatibility Assessment Research). Also this project is co-founded from European Community's Seventh Framework Programme and it is managed by 19 partners, European universities and research centres, car manufacturers and one supplier of loadcellwall instrumentation : TUB, BAST, AB Chalmers, VTI, DAIMLER, FIAT, CRF, FTSS, IAT, IDIADA, GME, PSA, RENAULT, TNO, TRL, UTAC, VOLVO, VW, TTAI .

For the real life assessment of vehicle safety in frontal collisions the compatibility (described by the self protection level and the structural interaction) between the opponents is crucial.

Although compatibility has been analysed worldwide for years, no final assessment approach was

defined. Taking into account the EEVC WG15 and the FP5 VC-COMPAT project activities, two test approaches are the most important candidates for the assessment of compatibility. Both are composed of an off-set and a full overlap test procedure. However, no final decision was taken. In addition another procedure (tests with a moving deformable barrier) is getting more and more in the focus of today's research programmes.

Within this project different off-set, full overlap and MDB test procedures will be analysed to be able to propose a compatibility assessment approach, which will be accepted by a majority of the involved industry and research organisations, in this moment the four candidate test procedures are :

PDB : Progressive Deformable Barrier (offset test)

MPDB : Mobile Progressive Deformable Barrier (offset test)

FWRB : Full Width Rigid Barrier

FWDB : Full Width Deformable Barrier

The development work will be accompanied by harmonisation activities to include research results from outside the consortium and to early disseminate the project results taking into account recent GRSP activities on ECE R94, Euro NCAP etc.

The FIMCAR project is organised in six different RTD work packages. Work package 1 (Accident and Cost Benefit Analysis) and Work Package 5 (Numerical Simulation) are supporting activities for WP2 (Offset Test Procedure), WP3 (Full Overlap Test Procedure) and WP4 (MDB Test Procedure). Work Package 6 (Synthesis of the Assessment Methods) gathers the results of WP1 – WP5 and combines them with car-to-car testing results in order to define an approach for frontal impact and compatibility assessment (*For more info : <http://www.fimcar.eu/>*).

ACTIONS TO BE TAKEN

Italy has been experiencing the greatest and most relevant amelioration process in the field of road safety during the last 30 years, which will make it possible to re-align with the other EU countries.

A series of actions have been recommended by the transport administration and are being considered at political level.

First of all, in order to improve the effectiveness on road safety it is necessary to reinforce the action and ensuring a better coordination at central, regional and local level

In this respect a new Directorate General for Road Safety has been created within the Ministry of Infrastructure and Transport. This new organisation is linked to the corresponding regional offices which should make it possible to deal with road safety in a more systematic way.

Secondly, it is clear that the enforcement action is producing positive effects; therefore we expect to continue to increase the number of controls on the roads with a better and dissuasive enforcement of traffic rules.

Another priority will be the creation of a road safety culture, starting from school level with the aim of making the young population more aware of the need of careful and responsible drive. This priority should also concern administrations dealing with road safety in order to train better the existing human resources and prepare the new professionals to better deal with the subject.

The Road Safety National Plan has strongly recommended the adoption of a monitoring network based on local administrations and coordinated at national level. The aim of the monitoring would be

to know better the state and the evolution of road safety, to know the road safety measure adopted during the years and the results which have been achieved, to assess the effectiveness of the adopted measures.
