

The recent progress of road safety in France

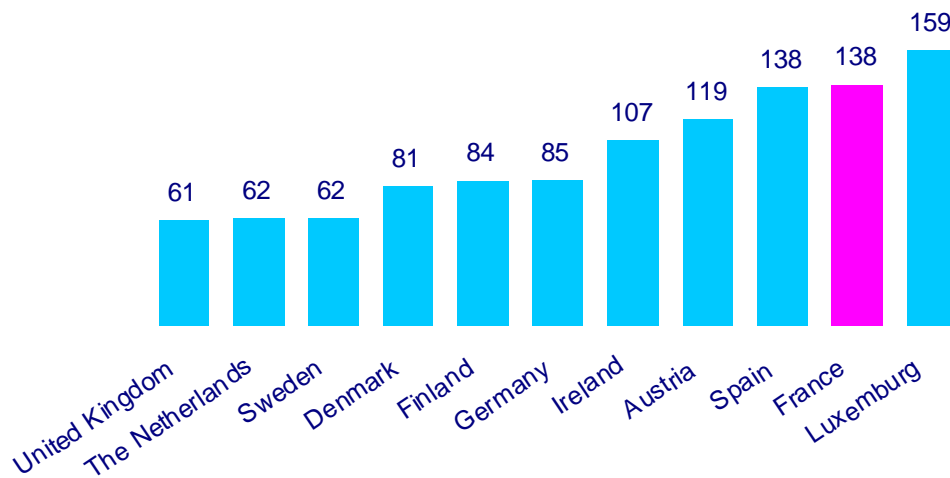
During the last three years, France has experienced a tremendous cut in the road safety results, with a decrease of 33 % in the number of deaths on road between 2001 and 2005. Therefore, it seems useful to examine this “success story” in order to learn for future or for others countries.

French Road Safety Observatory is the body in charge of collecting all pertinent data on road safety.

1. ROAD SAFETY IN FRANCE BEFORE 2002

Before 2002, France was in the queue of Europeans countries in terms of road safety results with a close to 140 per million inhabitants rate, instead of almost 60 for the best countries.

Fig1: Fatalities per million inhabitants in 2001



There was a real willing to decrease this rate: in 1997 the French Transport ministry fixed a national target of a 50 % decrease on the number of fatalities within five years. Nevertheless, no positive results were obtained as shown in the following table.

Table 1: number of fatalities on road in France (1992-2001)

1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
9 601	9 568	9 019	8 891	8 541	8 444	8 918	8 487	8 079	8 160

Instead of 50 % of decrease, the result was only a decrease of 3,5 % during that period (8 444 fatalities in 1997 and 8 160 in 2001).

Several explanations can be put forwards for these bad results.

First, the density of population (number of inhabitants per km²) of France is very low and we know that density is positively related with security. In dense countries, people do not have to travel a long distance to go to work or for leisure or shopping; they often can take public transportation; and if they take their car, they take highways that are very often congested. All these factors contribute to a very high level of safety.

Alternative reasons for these bad results in France relate to a faulty behaviour of French drivers towards speed, alcohol and safety belt, this behaviour being itself due to a very low level of traffic law enforcement, showed in table 2.

Table 2 : violation and sanction in France

2001	Impaired driving	Above speed limit	Without safety belt	Without driving licence
Part of infringement	2,7%	25%	9%	2,7%
Number of tickets for 100 drivers	0,6	3,8	2,0	0,2

This may be expressed in that way: in 2001, there were 2000 hours of driving 10 km/h above the speed limit for one ticket and the number of tickets during one year represented the number of offences that one radar on an average national road could record during six months.

This bad level of enforcement is partly due to the scale of the road network in France (1 million of kilometres of roads) that makes control more difficult. Moreover, in France, there was a very common habit for police to suppress tickets for friends or after a political recommendation.

As early as in the years of 2000 and 2001, there were signs of the change of mind in France towards road safety. Road deaths were, less and less, considered as a fatality, and more and more, as something that could have been avoided if our behaviours and our politics had changed.

In that struggle, the associations of victims though not strong, were very active. They protested soundly every time the results were bad. They fought vigorously against the amnesty after the President election, a regretful habit of French republic that induced before the last polls (1988 and 1995) an increase of speed and consequently an increase of fatalities.

All associations' interventions were largely covered by the medias that became more and more interested on road safety.

Although the results were not favourable, the government played a role in the change of mind by reinforcing communication with strong messages and a hardening of the sanctions. For instance, the police was allowed to suspend immediately the driving license when the driver exceeds speed limit by more than 40 km/h. This last measure has a strong psychological effect: the fast driver was very often obliged to let his car and call for help.

Above all, one of the more important contribution of this government to road safety was probably the technical and juridical preparation of the automatic speed control (ASC).

2. MEASURES TAKEN

The turning point was in summer 2002, when the French Parliament refused the amnesty for all road infractions and when the President declared road safety as a priority work during his mandate.

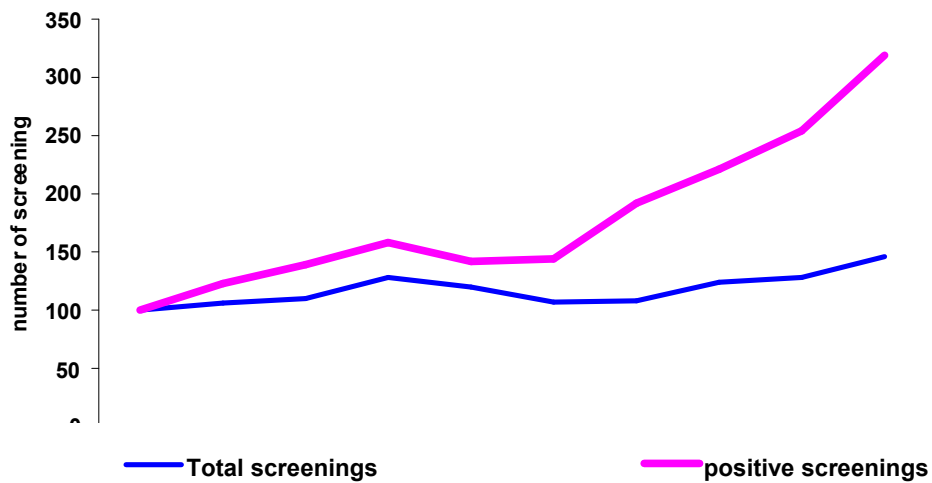
After a high level conference, which was held on September 2002 in Paris, with the participation of six ministries including the Prime minister, the government decided, at the end of 2002, series of measures.

The major one, that was also the more symbolic, was the decision to settle an **automatic speed control system**. We have seen above that our speed control system was particularly inefficient: the main reason of that situation was that, as the administrative work was tremendous, police officers limited the use of radar in order to have time to made all the administrative work after control. The automatic system was made completely automatic: after the flash, a special network sends the photo automatically to a central. The recognition of the number plates is made by an automatic system; then there is an inquiry of the national license registry that allows the sending of ticket directly to the owner of the car. The first plan forecast 1000 automatic radars, 700 fixed ones pre-signalled by information panels and 300 mobile ones.

Another part of the plan consisted of more severe penalties, on alcohol (6 points lost instead of 3), safety belt (3 points lost instead of 1) and using a mobile phone while driving (2 points lost instead of zero).

Finally the plan also encouraged the police to improve the **efficiency of their control** as shown in figure 3.

fig 3: evolution of the rate of alcohol preventive screening
(100 = 1995)



Although the number of alcohol preventive screenings did not significantly increase during the period, the number of positive screenings grew impressively since 2002. This simply means that policemen succeeded to monitor their control during better moments of the day in order to be more efficient.

All these measures produced a level of **media noise** far higher than the communication plan itself, that induced an improvement of behaviour. Two spectacular accidents also contributed to this campaign: one located in Vitry in the suburb of Paris where a mother and two children waiting at a bus station were killed by a young man driving a very rapid and wealthy car: the contrast of the two situations led to numerous comments on road safety. The second accident was located at Loriol in the south of Lyon, on the highway: a driver, 77 years old, killed five volunteer firemen working on the highway. In that case, the contrast was between the rapid car and the generous volunteer and here the debate turned to the issue of elderly driving.

3. RESULTS OBTAINED

The result of these measures and these actions was a tremendous cut in the number of fatalities as shown in table 3.

Table 3: number of fatalities on road in France (1998-2005)

1998	1999	2000	2001	2002	2003	2004	2005
8 918	8 487	8 079	8 160	7 655	6 058	5 530	5 318

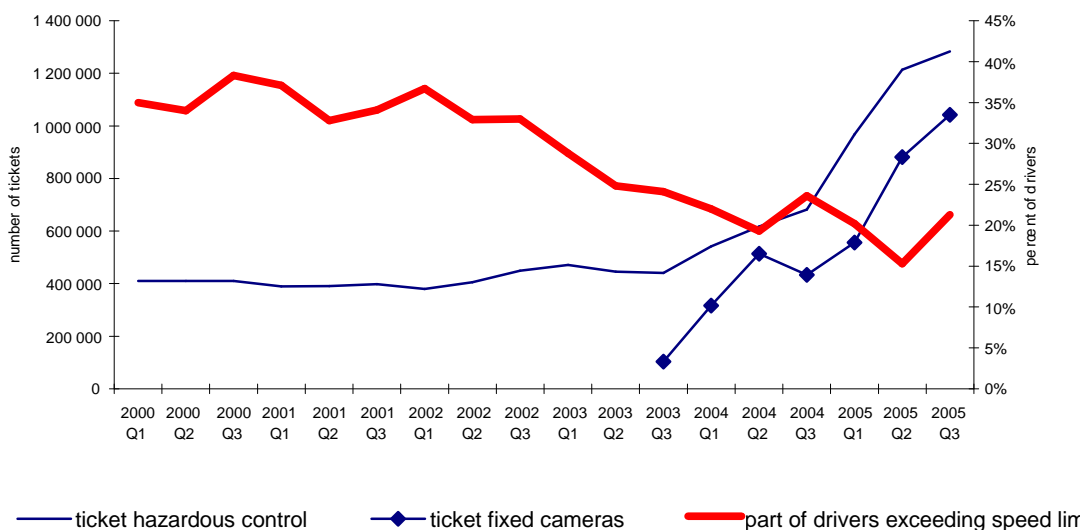
Between 2001 and 2005, the number of fatalities on road turned down from an average of 8000 deaths per year to 5 300, which represents a decrease of more than 34 %.

France Road Safety Observatory had been in charge of an assessment of the automatic speed control system and his impact on road safety. We study the local and global effect on speed and accidents. We study also the social acceptance for the system.

We suggest to distinguish two types of control: fixed camera with warning signs that is a sort of training to speed respect and hazardous control with traditional cameras and automatics mobile cameras that is real control.

As showed in figure 4, the speed decrease in two steps : first, at the end of 2002, at the announcement of the implementation of the automatic speed control (ASC) and secondly, at the end of 2003, by the setting up of the first cameras.

Fig 4: relation speed and automatic speed control

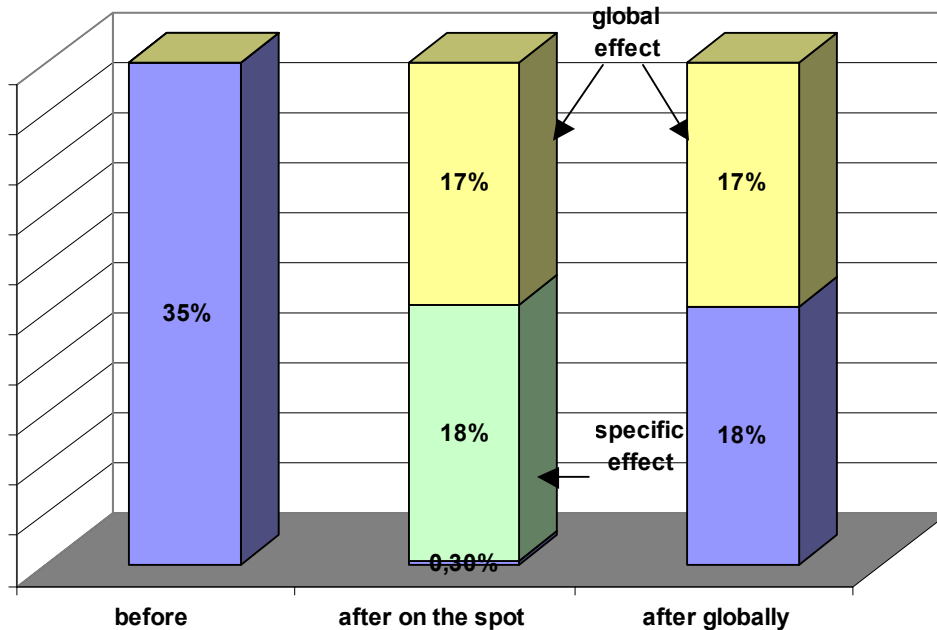


Warning signs marks fixed cameras so there is very few drivers who ignore them or forget about them on familiar trips. Few months after installation of a fixed camera, the average proportion of offenders among drivers checked was about 0.33%: local effect is very high.

Over the 6 km stretches of road centred on fixed speed cameras, injury accidents and fatal accidents decreased by respectively 40% and 65%, which was much higher than the decrease observed at the national level during the same period (19% and 28%). The figures must however be moderated by the fact that high-risk locations were often selected to install speed cameras (there is a probable regression to the mean effect).

But more important than the local effect, is the global effect, as the number of exceeding speeds had been divided by two (18% instead of 35%).

decrease in excesses of speed limits (> 10 km/h)



With the implementation of ASC, the average speed on French roads decreased by 5 km/h over three years. The rate of very severe violations (more than 30 km/h) was divided by 5. It was observed that part of the drivers that already complied with speed limits before implementation of ASC reduced their speeds even more after.

It was estimated that, at the end of 2005, each driver was on average checked 7 times a month by fixed speed cameras. In March 2005, 56% of the persons interviewed knew somebody who had been detected as an offender and fined, and each person penalized had talked at least to 16 others. Personal communication channels were thus an important vector of awareness of CSA.

Finally, the decrease of speed explain three quarters of the decrease of accidents.

Considering **alcohol**, there is a decrease of the part of fatal accidents with alcohol.

Table 4: fatal accidents and impaired driving

	2000	2001	2002	2003	2004	2005
part of fatal accidents with alcohol	30,3%	31,2%	29,7%	31,1%	30,7%	28,1%
part of drivers with alcohol			2,71%	2,49%	2,42%	2,46%

Nevertheless the analysis (see ONISR, 2005) shows that the part of drivers with alcohol does not decrease: the decrease of fatal accidents with alcohol appears to proceed from a side effect of the general decrease of speed.

Concerning the **safety belt**, the endorsement of the punishment had a clear effect:

Table 5: part of fatalities attributable to non use of safety belt

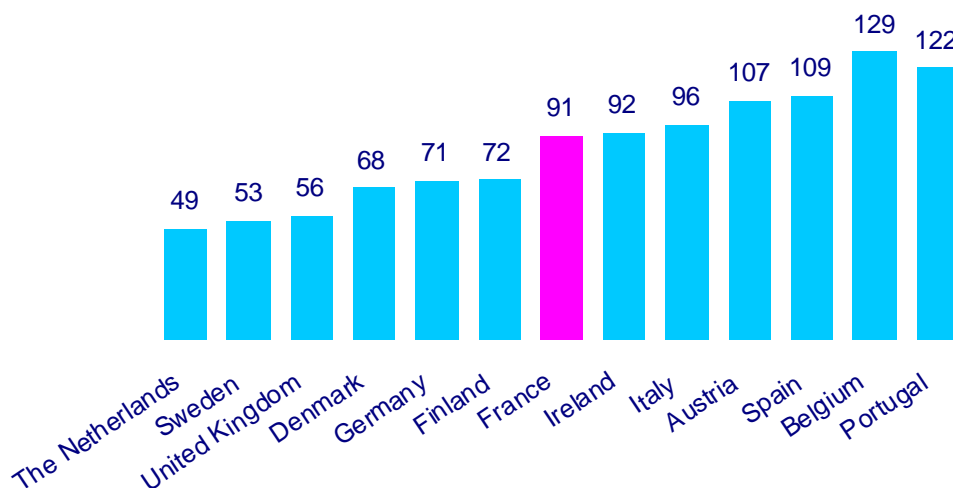
2002	2003	2004	2005
12,0%	10,7%	11,2%	9,6%

For the first time, part of fatality attributable to non-use of safety belt fall under 10 %.

But all the measures decided did not turned out to be a success: the project of a systematic medical examination failed. The experiment of day-time running light was stopped and the provisional licence for the beginners drivers did not improve the results of this part of drivers.

Nevertheless, the global result is positive and France is now at the seventh position among the European countries.

Fig 5: Fatalities per million inhabitants in 2004



4. WHAT ABOUT FUTURE

After the sharp decrease, it seems difficult to progress further. However, it remains a lot of possible progress as shows the table below

Table 6: different ways to reduce fatalities and their potentiality

Alcohol	25 %
Cannabis	2,5 %
Safety belt	9,6 %
Day-time running lights	5,5 %
Speed	25 %
Road side obstacle treatment	16 %
Separation of the two direction	5 %

The five first factors are related to behaviour and need communication and control. The three last factors are related to infrastructure treatment. Speed management is related to the three types of action (communication, control and infrastructure treatment).

For 2006, we expect a decrease of about 15 %, which is a very good result if we compare with the trend of the last twenty-five years (about 2,3 %).

This result is again linked to new **progress on speed** and the reason of this is not the settlement of new cameras but the progressive effect of point driving licence.

Due to the high number of tickets that have been given, we think that about one third of the drivers would have at the end of 2006 less than 12 points. This will lead drivers to check their speed and the speed limits more systematically as losing points on one's driving license has longer time effects than paying a fine.

The reverse effect of this system that lies on the changes of behaviour of the majority is that, there is more and more discontent against the system taking into account that automatic speed control system allows only a minor tolerance above limits and that local speed limits are not always adapted to local infrastructure and traffic conditions.

Another weakness of the system is that motorcyclists are too rarely caught by the system; the system is being gradually improved by placing the new speed cameras in position of taking photographs of the back of the vehicle. But this would not be sufficient to reduce the speed of motorcyclists that are a very high risk group (16% of fatalities for 0,8 % of traffic)

For alcohol, there is no easy route for progress: all what is done nowadays is toward festive impaired driving (through designating sober drivers or mass alcohol preventive screenings) although there is not enough done towards chronic alcoholic driving.

Another sustained problem is the secondary road network, which is extensive in France: nearly 40% of fatalities on intercity roads occur on provincial roads. Most of the secondary road network escapes fixed cameras and the number of mobiles ones is small compared to the length of roads to cover. Moreover the decision of infrastructure treatment is disseminated into numerous local authorities.

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NOTES

¹ This report may be consulted in
http://www.securiteroutiere.gouv.fr/cnsr/2_documents_page_travaux/306_rapport_csa.pdf