

# ENSR

NATIONAL ROAD SAFETY STRATEGY



## NATIONAL ROAD SAFETY STRATEGY

2008-2015

March 2009

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## INTRODUCTION

To face the high level of road accidents in Portugal the National Plan for the Prevention of Road Accidents (NPPRA) was approved in 2003. The Plan established the general aim of cutting the rate of deadly victims and serious injuries by 50% until 2010 and laid down further aims targeting more vulnerable members of the population.

Having realized that such Objectives had been met before their deadline, this document was designed by ANSR – Autoridade Nacional de Segurança Rodoviária [*National Road Safety Authority*] under the scrutiny and scientific review of ISCTE and according to the 2008 GOP concerning Road Safety (Law No. 31/2007, of 10 August). The aim of this document was to present the definition of the National Road Safety Strategy (NRSS) for 2008-2015 and its development in the second part.

The NRSS (Part I), assesses the progression of fatalities at European Union level in Chapter 1. It is followed in Chapter 2 by the Strategic Objectives for 2008-20015 and 2008-2011. The latter time span is considered for the purpose of monitoring and assessing any actions that will be implemented in the future.

Chapter 3 explains the methodology that was adopted in designing the NRSS. It includes three phases: definition, development and implementation. The responsibility and organization of the projects that are to be developed at each phase are treated in Chapter 4.

The first phase of this project, the definition of the NRSS is presented in Chapter 5 where the current situation is diagnosed based on four criteria. As a consequence, groups and risk factors that deserve special attention as regards road fatalities are identified. After choosing the indexes that will be used, the Strategic Objectives for 2008-2011 and 2008-2015 are laid out. It was also necessary to establish the Operational Objectives and the corresponding Key-

Actions (which matter is discussed in detail part related to the development of NRSS). This is treated in detail in the part on the development of the NRSS.

In chapter 6 brief mention is made on how the NRSS shall be implemented, e. g., the Actions shall be carried out and their monitoring and assessment.

In chapter 7 the expected social and economical benefits are pointed out.

As to the development of the NRSS (Part II), chapter 1 summarizes the guidelines and framework rules aimed at the Technical Structure. While representing several bodies and institutions the Technical Structure was tasked to develop the Operational Objectives under ANSR and submit a first set of Key Actions to implement the Strategic Objectives.

The consolidation of the Operational Objectives resulting from the study performed by the Technical Structure and the Key Actions and their operational Framework are presented in chapter 2, which is also the last.

The documents that have been produced by the various working groups are available at the ANSR internet site.

**NATIONAL ROAD SAFETY  
STRATEGY  
2008 – 2015**

**PART I – DEFINITION**

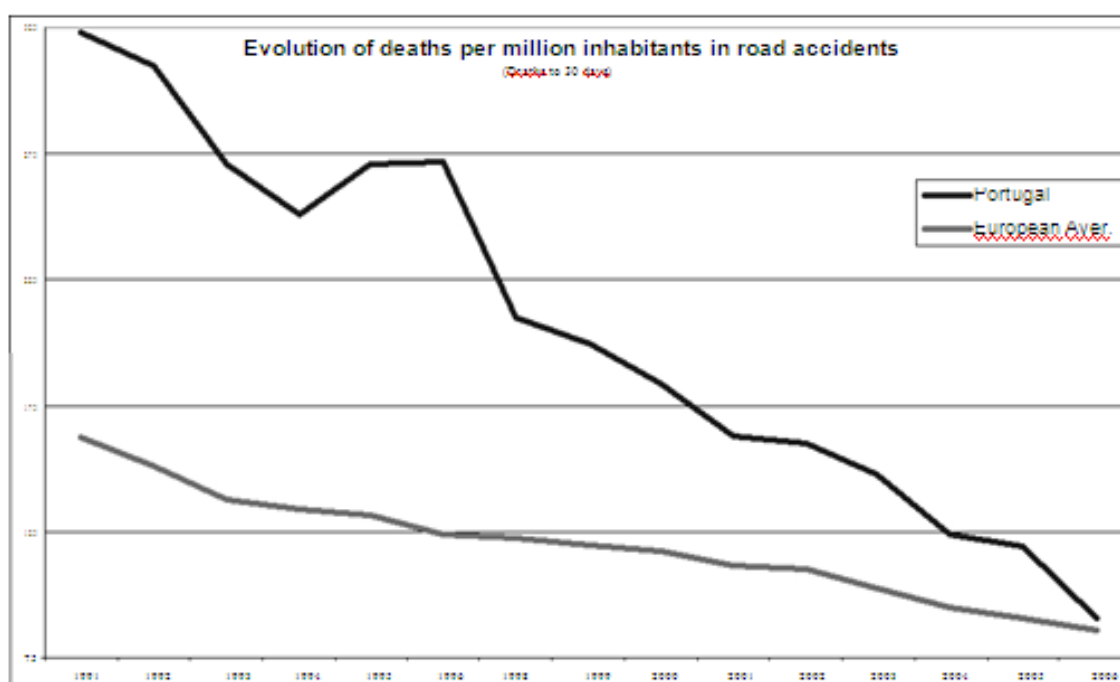
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**STRATEGIC OBJECTIVES**

## 1. PREAMBLE

The results that have been achieved since the late 1990's foster a positive outlook on the progress of road accidents in Portugal and encourage us to plan an ambitious strategy that will enable Portugal to enjoy a comfortable position within the 27 countries of the European Union.

In fact, encouraging results have been achieved this past decade. There has been a significant decrease in the number of deaths and some of the priority segments set out by the National Plan for Preventing Road - NPPR 2003, namely pedestrians and two-wheeled vehicles also scored good results.



Source – CARE

The years 2008–2015 have been established as temporal framework for implementing a National Road Safety Strategy. Hence, for this paper we have used the years 1999-2006 for comparison.

During this period the decrease in road accidents in Portugal was more significant than in any other European country (54,5% vs. 23,8% of the EU average). In several other periods that have been considered for this study, Portugal has always ranked among the top positions as regards the decrease in deaths caused by road accident.

	Evo. 75/06	Evo. 91/06	Evo. 03/06	Evo. 99/06	Evo. 99/02
Germany	-71,8 %	-56,3%	-22,5%	-34,7%	-12,6%
Austria	-74,8%	-58,2%	-27,0%	-37,8%	-11,9%
Belgium	-59,1%	-47,9%	-16,2%	-28,5%	-7,3%
Cyprus		-36,0%	-17,6%	-32,1%	-19,4%
Denmark	-64,5%	-50,8%	-27,5%	-40,2%	-11,3%
Slovakia		-16,4%	-19,2%	-19,2%	-5,8%
Slovenia	-61,2%	-44,6%	5,8%	-24,3%	-20,1%
Spain	-48,8%	-62,6%	-34,6%	-41,0%	-9,0%
Estonia		-51,4%	25,6%	-9,5%	-2,4%
Finland	-65,9%	-47,6%	-9,6%	-21,4%	-4,8%
France	-72,5%	-59,2%	-25,7%	-48,3%	-11,0%
Greece	8,5%	-27,5%	2,7%	-23,1%	-23,6%
Hungary	-18,6%	-36,3%	-0,8%	-2,4%	10,2%
Ireland	-52,8%	-31,0%	2,4%	-21,6%	-13,5%
Italy	-50,5%	-35,7%	-13,2%	-22,0%	0,0%
Latvia		-49,0%	-22,4%	-29,8%	-12,3%
Lithuania		-29,7%	8,8%	5,2%	-5,2%
Luxembourg	-77,5%	-63,9%	-33,9%	-42,6%	2,9%
Malta		-44,4%	-37,5%	127,3%	272,7
Netherlands	-74,8%	-49,4%	-31,7%	-37,7%	-11,6%
Poland	-16,9%	-33,8%	-7,4%	-21,3%	-12,6%
<b>Portugal</b>	<b>-73,7%</b>	<b>-71,8%</b>	<b>-38,5%</b>	<b>-54,5%</b>	<b>-20,0%</b>
United Kingdom	-52,9%	-32,5%	-9,7%	-8,2%	-1,6%
Czech Republic	-36,1%	-19,4%	-26,8%	-26,2%	-0,7%
Sweden	-65,8%	-43,7%	-16,9%	-25,8%	-4,5%
<b>European Average</b>		<b>-46,9%</b>	<b>-16,5%</b>	<b>-28,3%</b>	<b>-8,3%</b>

Sources: IRTAD (until 1990); CARE (from 1991)

From 1975 on, together with Luxemburg (Europe of the 15), Portugal moved from the bottom rung to the top half of the ladder in 2006 (Europe of the 27). Considering the very same 15 EEC Member-States, during this period Portugal surpassed three of them (Italy, Belgium and Greece) in international statistics.

However, better than this relative jump, was the narrowing of the gap between the European average of deaths per million inhabitants.

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
European average	162	151	138	134	132	124	126	123	120	117	112	110	103	95	91	86
<b>Portugal</b>	<b>323</b>	<b>310</b>	<b>271</b>	<b>251</b>	<b>271</b>	<b>272</b>	<b>250</b>	<b>210</b>	<b>200</b>	<b>184</b>	<b>163</b>	<b>160</b>	<b>148</b>	<b>124</b>	<b>119</b>	<b>91</b>

Sources: IRTAD (until 1990); CARE (from 1991).

As regards the deaths per 24 hours used as base for the national disaggregation, fatalities decreased 51.4% (54.5% per 30 days) in 1999–2006. There was a 60.3% reduction as concerns pedestrians and 53.1%.reduction for two-wheeled vehicle users.

However, since the social and economic consequences of road fatalities make them unacceptable and because the position that Portugal holds within the European Union is not satisfactory, in spite of the above-mentioned improvement, it was decided to tackle the problem as a **NATIONAL CHALLENGE** that calls for the engagement of every single one of us.

Even though Portugal is already on the top half of the table of fatalities (13th) of in the Europe of the 27 and in spite of having been among the most effective countries in meeting the aim set by the European Union of reducing in half the number of road deaths until 2010, the rate of deaths per million is still higher than average (91 vs. 86).





Relative Ranking - Deaths/Million inhabitants in European Union					
1°	Malta	25	14°	Italy	92
2°	Netherlands	43	15°	Slovakia	97
3°	Sweden	49	16°	Belgium	98
4°	United Kingdom	56	17°	Czech Republic	104
5°	Denmark	58	18°	Cyprus	112
6°	Germany	62	19°	Romania	122
7°	Finland	66	20°	Bulgaria	124
8°	France	75	21°	Slovenia	128
9°	Luxembourg	78	22°	Hungary	130
10°	Austria	84	23°	Poland	137
11°	Spain	85	24°	Greece	150
	<b>European Union (Average)</b>	<b>86</b>	25°	Estonia	152
12°	Ireland	87	26°	Latvia	177
13°	Portugal	91	27°	Lithuania	223

2006 — Source European Commission — DG Energy and Transports

An assessment carried out this year by ISCTE for the Ministry of the Interior that was based namely on the Action Program of 2003-2005 of NPPR brought up the need to lay down Objectives that are clear, measurable, subject to a budget and audited by an external body, lee by a strong co-ordination structure and relying on a strong political engagement at the highest Government and State level.

The study indentified some priorities and several critical segments that deserved particular attention in the development and effectiveness of the new National Road Safety Strategy:

- Traffic slowdown (speed control);
- Controls on driving while drunk or impaired by drugs;
- Education and training with a view to a safe traffic environment;

- Victims' assistance (especially as regards promptness and the establishment of a specialized network of hospital infrastructures);
- Road and sign inspection (especially in national and municipal roads);
- Vehicle safety inspection.

This assessment also produced a specific recommendation concerning accidents within urban agglomerations and those involving two-wheeled vehicles. Furthermore, it recommended prompt application of penalties and addressed the target-public for communication campaigns, automatic speed control (radars) and the establishment of a sustainable mobility policy in the next plan.

## 2. SCOPE AND AIM

The NRSS is based on specific aims that are clear and quantifiable. While realistic, such aims must be ambitious and enable Portugal to become an example sustainable over time in the fight against road fatalities.

Austria and Luxemburg were taken as qualitative points of reference for such objectives and at the term of the NRSS Portugal should have fatality rates identical the ones in those countries. Both, together with Portugal and Slovenia, were included in 1975 among those with over 300 deaths per million inhabitants. Today they are below the European average, having reached those thresholds in a more balanced manner than Portugal.

Hence, and in order to respond to the NATIONAL CHALLENGE of reducing road fatalities, NRSS holds a qualitative goal:

- To place Portugal among the 10 EU countries with a low number of road fatalities measured in deaths to 30 days per million inhabitants\*

\* European statistics, CARE database, use 30-day deaths rates as standard. Such data are not available in Portugal and a conversion factor is used (24 hour-deaths x 1.14).

The need to assess and monitor how NRSS unfolds and performs suggests two time-frames:

2008 / 2011

2012 / 2015

According to the studies that have been carried out, NRSS should reach the following quantitative objectives:

- Reduce the number of road fatalities in Portugal until 2011 so as to reach 78 deaths per million inhabitants, the equivalent to a 14.3% reduction (2006 base).
- Improve that indicator so as to reach 62 deaths per million inhabitants in 2015, the equivalent to a 31.9% decrease (2006 base)

By comparing numbers in the remaining EU countries, the plan to decrease road fatalities in Portugal allows us to believe that the qualitative goal that was set for the NRSS will be reached in 2015.

The above-mentioned quantitative objectives are based on the number of deaths in 2006 and must be reached by both reducing the number of accidents and their seriousness.

We believe that the reduction in the number of deaths can only be sustained by reducing the total number of accidents with victims and reducing their consequences.

As shown in the table below, such reduction has been occurring on a much slower pace than the reduction in the number of accidents with deaths. In the last time period examined (2003/ 2006), the difference was even more obvious.

Total of accidents w/ victims (1) and accidents w/ deaths (2)							
	(1)			(2)			(2)/(1)
1999	47.966	Evolu fio 99/06 -25,6%	0 -12,0%	1.582	Evolu fio 99/06 -50,3%	0 -16,4%	3,3%
2000	44.159			1.450			3,3%
2001	42.521			1.316			3,1%
2002	42.219			1.323			3,1%
2003	41.495			1.222			2,9%
2004	38.930			1.024			2,6%
2005	37.066			988			2,7%
2006	35.680			786			2,2%

The objectives of NRSS were established from the joint analysis based on the joint study of the recent developments in pattern of fatalities in Portugal and its constraints, how numbers progressed countries that in 1999 and 2003 had indicators similar to those reached by Portugal in 2006 and the behavioral studies of drivers and the population at large carried out in the past few years by ISCTE.

Projection of goals for the NRSS								Planned target		
	1999	2002	2003	2006	Evo. 99/02	Evo. 99/06	Evo. 03/06			
Germany	95	83	80	62	-12,6%	-34,7%	-22,55			
Austria	135	119	115	84	-11,9%	-37,8%	-27,0%			
Belgium	137	127	117	98	-7,3%	-28,5%	-16,2%			
Cyprus	165	133	136	112	-19,4%	-32,1%	-17,6%			
Denmark	97	86	80	58	-11,3%	-40,2%	-27,5%			
Slovakia	120	113	120	97	-5,8%	-19,2%	-19,2%			
Slovenia	169	135	121	128	-20,1%	-24,3%	5,8%			
Spain	144	131	130	85	-9,0%	-41,0%	-34,6%			
Estonia	168	164	121	152	-2,4%	-9,5%	25,6%			
Finland	84	80	73	66	-4,8%	-21,4%	-9,6%			
France	145	129	101	75	-11,0%	-48,3%	-25,7%			
Greece	195	149	146	150	-23,6%	-23,1%	2,7%			
Hungary	127	140	131	130	10,2%	2,4%	-0,8%			
Ireland	111	96	85	87	-13,5%	-21,6%	2,4%			
Italy	118	118	106	92	0,0%	-22,0%	-13,2%			
Latvia	252	221	228	177	-12,3%	-29,8%	-22,4%			
Lithuania	212	201	205	223	-5,2%	5,2%	8,8%			
Luxembourg	136	140	118	78	2,9%	-42,6%	-33,9%			
Malta	11	41	40	25	272,7%	127,3%	-37,5%			
Netherlands	69	61	63	43	-11,6%	-37,7%	-31,7%			
Poland	174	152	148	137	-12,6%	-21,3%	-7,4%			
Portugal	200	160	148	91	-20,0%	-54,5%	-38,5%	08/15	91/62	-31,9%
								08/11	91/78	-14,3%
United Kingdom	61	60	62	56	-1,6%	-8,2%	-9,7%			
Czech Republic	141	140	142	104	-0,7%	-26,2%	-26,8%			
Sweden	66	63	59	49	-4,5%	-25,8%	-16,9%			
<b>European Average</b>	<b>120</b>	<b>110</b>	<b>103</b>	<b>86</b>	<b>-8,3%</b>	<b>-28,3%</b>	<b>-16,5%</b>			

The study's time-frame was chosen because it allowed for periods of time to be examined that are similar to the two main periods now outlined for the NRSS: 1999 to 2006 lasts the same period of time as 2008 to 2015; 1999 to 2002 and 2003 to 2006 span the same period of time as 2008-2011.

Two countries in 1999 held a fatality rate (deaths per million) very close to the Portuguese rate in 2006: Germany (95) and Denmark (97). Next was Finland, albeit with a lower rate (86).

In the 1999–2006 period time Germany and Denmark achieved results with the same order of magnitude, even though they were slightly better than those we aim for Portugal in 2008-2015. As to Finland, rates decreased less, certainly because its situation was originally better. As to the shorter period (1999-2002) both Denmark and Germany decreased slightly less than what we wish to achieve through the NRSS. Finland's rates were substantially smaller.

In 2003 the fatality rate was closer to 91 deaths per million inhabitants in France (101), Ireland (85) and Italy (106). Until 2006, France had a much greater percentage reduction than the one expected for Portugal in 2008-2011. Ireland and Italy remained far below that rate and Ireland even suffered a slight increase in the number of fatalities.

In what concerns Portugal, the less satisfactory number of fatalities in 2007, (both as regards the number of accidents with victims and the number of deaths) show that the quick decrease in past few years requires extra caution when establishing future objectives.

After examining all this information and, especially, the structural and short-term circumstances that have been studied in this paper, allows us to conclude that the objectives aimed through the NRSS are ambitious but feasible, as long as they are assumed as national priority.

Besides the number of accidents and victims it is relevant to work with indicators that consider variables on the use of public ways for the different priority segments.

The social and economic urgency to decrease road fatalities may require short-term measures that given their nature will not have a social and cultural lasting impact.

For that reason, such measures cannot ever be separated from a structuring action targeted at the Man – Machine – Infrastructure. During its effectiveness, the NRSS will aim to attain both ends.

### **3. METHODOLOGY**

The NRSS can only be efficiently designed, organized and implemented if it is produced by a multidisciplinary structure. This structure must be autonomous and have the power to manage action plans and budgets. It should be organized so as to cross-cut the government departments. The action plans and budgets must consider:

- ✓ Clear and measurable objectives, subject to a budget and audited by an external body.
- ✓ Strong co-ordination with high political engagement at the highest Government and State level.
- ✓ Linkage between the Annual Action Plans of the Ministries involved in the sectorial intervention proposals for the NRSS
- ✓ Clear definition by each institution involved in the annual enforcement of a specific budget allocated to the actions that are to be carried out under its direct responsibility.
- ✓ An accurate calendar for the action engaging all participants. Such calendar must consider the priorities according to cost/benefit models and the budget/performance ability of each participant.

Based upon these principles the NRSS Project was designed according to three phases: Definition, Development and Implementation.

The definition and framing of the development phase will be supported by this document that lays down the Strategy's major guidelines.

The operational objective and the key-actions that will enable its effectiveness will be developed in the second phase.

The implementation phase covers the actions and their audit and monitoring so as to correct possible deviations and/or establish new objectives.

The NRSS shall be implemented at national at local level.

Policies, major strategic guidelines, general implementation and external control will be established at national level.

At local level, Provincial Governments will help magnify the results of such policies in the communities that use the public thoroughfare.

The studies that led the way to the definition of NRSS were carried out by ANSR under ISCTE's scientific supervision and direction. To that end, the current situation was diagnosed and the various objectives were laid down; both developed from documentary research, from regular meetings held between both entities and from studies and forecasts on the fatalities of the past few years.



#### **4. RESPONSIBILITY AND ORGANISATION**

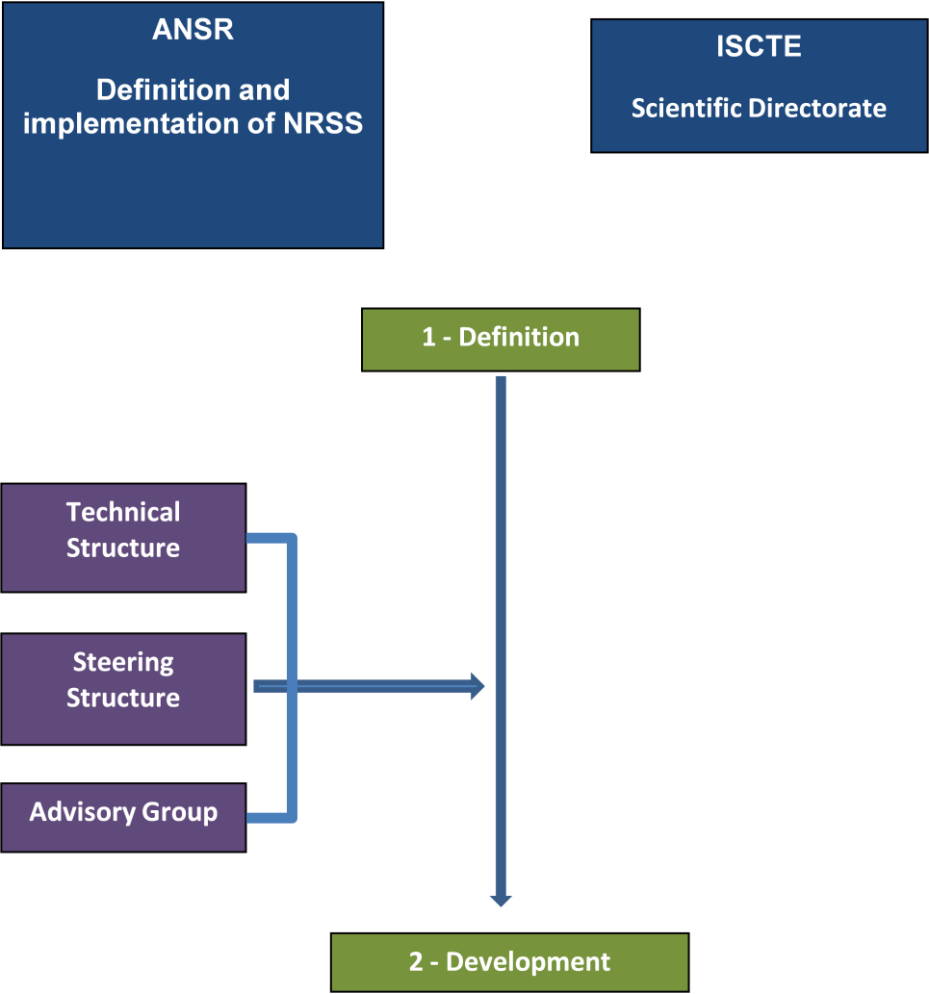
Given its institutional remit, Autoridade Nacional de Segurança Rodoviária (ANSR) is the body responsible for the NATIONAL ROAD SAFETY STRATEGY 2008–2015.

Under the Agreement between ANSR and the Instituto Superior das Ciências do Trabalho e da Empresa (ISCTE) a co-ordination structure with bet set up between both institutions that will be responsible for the internal division tasks that shall be co-ordinated by ANSR and scientifically directed by ISCTE (Definition stage, see 3. Methodology).

To draw such a complex document (development phase) and considering the relevance of the social, economical and environmental impact of road transport and its cross-cutting nature, several support structures will coexist:

- The Technical Structure (official entities with operational responsibilities in study, support, development and enforcement of the National Strategy and Civil Society organizations acknowledged for their technical competence, specific competence and mobilization capability)
- The Steering Structure (representatives of the various Ministries involved in developing and enforcing the National Strategy)
- The Advisory Group (civil society entities dealing with transportation problems and road safety)

That structure will be configured as follows:



<b>Technical Structure</b>		
Autoridade Nacional de Protecção Civil (ANPC)	Guarda Nacional Republicana (GNR)	Polícia de Segurança Pública (PSP)
Agência para a Modernização Administrativa (AMA)	Instituto Nacional Estatística (INE)	Instituto Português da Juventude (IPJ)
Estradas de Portugal (EP)	Instituto da Mobilidade e Transporte Terrestre (IMTT)	Instituto Nacional da Infra-estrutura Rodoviária (INIR)
Laboratório Nacional de Engenharia Civil (LNEC)	Alto Comissariado da Saúde (ACS)	Direcção Geral da Saúde (DGS)
Instituto da Droga e da Toxicodependência (IDT)	Instituto Nacional de Emergência Médica (INEM)	Direcção Geral da Inovação e Desenvolvimento Curricular (DGIDC)
Agência Portuguesa do Ambiente (APA)	Direcção Geral do Ordenamento Territorial e Desenvolvimento Urbano (DGOTDU)	Inspeção-Geral Ambiente e Ordenamento Território (IGAOT)
Direcção Geral das Contribuições e Impostos (DGCI)	Instituto de Seguros de Portugal (ISP)	Autoridade para as Condições de Trabalho (ACT)
Instituto de Emprego e Formação Profissional (IEFP)	Instituto Nacional para a Reabilitação (INR)	Estado Maior General das Forças Armadas (EMGFA)
Centro de Estudos Judiciários (CEJ)	Instituto Nacional de Medicina Legal (INML)	Direcção Geral do Consumidor (DGC)
Instituto Português da Qualidade (IPQ)	Direcção Geral do Ensino Superior (DGES)	Conselho Nacional de Educação (CNE)
Conselho de Reitores das Universidades Portuguesas (CRUP)	Conselho Coordenador dos Institutos Superiores Politécnicos (CCISP)	Associação Nacional de Freguesias (ANAFRE)
Associação Nacional de Municípios Portugueses (ANMP)	Associação Portuguesa para a Promoção de Sistemas Inteligentes de Transporte (ITS Portugal)	Associação de Projectistas de Vias e Pontes (APVP)
Automóvel Clube de Portugal (ACP)	Centro de Sistemas Urbanos e Regionais – IST (CESUR)	Centro Rodoviário Português (CRP)
Faculdade de Ciências e Tecnologia da Universidade de Coimbra (FCTUC)	Instituto de Mecânica – Instituto Superior Técnico (IDMEC)	Inst. Educação e Psicologia da Universidade do Minho (IEPUM)
Prevenção Rodoviária Portuguesa (PRP)	Comunidade Intermunicipal do Algarve (AMAL)	Associação Portuguesa de Fabricantes e Empreiteiros de Sinalização (AFESP)
<b>Steering Structure</b>		
Ministério da Administração Interna (MAI)	Presidência Conselho de Ministros (PCM)	Ministério das Obras Públicas Transportes e Comunicações (MOPTC)
Ministério da Saúde (MS)	Ministério da Educação (ME)	Ministério do Ambiente, Ordenamento do Território e Desenvolvimento Regional (MAOTDR)
Ministério das Finanças e da Administração Pública (MFAP)	Ministério do Trabalho e da Solidariedade Social (MTSS)	Ministério da Defesa Nacional (MDN)
Ministério da Justiça (MJ)	Ministério Economia e Inovação (MEI)	Ministério Ciência, Tecnologia e Ensino Superior (MCTES)
Governos Cívicos (GC's)		
<b>Advisory Group</b>		
APSI – Associação para a Promoção da Segurança Infantil	APD – Associação Portuguesa de Deficientes	CNOD – Confederação Nacional de Organismos de Deficientes
APSR – Associação Promotora de Segurança Rodoviária do Norte	DECO – Associação Portuguesa para a Defesa do Consumidor	CASA – Associação de Arbitragem Voluntária de Litígios do Sector Automóvel
ANEBE – Associação Nacional de Empresas de Bebidas Espirituosas	ACA-M – Associação de Cidadãos Auto-Mobilizados	ANIECA – Associação Nacional dos Industriais do Ensino da Condução Automóvel
YEARRECA – Associação dos Industriais do Ensino da	APECA – Associação dos Profissionais do Ensino da	APEC – Associação Portuguesa de Escolas de Condução

Condução Automóvel	Condução	
APDEC – Associação Portuguesa dos Directores de Escolas de Condução	ARIECA NORTE – Associação Regional dos Industriais do Ensino de Condução de Automóvel	APIECA – Associação Portuguesa dos Instrutores do Ensino de Condução Automóvel
VIA AZUL – Associação Nacional dos Técnicos Examinadores de Condução Automóvel	ANTRAM – Associação Nacional dos Transportadores Públicos	ANTROP – Associação Nacional dos Transportadores Rodoviários de Pesados de Passageiros
ANTRAL – Associação Nacional dos Transportadores Rodoviários em Automóveis Ligeiros	CONFAP – Confederação Nacional das Associações de Pais	Renault Portuguesa
Fundação da Juventude	FITI – Federação Instituições da Terceira Idade	APP – Associação Portuguesa de Psicogerontologia
ADAI – Associação para o Desenvolvimento da Aerodinâmica	ACAP – Associação do Comércio Automóvel em Portugal	ARAN – Associação Nacional do Ramo Automóvel
ANCIÁ – Associação Nacional dos Centros de Inspeção Automóvel	ANECRA – Associação Nacional das Empresas de Comércio e Reparação Automóvel	APS – Associação Portuguesa de Seguradores
APVE – Associação Portuguesa do Veículo Eléctrico	ATIPOV – Associação Nacional de Técnicos de Inspeção de Veículos	FNM – Federação Nacional de Motociclismo
FPCUB – Federação Portuguesa de Ciclo turismo e Utilizadores de Bicicleta	AIVAP – Associação de Inspectores de Veículos Automóveis de Portugal	ANAREC – Associação Nacional dos Revendedores de Combustível
ABIMOTA – Associação Nacional dos Industriais de Duas Rodas	FPTR – Federação Portuguesa dos Transportadores Rodoviários	ANIVAP – Agrupamento Nacional de Inspeções Automóveis
CPAA – Clube Português de Automóveis Antigos	ANEIA – Associação Nacional de Empresas de Inspeção de Automóveis	Associação de Utilizadores do IP4
Associação dos Utentes. e Sobreviventes do IP3	APCAP – Associação Portuguesa das Sociedades Concessionárias de Auto-estradas ou Pontes com Portagem	ANEPE – Associação Nacional das Empresas de Parques de Estacionamento
APPC – Associação Portuguesa de Projectistas e Consultores	OSEC - Observatório Segurança das Cidades e Estradas	LBP – Liga dos Bombeiros Portugueses
APAV – Associação Portuguesa de Apoio à Vítima	CVP – Cruz Vermelha Portuguesa	GARE – Associação para a Promoção de uma Cultura de Segurança Rodoviária
Ordens Profissionais	Comunicação Social	

After establishing the level of institutional engagement regarding the National Road Safety Strategy, ANSR will summon the participants in the Technical and Piloting Structures (besides those that are considered most important within the Audit Group) and present them the Objectives and the Organization and ask for their co-operation to design the development phase.

Just like previously work (Analysis of the Action Program 2003–2005 of NPPR), it will be necessary for the groups to hold regular meetings and information will have to be gathered for the ISCTE team to work on afterwards.

Besides the analysis, framing and consolidation of the contribution of each different structure, the ISCTE team will continue to include the outcome of public opinion studies made available by ANSR and carry out researches based on the data of the Fatalities Observatory, namely the Probability Study on the Increase of Fatalities (2001-2005).

According to what may be deemed necessary, the ISCTE team will also conduct inquiries aimed at Specialists and Sectorial Agents and Individual and Group Interviews so as to assess the adequacy and the acceptance of the National Strategy development proposals. It will also make recommendations on how to best integrate the communication policies set out by ANSR.

## 5. DEFINITION

### 5.1 Diagnosis

The implementation of the NRSS and its declension into annual operational objectives is based on the diagnosis of the current situation according to the following criteria:

- A. Characterization of the framework conditions;
- B. Characterization of Road Fatalities in Portugal;
- C. Characterization of Road Fatalities in a group of reference countries;
- D. Application of the Haddon Matrix<sup>1</sup> and definition of Cross-Sectional Actions.

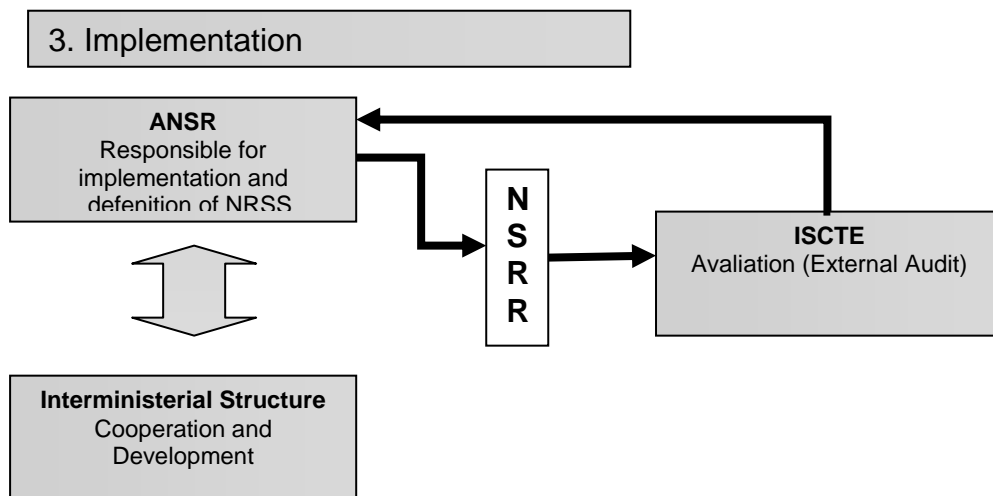
#### **5.1. Characterization of the framework**

As mentioned in Chapter 3 (Methodology) the success of NRSS is dependent on the political commitment and engagement of the highest authorities at Government and State level, and on ANSR's effective ability to co-ordinate the whole process closely with an Inter-ministerial Commission that is yet to be defined.

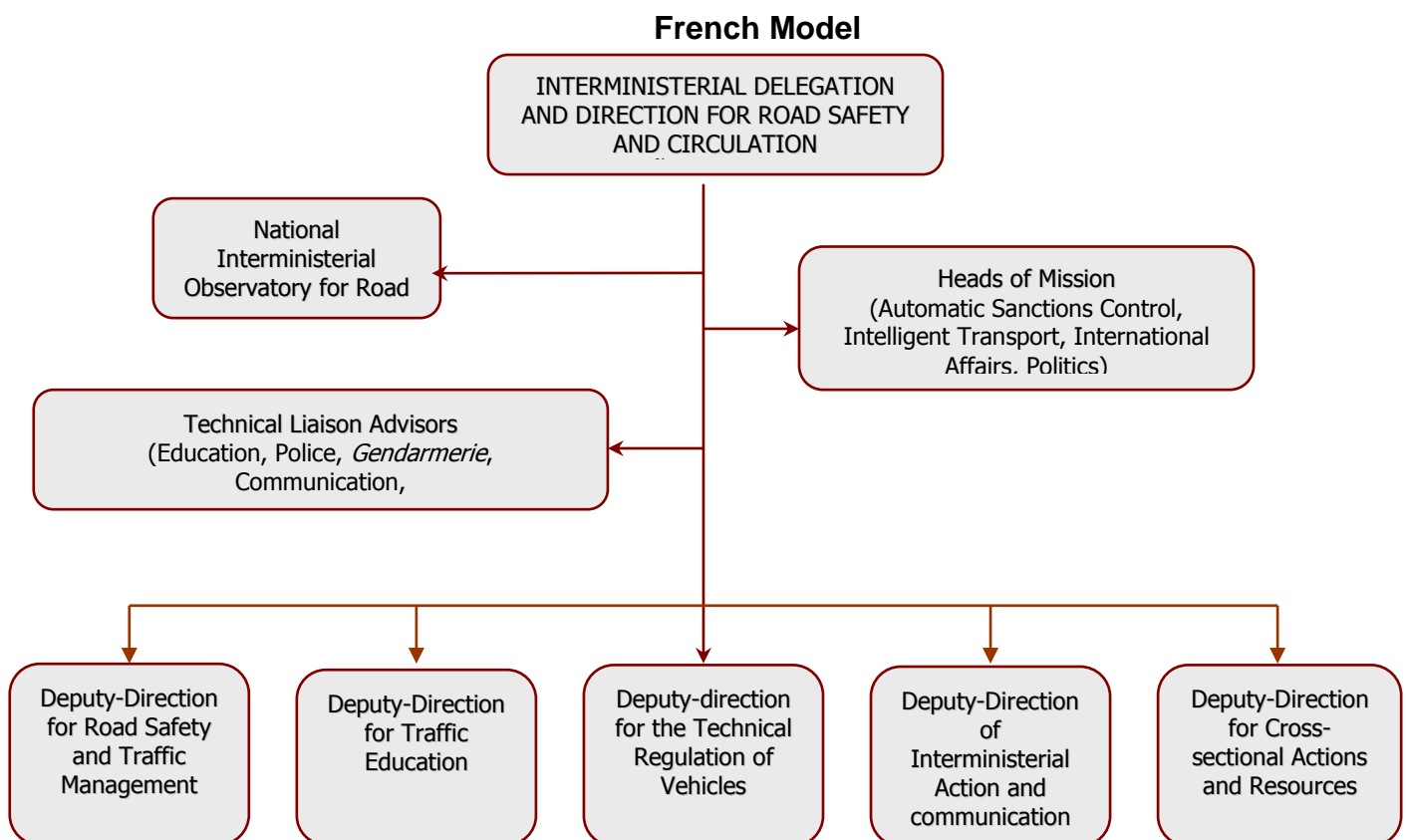
The implementation and development model proposed for the NRSS to meet these Objectives is the following:

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<sup>1</sup> A matrix developed in 1968 by William Haddon, Jr., a public health physician at the Health Department of the State of New York, aiming at supporting the study of injury prevention. It tried to analyze injuries in terms of causal factors and contributing factors instead of using descriptive methods. The matrix divided the factors into Human, Agent or Vehicle and Framework (environment) factors. Each was considered in three stages: Before the Event, Event and After the Event.



In order to decide on an Interministerial Structure model, which is outside the scope of this paper, we present the French and Spanish models:



## Spanish Model



Measures and control the enforcement of the quantitative objectives and develops international and cross-sectional knowledge (coordinates studies, makes information available) in connection with the Plan. Draws the Annual Reports and Action Plans.

Considering the importance of the Basic principles that the NRSS must obey, it will be absolutely necessary that they are defined and accepted from the beginning of this process.

Hence and as previously mentioned, the NRSS must follow:

Clear and measurable objectives subject to a budget and audited by an external body.

- ✓ Strong co-ordination with high political engagement at the highest Government and State level.
- ✓ Linkage between the Annual Action Plans of the Ministries involved in the sectoral intervention proposals for NRSS



- ✓ Clear definition by each institution involved in the annual enforcement of a specific budget allocated to the actions that are to be carried out under its direct responsibility. An accurate calendar for the actions, engaging all participants. Such calendar must consider the priorities according to cost/benefit models and the ability to draw a budget/perform of each entity involved.

### **5.1. B Characterization of Fatalities in Portugal**

To study fatalities in Portugal, we will use the numbers of ANSR. Just like in the previous international study, three periods were considered:

- 1999 to 2006, identical to the duration of the NRSS
- 1999 to 2002, with a duration identical to the first NRSS implementation phase
- 2003 to 2006, spanning the same period of time as the previous one, showing the most recent developments in fatalities.

The following table explains how the procedure works.

In order to analyze the various risk segments, reduction in the total number of Deaths in Road Fatalities was used as reference for each of the periods that have been considered

Values 5% above reference scale

Values 5% below reference scale

Ref. Values: decreasing percentage of total fatalities in each period.

	Drivers				Passengers						
	IUA	Evo %	OUA	Evo%	IAU	Evo%	OUA	Evo%			
1999	137	99/06	392	99/06	88	99/06	238	99/06			
2000	111	-35,0	350	-52,6	74	-35,2	251	-63,9	- 51,4%	- 48,8%	- 54,0%
2001	139		285		59		198				
2002	112	99/02	330	99/02	74	99/02	230	99/02			
2003	111	-8,2	321	-15,8	63	-15,9	179	-3,4	- 16,1%	- 15,3%	- 16,9%
2004	104		234		65		162				
2005	101	03/06	245	03/06	55	03/06	143	03/06			
2006	89	-19,8	186	-42,1	57	-9,5	86	-52,0	- 37,3%	- 35,4%	- 39,2%

Number of killed/year. IUA Inside Urban areas OUA Outside Urban areas.

Yellow cells – evolution period

White, red or green cells – fatalities evolution in the period (%)

White cells: evolution between +5% and -5% of period reference.  
 Green cells: positive evolution (-5%) compare to the reference values.  
 Red cells: negative evolution (+5%) compares to the reference values.

Evolution of fatalities in road accidents							
	UA	Evo.	OUA	Evo.	Total	Evo.	Ref. period
1999	759	99/06	991	99/06	1750	99/06	
2000	634	-48,2%	995	-53,9%	1629	-51,4%	-51,4%
2001	632		834		1466		
2002	613	99/02	856	99/02	1469	99/02	
2003	578	-19,2%	778	-13,6%	1356	-16,1%	-16,1%
2004	488		647		1135		
2005	471	03/06	623	03/06	1094	03/06	
2006	493	-32,0%	457	-41,3%	850	-37,3%	-37,3%

Evolution number of killed in light vehicles *							
	UA	Evo.	OUA	Evo.	Total	Evo.	
1999	225	99/06	630	99/06	855	99/06	
2000	185	-35,1%	601	-56,8%	786	-51,1%	-51,4%
2001	198		483		681		
2002	186	99/02	560	99/02	746	99/02	
2003	174	-17,3%	500	-11,1%	674	-12,7%	-16,1%
2004	169		396		565		
2005	156	03/06	388	03/06	544	03/06	
2006	146	-16,1%	272	-45,6%	418	-38,0%	-37,3%

\* Drivers and passengers

Evolution number of killed in two wheeled motor vehicle users							
	UA	Evo.	OUA	Evo.	Total	Evo.	
1999	269	99/06	175	99/06	444	99/06	
2000	191	-57,6%	192	-48,0%	383	-53,8%	-51,4%
2001	198		164		362		
2002	179	99/02	145	99/02	324	99/02	
2003	180	-33,5%	145	-17,1%	325	-27,0%	-16,1%
2004	148		117		265		
2005	155	03/06	103	03/06	258	03/06	
2006	114	-36,7%	91	-37,2%	205	-36,9%	-37,3%

Evolution number of heavy goods vehicles drivers killed						
	UA	Evo.	OUA	Evo.	Total	Evo.
1999	6	99/06	22	99/06	28	99/06
2000	3	0,0%	26	-59,1%	29	-46,4%
2001	2		22		24	
2002	3	99/02	14	99/02	17	99/02
2003	6	-50,0%	22	-36,4%	28	-39,3%
2004	3		19		22	
2005	3	03/06	18	03/06	21	03/06
2006	6	0,0%	9	-59,1%	15	-46,4%

Evolution number of pedestrians killed						
	UA	Evo.	OUA	Evo.	Total	Evo.
1999	226	99/06	119	99/06	345	99/06
2000	219	-61,1%	118	-58,8%	337	-60,3%
2001	195		101		296	
2002	197	99/02	100	99/02	297	99/02
2003	163	-12,8%	83	-16,0%	246	-13,9%
2004	134		70		204	
2005	113	03/06	75	03/06	188	03/06
2006	88	-46,0%	49	-41,0%	137	-44,3%

Evolution number of killed by type of roads														
	Motorways	Evo %	I. U. A.	Evo %	Muni. Roads	Evo %	Nac. Roads	Evo %	I. C.	Evo %	IP	Evo %	Out.	Evo %
1999	108	99/06	368	99/06	274	99/06	803	99/06	61	99/06	107	99/06	29	99/06
2000	112	-31,5	315	-48,6	221	-52,9	747	-55,9	92	-19,7	80	-75,7	62	0,0
2001	98		318		185		630		95		92		48	
2002	101	99/02	274	99/02	204	99/02	682	99/02	91	99/02	69	99/02	48	99/02
2003	111	-6,5	281	-25,5	179	-25,5	610	-15,1	93	49,2	59	-35,5	23	65,5
2004	102		229		170		459		68		70		37	
2005	86	03/06	232	03/06	154	03/06	467	03/06	76	03/06	42	03/06	37	03/06
2006	74	-33,3	189	-32,7	129	-27,9	354	-42,0	49	-47,3	26	-55,9	29	26,1

Evolution number of killed in light vehicles									
	Drivers				Passengers				
	UA	Evo%	OUA	Evo%	UA	Evo%	OUA	Evo%	
1999	137	99/06	392	99/06	88	99/06	238	99/06	
2000	111	-35,0	350	-52,4	74	-35,2	251	-63,9	- 51,4 %
2001	139		285		59		198		
2002	112	99/02	330	99/02	74	99/02	230	99/02	
2003	111	-18,2	321	-15,8	63	-15,9	179	-3,4	- 16,1 %
2004	104		234		65		162		
2005	101	03/06	245	03/06	55	03/06	143	03/06	
2006	89	-19,8	186	-42,1	57	-9,5	86	-52,0	- 37,3 %

Number of killed drivers by age group													
	18/24	Evo.%	25/29	Evo.%	30/34	Evo.%	35/59	Evo.%	=>60	Evo.%	Total	Evo.%	
1999	118	99/06	82	99/06	59	99/06	196	99/06	63	99/06	529	99/06	
2000	107	-73,7	70	-42,7	51	-47,5	175	-52,0	53	11,1	461	-48,0	- 51,4%
2001	102		64		39		145		67		424		
2002	100	99/02	56	99/02	58	99/02	165	99/02	60	99/02	442	99/02	
2003	88	-15,3	63	-31,7	48	-1,7	167	-15,8	63	-4,8	432	-16,4	- 16,1%
2004	66		59		37		122		50		338		
2005	71	03/06	39	03/06	38	03/06	142	03/06	55	03/06	346	03/06	
2006	31	-64,8	47	-25,4	31	-35,4	94	-43,7	70	11,1	275	-36,3	- 37,3%

Fatalities in light vehicle drivers inside urban areas by age group											
	18-24	Evo.	25-29	Evo.	30-34	Evo.	35-59	Evo.	=>60	Evo.	
1999	31	99/06	19	99/06	13	99/06	49	99/06	21	99/06	
2000	32	-64,5%	12	-15,8%	7	-7,7%	46	-49,0%	12	-9,5%	-51,4%
2001	35		21		13		44		21		
2002	34	99/02	15	99/02	12	99/02	36	99/02	14	99/02	
2003	25	9,7%	25	-21,1%	15	-7,7%	33	-26,5%	13	-33,3%	-16,1%
2004	17		16		13		41		14		
2005	27	03/06	8	03/06	13	03/06	31	03/06	21	03/06	
2006	11	-56,0%	16	-36,0%	14	-6,7%	25	-24,2%	23	-76,9%	-37,3%
Fatalities in light vehicle drivers outside urban areas by age group											
	18-24	Evo.	25-29	Evo.	30-34	Evo.	35-59	Evo.	=>60	Evo.	
1999	87	99/06	63	99/06	46	99/06	147	99/06	42	99/06	
2000	75	-77,0%	58	-50,8%	44	-63,0%	129	-53,1%	41	11,9%	-51,4%
2001	67		43		26		101		46		
2002	66	99/02	41	99/02	46	99/02	129	99/02	46	99/02	
2003	63	-24,1%	38	-34,9%	33	-0,0%	134	-12,2%	50	9,5%	-16,1%
2004	49		43		24		81		36		
2005	44	03/06	31	03/06	25	03/06	111	03/06	34	03/06	
2006	20	-68,3%	31	-18,4%	17	-48,5%	69	-48,5%	47	-6,0%	-37,3%

Evolution number of killed in two wheeled motor vehicle users									
	Drivers				Passengers				
	UA	Evo.	OUA	Evo.	UA	Evo.	OUA	Evo.	
1999	242	99/06	161	99/06	27	99/06	14	99/06	
2000	176	-57,4%	172	-46,6%	15	-59,3%	20	-64,3%	-51,4%
2001	176		145		22		19		
2002	162	99/02	136	99/02	17	99/02	9		
2003	167	-33,1%	132	-15,5%	13	-37,0%	13	-35,7%	-16,1%
2004	137		108		11		9		
2005	145	03/06	90	03/06	10	03/06	13	03/06	
2006	103	-38,3%	86	-34,8%	11	-15,4%	5	-61,5%	-37,3%

Evolution number of killed in two wheeled motor vehicle users by age group									
	<18	Evo.	18-34	Evo.	=>35	Evo.	Total *	Evo.	
	1999	21	99/06	227	99/06	148	99/06	403	99/06
2000	15	-81,0%	191	-59,0%	136	-38,5%	348	-53,1%	-51,4%
2001	16		173		124		321		
2002	21	99/02	149	99/02	126	99/02	298	99/02	
2003	7	0,0%	152	-34,4%	138	-14,9%	299	-26,1%	
2004	13		122		109		245		
2005	8	03/06	120	03/06	106	03/06	235	03/06	
2006	4	-42,9	93	-38,8%	91	-34,1%	189	-36,8%	-37,3%

Fatalities in two wheeled motor vehicles drivers inside urban areas by age group						
	<18	Evo.	18-34	Evo.	=>35	Evo.
1999	14	99/06	142	99/06	84	99/06
2000	10	-71,4%	101	-60,6%	60	-50,0%
2001	7		100		63	
2002	12	99/02	83	99/02	66	99/02
2003	6	-14,3%	87	-41,5%	73	-21,4%
2004	9		66		61	
2005	7	03/06	81	03/06	56	03/06
2006	4	-33,3%	56	-35,6%	42	-42,5%

Fatalities in two wheeled motor vehicles drivers outside urban areas by age group						
	<18	Evo.	18-34	Evo.	=>35	Evo.
1999	7	99/06	85	99/06	64	99/06
2000	5	n.a.	90	-56,5%	76	-23,4%
2001	9		73		61	
2002	9	99/02	66	99/02	60	99/02
2003	1	-28,6%	65	-22,4%	65	-6,3%
2004	4		56		48	
2005	1	03/06	39	03/06	50	03/06
2006	0	n.a.	37	-43,1%	49	-24,6%

Test results for blood alcohol concentration												
	Drivers						Unknown status					
	2004		2005		2006		2004		2005		2006	
	Tests	%	Tests	%	Tests	%	Tests	%	Tests	%	Tests	%
0-0,49g/l	269	61,1%	315	63,5%	228	58,6%	290	74,4%	288	70,2%	188	65,7%
0,50-0,79 g/l	22	5,0%	19	3,8%	20	5,1%	16	4,1%	15	3,7%	12	4,2%
0,80-1,19 g/l	17	3,9%	24	4,8%	12	3,1%	15	3,8%	25	6,1%	21	7,3%
>=1,20 g/l	132	30,0%	138	27,8%	129	33,2%	69	17,7%	82	20,0%	65	22,7%
Tests total	440	100,0%	496	100,0%	389	100,0%	390	100,0%	410	100,0%	286	100,0%



The analysis of the different tables provides the following conclusions:

- ✓ The decrease in fatalities within urban agglomerations progressed at a pace below average. That is more significant in the more recent periods and should call for more attention in the future.
- ✓ The most critical situations concerning fatalities within urban agglomerations has to do with light vehicle users and more objectively, in the most recent period, with the drivers
- ✓ As to the 2-wheeled vehicle users, progress within urban agglomerations was positive in the period between 1999 and 2006. The trend, however, changed between 2003 and 2006 and passengers of such vehicles have been contributing in a less positive way to lower the number of fatalities. Drivers' behaviour has remained within average.
- ✓ Two-wheeled vehicle users have displayed a substantially different behaviour from that of light vehicle users (1999 - 2006 period) and have contributed negatively to lower the number of fatalities outside urban agglomerations.
- ✓ Older light vehicle drivers and the over 35-year-old two-wheeled drivers and risk groups deserve to be closely monitored.
- ✓ The relatively small number of deaths among heavy vehicle drivers only allows us to treat the longest series, with a decrease above the general average in fatalities outside urban agglomerations.
- ✓ As to pedestrians, there has been a decrease above average in both situations (DL and FL), that became more intense after 2002
- ✓ As to the type of road, in motorways\* there has been a negative behaviour since 1999 as regards the general average on periods that have been

studied, while the opposite occurs in IP's. As to the IC's, even though progress has been negative as regards the general average in 1999-2006, between 2003 and 2006 there progress was positive.

\*One must bear in mind that this does not include the kilometers that have been made.

### 5.1. Characterization of Fatalities in Reference Countries

The countries that have been chosen as main reference on past fatalities for the NRSS and so as to become a benchmark on the progress of such fatalities have been Spain, France and Austria.

Reference countries							
	1999	2002	2003	2006	Evo. 99/02	Evo. 99/06	Evo. 03/06
Germany	95	83	80	62	-12,6%	-34,7%	-22,55
Austria	135	119	115	84	-11,9%	-37,8%	-27,0%
Belgium	137	127	117	98	-7,3%	-28,5%	-16,2%
Cyprus	165	133	136	112	-19,4%	-32,1%	-17,6%
Denmark	97	86	80	58	-11,3%	-40,2%	-27,5%
Slovakia	120	113	120	97	-5,8%	-19,2%	-19,2%
Slovenia	169	135	121	128	-20,1%	-24,3%	5,8%
Spain	144	131	130	85	-9,0%	-41,0%	-34,6%
Estonia	168	164	121	152	-2,4%	-9,5%	25,6%
Finland	84	80	73	66	-4,8%	-21,4%	-9,6%
France	145	129	101	75	-11,0%	-48,3%	-25,7%
Greece	195	149	146	150	-23,6%	-23,1%	2,7%
Hungary	127	140	131	130	10,2%	2,4%	-0,8%
Ireland	111	96	85	87	-13,5%	-21,6%	2,4%
Italy	118	118	106	92	0,0%	-22,0%	-13,2%
Latvia	252	221	228	177	-12,3%	-29,8%	-22,4%
Lithuania	212	201	205	223	-5,2%	5,2%	8,8%
Luxembourg	136	140	118	78	2,9%	-42,6%	-33,9%
Malta	11	41	40	25	272,7%	127,3%	-37,5%
Netherlands	69	61	63	43	-11,6%	-37,7%	-31,7%
Poland	174	152	148	137	-12,6%	-21,3%	-7,4%
Portugal	200	160	148	91	-20,0%	-54,5%	-38,5%
United Kingdom	61	60	62	56	-1,6%	-8,2%	-9,7%
Czech Republic	141	140	142	104	-0,7%	-26,2%	-26,8%
Sweden	66	63	59	49	-4,5%	-25,8%	-16,9%
<b>European Average</b>	<b>120</b>	<b>110</b>	<b>103</b>	<b>86</b>	<b>-8,3%</b>	<b>-28,3%</b>	<b>-16,5%</b>

The first two countries have been chosen for the reasons pointed out for the study on NPRP (social, economic and organization characteristics).

Austria was chosen for having been in 1975 one of the countries with the heaviest number of fatalities in Europe. Just like Portugal, of the current EU countries, Austria was then one of the four with over 300 deaths per million.

Even though the situation was identical in Luxemburg and in spite of the good progress in reducing road fatalities, it was not considered on account of its size, characteristics and geography.

This choice did not fall upon some of the countries (Germany, Denmark, Finland and Ireland) mentioned in the comparison of last year's progress and that was used to outline the NRSS objectives, because those countries are currently either at much inferior thresholds than Portugal or their standards of progress and cultural environment are not close to our social and cultural standards.

The position the three reference countries currently hold and their progress in 1999-2006 validate this choice.

To locate the major pivots of the NRSS for all categories we will compare the number of fatalities and their progress in the three periods that have been considered for analysis. Because the disaggregated data for 2006 are not yet available, we used the numbers for 2005.

The red cells reflect negative situations in the countries concerned, namely situations where fatalities (Table 1) or their reduction (Table 2) is at least 5% lower than in Portugal. The green cells show positive differences (when the number of fatalities or their reduction is at least 5% higher than in Portugal). The white cells report situations in countries where numbers are within both 5% boundaries in relation with what happens in Portugal.

In order to plan and design any future actions, a fundamental tool for the development of the NRSS will be such comments and further detailed ones on each of these segments and the ensuing studies on their motivating circumstances.

		INJURY ACCIDENTS (30 DAYS)															
		PORTUGAL				SPAIN				FRANCE				AUSTRIA			
		1999	2002	2003	2005	1999	2002	2003	2005	1999	2002	2003	2005	1999	2002	2003	2005
T O T A L	IUA	87	67	63	51	26	22	22	18	42	34	27	27	33	33	28	25
	OUA	113	94	85	68	118	108	108	85	99	91	71	58	103	86	87	69
	TOTAL	200	161	148	119	144	131	130	103	141	125	98	85	135	119	115	94
C A R S	IUA	26	20	19	17	6	6	6	4	18	13	10	9	10	9	7	8
	OUA	71	61	54	42	82	78	78	57	75	67	51	40	68	58	61	47
	TOTAL	97	82	73	59	89	84	85	61	93	81	61	50	79	67	68	56
W H E 2 E L E D	IUA	31	20	19	17	8	7	7	6	11	10	8	8	4	5	5	4
	OUA	20	16	16	11	15	12	12	12	14	14	12	12	15	12	14	13
	TOTAL	51	36	35	28	23	19	18	18	25	24	21	20	19	17	19	17
H E A V Y	IUA	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0	1
	OUA	4	2	2	2	5	4	4	4	2	2	2	2	4	2	2	1
	TOTAL	5	3	3	3	5	5	4	4	2	2	2	2	4	2	2	2
P E D S T	IUA	26	22	18	12	11	8	9	8	10	9	7	7	14	13	11	8
	OUA	14	11	9	8	12	11	10	8	5	5	3	3	9	7	5	4
	TOTAL	40	33	27	20	23	19	19	16	15	14	10	10	23	20	16	12

		FATALITIES / MILION INHABITANTS (Evo. %)											
		PORTUGAL (%)			ESPANHA (%)			FRANÇA (%)			AUSTRIA (%)		
		99/05	99/02	03/05	99/05	99/02	03/05	99/05	99/02	03/05	99/05	99/02	03/05
T O T A L	IUA	-41,0	-22,4	-18,9	-29,1	-14,0	-16,8	-36,7	-20,3	-1,4	-24,4	0,9	-10,6
	OUA	-40,3	-17,0	-20,4	-28,3	-8,5	-21,1	-41,0	-7,8	-17,8	-32,8	-16,5	-21,1
	TOTAL	-40,6	-19,3	-19,8	-28,4	-9,5	-20,4	-39,7	-11,5	-13,3	-30,8	-12,3	-18,6
C A R S	IUA	-34,1	-20,1	-11,1	-39,4	3,9	-39,7	-47,7	-25,6	-5,4	-18,2	-10,7	13,5
	OUA	-41,7	-14,0	-23,4	-30,3	-5,7	-26,8	-46,0	-10,4	-20,7	-31,1	-15,0	-22,3
	TOTAL	-39,7	-15,6	-20,2	-30,9	-5,0	-27,7	-46,4	-13,3	-18,2	-29,4	-14,4	-18,4
W H E E L E D	IUA	-45,2	-36,2	-14,1	-23,3	-10,2	-10,3	-23,5	-12,0	2,1	-14,5	23,0	-28,4
	OUA	-44,2	-20,3	-29,5	-17,9	-18,4	6,0	-14,6	3,3	-6,9	-9,3	-21,2	-6,4
	TOTAL	-44,8	-29,9	-21,0	-19,7	-15,6	0,1	-18,6	-3,6	-3,3	-10,5	-11,5	-12,0
H E A V Y	IUA	-5,0	37,3	-13,0	-53,8	-35,2	-41,9	-19,8	63,5	23,4	21,6	-100,0	393,6
	OUA	-36,7	-60,6	-3,5	-28,1	-15,7	-12,8	-13,8	13,8	-23,1	-74,1	-43,9	-39,2
	TOTAL	-31,9	-45,7	-0,5	-28,8	-16,3	-13,5	-14,4	18,9	-20,2	-62,8	-50,5	-8,3
P E D S T	IUA	-52,5	-16,2	-31,0	-31,5	-25,6	-11,5	-27,6	-13,6	5,4	-40,8	-5,5	-24,8
	OUA	-39,9	-19,5	-9,9	-29,7	-8,1	-20,5	-47,5	0,2	-11,0	-59,5	-24,4	-32,7
	TOTAL	-48,2	-17,3	-23,9	-30,6	-16,8	-16,4	-34,4	-8,8	0,3	-48,2	-13,0	-27,4

IUA – Inside Urban Areas; OUA – Outside Urban Areas

Source – CARE; Light vehicles = cars + taxis + lorries under 3,5ton; 2 Wheeled vehicles = Moped + motor cycles; Heavy goods cars / Trucks= bus/coach above 3,5 ton.

- The first table basically shows the huge differences between fatalities in urban agglomerations, the segment that weighs heavier in Portugal's performance in relation to the comparison group.
- Outside urban agglomerations Portugal performs better than Spain and in the past few years we have been level with Austria.
- That behaviour is more obvious in light vehicles, since in that segment even the comparison with France shows a very close pattern.
- In what concerns the table that illustrates the evolution of fatalities, during the broadest period the sharpest decrease in the total number of deaths per million occurred in Portugal.

- However, in France light vehicles performed better during that period of time, but on the other hand 2-wheeled vehicles and pedestrians had a worse performance.
- The relative slowdown in Portugal in the most recent period also deserves to be studied, especially while examining the objectives of reducing numbers of the NRSS. These data must be confirmed after the number of fatalities in 2006 is disaggregated in the three reference countries.

#### ***5.1. D Application of the Haddon Matrix; Cross-Sectional Actions***

The study conducted by ISCTE for the Secretariat of State for Civil Protection on the 2003-2005 Action Programme of NPRP tried to adjust the Haddon Matrix to road fatalities in Portugal.

That study has now unfolded with a view to future actions on the four major groups of contributing factors in traffic accidents.

Also with a view to the future, research on Cross-Sectional Actions was enhanced, e.g. on the actions that must have an actual connection with all of those factors and that are crucial to their success.

	CONTRIBUTING FACTORS			
	Behaviour	Vehicle and equipment	Environment and infra-structure	Social, cultural and environmental
<b>Before the accident</b>	Education aimed at driving; driving exam; driver's license loss and regain; recurrent training.	Age, conditions and control of the vehicle fleet; active safety conditions; introduction of deterrents in companies (e.g., breath analyzers).	Road design, construction, signaling, maintenance and requalification of the roads; Parking; Automatic Speed Control.	School and civic education (pre-qualification); social pressure on behaviours; Regional Planning.
<b>In the accident</b>	Systematic use of safety devices.	Passive safety solutions	BEAV; Improved warning capability	Assistance (Warning and Aid) as civic priorities
<b>After the Accident</b>	Study of the involved drivers' behaviour	Study of vehicles involved in accidents.	Investigation of accidents; Analysis and correction of black spots; Improving the capacity of intervention (training resources for relief and national network of assistance)	First-aid training

CROSS-SECTIONAL ACTIONS	
<b>Cooperation</b>	Systematic action for the coordination of efforts and activities between all national and international entities involved in road safety.
<b>Control</b>	Systematization of action, targeting groups, places of risk and priorities in the context of European NRSS (alcohol and psychotropic substances, speed, security systems).
<b>Communicaton</b>	The National Road Safety and Challenge - Track Campaign generic, cross the entire NRSS; Definition of target segments and targeted communication according to the strategic objectives.
<b>Studies</b>	Deepening of studies, considering the objectives of NRSS and the need to harmonize the technical studies and opinion at the European level.

Note – The Background colours of the Determining Factors are used to identify such factors in the development of the NRSS.

According to the factors in this model and the cross-sectional actions, the areas that deserve special attention while studying and planning the NRSS's Strategic Objectives, Operational Objectives and Key-Actions are the following:

- Professional, school and civic education
- Training and licensing
- Drivers' behaviour
- Vehicle safety

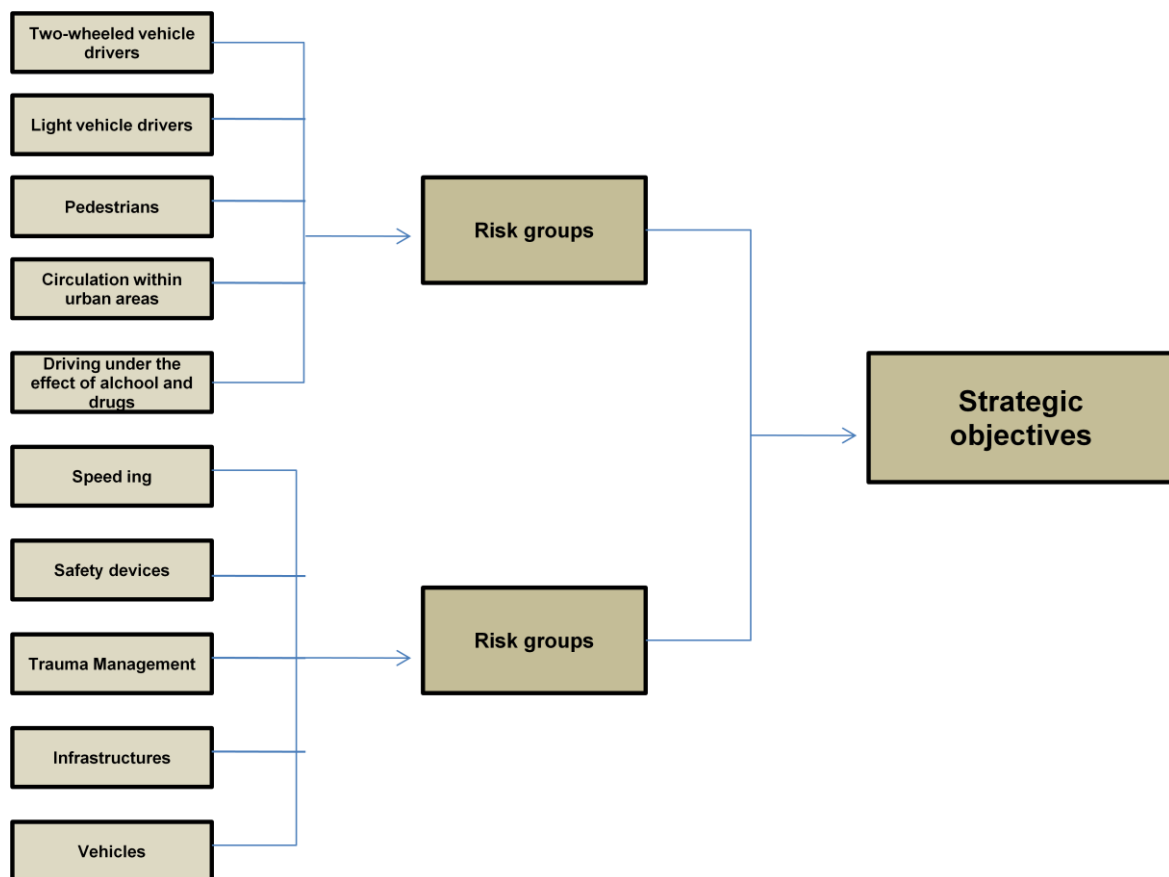
- Enforcement of traffic laws concerning drivers and vehicles
- Improve infrastructures
- Improve victims' assistance
- Conduct studies on road safety and their analysis
- Cooperation and co-ordination between entities
- Communication

## **5.2 Define and Establish Strategic Objectives**

### *5.2. A - Main Risk Groups and Risk Factors*

The Strategic Objectives of the NRSS were produced at the Diagnosis stage and have been organized according to the main risk group and risk factors identified therein:





The first five are Risk Groups, for which monitoring models can be made with very detailed indicators, enabling any progress to be measured. With the exception of measures concerning driving under the influence of alcohol and drugs (where the main indicator will be obtained based on autopsies of the deadly victims and the data collected during control on traffic accident participants) all other will be based on fatality data (accidents with victims, deaths, slightly injured, seriously injured).

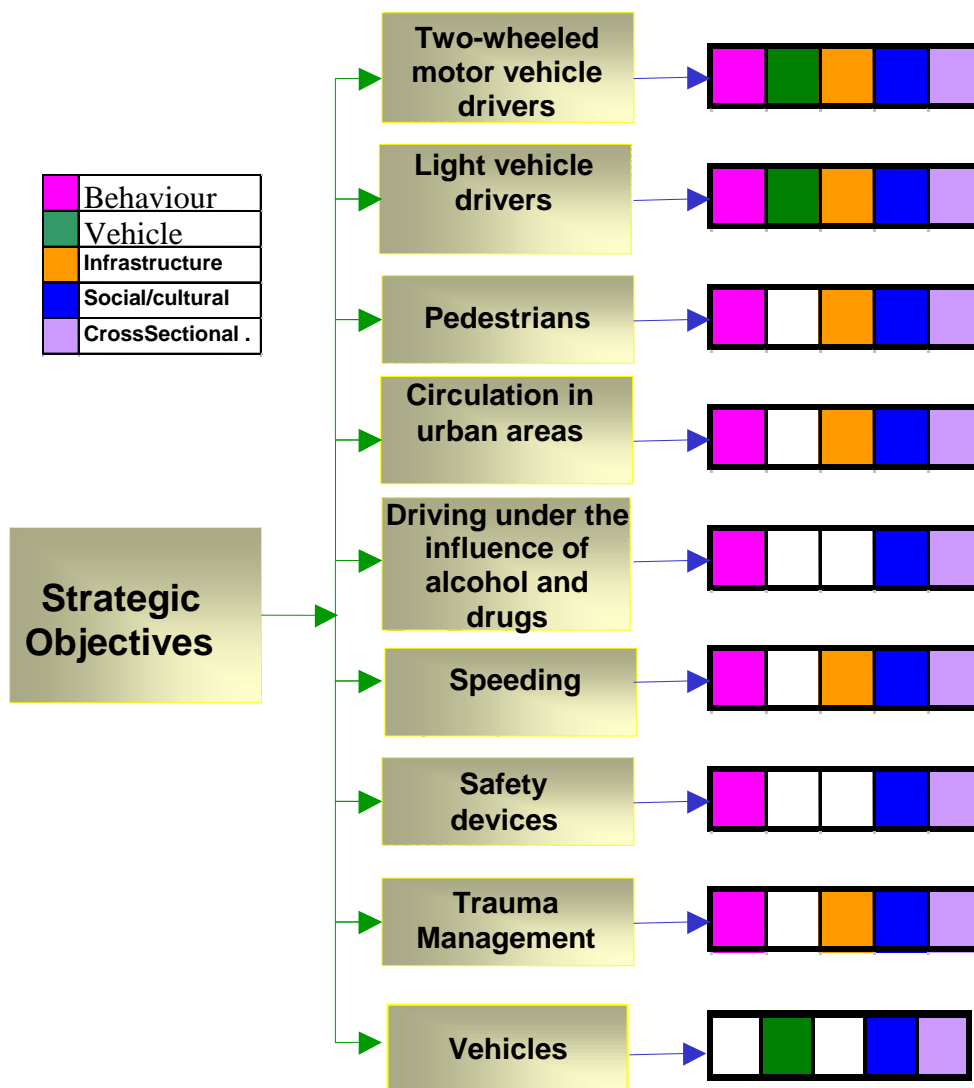
Driving under the influence of alcohol and drugs was classified as Risk Group because it is understood that it refers to drivers in those circumstances. Otherwise it would have been considered a Risk Factor.

The remaining five are considered Risk Factors because in such cases it is not possible to establish a correlation between the measures adopted / the results obtained and the reduction of fatalities, even though it is generally accepted that they contribute significantly to such reduction.

### **5.2. B Some Implications of the Strategic Objectives**

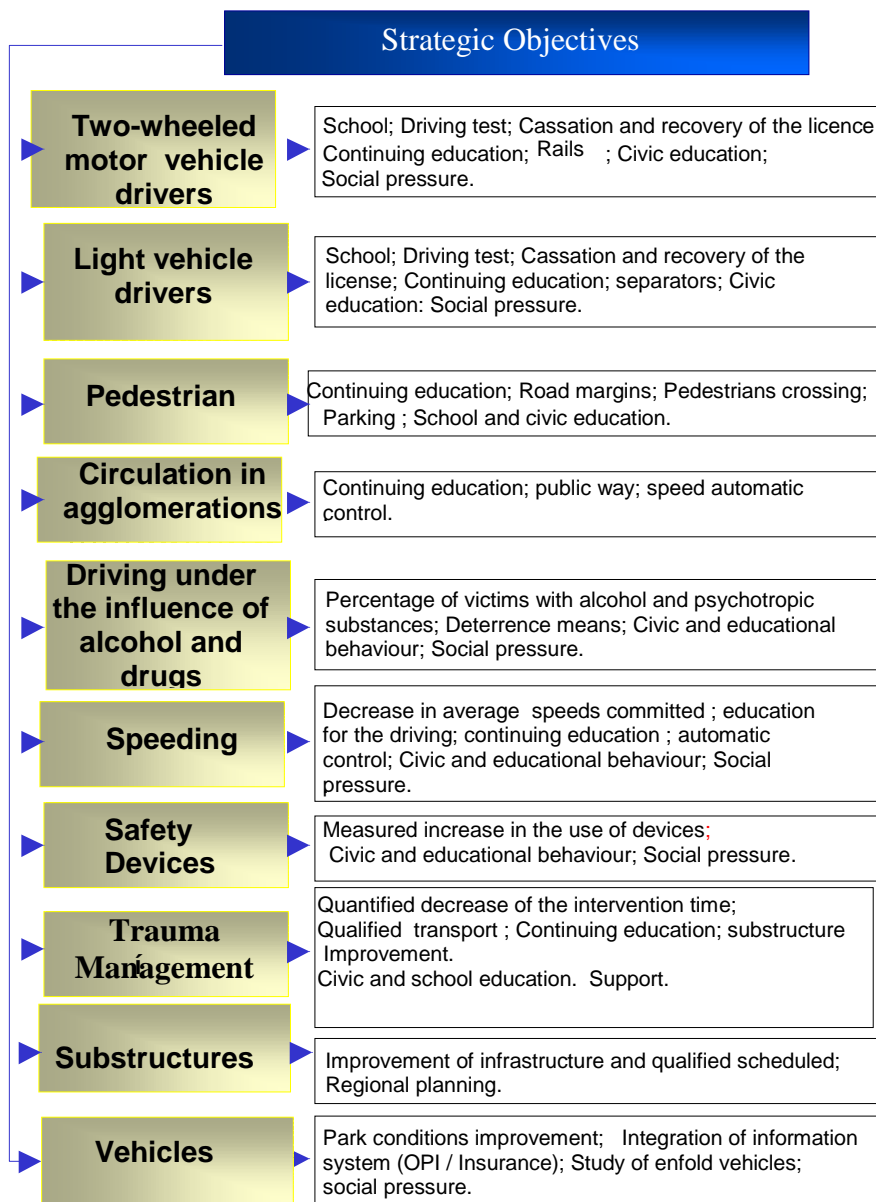
To better identify the tasks that will be undertaken during the NRSS Implementation phase, each Strategic Objective was linked to the Haddon Matrix Factors and to the Cross-Sectional Actions. Each Strategic Objective was also identified with Sectorial Intervention Guidelines according to the following schemes:

## Implications of the Strategic Objectives on the Haddon Matrix Factors and on the Cross-Sectional Actions



## Relação das Linhas de Orientação para Intervenção Sectorial com os Objectivos Estratégicos

### Two-wheeled vehicle drivers



These Risk Groups and Risk Factors will be associated with Result Indicators while considering the numbers of historic reference and international comparisons (evolutionary benchmarks) that will allow the Strategic Objectives to be set up and the level of enforcement for the NRSS.

## 5.2. C Quantification of Strategic Objectives

Considering the variables that have been examined in the Characterization of Road Fatalities at the Diagnosis phase, we have estimated their desirable progress, based on their behaviour since 1999 and the results expected for 2011 and 2015.

NOTE – All these estimates are based on the number of deaths per 24-hours.

NRSS's Goals						
Total fatalities in traffic accidents						
	IUA		OUA		Total	
	08/15	08/11.	08/15	08/11	08/15	08/11
Real values for 2006	393	393	457	457	850	850
Fatalities evolution (goals)	251	311	328	418	579	728
Evolution goals %	-36,1%	-21,0%	-28,3%	-8,5%	-31,9%	-14,3%
Reference evolution %	-31,9%	-14,3%	-31,9%	-14,3%	-31,9%	-14,3%
Ref. evo.number of killed	268	337	311	392	579	728
Ref. Evo. – Evo Goals	17	26	-17	-26		

6. Difference between the number projected fatalities, using the percentage goal for the total number of traffic accidents and the objective for the segment, considering the effort intended for it.
5. Application to each segment of the total decrease rate projected to the number of fatalities in 2006
4. Decrease goals for the total number of traffic accidents in the two considered periods
3. Percentage decrease of the number of traffic accidents, based on 2006, corrected according to the 1999-2006 and 2003-2006 performances.
2. Expected evolution for each segment, applying the total evolution rates, observed in 1999-2006 (51,4%) and 2003-2006 (37,3%), to each one and the total effort, as projected to 2011-2015 (14,3% and 31,9%).
1. Starting point for the calculations of the total number of traffic accidents for the NRSS

The red cells refer to the segments which are expected to have a better +performance than the total. The green cells refer to those that may have a performance worst than the total. The yellow and white cells refer to those that present values within plus or minus 5% than the expected total. The number of fatalities, when positive indicates the value of the effort required in the segment. When negative indicates the existing margin in the segment, compared to the percentage decrease expected for the total number of fatalities.

NRSS'Goals												
	Motorways		IUA		EM		Nac. roads		IC/IP		Others	
	08/15	08/11	08/15	08/11	08/15	08/11	08/15	08/11	08/15	08/11	08/15	08/11
Real values for 2006	74	74	189	189	129	129	354	354	75	75	29	29
Fatalities evolution (goals)	36	60	122	151	91	96	266	328	56	82	10	12
Evolution goals %	-51,7	-19,4	-35,6	-20,1	-29,7	-25,5	-25,0	-7,4	-25,9	8,9	-66,9	-57,4
Reference evolution %	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3
Ref. evo.number of killed	50	63	129	162	88	111	241	303	51	64	20	25
Ref. Evo. – Evo Goals	15	4	7	11	-3	14	-25	-24	-4	-17	10	12

\*Base 2006; \*\*Base 1999 for 08/15 and 2003 for 08/11

NRSS'Goals												
	Killed passengers cars users (evo) ***						Drivers					
	DL		FL		TOTAL		DL		FL		TOTAL	
	08/15	08/11	08/15	08/11	08/15	08/11	08/15	08/11	08/15	08/11	08/15	08/11
Real values for 2006	146	146	272	272	418	418	89	89	186	186	275	275
Fatalities evolution (goals)	74	93	208	269	283	362	45	60	130	172	175	232
Evolution goals %	-49,0	-36,0	-23,4	-1,2	-32,3	-13,4	-49,1	-33,0	-30,3	-7,3	-36,4	-15,6
Reference evolution %	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3
Ref. evo.number of killed	99	125	185	233	285	358	61	76	127	159	187	236
Ref. Evo. – Evo Goals	25	32	-23	-35	2	-4	15	17	-3	-13	12	4

\*Base 2006; \*\* Base 1999 for 08/15 and 2003 for 08/11

NRSS'Goals												
Number of killed in light vehicles by age groups (evolution)												
	18-24		25-29		30-34		35-59		=>60		Total	
	08/15	08/11	08/15	08/11	08/15	08/11	08/15	08/11	08/15	08/11	08/15	08/11
Real values for 2006	31	31	47	47	31	31	94	94	70	70	275	275
Fatalities evolution (goals)	39	47	27	34	20	26	65	90	21	34	175	232
Evolution goals %	26,0	52,4	-42,3	-28,0	-37,0	-16,9	-31,0	-4,6	-70,2	-51,7	-36,3	-15,6
Reference evolution %	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3
Ref. evo.number of killed	21	27	32	40	21	27	64	81	48	60	187	236
Evo. Ref. – obj. Evo.	-18	-21	5	6	2	1	-1	-9	27	26	12	4

\*Base 2006; Base 1999 for 08/15 and 2003 for 08/11

NRSS'Goals								
Killed passengers cars users (evolution) ***								
	Drivers				Passengers			
	IUA		OUA		IUA		OUA	
	08/15	08/11	08/15	08/11	08/15	08/11	08/15	08/11
Real values for 2006	89	89	186	186	57	57	86	86
Fatalities evolution (goals)	45	60	130	172	29	34	79	96
Evolution goals %	-49,0	-33,0	-30,2	-7,3	-48,9	-40,6	-8,4	11,8
Reference evolution %	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3
Ref. evo.number of killed	61	76	127	159	39	49	59	74
Ref. Evo. – Evo Goals	15	17	-3	-13	10	15	-20	-22

\*Base 2006; \*\*Base 1999 for 08/15 and 2003 for 08/11

	Two wheeled vehicles users killed (evo)						Drivers					
	IUA		OUA		IUA		OUA		IUA		OUA	
	08/15	08/11	08/15	08/11	08/15	08/11	08/15	08/11	08/15	08/11	08/15	08/11
Real values for 2006	114	114	91	91	205	205	103	103	86	86	189	189
Fatalities evolution (goals)	89	97	58	78	147	175	80	90	53	71	133	161
Evolution goals %	-21,9	-15,2	-36,4	-14,4	-28,4	-14,8	-22,3	-12,9	-38,1	-17,5	-29,5	-15,0
Reference evolution %	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3
Ref. evo.number of killed	78	98	62	78	140	176	70	88	59	74	129	162
Ref. Evo. – Evo Goals	-11	1	4	0	-7	1	-10	-1	5	3	-5	1

	NRSS'Goals									
	Killed passengers cars users inside urban areas by age group (evolution).									
	18-24		25-29		30-34		35-59		=>60	
	08/15	08/11	08/15	08/11	08/15	08/11	08/15	08/11	08/15	08/11
Real values for 2006	11	11	16	16	14	14	25	25	23	23
Fatalities evolution (goals)	10	13	6	13	4	8	16	18	7	7
Evolution goals %	-6,7	22,0	-60,7	-16,1	-69,3	-42,5	-35,1	-29,1	-69,8	-69,6
Reference evolution %	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3
Ref. evo.number of killed	7	9	11	14	10	12	17	21	16	20
Ref. Evo. – Evo Goals	-3	-4	5	1	6	4	1	3	9	13



NRSS'Goals										
Killed passengers cars users outside urban areas by age group (evolution)										
	18-24		25-29		30-34		35-59		=>60	
	08/15	08/11	08/15	08/11	08/15	08/11	08/15	08/11	08/15	08/11
Real values for 2006	20	20	31	31	17	17	69	69	47	47
Fatalities evolution (goals)	29	34	21	20	15	18	49	72	14	27
Evolution goals %	44,0	69,2	-32,7	-34,2	-10,4	4,2	-29,5	4,3	-70,4	-42,9
Reference evolution %	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3
Ref. Evo.number of killed	14	17	21	27	12	15	47	59	32	40
Ref. Evo. – Evo Goals	-15	-17	0	6	-4	-3	-2	-13	18	13

\*Base 2006; Base 1999 for 08/15 and 2003 for 08/11

NRSS'Goals								
Two-wheeled killed users (evolution)								
	Two-wheeled drivers				Two-wheeled passengers			
	IUA		OUA		IUA		OUA	
	08/15	08/11	08/15	08/11	08/15	08/11	08/15	08/11
Real values for 2006	103	103	86	86	11	11	5	5
Fatalities evolution (goals)	80	90	53	71	9	7	5	7
Evolution goals %	-22,2	-12,9	-38,0	-17,6	-18,8	-36,5	-7,3	39,6
Reference evolution %	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3
Ref. Evo.number of killed	70	88	59	74	7	9	3	4
Ref. Evo. – Evo Goals	-10	-1	5	3	-1	2	-1	-3

\*Base 2006; Base 1999 for 08/15 and 2003 for 08/11

Objectivos da ENSR								
Two-wheeled drivers killed by age group (evolution).								
	<18		18-34		=>35		Total	
	08/15	08/11	08/15	08/11	08/15	08/11	08/15	08/11
Real values for 2006	4	4	93	93	91	91	189	189
Fatalities evolution (goals)	7	4	75	82	49	74	133	161
Evolution goals %	73,8	-6,0	-19,2	-12,2	-46,2	-18,6	-29,4	-15,0
Reference evolution %	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3
Ref. evo.number of killed	3	3	63	80	62	78	129	162
Ref. Evo. – Evo Goals	-4	-1	-12	-2	13	4	-4	1

Objectivos da ENSR						
Two-wheeled drivers killed inside urban areas by age groups (evolution).						
	<18		18-34		>35	
	08/15	08/11	08/15	08/11	08/15	08/11
Real values for 2006	4	4	56	56	42	42
Fatalities evolution (goals)	5	3	47	47	28	39
Evolution goals %	15,9	-19,5	-16,1	-16,6	-33,8	-6,7
Reference evolution %	-31,9	-14,3	-31,9	-14,3	-31,9	-14,3
Ref. evo.number of killed	3	3	38	48	29	36
Ref. Evo. – Evo Goals	-2	0	-9	1	1	-3

\*Base 2006; Base 1999 for 08/15 and 2003 for 08/11

NRSS Goals						
Killed two-wheeled vehicles outside urban areas by age group (evo.)						
	<18		18-34		>35	
	08/15	08/11	08/15	08/11	08/15	08/11
Real values for 2006	0	0	37	37	49	49
Fatalities evolution (goals)	2	1	28	35	21	35
Evolution goals %	n.a.	n.a.	-24,0%	-5,7%	-56,8%	-28,8%
Reference evolution %	-31,9%	-14,3%	-31,9%	-14,3%	-31,9%	-14,3%
Ref. evo.number of killed	n.a.	n.a.	25	32	33	42
Ref. Evo. – Evo Goals	n.a.	n.a.	-3	-3	12	7

\*Base 2006; \*\*Base 1999 for 08/15 and 2003 for 08/11

NRSS Goals				
Blood alcohol concentration – (only Portugal's main land)				
Killed drivers				
	2015		2011	
	Tests	%	Tests	%
0-0,49g/l	239	75,2%	280	68,5%
0,50-0,79 g/l	10	3,1%	16	3,9%
0,80-1,19 g/l	6	1,9%	10	2,3%
>=1,20 g/l	63	19,9%	103	25,2%
Tests total*	318	100,0%	408	100,0%

\*Test results for blood alcohol concentration

These tables show that an effort must be made in every segment so that those that behaved less positively in the 1999-2006 period may recover from the delay and may be by 2015 at the level that the total number of fatalities should reach. On the other hand, the segments that in 1999-2006 progressed better or at the pace of the total number of fatalities show the leeway in the implementation of the NRSS.

As expected, after examining the past fatality numbers the critical action segments are:

- ✓ Fatalities in urban agglomerations (Light vehicle, two-wheeled and heavy-vehicle users even though the latter are in small number)
- ✓ In over 25-year old light vehicle users inside agglomerations and over 60-year old outside agglomerations.
- ✓ To reduce fatalities with two-wheeled vehicles a greater effort has to be made outside agglomerations, especially as regards drivers and among them those over 35-years old.
- ✓ Motorways\*, street layout and other types of ways should deserve special attention both in the short and in the long time frame. Municipal Roads should also deserve attention in the short time frame.

\*See previous note on fatalities in such ways.

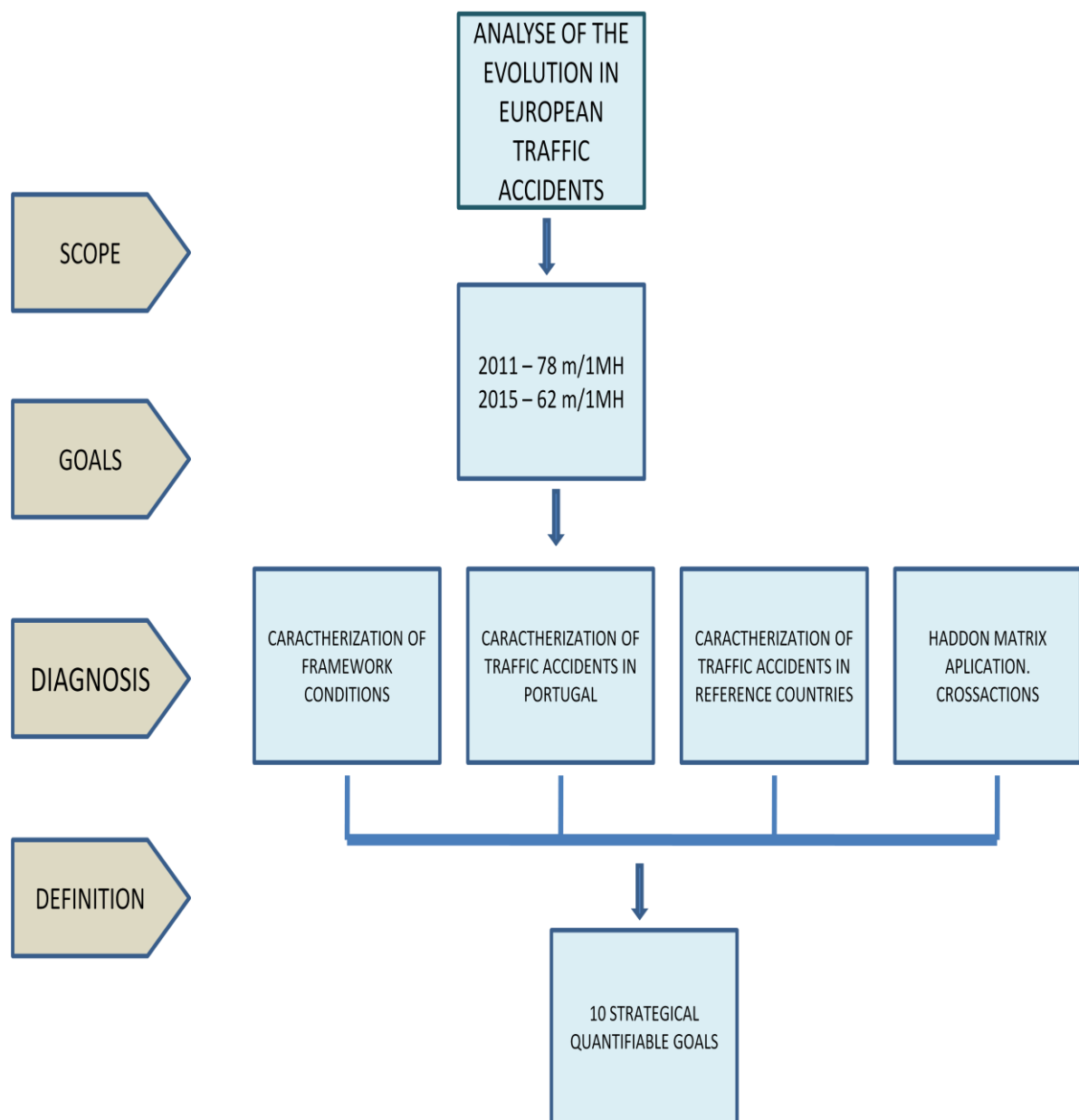
NOTE – In spite of the progress that has been made as regards fatalities among young people and two-wheeled vehicle users, the high percentage weight of both categories in the total of deaths will require efforts to be constantly upheld to improve such numbers.

Considering the numbers that have been estimated for the evolution of fatalities and in accordance with all the factors that allowed us to define the Strategic Objectives for the NRSS, the following Objectives were quantified for 2008 – 2015 and 2008 – 2011, namely:

<b>STRATEGIC OBJECTIVE</b>	<b>2008 - 2015</b>	<b>2008 - 2011</b>
<b>Two-wheeled vehicle drivers</b>	Reduce the number of deaths between 29% and 32%	Reduce the number of deaths between 14% and 15%
<b>Light vehicle drivers</b>	Reduce the number of deaths in 32%	Reduce the number of deaths in 14%
<b>Pedestrians</b>	Reduce the number of deaths in 32%	Reduce the number of deaths in 14%
<b>Fatalities in urban areas</b>	Reduce the number of deaths between 32% and 49% in light vehicle users, 22% and 32% in two-wheeled users and between 15% and 32% in pedestrians.	Reduce the number of deaths between 14% and 36% in light vehicle users, 14% and 15% in two-wheeled users and between 1% and 14% in pedestrians.
<b>Driving under the influence of alcohol and drugs</b>	Reduce to 25% the number of deaths among drivers with blood alcohol content above the legal limit.	Reduce to 32% the number of deaths among drivers with blood alcohol content above the legal limit.

### 5.3 Summary of the NRSS

This procedure is summarized in the following diagram:



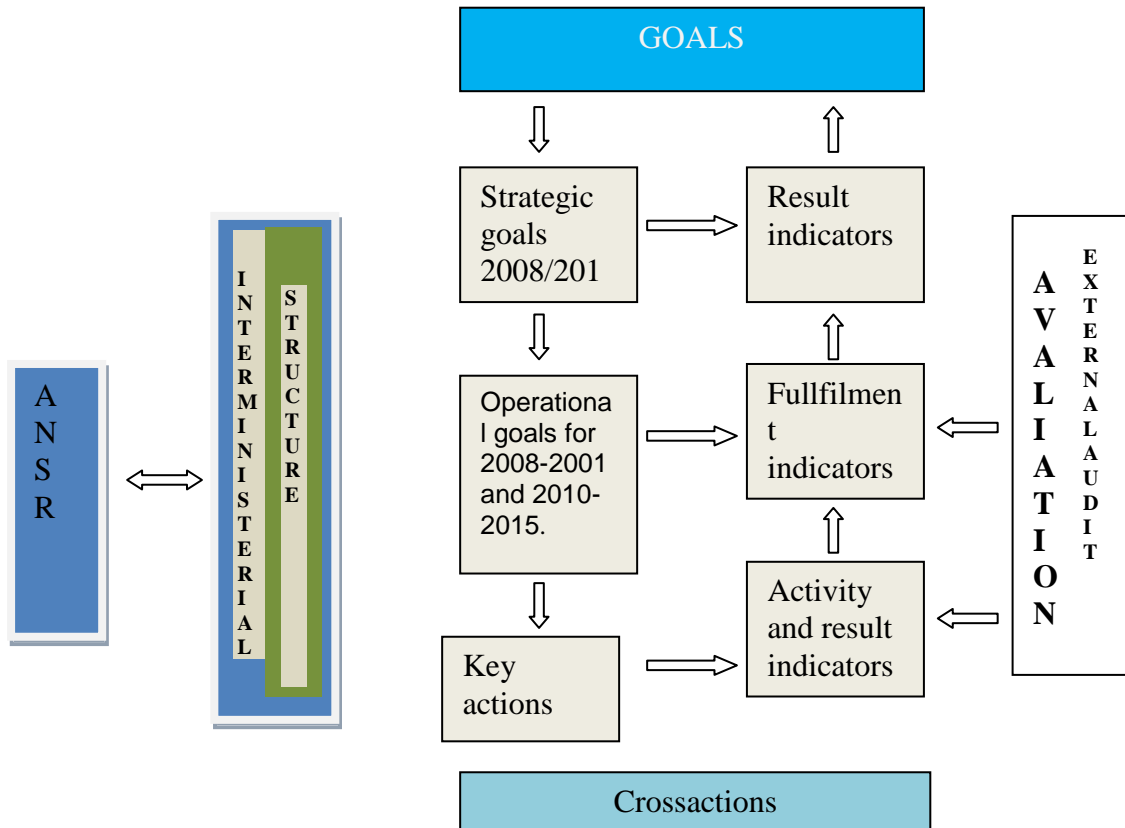
#### 5.4 Operational Objectives and Key-Actions

Based on the Strategic Objectives, Operational Objectives will be defined. Each will be associated with indicators capable of measuring the results of the effort that has been made (Compliance Indicators) and Key-Actions that stem from those objectives. Their effectiveness will be measured according to how their contribution to reduce road fatalities will progress (Action and Results Indicators).

The development of Operational Objectives and the identification of Key-Actions will be established by the Technical Structure and will be validated by ANSR, based on a preliminary paper drawn by ANSR and ISCTE.

## 6. NRSS IMPLEMENTATION MODEL

The following diagram summarizes the organization of NRSS and the information flows that will be developed during its implementation phase.





## **7. EXPECTED BENEFITS**

Besides the social benefits of sparing priceless human lives that should, in itself, be worth all efforts to implement the NRSS, Portugal cannot but account the expected social gains.

If we consider the average decrease estimated for the period during which NRSS will be enforced, circa 1.350 lives will be spared (having as reference the current level of fatalities in Portugal).

Having as guideline an amount accepted as standard in the European Union of 1 million to 1.5 million Euro per mortal victim, we can realize how important the NRSS is, also in economic terms and the importance of its quick implementation with suitable means, with a view to optimize its cost-benefits.

**NATIONAL ROAD SAFETY  
STRATEGY  
2008 – 2015**

**PART II – DEVELOPMENT**

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**OPERATIONAL OBJECTIVES AND  
KEY-ACTIONS**

## 1. BACKGROUND

The definition of the Operational Objectives (OO) that were to be used for discussion and further analysis by the various working groups of the Technical Structure (established according to a multidisciplinary and intergovernmental strategy) were produced together by ANSR and a team of ISCTE researchers.

The Technical Structure and the Steering Structure met regularly and had interactive access to a dedicated portal in the ANSR internet site. Members of the Advisory Group participated in the meetings of the Technical Structures whenever it was considered relevant.

Members of the Advisory Group may cooperate in the development and implementation of NRSS based on the documents made available for public consultation and on the interactive digital platform.

Since several Operational Objectives are complex and complementary, Working Groups (WG) were set up so that such issues could be treated in an integrated and uniform approach. Fourteen WG were set up alongside their leadership by the members of the Conselho de Segurança Rodoviária (CSR) [*Road Safety Council*] – National Gendarmerie, Public Security Police, InIR and IMTT.

Also, during the time when the Working Groups were active, ANSR together with the Provincial Governments launched Road Safety Forums in all districts with the purpose of both presenting the National Road Safety Strategy and gather the contribution of the various entities whose role was pivotal in this whole process.

## 2. OPERATIONAL OBJECTIVES AND ACTIONS

### 2.1 Operational Objectives

The dynamics of the Working Groups and the contributions that were gathered while the Operational Objectives were being developed produced changes in the original plan; future interventions were expanded and the issues at stake were stepped-up.

Hence, the Operational Objectives in force until at least the first implementation stage of the NRSS (2011) became the following:

<b>OPERATIONAL OBJECTIVES (OO)</b>
<b>OPERATIONAL OBJECTIVE 1</b> – Development of an education culture aimed at road safety
<b>OPERATIONAL OBJECTIVE 2</b> – Reconvert Driving Schools into Learning Centres for Driving and Road Safety
<b>OPERATIONAL OBJECTIVE 3</b> – Re-qualify and further driving instructors' professional skills
<b>OPERATIONAL OBJECTIVE 4</b> – Redesign driving exams and admission requirements
<b>OPERATIONAL OBJECTIVE 5</b> – Drivers' recurrent training and updating
<b>OPERATIONAL OBJECTIVE 6</b> – Technical and professional training in road safety
<b>OPERATIONAL OBJECTIVE 7</b> – Automatic speed control
<b>OPERATIONAL OBJECTIVE 8</b> – Control program on alcohol, drugs, speed, safety devices and safety distances
<b>OPERATIONAL OBJECTIVE 9</b> – Improve the penalty system for traffic offences
<b>OPERATIONAL OBJECTIVE 10</b> – Automatic drivers' and vehicles' control through interconnected information systems
<b>OPERATIONAL OBJECTIVE 11</b> – Improve urban road environment
<b>OPERATIONAL OBJECTIVE 12</b> – Control on urban parking and on pedestrians' behaviour

OPERATIONAL OBJECTIVE 13 – Integrated program to improve victims' assistance
OPERATIONAL OBJECTIVE 14 – Road Safety Audits and Road Safety Inspection Programs
OPERATIONAL OBJECTIVE 15 – Management of segments with a high accident rate
OPERATIONAL OBJECTIVE 16 – Defense and protection of the roads and their surrounding areas
OPERATIONAL OBJECTIVE 17 – Treatment of the area adjacent to the carriageway (AAC)
OPERATIONAL OBJECTIVE 18 – Self-explanatory roads: adjust roads to their classification and function
OPERATIONAL OBJECTIVE 19 – Risk indicators on roads
OPERATIONAL OBJECTIVE 20 – Increase the use of new traffic management and information technology in actual time
OPERATIONAL OBJECTIVE 21 – Extension of Mandatory Inspections to Mopeds, Motorcycles, Tricycles and Quadricycles
OPERATIONAL OBJECTIVE 22 – Technical information program on vehicle safety
OPERATIONAL OBJECTIVE 23 – Statistic information program on traffic accidents with victims
OPERATIONAL OBJECTIVE 24 – Improve and enforce the Road Code
OPERATIONAL OBJECTIVE 25 – NRSS communication program and subsequent actions
OPERATIONAL OBJECTIVE 26 – Impact on security studies (ISS)
OPERATIONAL OBJECTIVE 27 – Risk assessment in road tunnels
OPERATIONAL OBJECTIVE 28 – Improvement of the vehicle fleet
OPERATIONAL OBJECTIVE 29 – Risk indicators, road safety performance and user's behaviour
OPERATIONAL OBJECTIVE 30 – Study of the economical and social cost of the accidents

The following boards summarize the contributions of the various Operational Objectives (OO) to the NRSS's Strategic Objectives (SO).

<b>STRATEGIC OBJECTIVE 1 – TWO-WHEELED MOTOR VEHICLE DRIVERS</b>
OO1 – Development of an education culture aimed at road safety
OO2 – Reconvert Driving Schools into Learning Centres for Driving and Road Safety
OO3 – Re-qualify and further driving instructors' professional skills
OO4 – Driving exams and admission requirements
OO5 – Drivers' recurrent training and updating
OO6 – Technical and professional training in road safety
OO7 – Automatic speed control
OO8 – Targeted control program on alcohol, drugs, speed, safety devices and safety distance
OO9 – New penalty system for traffic offenses
OO11 – Improvement of road environment in urban environments
OO23 – Statistic information program on traffic accidents with victims
OO24 – Amendment of the Road Code
OO25 – NRSS communication program and subsequent actions
OO29 – Risk indicators, road safety performance and user's behaviour
OO30 – Study of the economical and social cost of the accidents

## STRATEGIC OBJECTIVE 2 – LIGHT VEHICLE DRIVERS

OO1 – Development of an education culture aimed at road safety

OO2 – Reconvert driving schools into Learning Centres for Driving and Road Safety

OO3 – Re-qualify and further driving instructors' professional skills

OO4 – Driving exams and admission requirements

OO5 – Drivers' recurrent training and updating

OO6 – Technical and professional training in road safety

OO7 – Automatic speed control

OO8 – Targeted control program on alcohol, drugs, speed, safety devices and safety distance

OO9 – New penalty system for traffic offenses

OO11 – Improve urban road environment

OO12 – Control on urban parking and on pedestrians' behaviour

OO23 – Statistic information program on traffic accidents with victims

OO24 – Amendment of the Road Code

OO25 – NRSS communication program and subsequent actions

OO29 – Risk indicators, road safety performance and user's behaviour

OO30 – Study of the economical and social cost of the accidents

### **STRATEGIC OBJECTIVE 3 – PEDESTRIANS**

OO1 – Development of an education culture aimed at road safety

OO6 – Technical and professional training in road safety

OO8 – Targeted control program on alcohol, drugs, speed, safety devices and safety distance

OO11 – Improve urban road environment

OO12 – Control on urban parking and on pedestrians' behaviour

OO23 – Statistic information program on traffic accidents with victims

OO24 – Amendment of the Road Code

OO25 – NRSS communication program and subsequent actions

OO29 – Risk indicators, road safety performance and user's behaviour

OO30 – Study of the economical and social cost of the accidents

### **STRATEGIC OBJECTIVE 4 – FATALITIES IN URBAN AGGLOMERATIONS**

OO8 – Targeted control program on alcohol, drugs, speed, safety devices and safety distance

OO11 – Improvement of road environment in urban environments

OO12 – Control on urban parking and on pedestrians' behaviour

OO14 – Road Safety Audits / Road Safety Inspection Programs

OO23 – Statistic information program on traffic accidents with victims

OO29 – Risk indicators, road safety performance and user's behaviour

OO30 – Study of the economical and social cost of the accidents



## **STRATEGIC OBJECTIVE 5 – DRIVING UNDER THE INFLUENCE OF ALCOHOL AND DRUGS**

OO8 – Targeted control program on alcohol, drugs, speed, safety devices and safety distance

OO23 – Statistic information program on traffic accidents with victims

OO24 – Amendment of the Road Code

OO29 – Risk indicators, road safety performance and user's behaviour

OO30 – Study of the economical and social cost of the accidents

## **STRATEGIC OBJECTIVE 6 – SPEED**

OO7 – Automatic speed control

OO8 – Targeted control program on alcohol, drugs, speed, safety devices and safety distance

OO20 – Increase the use of new traffic management and information technology in actual time

OO23 – Statistic information program on traffic accidents with victims

OO24 – Amendment of the Road Code

OO29 – Risk indicators, road safety performance and user's behaviour

OO30 – Study of the economical and social cost of the accidents

## **STRATEGIC OBJECTIVE 7 – SAFETY DEVICES**

OO8 – Targeted control program on alcohol, drugs, speed, safety devices and safety distance

OO23 – Statistic information program on traffic accidents with victims

OO29 – Risk indicators, road safety performance and user's behaviour

OO30 – Study of the economical and social cost of the accidents

## STRATEGIC OBJECTIVE 8 – VÍCTIM ASSISTANCE

OO6 – Technical and professional training in road safety

OO13 – Integrated program to improve victim assistance

OO23 – Statistic information program on traffic accidents with victims

OO24 – Amendment of the Road Code

OO29 – Risk indicators, road safety performance and user's behaviour

OO30 – Study of the economical and social cost of the accidents

## STRATEGIC OBJECTIVE 9 – INFRASTRUCTURE

OO6 – Technical and professional training in road safety

OO11 – Improve urban road environments

OO14 – Road Safety Audits / Road Safety Inspection Programs

OO15 – Management of segments with a high accident rate

OO16 – Defense and protection of the roads and their surrounding areas

OO17 – Treatment of the area adjacent to the carriageway (AAC)

OO18 – Self-explanatory roads: adjust roads to their classification and function

OO19 – Risk indicators on roads

OO20 – Increase the use of new traffic management and information technology in actual time

OO23 – Statistic information program on traffic accidents with victims

OO26 – Impact on security studies (ISS)

OO27 – Risk assessment in road tunnels

OO29 – Risk indicators, road safety performance and user's behaviour

OO30 – Study of the economical and social cost of the accidents

## STRATEGIC OBJECTIVE 10 – VEHICLES

OO6 – Technical and professional training in road safety

OO10 – Automatic control of drivers and vehicles based on the interconnection of information systems

OO21 – Extension of Mandatory Inspections to Mopeds, Motorcycles, Tricycles and Quadricycles

OO22 – Technical information program on vehicle safety

OO23 – Statistic information program on traffic accidents with victims

OO24 – Amendment of the Road Code

OO28 – Improvement of the vehicle fleet

OO29 – Risk indicators, road safety performance and user's behaviour

OO30 – Study of the economical and social cost of the accidents

	S01	S02	S03	S04	S05	S06	S07	S08	S09	S010
OO1										
OO2										
OO3										
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## 2.2 Key Actions

Next we will present the Key Actions that have been established against the backdrop of each above-mentioned Operational Objectives (OO), after they have been validated by ANSR – as the body responsible for the management and development of the NRSS – and by the institutions that given their functional remit will be in charge of their implementation.

The Key will be re-examined annually and possibly changed according to how successful its implementation has been and to the needs that in meantime may have been spotted both as regards the Operational Objectives and any new problems arising within the framework of the Strategic Objectives that may have been pointed out by the participating entities and ANSR.

The numbering obeys the following criteria: the 1st column refers to the chronology of all actions that are to be carried out within the NRSS so as to ensure their general monitoring while they are being implemented; the 2nd column numbers the key actions according to the Operational Objective that they refer to and those numbers will also be mentioned in future developments of each OO.

For each Action we mention the responsible entity, the foreseeable time frame and the amounts necessary to finance its implementation. In this last case ‘non applicable’ (n.a.) means that such actions will be carried out with the budget of the participating institutions.

<b>OPERATIONAL OBJECTIVE 1 – Development of an education culture aimed at road safety</b>				
<b>DESCRIPTION – Develop skills and abilities in children and young for a safer integration in the road environment.</b>				
<b>KEY ACTIONS</b>		<b>RESP.</b>	<b>TIME FRAME</b>	<b>BUDGET</b>
1	1.1 Define and develop the abilities that must be acquired in the area of road education.	ME	Year 2009	n.a.
2	1.2.1 Set up a Road Education Guidebook Pre-school and elementary school	ME	Year 2009	n.a.
	Secondary school	ME	Year 2010	n.a.
	1.2.2 Define the type, contents and conception of the learning material that will support the Guidebook Produce the learning material	ANSR ANSR	Year 2009 Year 2010	n.a. n.a.
	1.2.3 Identify the training needs of the educators responsible for the guidebook's implementation	ME	Year 2009	n.a.
3	1.3 Estimate the incentives that may motivate participating entities to address road safety issues	IPJ	Year 2009	n.a.
4	1.4 School competitions	PRP	Year 2009	n.a.
5	1.5 Conceive and organize awareness actions aimed at children and parents, relatives or caretakers to be carried at the beginning of the schoolyear	ANSR	Year 2009	n.a.
6	1.6 Survey the human resources and entities that may be available to conduct training courses in road safety acknowledged for their competence and experience in the field	IPJ	Until September 2009	n.a.
7	1.7 Motivate the inclusion of road safety as subject matter in schoolbooks	ME	Year 2009	n.a.

**OPERATIONAL OBJECTIVE 2 – Reconvert Driving Schools into Learning Centres for Driving and Road Safety**

**DESCRIPTION –** Change the way driving schools operate so that learners internalise attitudes and behaviours that prioritize road safety; driving schools will be given further powers

KEY ACTIONS		RESP.	TIME FRAME	BUDGET
8	2.1.1 Allow driving schools to supply training in other areas related with driving	IMTT	Year 2009	n.a.
	2.1.2 Legally establish the use of joint means by driving schools			
	2.1.3 Legally establish the Educational Counselor			
9	2.2.1 Allow for distance education (theoretical classes)	IMTT	Year 2009	n.a.
	2.2.2 Allow driving candidates to drive with a tutor			

**OPERATIONAL OBJECTIVE 3 – Re-qualify and further driving instructors' professional skills**

**DESCRIPTION –** Redesign driving instructor's training courses so as to introduce new concepts and practices in driving instruction, study new ways of accessing the profession while enhancing the prevention and safety aspects in teaching.

KEY ACTIONS		RESP.	TIME FRAME	BUDGET
10	3.1.1 Limit the access to and the exercise of driving instruction those who hold a trainer's Certificate of Educational Ability (CEA)	IMTT	Year 2009	n.a.
	3.1.2 Encourage current instructors to obtain a trainer's CEA			
11	3.2 Redesign instructor's training courses and reduce the periodicity and amount of hours of the instructors' specific refresher course	IMTT	Year 2009	n.a.
12	3.3 E-Learning on Eco-Driving for drivers and professionals	IMTT	Year 2009	50.000€

<b>OPERATIONAL OBJECTIVE 4 - Redesign driving exams and admission requirements</b>				
<b>DESCRIPTION</b> – Study how driving exams should be redesigned, focusing on driving under near-real circumstances and on defensive driving.				
<b>KEY ACTIONS</b>		<b>RESP.</b>	<b>TIME FRAME</b>	<b>BUDGET</b>
13	4.1 Implement maneuvers in the aptitude and behaviour test for category A and subcategory A1 in a dedicated area.	IMTT	Year 2009	5.000€
14	4.2 Introduce independent driving in the aptitude and behaviour test of the driving exam	IMTT	Year 2009	10.000€

<b>OPERATIONAL OBJECTIVE 5 – Drivers' recurrent training and updating</b>				
<b>DESCRIPTION</b> – Change attitudes and induce new behaviours for driving and the road environment.				
<b>KEY ACTIONS</b>		<b>RESP.</b>	<b>TIME FRAME</b>	<b>BUDGET</b>
15	5.1.1 Establish the contents of the training programs for applying to a special driving exam under Article 30 of the Road Code (expiry of the driver's license) or a court ruling.	IMTT	Depending on the approval of the RHLC*	n.a.
	5.1.2 Review the training programs under Article 141 of the Road Code (suspension of and ancillary sanction)	IMTT	Year 2009	n.a.
16	5.2 Promote studies on drivers who participated in traffic accidents; examine physical and psychological conditions so as to assess the need to attend specific training and/or apply other driving restrictions.	ANSR/ IMTT	2009-2011	n.a.

\* RHLC –Legal Driving Enabling Regulation



<b>OPERATIONAL OBJECTIVE 6 – Technical and professional training in road safety</b>				
<b>DESCRIPTION –</b> Qualify specialists from different road safety areas in specific training in this field.				
<b>KEY ACTIONS</b>		<b>RESP.</b>	<b>TIME FRAME</b>	<b>BUDGET</b>
17	6.1.1 Initial training of Kindergarten Teachers and Teachers	ME	Year 2009	n.a.
	6.1.2 Recurrent training of educators and teachers	PRP	Year 2009	n.a.
	6.1.3 Promote specialized training courses in Road Safety Audits	InIR	4th Quarter 2009	12.000€
	6.1.4 Promote the recurrent training courses in Road Safety Auditing	InIR	4th Quarter 2010	10.000€
	6.1.5 Training in first aid and basic life support	INEM	2009-2015	88.704€
	6.1.6 Expert training/ reconstruction of road accidents	ANSR/IMTT	Year 2011	n.a.
	6.1.7 Training of municipal technicians	PRP	Year 2009	n.a.

<b>OPERATIONAL OBJECTIVE 7 – Automatic speed control</b>				
<b>DESCRIPTION –</b> Increase respect for the established speed limits by implementing a national automatic speed control system.				
<b>KEY ACTIONS</b>		<b>RESP.</b>	<b>TIME FRAME</b>	<b>BUDGET</b>
18	7.1.1 Study the criteria that must be met while choosing the spots where the system will be set up and what type of equipment	ANSR	1st Quarter 2009	15.000€
	7.1.2 Identify the spots where the equipment will be set up	ANSR	2nd to 4th Quarter 2009	n.a.
	7.1.3 Include the speed offences in the ANSR offence management procedures	ANSR	Year 2010	130.000€
19	7.2.1 Draw up a tender specification for an International Competitive Bidding	ANSR	2nd to 4th Quarter 2009	Installation 7.000.000€
	7.2.2 Hold the International Competitive Bidding	ANSR	1st Quarter 2010	
	7.2.3 Set up the national automatic speed control (system)	ANSR	2nd Semester 2010	Annual operation 2.000.000€

<b>OPERATIONAL OBJECTIVE 8 – Control program on alcohol, drugs, speed, safety devices and safety distances</b>				
<b>DESCRIPTION – Improve the effectiveness and efficiency of selective control through a National Control Plan.</b>				
<b>KEY ACTIONS</b>		<b>RESP.</b>	<b>TIME FRAME</b>	<b>BUDGET</b>
20	8.1.1 Establish a national control plan on speed, alcohol, drugs and passenger hand-holds/retention devices	ANSR	2009-2010	n.a.
	8.1.2 Establish a plan regarding the necessary means to implement the national control plan			
21	8.2.1 Study the practices in other countries concerning safety distance control	ANSR	2nd Semester 2009	n.a.
	8.2.2 Study comparative law as regards safety distance sanctions			
22	8.3 Lay down the technical requirements for the approval of automatic red-light running control equipment	ANSR	Year 2009	n.a.
23	8.4.1 Blood alcohol content: study of the influence of some drugs in the ethanol metabolism	INML	Year 2010	n.a.
	8.4.2 Adopt arrangements reflecting the conclusions of the DRUID project* (2006-2010) on the influence of alcohol and drugs on driving abilities	ANSR	Year 2010	n.a.
24	8.5 Awareness action on legal provisions and their enforcement as regards speed measuring apparatuses (MA) and MA to measure blood alcohol content in drivers.	ANSR/IPQ	2nd Semester 2009	n.a.
25	8.6 Produce guidelines on enforcing the regulation relative to the control of driving under the influence of alcohol and drugs in health services	IDT/DGS/ INML	1st Quarter 2009	n.a.
26	8.7 Introduce the possibility of treating statistically the location of offences through SCOT (Sistema de Contra Ordenações de Trânsito – <i>Traffic Offences System</i> )	ANSR	Year 2009	n.a.

\* DRUID – Driving Under the Influence of Drugs, alcohol and medicines

<b>OPERATIONAL OBJECTIVE 9 – Improve penalties for road traffic offences</b>				
<b>DESCRIPTION – Increase drivers' awareness and responsibility for their behaviour by adopting an easy to grasp penalty system for traffic offences</b>				
<b>KEY ACTIONS</b>		<b>RESP.</b>	<b>TIME FRAME</b>	<b>BUDGET</b>
27	9.1.1 Ponder the "Penalty points driving license" scheme as a possible alternative to the current divers license removal	ANSR	Depending on amendments to the R. C.	n.a.
	9.1.2 Change the law relative to the Drivers' Offence Record (DOR) according to the new penalty system for traffic offenses			
	9.1.3 Adjust the DOR's database	ANSR	Depending on amendments to the R. C.	n.a.
28	9.2.1 Disseminate the new legal scheme	ANSR	Depending on amendments to the R. C.	n.a.
	9.2.2 Inform drivers			

<b>OPERATIONAL OBJECTIVE 10 – Automatic drivers' and vehicles' control through interconnected information systems</b>				
<b>DESCRIPTION – Spot drivers and vehicles that are not duly entitled to circulate through information exchanges between the various road circulation system operators to enable preemptive actions by the authorities</b>				
<b>KEY ACTIONS</b>		<b>RESP.</b>	<b>TIME FRAME</b>	<b>BUDGET</b>
29	10.1.1. Identify databases with relevant information to the various authorities empowered to meet this operational objective	IMTT	1st Semester 2009	n.a.
	10.1.2 Survey and classify concepts concerning the entities in the various databases, so as to ensure semantic inter-operational conditions between them and allow for safe and coherent information exchanges.	IMTT and participating entities	Year 2010	n.a.
30	10.2.1 Enact laws allowing access to relevant information on: drivers (RNC) and vehicles (IMTT); vehicle registration (IRN); motor vehicle liability insurance (ISP); road traffic offenses (ANSR)	IMTT and participating entities	Year 2009	n.a.

	10.2.2 Enact a statute establishing that no car license shall be issued for seized vehicles and/or documents without recording that situation (IRN)			
	10.2.3 Enact a statute aimed at identifying the body with powers to record and treat the information on document seizure on the grounds of irregular property (IRN)			
31	10.3 Enter protocols aimed at linking the IT systems of the various participating entities so as to make any information relevant to their mission available to them	IMTT and other entities	Year 2009	n.a.

**OPERATIONAL OBJECTIVE 11 – Improve urban road environment**

**DESCRIPTION** – Promote requalification of public urban areas, ensuring safe circulation for pedestrians and cyclists by reducing speed limits in critical areas.

KEY ACTIONS		RESP.	TIME FRAME	BUDGET
32	11.1 Survey the technical and legal documents in other countries on the circulation of pedestrians and cyclists	ANSR	2nd Semester 2009	n.a.
33	11.2.1 Set up circulation rules for “residential/mixed/coexistence areas” and a 30km/h rule	ANSR	Depending on amendments to the R. C.	n.a.
	11.2.2 Set up technical criteria on “30 areas” and “residential/mixed/coexistence areas”	ANSR	1st Quarter 2010	
34	11.3 Conceive and draw a technical handbook on good practices aimed at improving urban road environments	IMTT	Year 2010	100.000€
35	11.4 Pilot interventions and their monitoring	ANSR/AMAL	2011-2014	n.a.
36	11.5 Recommendations to introduce pedestrians and cyclists in the Road Code	ANSR	Depending on amendments to the R. C.	n.a.
37	11.6.1 Education / training aimed at road safety of pedestrians and cyclists	ME	2012-2015	n.a.
	11.6.2 Study the necessary conditions to carry out communication actions at local level	ANSR	Year 2010	n.a.
	11.6.3 Carry out a detailed study on accidents with pedestrians and cyclists in an urban environment	ANSR/GNR/PSP	2nd semester 2009-2010	n.a.

<b>OPERATIONAL OBJECTIVE 12 – Controls on urban parking and on pedestrians' behaviour</b>				
<b>DESCRIPTION – Increase safety in urban environments by enhancing control on parking and on pedestrians' behaviour.</b>				
<b>KEY ACTIONS</b>		<b>RESP.</b>	<b>TIME FRAME</b>	<b>BUDGET</b>
38	12.1.1 Study penalties applicable to pedestrians and drivers in reference countries	ANSR	1st Semester 2010	n.a.
	12.1.2 Study the necessary conditions to effectively check pedestrians' behaviour	ANSR/GNR/PSP	2nd Semester 2010	n.a.
39	12.2 Cooperate with the Public Security Police and remaining bodies with powers in the areas of parking control	ANSR/GNR/PSP	2nd semester 2009-2010	n.a.

<b>OPERATIONAL OBJECTIVE 13 – Integrated program to improve victims' assistance</b>				
<b>DESCRIPTION – Optimize access of victims to hospitals and improve promptness of assistance and quality of services</b>				
<b>KEY ACTIONS</b>		<b>RESP.</b>	<b>TIME FRAME</b>	<b>BUDGET</b>
40	13.1 Define powers and action strategies of the forces in the field	ANPC	1st Semester 2009	n.a
41	13.2 Modify the mission of telephone operator 112	GNR/PSP/INEM	1st Quarter 2009	n.a.
42	13.3 Assign hospitals and make use of trauma teams and units	ACSS	2009-2011	3.932.000€

**OPERATIONAL OBJECTIVE 14 – Road Safety Audits and Road Safety Inspection Programs**

**DESCRIPTION** – Implement road safety audits on projects to build new roads or re-qualify existing ones and promote road safety inspection programs (regular, periodical and special inspections).

KEY ACTIONS		RESP.	TIME FRAME	BUDGET
43	14.1 Promote the approval of the law on Road Safety Audits	InIR	1st Quarter 2009	n.a.
44	14.2 Publish the updated Road Safety Audits Handbook	InIR	1st Quarter 2009	1.500€
45	14.3.1 Draw a Handbook on Road Safety Inspections	InIR	1st Semester 2009	50.000€
	14.3.2 Regulate the Road Safety Inspections that are to be carried out by the road management authorities	InIR	4th Quarter 2009 - 1st Quarter 2010	5.000€

**OPERATIONAL OBJECTIVE 15 – Manage segments with a high accident rate**

**DESCRIPTION** – Reduce the segments with a high accident rate

KEY ACTIONS		RESP.	TIME FRAME	BUDGET
46	15.1.1 Spot High Accident Locations and immediately inform the competent roadway management authorities	ANSR	Year 2009	n.a.
	15.1.2 Intervention of the Road Safety Observatory in High Accident Locations	Roadway management authorities	Year 2009	n.a.

**OPERATIONAL OBJECTIVE 16 – Defense and protection of the roads and surrounding areas**

**DESCRIPTION** – Update the defense and protection scheme of roads and surrounding areas

KEY ACTIONS		RESP.	TIME FRAME	BUDGET
47	16.1 Review the National Road Statute	InIR	Year 2009	50.000€
48	16.2 Define the traffic classification, traffic identification and road demarcation	InIR	4th Quarter 2009-Year 2010	40.000€
49	16.3 Technical order on rural/urban boundary marking	InIR	Year 2009	30.000€
50	16.4 Re-ordering of access	InIR	Year 2009	30.000€

**OPERATIONAL OBJECTIVE 17** – Treatment of the area adjacent to the carriageway (AAC)

**DESCRIPTION** – Treat the area adjacent to the carriageway in accordance with the Tolerant Road notion and promote the correct use of passive safety devices.

KEY ACTIONS		RESP.	TIME FRAME	BUDGET
51	17.1 Make a Handbook on the Use of Vehicle Restraint Systems in the roads of the National Road Network	InIR	1st Semester 2009	40.000€
52	17.2 Make a Handbook on Safety Concerns to consider in the AAFR Conservation Project in the National Road Network	InIR	2nd Semester 2009 - 1st Quarter 2010	35.000€

**OPERATIONAL OBJECTIVE 18** – Self-explanatory road: adjust roads to their classification and function

**DESCRIPTION** – Link the functional hierarchy of the rights of way to project requirements that may be easily identified by the drivers through the resulting road environment, implement new types of ways, define rules linking each type of road to the circulation scheme and reassess the current situation.

KEY ACTIONS		RESP.	TIME FRAME	BUDGET
53	18.1 Review the standard route that is applicable to the National Rede Rodoviária Nacional	InIR	Year 2009	50.000€
54	18.2 Set up Technical Provisions on Signaling, applicable to the National Road Network Project and road repair	InIR	Year 2009 - 1st Quarter 2010	110.000€
55	18.3 Recommendations on no-overtaking signs in single-lane roads	InIR	1st Quarter 2009	20.000€
56	18.4 Publish the Roundabout Sizing Handbook	InIR	Year 2009	n.a.
57	18.5 2+1 Road concept: Upgrading of Existing Roads – Recommendations and enforcement	InIR	Year 2010	40.000€

<b>OPERATIONAL OBJECTIVE 19 – Risk indicators on roads</b>				
<b>DESCRIPTION – Develop road risk indicators</b>				
<b>KEY ACTIONS</b>		<b>RESP.</b>	<b>TIME FRAME</b>	<b>BUDGET</b>
58	19.1 Calculate the Network Safety Indicator	ANSR	3rd Quarter 2009	34.000€
59	19.2 Calculate the Project Risk Indicator for IP and IC roads	ANSR	Year 2010	75.000€ *

\* The road inventory of InIR / EP is considered to include the necessary information for the the calculations that will be made and will only require minor validation in the filed.

<b>OPERATIONAL OBJECTIVE 20 – Increase the use of new traffic management and information technology in actual time</b>				
<b>DESCRIPTION –Make the best of traffic management and information in actual time by using the new technologies</b>				
<b>KEY ACTIONS</b>		<b>RESP.</b>	<b>TIME FRAME</b>	<b>BUDGET</b>
60	20.1 Systematize the use of variable message signaling and address their legal and operational	ANSR	1st Semester 2009	25.000€
61	20.2 Organize, define procedures and remit of the Centralized Traffic Management Structure, including a traffic simulator and network modulator	InIR	2nd Semester 2010	50.000€
62	20.3 Georeference the National Road Network in terms of its geometry, equipment and specificities	InIR	1st Quarter 2009	n.a.
63	20.4 Implement the RDS-TMC	EP	4th Quarter 2009	50.000€
64	20.5 Study the effect on safety of variable speed limits in Portuguese urban express roads. Enforcement recommendations	LNEC	2010-2012	60.000€ *

\* Not counting with the equipment and the installation of signaling that may cost between 150.000€ and 400.000€. Financers have not been established.



**OPERATIONAL OBJECTIVE 21** – Extension of Mandatory Inspections to Mopeds, Motorcycles, Tricycles and Quadricycles

**DESCRIPTION** – Ensure greater safety in vehicle circulation while extending Mandatory Periodical Inspections to mopeds, motorcycles, tricycles and quadricycles

KEY ACTIONS		RESP.	TIME FRAME	BUDGET
65	21.1.1 Project on Inspection Procedures for mopeds, motorcycles, tricycles and quadricycles	IMTT	Year 2010	n.a.
	21.1.2 Project on the characteristics of the mopeds, motorcycles, tricycles and quadricycles inspection centres.			
	21.1.3 Project to modify Law-Decree 554/99, introducing inspections for mopeds, motorcycles, tricycles and quadricycles.	IMTT	Year 2010	n.a.
66	21.2 Approve inspection centres for mopeds, motorcycles, tricycles and quadricycles.	IMTT	Year 2010	n.a.

**OPERATIONAL OBJECTIVE 22** – Technical information program on vehicle safety

**DESCRIPTION** – Alert drivers to the importance of controlling certain vehicle safety systems, namely through more information

KEY ACTIONS		RESP.	TIME FRAME	BUDGET
67	22.1 Characterize the vehicle fleet	IMTT	Year 2009	n.a.
68	22.2 Establish stricter rules on the technical inspection of trailers and semi-trailers	IMTT	Year 2009	n.a.
69	22.3 Renew public transportation vehicles fleets of passengers and goods	IMTT/ACAP /ANECRA	Year 2009	n.a.
70	22.4 Cargo conditioning	IMTT	Year 2009	n.a.
71	22.5 Disseminate safety systems in vehicles	ANSR/ACAP/ ANECRA	Year 2010	n.a.

<b>OPERATIONAL OBJECTIVE 23</b> – Statistic information program on traffic accidents with victims				
<b>DESCRIPTION</b> – Improve the quality, effectiveness and efficiency of the information system on road accidents with victims				
<b>KEY ACTIONS</b>		<b>RESP.</b>	<b>TIME FRAME</b>	<b>BUDGET</b>
72	23.1 Define the necessary procedures to know the number of “Dead to 30 days”	ANSR	Year 2009	n.a.
73	23.2 Implement procedures concerning emailing of Road Accidents Statistic Forms (RASFS)	ANSR/ GNR/PSP	Year 2009	n.a.
74	23.3.1 Define a set of road safety-related concepts.	ANSR	Year 2009	n.a.
75	23.4.1 Improve the quality of the program for information control	ANSR	Year 2009	n.a.
	23.4.2 Study and assess how RASF can adjust to the CADaS* project and the indicators that are to be established within the NRSS	ANSR/ GNR/PSP	Year 2009	n.a.
	23.4.3 Draw a Technical Handbook on Good Practices to register traffic accidents (filling in the RASF)	ANSR/ GNR/PSP	Depending on the RASF assessment (23.4.2)	n.a.
	23.4.4 Set up a training program aimed at applying the rules laid down in the Handbook	GNR/PSP	Depending on the RASF assessment 23.4.3	n.a.
76	23.5 Implement the project for georeferencing traffic fatalities	ANSR	1st Semester 2010	150.000€

\*CADaS – Common Accident Data Set

<b>OPERATIONAL OBJECTIVE 24 – Improve and enforce the Road Code</b>				
<b>DESCRIPTION –</b> Encourage public way users to adopt safe behaviours and ensure that the corresponding penalties are enforced.				
<b>KEY ACTIONS</b>		<b>RESP.</b>	<b>TIME FRAME</b>	<b>BUDGET</b>
77	24.1.1 Adjust changes entailed by PRACE	ANSR	1st Semester 2010	n.a.
	24.1.2 Improve the Road Code			
78	24.2 Publish the Road Code and complementary laws at an institutional level	ANSR/IMTT/ GNR/PSP	1st Quarter 2011	n.a.
79	24.3 Modify the legislation on driving under the influence of drugs, namely by considering lowering the blood alcohol content to 100– driver’s licence holders and drivers in Group 2	ANSR	1st Semester 2010	n.a.
80	24.4 Assess Road Code enforcement	ANSR	Year 2011	n.a.

<b>OPERATIONAL OBJECTIVE 25 – NRSS communication program and subsequent actions</b>				
<b>DESCRIPTION –</b> Develop an Integrated Communication Plan covering awareness, information and training and civic action the core purpose of which is to effectively inform the public of the NRSS and its actions.				
<b>KEY ACTIONS</b>		<b>RESP.</b>	<b>TIME FRAME</b>	<b>BUDGET</b>
81	25.1 Make a Communication Plan for the NRSS	ANSR	Year 2009	n.a.
82	25.2 Develop a Municipal Plan for Road Safety	ANSR	Year 2009	n.a.
83	25.3 Survey the Communication Plans in other EU countries	ANSR	1st-3rd Quarter 2009	n.a.
84	25.4 Monitor and study the CAST* project	ANSR	1st Semester 2009	n.a.
85	25.5 Road safety campaigns	ANSR	Year 2009	n.a.

\*CAST - Campaigns and Awareness-Raising Strategies in Traffic Safety

<b>OPERATIONAL OBJECTIVE 26 – Safety impact studies (SIS)</b>				
<b>DESCRIPTION – Issue recommendations aimed at assessing the impact on safety of interventions on the National Road Infra-Structure</b>				
<b>KEY ACTIONS</b>		<b>RESP.</b>	<b>TIME FRAME</b>	<b>BUDGET</b>
86	26.1 – Issue recommendations aimed at assessing the impact on safety of interventions on the National Road Infra-Structure	InIR	2009-2011	75.000€

<b>OPERATIONAL OBJECTIVE 27 – Risk assessment in road tunnels</b>				
<b>DESCRIPTION – Hold a risk assessment methodology for road tunnels</b>				
<b>KEY ACTIONS</b>		<b>RESP.</b>	<b>TIME FRAME</b>	<b>BUDGET</b>
87	27.1 Adjust the <i>AIPCR</i> **risk assessment method in road tunnels to the traffic conditions in Portugal	LNEC	2nd Semester 2009-2012	130.000€ *

\* Total for the four years; financing to be integrate in LNEC's Programmed Research Plan;

\*\**Association Internationale Permanent des Congrès de la Route*

<b>OPERATIONAL OBJECTIVE 28 – Improvement of the vehicle fleet</b>				
<b>DESCRIPTION – Increase the safety of circulating vehicles</b>				
<b>KEY ACTIONS</b>		<b>RESP.</b>	<b>TIME FRAME</b>	<b>BUDGET</b>
88	28.1 Tax incentives to decommission heavy vehicles that are over ten years old and vehicles with passive safety devices	IMTT	Year 2009	n.a.
89	28.2 Encourage decommissioning of light vehicles	IMTT	Year 2009	n.a.

<b>OPERATIONAL OBJECTIVE 29</b> – Risk indicators, road safety performance and user's behaviour				
<b>DESCRIPTION</b> – Develop new study methods by using indicators aiming to enhance existing knowledge in the road safety area.				
<b>KEY ACTIONS</b>		<b>RESP.</b>	<b>TIME FRAME</b>	<b>BUDGET</b>
90	29.1.1 Define risk indicators, road safety performance and user's behaviour	ANSR	Year 2009	n.a.
	29.1.2 Implement indicators to monitor the	ANSR	Year 2009	250.000€

<b>OPERATIONAL OBJECTIVE 30</b> – Study of the economical and social cost of the accidents				
<b>DESCRIPTION</b> – Hold a cost/benefit study that may support decision-making concerning the measures that are to be implemented and that may enable their assessment.				
<b>KEY ACTIONS</b>		<b>RESP.</b>	<b>TIME FRAME</b>	<b>BUDGET</b>
91	30.1.1 Define the methodology for the Study of the economical and social cost of the accidents	ANSR	2009-2011	200.000€
	30.1.2 Establish a model for the study of the economical and social cost of the accidents			

## **ACRONYMS**

**ACAP** - Associação do Comércio Automóvel em Portugal

**ACP** - Automóvel Clube de Portugal

**ANECRA** - Associação Nacional das Empresas de Comércio e Reparação Automóvel

**ANPC** - Autoridade Nacional de Protecção Civil

**DGIDC** - Direcção Geral da Inovação e Desenvolvimento Curricular

**DGS** - Direcção Geral da Saúde

**EP** - Estradas de Portugal

**GNR** - Guarda Nacional Republicana

**IDT** - Instituto da Droga e da Toxicodependência

**IMTT** - Instituto da Mobilidade e Transportes Terrestres

**INE** - Instituto Nacional de Estatística

**INEM** - Instituto Nacional de Emergência Médica

**INIR** - Instituto de Infra-Estruturas Rodoviárias

**INML** - Instituto Nacional de Medicina Legal

**IPJ** - Instituto Português da Juventude

**IPQ** - Instituto Português da Qualidade

**IRN** - Instituto de Registos e Notariado

**ISP** - Instituto de Seguros de Portugal

**LNEC** - Laboratório Nacional de Engenharia Civil

**PRP** - Prevenção Rodoviária Portuguesa

**PSP** - Polícia de Segurança Pública