



Les mesures les plus efficaces pour  
améliorer la sécurité routière sur les routes  
en Europe à court, à moyen et à long terme

Most Effective Short-, Medium- and  
Long-Term Measures to Improve  
Safety on European Roads

14-06-2006



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*Epargner la vie à 25,000 personnes avant 2010 –  
une responsabilité partagée*

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Most Effective Short-, Medium- and  
Long-Term Measures to Improve  
Safety on European roads

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*Saving 25,000 Lives by 2010 – A Shared Responsibility*

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## Points Clés

Vu que la Sécurité Routière est un des sujets les plus importants concernant le transport Européen, la CEDR, la Conférence Européenne des Directeurs des Routes, s'est mis d'accord avec la Commission Européenne en octobre 2005 pour élaborer un rapport sur les mesures de sécurité routière les plus efficaces pour améliorer la sécurité sur les routes Européennes. L'accent devant être mis sur la réalisation de l'objectif Européen de réduire de 50% les victimes de la route en 2010. A cette occasion, l'étendue des responsabilités des Directeurs des Routes sera identifiée.

Les résultats de ce rapport révèlent les points forts de la CEDR et les domaines dans lesquels une collaboration étroite avec la Commission Européenne doit être établie. Vu que la volonté de diviser par deux le nombre de morts sur les routes Européennes est réelle et partagée, la communauté entière doit imiter les pays les plus performants, qui peuvent aider à progresser les pays membres de la CEDR moins avancés. Quelques pays membres de la CEDR, qui n'ont rejoints que récemment la Communauté Européenne et qui ont des progrès significatifs à faire avant 2010, doivent pouvoir bénéficier du soutien, et, si disponible, de financements supplémentaires pour atteindre leurs objectifs rapidement.

Les priorités des Directeurs des Routes Européens doivent être perçues en fonction de leurs responsabilités nationales. Tous les Directeurs des routes sont responsables de l'infrastructure et influencent les stratégies en matière de sécurité routière. Quelques-uns détiennent des responsabilités dans la législation du transport ou dans la technologie des véhicules ; que peu d'entre eux ont par contre une influence substantielle en ce qui concerne les contrôles et les sanctions.

Les résultats de l'enquête ont montrés que les Directeurs des Routes Européens considèrent les mesures suivantes comme les plus importantes :

Les mesures à mettre en oeuvre au **niveau national** :

- Campagnes de prise de conscience (ceintures, alcool, fatigue, etc.)
- Gestion des sites à haut risque
- Contrôles de vitesse
- Apaisement de la conduite – Gestion de la vitesse
- Audit de sécurité routière

Les mesures à mettre oeuvre au **niveau Européen** :

- Campagnes de prise de conscience (ceintures, alcool, fatigue, etc.)
- Apaisement de la conduite – Gestion de la vitesse
- Conditions préalables des institutions (législation, recherches, etc.)
- Audit de sécurité routière
- Gestion des sites à haut risque



## Key Issues

Being aware that Road Safety is one of the most important issues in European transport today, CEDR, the Conference of European Directors of Roads, has agreed with the European Commission in October 2005 to develop a report on the most effective road safety measures to improve safety on European roads. Special emphasis should be given to reach the European target of reducing road fatalities by 50% until 2010. On this occasion, the scope of responsibilities of Road Directors should be identified.

The results of this report draw a clear picture of where CEDR's strengths lie and which fields lend themselves to a close collaboration with the European Commission. As there is a wish to jointly halve the number of deaths on our European Roads in the sense of the "shared responsibility" the whole community should look at the best performers helping those CEDR Member States which are not yet performing so well to improve. Some of CEDR's countries, more recently joining the European Community, and with significant progress to make by 2010, may benefit from additional support and – if available – funding, so that they can achieve quick wins.

The priorities of European Road Directorates have to be seen in connection with their national responsibilities. All European Road Directors are responsible for infrastructure and influence road safety strategies. Some Directors also have responsibility in the fields of transport legislation or vehicle technology; very few can substantially influence enforcement.

The results of a survey have shown that European Road Directors consider the following measures to be the most important.

Measures to be implemented at **national level**:

- Awareness Campaigns (seatbelt, alcohol, fatigue, etc.)
- Management of High Risk Sites
- Speed Enforcement
- Traffic Calming – Speed Management
- Road Safety Audit

Measures to be implemented at **European level**:

- Awareness Campaigns (seatbelt, alcohol, fatigue, etc.)
- Traffic Calming – Speed Management
- Institutional Pre-requisites (legislation, research, etc)
- Road Safety Audit
- Management of High Risk Sites

L'enquête a clairement montré l'importance primordiale d'influencer le comportement humain par des campagnes de prise de conscience, dont les résultats peuvent encore être bien améliorés par des mesures législatives et par des contrôles adéquats. Des mesures relatives à la gestion de l'infrastructure, telles que la gestion des sites à haut risque, l'audit de sécurité routière et l'inspection de la sécurité routière sont considérées comme prioritaires. La plupart des tâches sont à mettre en oeuvre au niveau national, mais un cadre pour une harmonisation des procédures doit être réalisé au niveau Européen, afin de pouvoir comparer les résultats sur des bases communes. Une haute priorité est dédiée aux contrôles de la vitesse, à l'apaisement du trafic et à la gestion de vitesse ; ces deux dernières mesures devant être réalisées tant au niveau national qu'Européen. Une contribution Européenne concernant ces mesures serait bienvenue, par exemple sous forme d'un guide des meilleures pratiques. Une mesure importante au niveau Européen est la création des conditions préalables des institutions, notamment par une législation Européenne sur les contrôles et sanctions transfrontaliers, sur les mesures de sécurité électronique concernant l'industrie automobile et sur le parrainage de la mise en oeuvre des résultats de recherches et d'échanges de connaissances.

Le rapport donne une analyse approfondie de mesures détaillées à court, à moyen et à long terme. Il constate qu'il existe de très grandes différences entre ce que les pays membres de la CEDR considèrent être les meilleures pratiques ; les statistiques des priorités de la sécurité routière font également apparaître de grandes différences entre les pays. Les pays performants et les plus avancés en matière de sécurité routière mettent leurs priorités sur des mesures plus spécialisées (telles que la séparation des voies, l'installation d'alcool-blocages dans les véhicules, les rappels de ceinture, etc.) ; ils sont aussi plus sensibles et appréhensifs de nouvelles directives ou recommandations Européennes que les pays membres de la CEDR qui ont intégré la Communauté Européenne que récemment. Ces derniers ont besoin d'avantage de soutien et – si disponible - de financement de leurs travaux de sécurité routière. Par conséquent, les pays plus performants auront un défi d'autant plus prononcé concernant leur contribution à l'objectif de la Commission de réduire de 50% les victimes de la route.

Les Directeurs des Routes Européens considèrent que le travail sur la sécurité routière est une responsabilité partagée ; ils encouragent fortement les autres institutions gouvernementales et non gouvernementales à contribuer aux objectifs ambitieux de la sécurité routière.

La CEDR est consciente de l'importance de l'amélioration de la sécurité routière et est prête à prendre les mesures nécessaires pour apporter plus de sécurité sur les routes européennes en intensifiant ses efforts dans les domaines les plus prometteurs cités dans ce rapport. Pour atteindre les objectifs ambitieux fixés, la CEDR compte sur une coopération étroite avec la Commission Européenne, afin d'être impliquée dans les discussions thématiques dès leur démarrage et ceci pour le bénéfice mutuel de tous et pour une lutte concertée contre les décès et souffrances sur les routes européennes.

The survey clearly showed the high importance of influencing human behaviour by means of awareness campaigns, whose effects can be greatly intensified by legislative measures and appropriate enforcement. Measures related to infrastructure management, such as high risk site management, Road Safety Audit, and Road Safety Inspection, are generally recognised as a high priority. Most of the tasks are to be realised on the national level, but frames should be given by the European level to harmonise definitions and general procedures in order to make the results comparable and suitable for benchmarking. High priority is also dedicated to speed enforcement, traffic calming and speed management, the latter two at national and at European levels. Apparently, a European contribution to this issue is expected, e.g. in terms of a best-practice guideline. An important measure at the European level is the creation of institutional pre-requisites, particularly European legislation as for cross-border enforcement, e-safety measures concerning the automotive industry, as well as fostering implementation-related research and exchange of knowledge.

The core of the report gives an in-depth analysis of more detailed measures in a short-, medium-, and long-term framework. There are vast differences between what is considered best practice in the CEDR Member States, just as the European road safety statistics show great differences among the various countries. The best performers and more advanced countries emphasise more specialised measures (e.g. lane separation, alco-lock in vehicles, seat belt reminders etc.) and are more sensitive and apprehensive to new European directives or recommendations than some of the CEDR countries which have recently joined the European Community. The latter countries need more support and – if available – funding for their road safety work. As a consequence, the better performing countries will have an even more challenging job contributing to the 50% reduction target of the Commission.

The European Road Directors consider road safety work a shared responsibility, especially by encouraging other governmental and non-governmental institutions to deliver their contribution to the ambitious road safety targets.

CEDR is aware of the importance of increasing road safety and is willing to take an important step forward on the way to more safety on European roads by intensifying its efforts in those fields of action that are found to be most promising in this report. For reaching the ambitious targets, CEDR welcomes a close co-operation with the European Commission in order to be involved in the thematic discussions at an early stage for mutual benefit and to be united in the fight against death and suffering on European roads.

## Document de synthèse

### Objectifs

L'objectif de diviser par deux le nombre de décès sur les routes européennes avant 2010 constitue un défi collectif de grande envergure pour toutes les organisations et institutions concernées – gouvernementales ou non gouvernementales. Les responsabilités de la sécurité routière sont partagées parmi divers groupes, ce qui nécessite une interaction des gouvernements à tous les niveaux : locaux, régionaux, nationaux et européen, ainsi qu'une interaction du secteur privé. Toutes les interactions sont essentielles pour atteindre l'objectif fixé. Il n'est certainement pas possible de dépendre uniquement des activités de l'UE pour réaliser l'objectif ; le parrainage de « la responsabilité partagée » est un des éléments clé pour la réussite. Les Directeurs des Routes Européens prennent très au sérieux cette « responsabilité partagée » et avancent, de ce fait, des propositions concrètes à court (2006-2009), à moyen (2009-2012) et à long terme (après 2012) jugées être les plus efficaces pour réduire le nombre de victimes sur les routes en Europe.

Ce rapport est le résultat de la rencontre entre la CEDR et la Commission Européenne en octobre 2005, durant laquelle le Vice Président, Monsieur Barrot, demanda aux Directeurs des Routes Européens de résumer leur priorités concernant la sécurité routière à court, à moyen et à long terme, afin d'améliorer la sécurité routière sur les routes européennes et en particulier, afin d'atteindre l'objectif de la Commission Européenne de réduire de 50% les victimes de la route.

Ce rapport analyse pour 20 Directions des Routes Européennes :

- Leurs responsabilités générales et spécifiques
- Leurs mesures de sécurité routière prioritaires à court, à moyen et à long terme
- Leurs interfaces avec les institutions et organisations des pays membres.

### *Les responsabilités générales et spécifiques*

Le tableau suivant résume les **responsabilités générales des Directeurs des Routes**. Tous les Directeurs des Routes détiennent de grandes responsabilités dans le domaine de l'infrastructure, alors que seuls quelques-uns sont responsables de la législation routière. En outre, presque tous les Directeurs des Routes sont responsables du développement et de la mise en œuvre de certaines stratégies concernant la sécurité routière.

## Executive Summary

### *Objectives*

The objective of halving the number of deaths on European roads until 2010 constitutes a serious collective undertaking of all organisations and institutions involved – governmental and non-governmental. Responsibilities for road safety are shared between different groups, thus interaction at all levels of government, whether local, regional, national or EU, as well as the private sector, is needed to ensure that the targets are met. It is certainly not possible to rely solely on EU activities to achieve the target, fostering the “shared responsibility” is one of the key elements for success. The European Road Directors take this “shared responsibility” very seriously and therefore give concrete proposals for the short- (2006-2009), medium- (2009-2012), and long-term actions (after 2012) deemed to be most effective for reducing fatalities on roads in Europe.

This report is the result of a meeting between CEDR and the European Commission in October 2005, where Vice-President Barrot and CEDR agreed that it would be of great benefit if European Road Directors summarized their short-, medium- and long-term road safety priorities for increasing safety on European roads and specifically for reaching the 50% fatality reduction target of the European Commission.

This report analyses 20 European Road Directorates’




- general and specific responsibilities
- short-, medium-, and long-term priorities for road safety measures as well as
- Institutional and organisational issues in the Member States.

### *General and specific responsibilities*

The following chart gives a brief overview of the **General Responsibilities of the Road Directorates**. As the chart shows, all Road Directorates have responsibilities in the field of infrastructure, while only few are responsible for transport legislation. Furthermore, all of the Road Directorates are responsible for developing and implementing certain road safety strategies.

### Responsabilités générales des Directions des Routes

	Infrastructure	Législation de transport	Stratégies Sécurité Routière
Groupe A			
Groupe B			
Groupe C			

-  = responsabilité de niveau moyen ou élevé  
 = responsabilité de niveau faible  
 = pas de responsabilité

Groupe A: Allemagne, Autriche, Estonie, Norvège, Pays Bas, Suède, Suisse





Groupe B: Danemark, Finlande, Grèce, Islande

Groupe C: Belgique (F & W), Espagne, France, Irlande, Italie, Luxembourg, Portugal, Royaume-Uni, Slovaquie

Une tendance similaire peut être observée dans le tableau qui résume les responsabilités spécifiques pour la sécurité routière des Directions des Routes. Si l'on trie les mesures analysées dans les catégories : infrastructure, comportement des usagers et technologies des véhicules, il devient évident que les responsabilités principales de la plupart des Directeurs des Routes se trouvent clairement dans le secteur de l'infrastructure. Cependant, les Directions des Routes dans six pays membres de la CEDR détiennent un niveau de responsabilité élevé concernant le comportement des usagers ainsi que concernant la technologie des véhicules. En lisant ce rapport, il est important de garder en mémoire les responsabilités des Directeurs des Routes, puisque les priorités attribuées à chaque mesure dépend, jusqu'à un certain degré, de la responsabilité spécifique du Directeur des Routes respectif.

### Responsabilités spécifiques de sécurité routière des Directions des Routes

	Infrastructure	Comportement des usagers	Technologie des véhicules
Groupe A			
Groupe B			
Groupe C			
Groupe D			

-  = responsabilité de niveau élevé  
 = responsabilité de niveau moyen  
 = responsabilité de faible niveau  
 = pas de responsabilité

Groupe A: Allemagne, Autriche, Estonie, Norvège, Suède, Suisse

Groupe B: Belgique (F et W), Danemark, Espagne, Luxembourg, Pays Bas

Groupe C: Finlande, Grèce, Islande, Irlande, Royaume-Uni

Groupe D: France, Italie, Portugal Slovaquie

### General Responsibilities of Road Directorates

	Infrastructure	Transport Legislation	Road Safety Strategies
Country Group A			
Country Group B			
Country Group C			

	= high to medium degree of responsibility
	= low degree of responsibility
	= no responsibility

Group A: Austria, Estonia, Germany, Netherlands, Norway, Sweden, Switzerland

Group B: Denmark, Finland, Greece, Iceland

Group C: Belgium (F and W), France, Ireland, Italy, Luxembourg, Portugal, Slovenia, Spain, UK

A similar trend can be seen in the chart summarising the **Specific Road Safety Responsibilities of Road Directorates**. If the analysed measures are grouped into the categories infrastructure, road user behaviour, and vehicle technologies, it again becomes evident that the main responsibility of most Road Directorates clearly lies in the infrastructure sector. However, the Road Directorates in six CEDR Member States have a high degree of responsibility with respect to road user behaviour as well as vehicle technology. It is important to have in mind the responsibilities of the Road Directorates when reading the report as the priorities given to different measures depend to a certain degree on the actual specific responsibility of the respective Road Directors.

### Specific Road Safety Responsibilities of Road Directorates

	Infrastructure	Road User Behaviour	Vehicle Technology
Country Group A			
Country Group B			
Country Group C			
Country Group D			

	= high degree of responsibility
	= medium degree of responsibility
	= low degree of responsibility
	= no responsibility

Group A: Austria, Estonia, Germany, Norway, Sweden, Switzerland

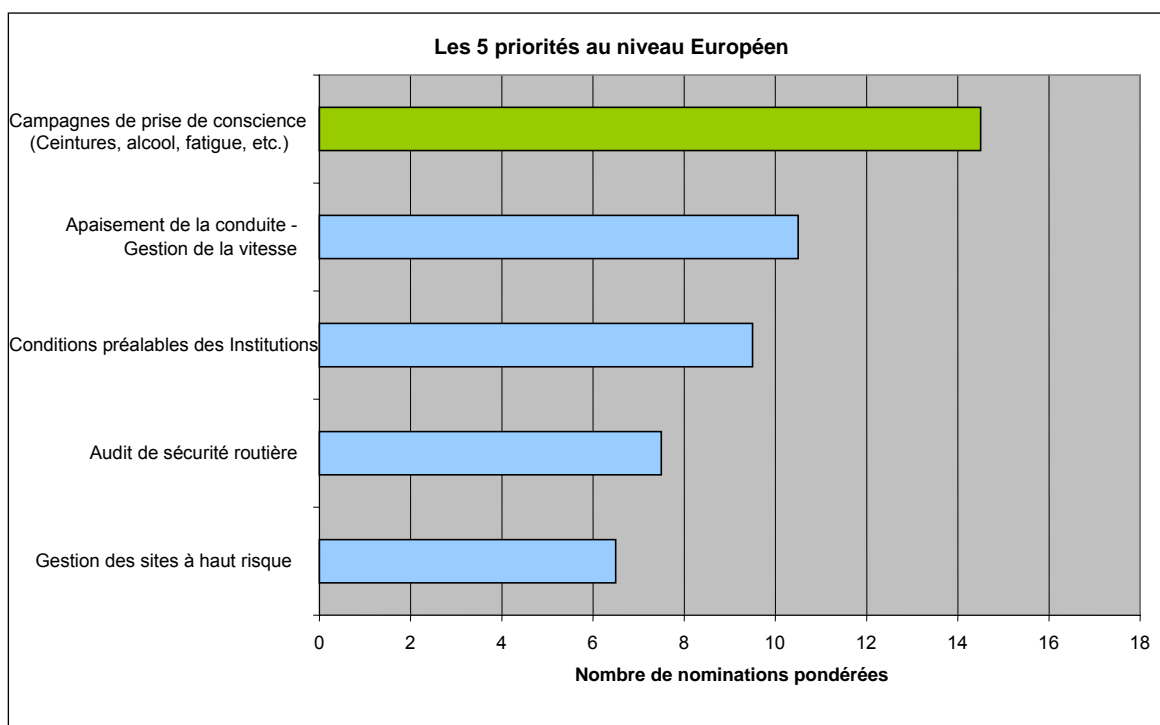
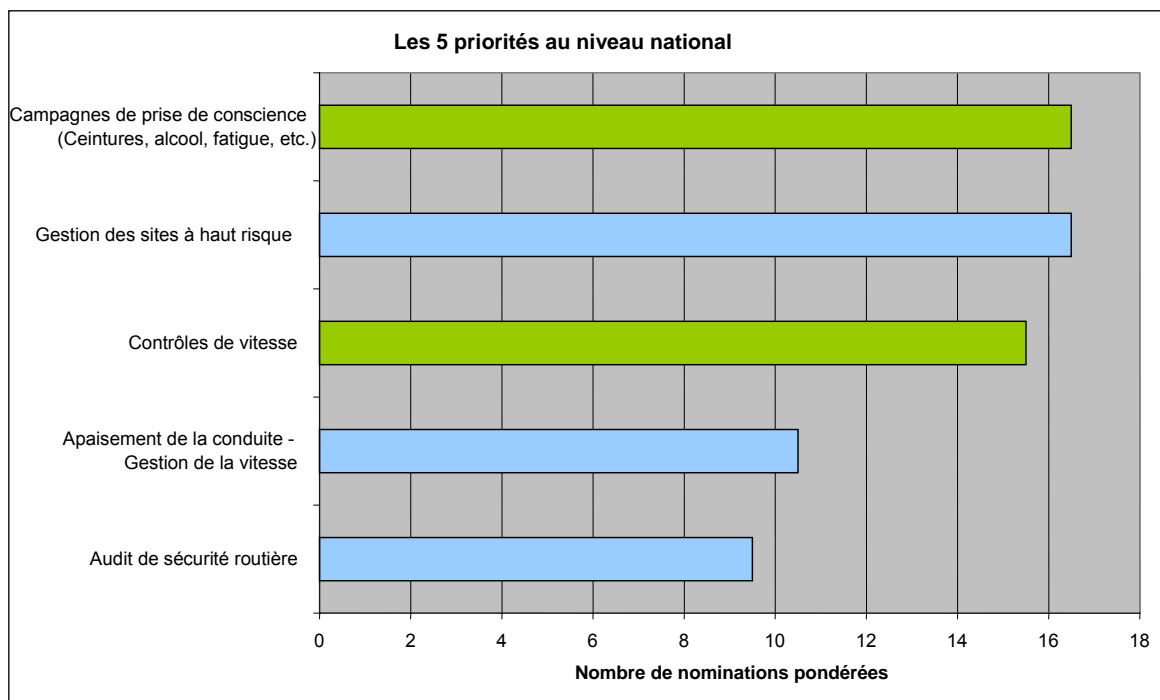
Group B: Belgium (F and W), Luxembourg, Netherlands, Spain

Group C: Denmark, Finland, Greece, Iceland, Ireland, United Kingdom

Group D: France, Italy, Portugal, Slovenia

## Les 5 priorités au niveau national et Européen

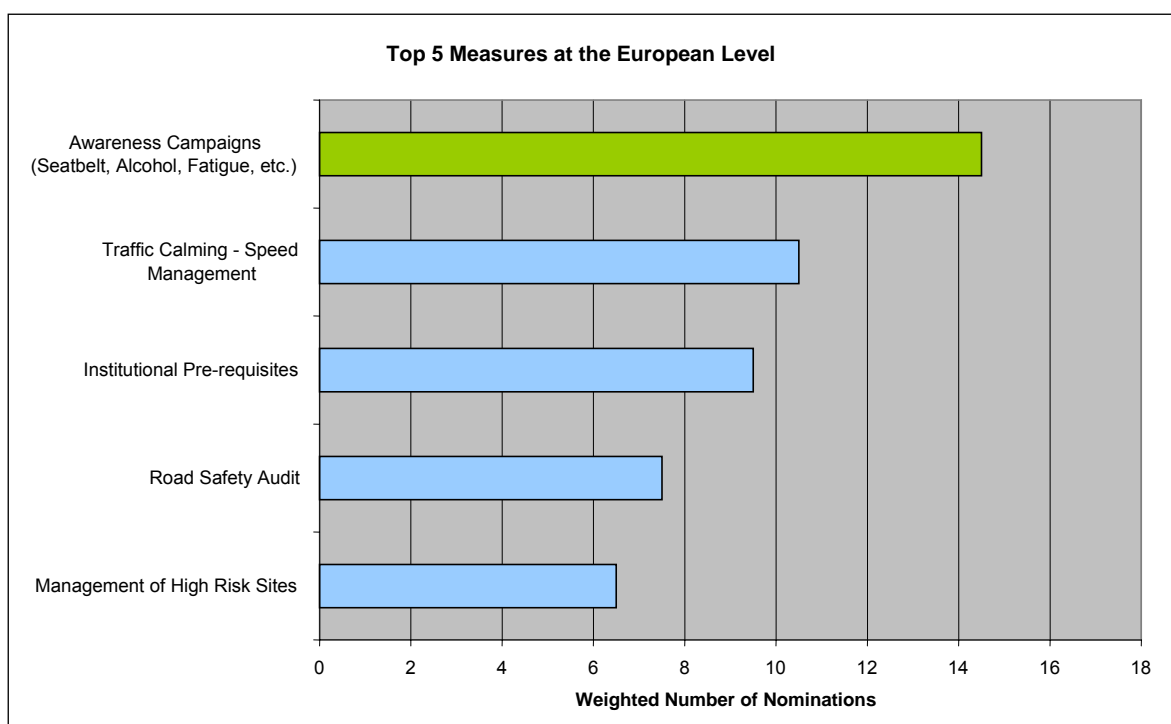
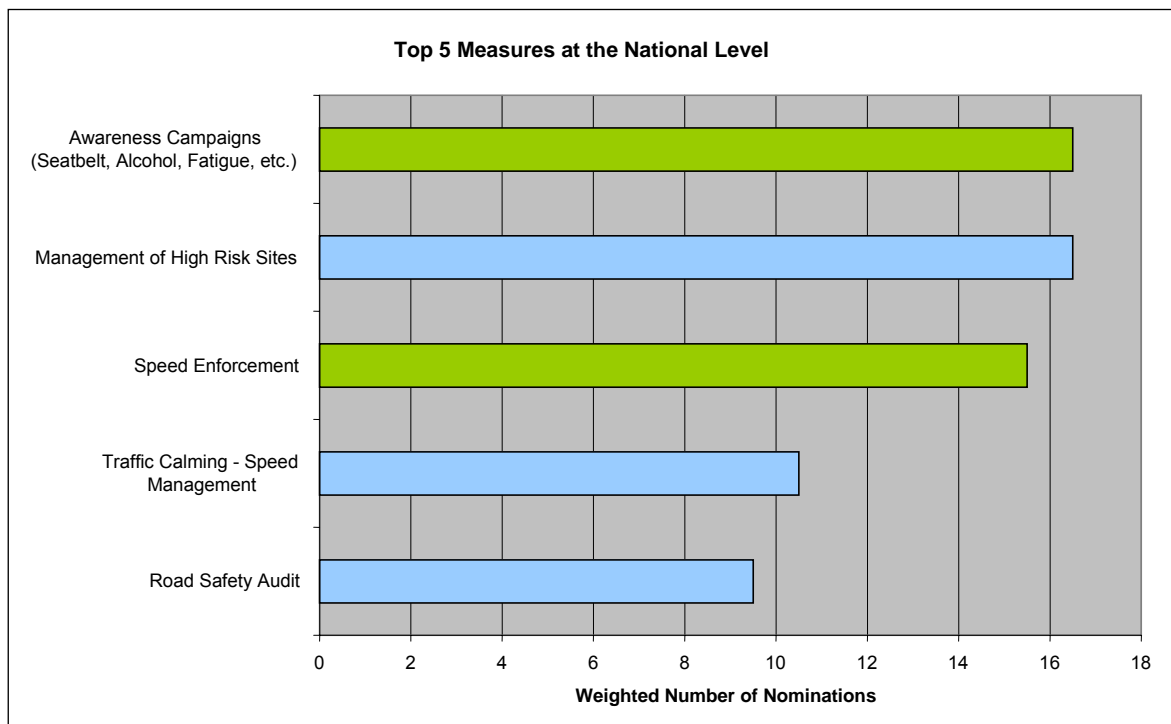
Une enquête avec 20 mesures prédéfinies a été faite auprès des membres de la CEDR, afin d'obtenir un bon résumé des mesures considérées importantes au niveau national et au niveau Européen. Le tableau suivant présente les deux listes des 5 priorités nationales et Européennes sans tenir compte du terme. Des points ont été attribués à chaque mesure selon le nombre de nominations pondérées accordées par les pays membres de la CEDR. Les couleurs des colonnes reflètent les mêmes codes couleurs que le tableau « Responsabilités générales des Directions des Routes » ci-dessus.





## ***Top 5 priorities at national and at European levels***

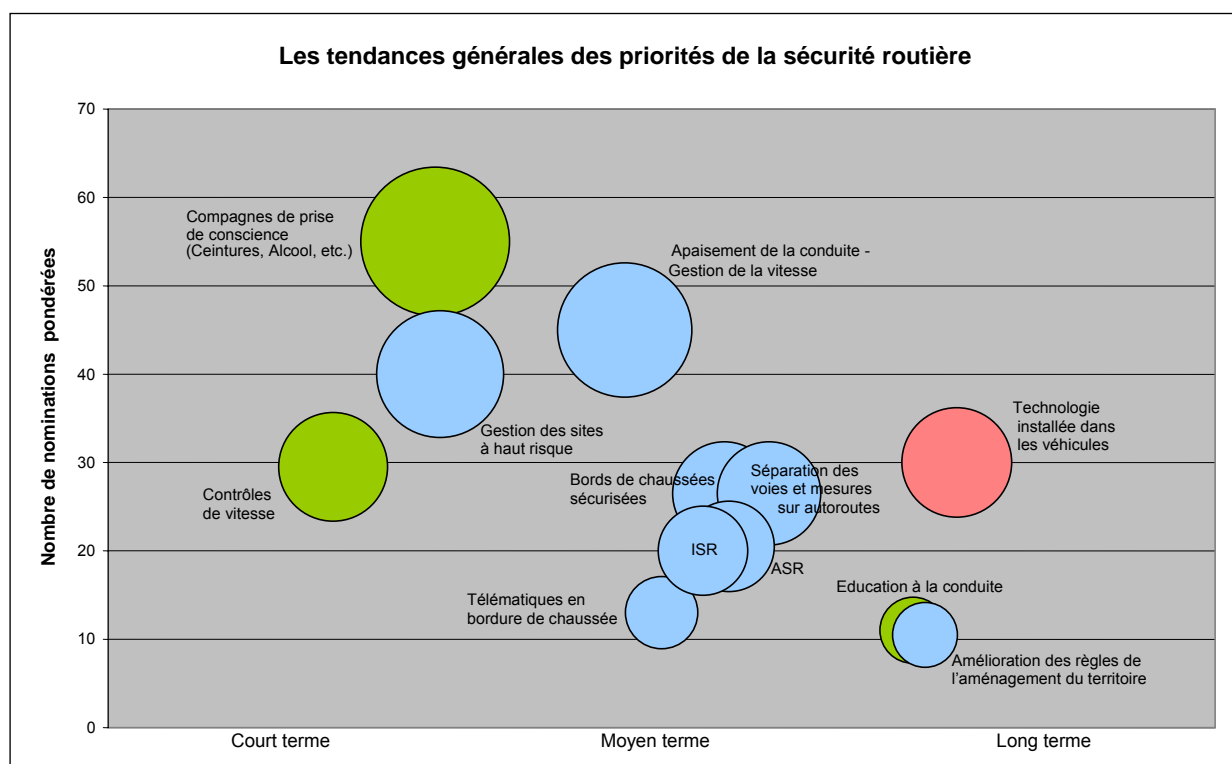
To get the right perspective on which road safety measures are considered to be of a national nature and which are deemed to be European issues, a survey with twenty pre-defined measures was carried out among the CEDR members. The following charts show two top 5 lists of national and European priorities, regardless of timeframe. Every measure was awarded a score according to its number of nominations weighted by their respective rankings. The colours of the bars are in accordance with the colour code used in the chart for Road Safety Responsibilities of Road Directorates.



L'enquête fait ressortir l'importance primordiale d'influencer le comportement humain à travers des campagnes de prise de conscience au niveau national et Européen, dont les résultats peuvent encore être bien améliorés par des mesures législatives et par des contrôles adéquats. Les mesures concernant la gestion d'infrastructure, telles que la gestion des sites à haut risque, l'audit de sécurité routière et l'inspection de sécurité routière sont prioritaires. La plupart des tâches sont à mettre en œuvre au niveau national, mais un cadre pour une harmonisation des procédures doit être réalisé au niveau Européen, afin de pouvoir comparer les résultats sur des bases communes. Une haute priorité est dédiée aux contrôles de la vitesse, à l'apaisement de la conduite et à la gestion de la vitesse, ces deux dernières mesures devant être réalisées tant au niveau national qu'Européen. Une contribution Européenne concernant ces mesures serait bienvenue, par exemple sous forme d'un guide des meilleures pratiques. Une mesure importante au niveau Européen est la création des conditions préalables des institutions, notamment par une législation Européenne sur les contrôles transfrontaliers, sur les mesures de sécurité électronique concernant l'industrie automobile et sur le parrainage de la mise en œuvre des résultats de recherches et d'échanges de connaissances.

## Les tendances générales des priorités de la sécurité routière

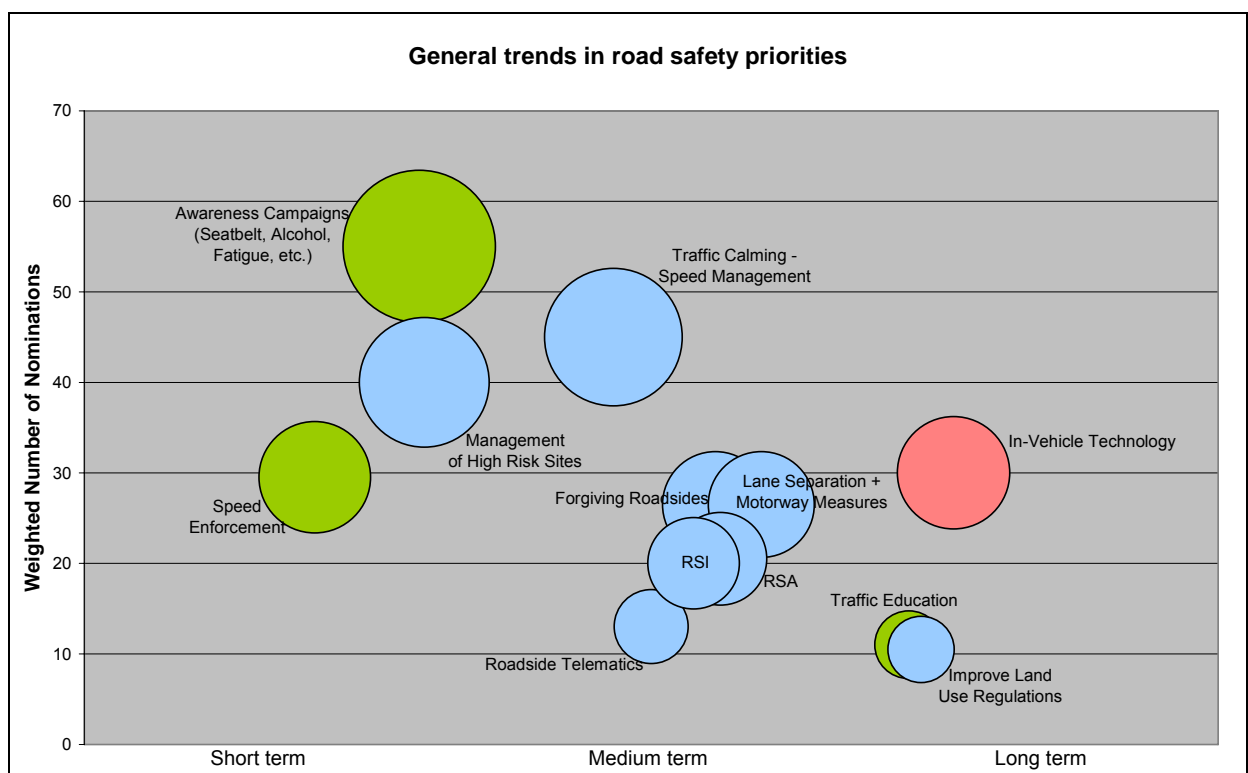
Le diagramme à bulles ci-dessous montre le classement des mesures catégorisées et la comparaison de ces catégories entre-elles sur l'axe du temps. Les mesures du haut sont considérées d'une importance globale élevée. Les mesures vers la gauche sont plutôt considérées comme des mesures à court et à moyen terme et celles vers la droite à long terme. Les mesures du centre sont d'une importance similaire à tous les termes. Les couleurs des bulles sont en fonction du code couleur utilisé dans le tableau « Responsabilités générales des Directions des Routes ». Les mesures en bleu constituent le noyau des compétences clés de la plupart des Directeurs des Routes.



The survey clearly shows the high importance of influencing human behaviour by means of awareness campaigns at national and at EU levels, whose effects can be greatly intensified by legislative measures and appropriate enforcement. Measures related to infrastructure management, such as High Risk Site Management, Road Safety Audit, and Road Safety Inspection, are generally recognised as a high priority. Most of the tasks are to be realised on the national level, but frames should be given by the European level to harmonise definitions and general procedures in order to make the results comparable and suitable for benchmarking. High priority is also dedicated to speed enforcement, traffic calming and speed management, the latter two at national and European levels. Apparently, a European contribution to this issue is expected, e.g. in terms of a best-practice guideline. An important measure at the European level is the creation of institutional pre-requisites, particularly concerning European legislation for cross-border enforcement, e-safety measures concerning the automotive industry, as well as fostering implementation-related research and exchange of knowledge.

## General trends in priorities and specific measures

The following bubble chart shows how the categorised measures rank compared to each other on a time axis. Measures further up have a higher score and are considered of high overall importance. Measures further to the left are considered mainly short- to medium-term measures, the ones on the right are of a more long-term nature. Measures in the centre of the chart usually have similar importance throughout the different time spans. The colours of the bubbles are in accordance with the colour code used in the chart for Road Safety Responsibilities of Road Directorates. Measures in blue constitute the core competencies of most Road Directors.



## Infrastructure

- La mesure d'infrastructure la plus importante à court et à moyen terme est la **gestion des sites à haut risque**. Environ 85% des pays membres de la CEDR utilisent actuellement cette mesure pour améliorer la sécurité sur les sections de routes les plus dangereuses. Actuellement, les nouveaux Etats Membres sont prêts à apprendre des expériences faites ces dernières années par les pays de l'UE 15 et veulent mettre en place des mesures correctives. Pratiquement neuf sur dix Directions des Routes sont responsables, au moins en partie, de la mise en place de ces mesures. Les Directeurs des Routes sont prêts à accroître leurs efforts dans ce domaine et à intensifier l'échange des meilleures pratiques.
- Les **mesures d'apaisement de la conduite** accompagnées de la **gestion de la vitesse en zones rurales et urbaines** sont jugées constituer les mesures les plus prometteuses pour augmenter la sécurité routière à moyen terme, de même qu'à court et à long terme. Ceci crée une priorité globale importante, surtout du fait que les Directeurs des Routes peuvent influencer directement ces mesures. Ces mesures sont utilisées ou planifiées extensivement en Europe et sont généralement sous la responsabilité principale ou partagée des Directions des Routes. Vu que ces mesures restent d'une importance primordiale, les Directeurs des Routes Européens sont prêts à intensifier leurs efforts dans ces domaines.
- Plusieurs Directeurs de Route classifient les « **bords de chaussées sécurisés** » comme un critère important parmi les mesures d'infrastructure les plus prometteuses. Le traitement des arbres et d'autres risques en bord de chaussée, ainsi que l'amélioration de la qualité générale des routes, sont d'une priorité élevée dans tous les cas de figure. Les Directeurs des Routes conduiront donc une recherche approfondie dans ce domaine, afin de déterminer ce que constituent une route facile à comprendre et des bords de chaussée sécurisés.
- Le principe de l'**audit de Sécurité Routière - ASR** (Road Safety Audit – RSA) est déjà bien connu à travers l'Europe et a été adopté par les trois quarts des pays membres de la CEDR. La plupart des autres pays compte l'adopter à court ou à moyen terme. Les Directeurs des Routes considèrent cet instrument comme important ; à part quelques exceptions, cet instrument figure parmi leur noyau des compétences clés. Plusieurs Directeurs des Routes Européens apprécieraient un guide des meilleures pratiques publié par la Commission Européenne dans ce domaine.
- L'**inspection de Sécurité Routière - ISR** (Road Safety Inspection – RSI) est un peu moins connu que l'audit de Sécurité Routière, mais elle n'en est pas moins importante. Plus de la moitié des pays membres de la CEDR utilisent déjà cet outil et un autre 30% projette de l'utiliser prochainement. Le niveau de priorité de l'inspection de Sécurité Routière est plutôt modéré, mais consistant, dans la gestion des priorités des mesures de sécurité routière faites par les Directeurs des Routes qui sont, par contre, en général responsables de sa mise en œuvre.
- Les priorités pour la mise en œuvre de **séparation de voies** et des **mesures spécifiques sur autoroutes** sont très prononcées à moyen terme. Ces mesures comprennent généralement l'extension des programmes de « 2 plus 1 voies » existants dans plusieurs pays, l'augmentation de l'utilisation des glissières de sécurité médianes et latérales, ainsi que de nouveaux systèmes autoroutiers et l'amélioration des échangeurs d'autoroutes. Ces mesures, et notamment les « 2 plus 1 voies », sont très répandues dans les pays nordiques membres de la CEDR.

## Infrastructure

- The infrastructural measure of highest importance in the short and medium term is the **Management of High Risk Sites**. Around 85% of all CEDR Member States are currently dealing with this set of tools to improve the safety on the most dangerous road sections. Now, especially the new Member States are willing to learn from the good experience gained by the EU-15 countries in the past years and want to start implementing remedial measures. Almost nine out of ten Road Directorates are at least in part responsible for the implementation of the respective measures. European Road Directors are willing to increase their efforts in the field of High Risk Site Management and intensify the exchange of best-practice in this field.
- **Traffic calming measures** paired with **speed management in rural and urban areas** are deemed to be most promising for increasing road safety in the medium term but also rank very high in the short and long term. This makes for a high overall priority, especially since these measures can be directly influenced by the Road Directors. They are widely in use or at least in the planning stage throughout Europe and usually under the main or shared responsibility of the respective Road Directorates. As these measures continue to be of utmost importance, the European Road Directors are willing to intensify their efforts in these areas.
- Many Road Directors rank **forgiving roadsides** high among the most promising infrastructural measures. The treatment of trees and other roadside hazards as well as the heightening of overall road standards are recognised as a high priority regardless of the timeframe. Road Directors plan to conduct thorough research in this field to gain knowledge on what constitutes good self-explaining roads and forgiving roadsides.
- The principle of the **Road Safety Audit (RSA)** is already well-known throughout Europe and has been adopted by almost three quarters of the CEDR Member States. Most of the other countries plan to do so in the short or medium term. This instrument stands in high regard among Road Directors and – with few exceptions – is among their core competencies. Several European Road Directorates would also welcome best practice guidelines issued by the European Commission in this field.
- The **Road Safety Inspection (RSI)** is a little less known than the Road Safety Audit, but no less important. More than half of the CEDR Member States are already using this tool, another 30% plan to do so in the near future. Road Safety Inspection ranks moderately but consistently along the time scale among Road Directors who are widely responsible for its implementation.
- The priorities of **lane separation** and specific **motorway measures** exhibit a pronounced peak for medium-term implementation. These measures usually comprise the extension of existing 2-plus-1 road programmes in several countries, the increased use of guardrails and median barriers as well as new motorway systems and the improvement of motorway junctions. This set of measures, especially the 2-plus-1 road, is highly popular in the Northern CEDR Member States.

- **La télématique en bordure de chaussée** fait partie du noyau des compétences clés des Directions des Routes Européennes et figure dans la liste des dix premières priorités à court et à moyen terme. Environ 90% des pays membres de la CEDR poursuivent déjà des activités dans ce domaine, qui est en forte croissance. Les mesures planifiées comprennent des signalisations et inscriptions routières interactives, ainsi que d'autres nouvelles technologies pour influencer le comportement des chauffeurs. Les Directeurs des Routes à travers l'Europe sont en train d'effectuer des études pilotes pour tester et pour améliorer ces nouvelles technologies.
- **L'amélioration des règles de l'aménagement du territoire** est une mesure typique du long terme. Le développement d'activités résidentielles, commerciales et industrielles pose de nouveaux défis en termes de gestion de la sécurité. Il faut s'assurer que la sécurité devienne une part intégrale des règlements de l'aménagement du territoire. Plus de la moitié des Directeur des Routes peuvent exercer une influence dans ce domaine important.

## Le comportement des usagers de la route

- **Les campagnes de prise de conscience** (y compris pour l'alcool/drogues, la ceinture de sécurité, la fatigue des chauffeurs, etc.) comptent parmi les premières mesures jugées efficaces par les Directeurs des Routes. Cependant, cette catégorie de mesures ne se trouve que rarement sous la responsabilité des Directeurs des Routes. Toutefois il est à noter que lorsque les Directeur des Routes détiennent une responsabilité importante dans le domaine du comportement des usagers de la route, ces Directeurs considèrent cette mesure d'une importance capitale. Puisque les usagers de la route (avec les véhicules et les infrastructures) constituent le pilier le plus important pour l'amélioration efficace de la sécurité routière, les Directeurs des Routes sont convaincus que la prise de conscience, notamment dans les domaines des ceintures, de l'alcool, des drogues, de la vitesse, des motos et de la fatigue, doit être renforcée. Les Directeurs des Routes invitent donc les administrations nationales et la Commission Européenne à intensifier leurs efforts dans ce domaine.
- **Contrôles de vitesse** : Les Directeurs des Routes Européens sont conscients du fait qu'une gestion des vitesses ne peut réussir qu'avec une stratégie renforcée du contrôle de leur application. Par conséquent, le contrôle figure parmi les priorités du tableau. Dans la plupart des pays membres de la CEDR, le contrôle ne se trouve pas sous la responsabilité des Directeurs des Routes. La coopération avec la police ou avec d'autres autorités doit donc être intensifiée. Le contrôle n'est pas seulement une affaire nationale, mais également une affaire trans-Européenne. Les Directeurs des Routes apprécieraient donc tout effort de la Commission pour soutenir une coopération entre les autorités nationales, afin de préparer le terrain pour un contrôle et des sanctions optimales au travers des frontières.
- **L'éducation à la conduite** est une mesure typique du long terme qui compte parmi les mesures prioritaires des Directeurs des Routes. Presque tous les pays membres ont conçu des programmes d'éducation pour les chauffeurs et usagers de la route. Actuellement, ce domaine important contient la formation des nouveaux chauffeurs professionnels. Vingt pour cent des Directeurs des Routes partagent la responsabilité de cette mesure.

- **Roadside telematics** are another core competency of European Road Directorates and can be found in the top-ten priorities lists for the short and medium term. Around 90% of CEDR Member States are already pursuing activities in this fast-growing field. Planned measures include interactive road signs and markings as well as other new technologies to influence driver behaviour. Road Directors all over Europe are in the process of conducting pilot studies to test and improve these new technologies.
- The **Improvement of land use regulations** is a typical long-term measure. The development of residential, commercial, and industrial activities poses new challenges for safety management. It must be made sure that safety becomes an inherent part of land use regulations. More than half of the Road Directorates have influence in this important field.

## Road User Behaviour

- **Awareness campaigns** (including alcohol/drug-, seatbelt-, driver fatigue-, etc.) rank very high among the measures considered effective by the Road Directors. However, this category of measures very seldom lies within the responsibility of Road Directorates. It is worth noting that especially the Road Directorates which have a high degree of responsibility in the field of road user behaviour deem this issue to be of utmost priority. As the road user – along with the vehicle and the infrastructure – is the most important pillar of effective road safety work, Road Directors are convinced that awareness activities especially in the fields of seatbelts, alcohol, drugs, speeding, motorcycles and fatigue, have to be increased. Road Directors invite the national level as well as the European Commission to intensify efforts in this field.
- **Speed enforcement**: European Road Directors are very aware of the fact that successful speed management can only be achieved together with an optimized enforcement strategy. Therefore, enforcement also ranks high in the chart. In most CEDR Member States, enforcement is not under the responsibility of the respective Road Directors. Cooperation with the police or other responsible authorities has to be intensified. Enforcement is not only a national issue, but also a trans-European concern. Thus, Road Directors would welcome the Commission's efforts to foster cooperation between national authorities and prepare the grounds for optimized cross-border enforcement.
- **Traffic education** is a typical long-term measure that is in high regard among Road Directors. Almost all CEDR Member States have driver and road user education programmes. Nowadays, this important field also comprises the training of new and professional drivers. Twenty per cent of the Road Directorates share responsibilities for this issue.

## Technologies des véhicules

- Les technologies de sécurité installées dans les véhicules sont de loin les mesures prioritaires à long terme, mais se classent déjà à un niveau élevé à moyen terme. Ils comprennent de nouvelles technologies telles que le contrôle de stabilité électronique (Electronic Stability Control – ESP) et le système de freinage antiblocage (Antilock Breaking Systems – ABS) ou d'autres systèmes du ressort des initiatives de la sécurité électronique. Même s'il ne s'agit pas d'un domaine traditionnel de responsabilité pour les Directeurs des Routes, environ un quart des Directeurs des Routes Européens citent les technologies de sécurité installées dans les véhicules parmi leurs compétences. Les Directeurs des Routes apprécieraient de nouvelles initiatives de l'UE dans ce domaine.

### ***Priorités à court, à moyen et à long terme***

Pour donner plus d'informations concernant les échéances de la mise en œuvre des mesures, les trois listes des dix priorités les plus prometteuses des mesures à court, à moyen et à long terme qui figurent sur la page suivante montrent le nombre de points attribués à chaque catégorie de mesures de sécurité routière. Les points sont calculés en comptant le nombre de nominations par les pays membres de la CEDR et en les classant selon leurs 'poids' d'importance dans les listes respectives. Comme les bulles du tableau précédant, les colonnes portent les mêmes couleurs, afin de permettre une meilleure comparaison en tenant compte des responsabilités diverses des Directeurs des Routes.



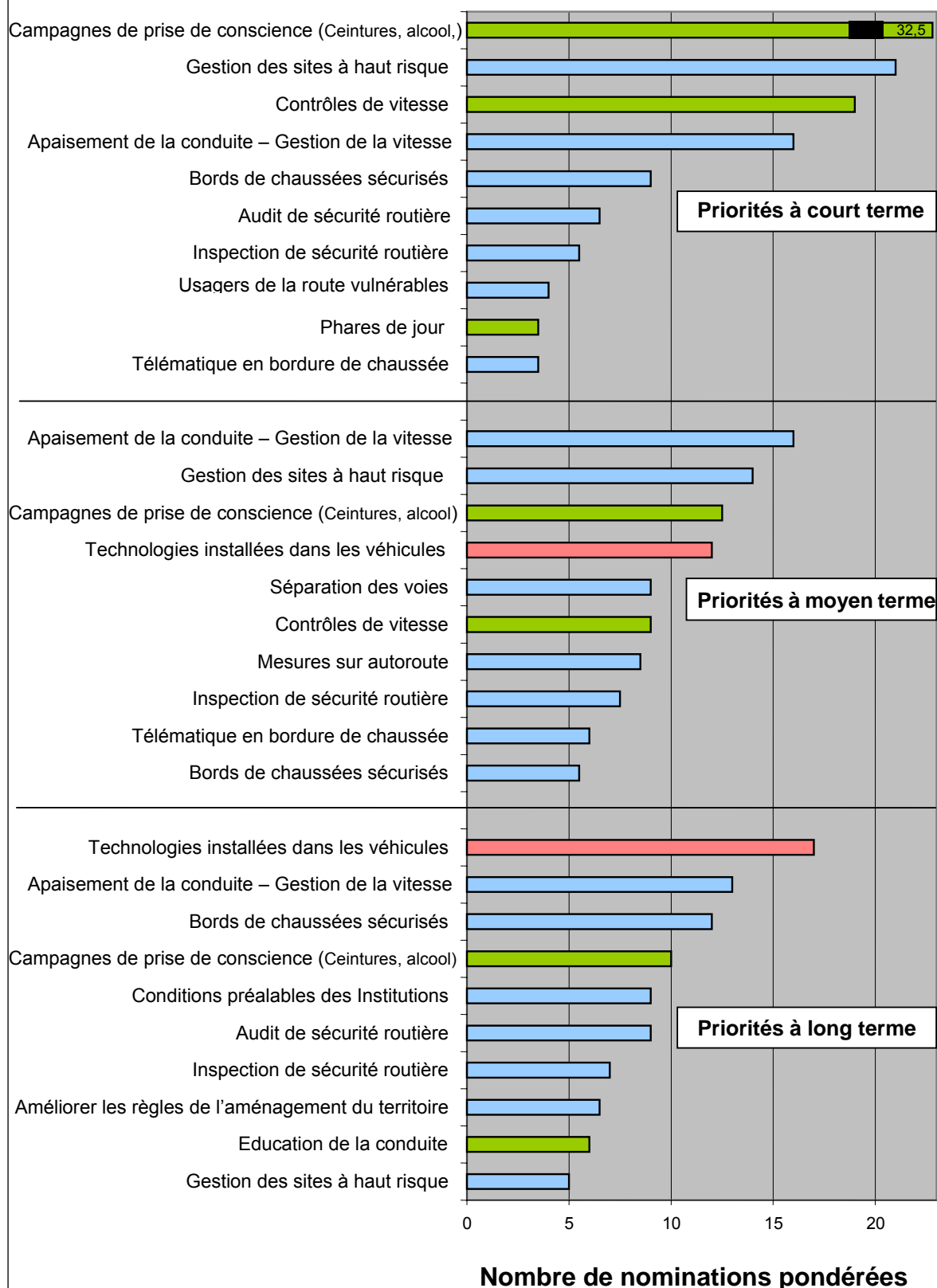
## Vehicle technology

- **In-Vehicle safety technologies** are by far the most prominent safety measures in the long term, but already rank high in the medium term as well. They include new safety technologies such as Electronic Stability Control (ESP), Antilock Braking Systems (ABS) or other issues of the eSafety initiative. Although this is not a typical field of responsibility for Road Directors, about a quarter of the European Road Directorates number In-Vehicle safety technologies among their competencies. The Road Directors would welcome new EU initiatives in this field.

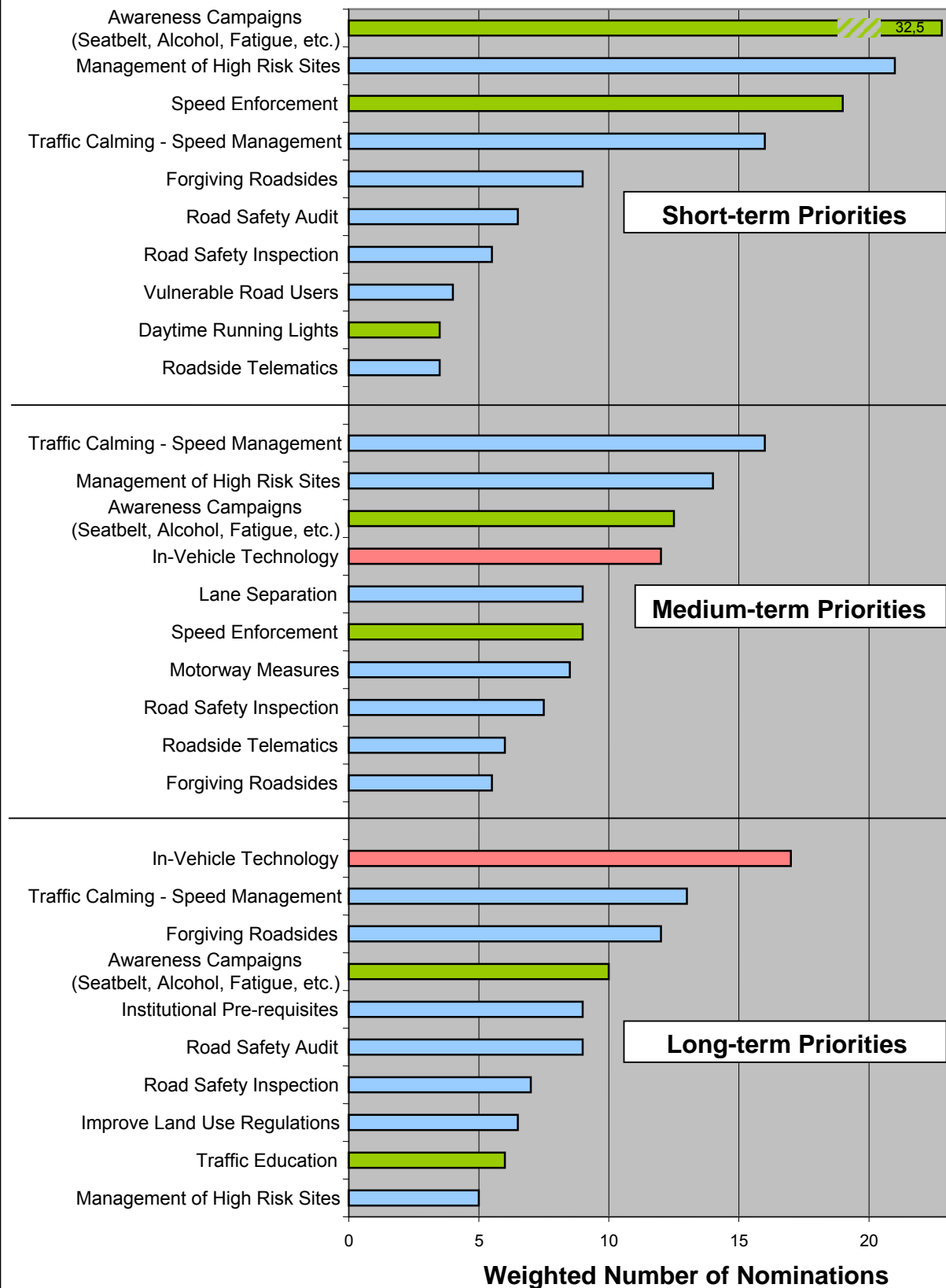
### *Short-, medium-, and long-term priorities*

For more detailed information with regard to the timescale, the three top ten lists for the most promising short-, medium-, and long-term measures on the following page show the actual scores achieved by the respective categories of road safety measures. The scores are calculated by counting the number of nominations by the CEDR Member States and weighting them according to their position in the respective lists. As with the bubbles in the last chart, the bars have been coloured in the same fashion to allow better comparison, taking into account the diverse responsibilities.

### Priorités spécifiques à court, à moyen et à long terme



### Specific short-, medium-, and long-term priorities



## ***Les responsabilités partagées***

Le classement élevé des différentes mesures de sécurité montre clairement que les Directeurs des Routes Européens sont conscients du fait qu'il y a plusieurs domaines d'action d'une grande importance pour obtenir plus de sécurité sur les routes européennes. Les Directeurs des Routes ne peuvent pas avoir une influence dans tous les domaines d'actions correctives tels que l'augmentation de prise de conscience, l'amélioration des technologies installées dans les véhicules ou l'augmentation des contrôles. Cependant, les Directeurs des Routes prennent très au sérieux toutes les mesures de sécurité routière et sont conscients que des efforts supplémentaires doivent être faits par tous les intervenants, afin que les objectifs 2010 puissent être atteints.

Il existe de très grandes différences entre ce que les pays membres de la CEDR considèrent être les meilleures pratiques ; les statistiques des priorités de la sécurité routière font également apparaître de grandes différences entre les pays. Les pays performants et les plus avancés en matière de sécurité routière mettent leurs priorités sur des mesures plus spécialisées (tels que la séparation des voies, l'installation d'alcool-blocages dans les véhicules, les rappels de ceinture, etc.) ; ils sont plus sensibles et appréhensifs de nouvelles directives ou recommandations Européennes que les pays membres de la CEDR qui ont intégré la Communauté Européenne récemment. Ces derniers ont besoin d'avantage de soutien et – si disponible - de financement de leurs travaux de sécurité routière. Par conséquent, les pays plus performants auront un défi d'autant plus prononcé concernant leur contribution à l'objectif de la Commission de réduire de 50% les victimes de la route.

Les Directeurs des Routes sont prêts à mettre en œuvre les mesures importantes et nécessaires pour apporter plus de sécurité sur les routes européennes en intensifiant leurs efforts dans les domaines les plus prometteurs cités dans ce rapport. Ils sont conscients de la nécessité d'une coopération étroite avec d'autres institutions. Une interaction à tous les niveaux, régional, national, gouvernemental, non gouvernemental et UE, ainsi qu'une interaction auprès des secteurs privés est primordiale pour réaliser ces objectifs ambitieux.

Il est indispensable que la CEDR coopère étroitement avec la Commission Européenne, afin d'être impliquée dans les discussions thématiques dès leur démarrage et ceci pour le bénéfice mutuel des deux parties et pour une lutte concertée contre les décès et blessures sur les routes européennes.

## ***Shared responsibility***

The high rankings of the different road safety measures clearly show that the European Road Directors are well aware of the fact that there are many fields of action that are of high importance for more safety on Europe's roads. Some of these fields of action cannot be influenced directly by the Road Directors, such as creating awareness, improving in-vehicle technology, or increasing enforcement. Still, the European Road Directors take all different kinds of road safety issues very seriously and are aware of the fact that additional effort has to be made by all parties if the goals for 2010 shall actually be achieved.

It is clear that there are vast differences between what is considered best practice in the CEDR members, just as the European road safety statistics show great differences among the countries. The best performers and more advanced countries emphasise more specialised measures (e.g. lane separation, alco-lock in vehicles, seat belt reminders, etc.) and are more sensitive and apprehensive to new European directives or recommendations than some of the CEDR countries which have recently joined the European Community. The latter countries need more support and – if available – funding for their road safety work. As a consequence, the better performing countries will have an even more challenging job contributing to the 50% reduction target of the Commission.

The European Road Directors are willing to take an important step forward on the way to more safety on European roads by intensifying their efforts in those fields of action that are found to be most promising in this report. They are aware of the fact that they are in need of close co-operation with other groups, thus interaction at all levels, regional, national, governmental, non-governmental, and EU, as well as the private sector, is needed to ensure that the ambitious targets are met.

It is indispensable that CEDR co-operates closely with the European Commission in order to be involved in the thematic discussions at an early stage for mutual benefit and to be united in the fight against death and suffering on European roads.

# THE MAIN REPORT

## 1. Introduction

In its White Paper “European Transport Policy for 2010: Time to Decide” published in 2001, the European Commission set the goal of halving the number of fatalities on Europe’s roads by 2010. In the White Paper improving safety of the movement of passengers and goods on European roads was made one of Europe’s key tasks. The Commission’s Road Safety Action Programme “Saving 20 000 Lives on Our Roads - A Shared Responsibility” (2003) identified over 60 concrete measures to implement the White Paper, most of them non-legislative.

Only recently, in February 2006, the Commission’s Mid-Term Review of the European Road Safety Action Programme was presented. From 2001 to 2004, a 17.5 per cent reduction of road deaths has been achieved. Still, this reduction is not sufficient if the ambitious targets are to be fulfilled. In the sense of the “shared responsibility” joint efforts of all stakeholders are all the more essential to guarantee success in this field.

The objective of halving the number of deaths constitutes a serious collective undertaking of all organisations and institutions involved – governmental and non-governmental. Responsibilities for road safety are shared between different groups, thus interaction at all levels of government, whether local, regional, national or EU, as well as the private sector is needed to ensure that the targets are met. It is certainly not possible to rely solely on EU activities to achieve the target, fostering the “shared responsibility” is one of the key elements for success. The European Road Directors take this “shared responsibility” very seriously and give therefore concrete proposals for the short-, medium-, and long-term actions deemed to be most effective for reducing fatalities on roads in this report.

The report is the result of a meeting between CEDR and the EU Commission in October 2005, where Vice-President Barrot and the European Road Directors agreed that it would be highly beneficial if they summarized their short-, medium-, and long-term road safety priorities to increasing road safety on European roads and specifically to reaching the 50% fatality reduction target of the European Commission.

Following the meeting and Vice-President Barrot’s request CEDR’s Technical Group “Road Safety” has prepared this report, which is based on data collected from three questionnaires answered by 20 CEDR Member States. Two questionnaires covered the Road Directors’ general and specific responsibilities and their short-, medium-, and long-term road safety priorities while the third questionnaire dealt with institutional and organisational issues. The report provides a representative state-of-the-art overview of infrastructure and road safety management in Europe and especially points out the short-, medium-, and long-term actions qualified as most effective by European Road Directors.

With this report, CEDR and the European Road Directors are willing to take an important step forward on the way to more safety on European roads and towards a closer co-operation with the European Commission for reaching the ambitious targets united in the sense of the “shared responsibility”.

## 2. Introduction to CEDR

### 2.1. *CEDR's foundation*

The acronym **CEDR** stands for the **C**onference of **E**uropean **D**irectors of **R**oads. The conference was formally created on 18 September 2003 in Vienna, Austria, as the follow-up organisation to WERD/DERD.

WERD stood for the Western European Road Directors  
DERD stood for the Deputy European Road Directors.

CEDR is a non-profit organisation under French law. Its registered head office is located at La Grande Arche de La Défense in Paris, France.

### 2.2. *CEDR's mission*

Europe's road directors are aware of the importance of improving European cooperation for making progress in the road and road transport sector and the relationship of this sector with other modes of transport and with society at large.

The purpose of co-operation at European level is to facilitate the exchange of experience and information and to analyse and discuss all road-related issues, especially infrastructure, infrastructure management, traffic and transport, financing, legal and economic problems, safety, environment, and research in all of these areas.

The directors gave CEDR the following mission:

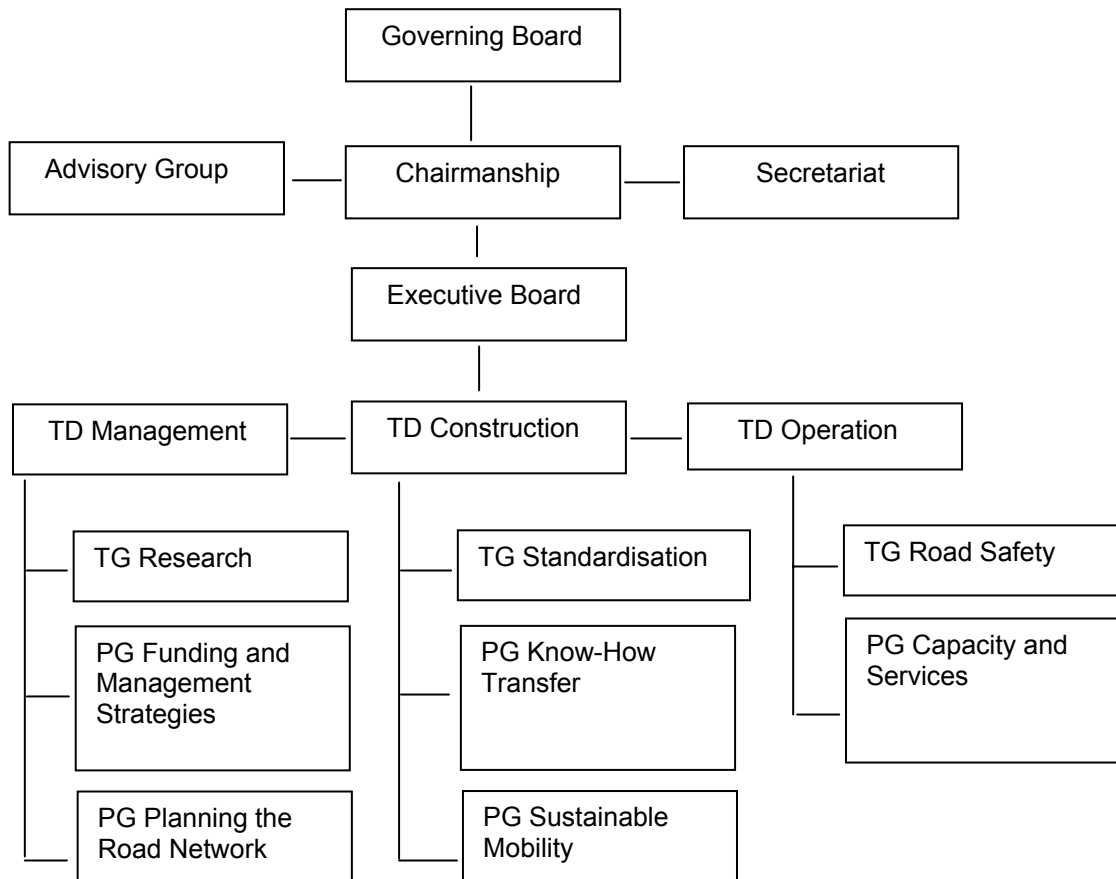
- To contribute to **future developments** of road traffic and **networks** as part of an integrated transport system under the social, economical and environmental aspects of **sustainability**.
- To promote an international **network of personal contacts** between Road Directors and their staff.
- To provide a **platform** for understanding and responding to common problems.
- To develop a strong **involvement in EU developments** on matters relating to road transport systems.
- To **use existing representations** on relevant international groups for mutual benefit.
- To make **use of the results** of common understandings as well as research results in each member country.

As its members are the key players when implementing directives, standards, or recommendations, CEDR members are in a unique position to address the full range of road transport and road infrastructure issues. CEDR members have found that they have much to learn from each other. They can develop more effective policies and technical approaches by learning from successes and failures elsewhere.



## 2.3. CEDR's structure

The following bodies govern and manage CEDR's activities:



TD = Thematic domain;  
 TG = Technical group for transversal themes;  
 PG = Project group of limited duration.

The various bodies were assigned the following responsibilities:

The Governing Board (GB)

- shall bear overall responsibility for the organization;
- shall decide on statutes and internal rules;
- shall approve general policies, budgets, strategic plans, operating rules, goals, and structures;
- shall communicate with the EU Commission;
- shall create thematic domains and define their action plans;
- shall identify and discuss common European roads problems and other emerging issues which may have long-term impacts on European road networks.

#### The Executive Board (EB)

- shall analyse emerging road and road transport issues and develop strategies for responding to them;
- shall identify and prioritise issues to be tackled and goals to be reached;
- shall prepare and review the strategic plan;
- shall create technical groups/ad hoc groups/projects within the thematic domains.

#### The Advisory Group

shall support the chairperson in the execution of the following tasks:

- the calling of meetings and setting of their agendas;
- the decision for the need for new tasks to be tackled;
- the top down direction of the tasks being pursued;
- the financial management of CEDR.

#### The Chairpersons (GB & EB)

- shall take overall responsibility for financial management;
- shall approve the accounts and propose the budget to the GB;
- shall decide on venues and the general format of meetings;
- shall represent CEDR at international/regional conferences and meetings;
- shall assume general administrative responsibility;
- shall chair the meetings of CEDR's GB and EB;
- shall organise and remunerate the secretariat.

#### The Secretariat General

- shall ensure that policies are pursued;
- shall review the various groups' proposed work programmes and work output;
- shall communicate with members;
- shall support the chairpersons, CEDR's Governing and Executive Boards, the Advisory Group, and the various subgroups/projects;
- shall ensure that the minutes of meetings are taken and distributed to all members;
- shall arrange meetings and manage the flow of information;
- shall liaise with other bodies of interest to CEDR;
- shall manage all financial and administrative aspects of CEDR;
- shall keep the budget within the limits set by the GB.

## **2.4. CEDR's Members**

The following 18 countries were founding members, and all joined the CEDR in 2003:

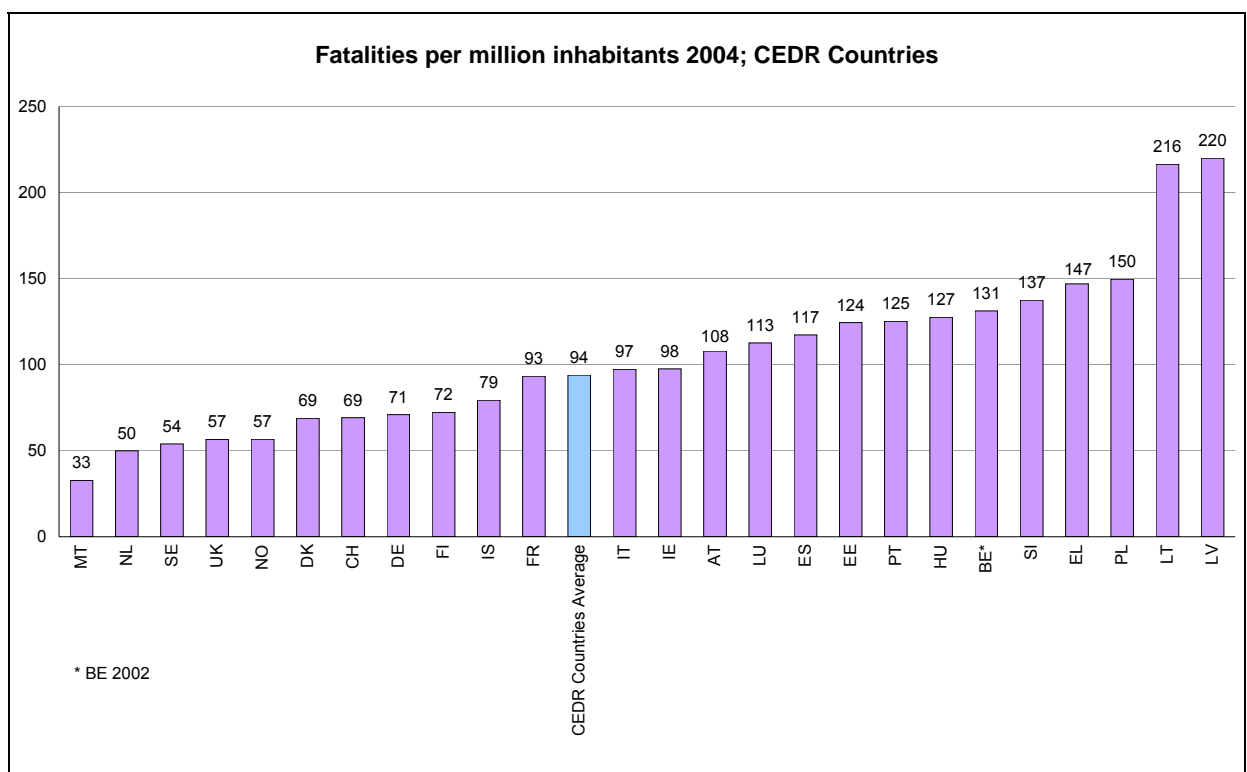
Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom

The following 7 countries joined the CEDR in the year 2004:

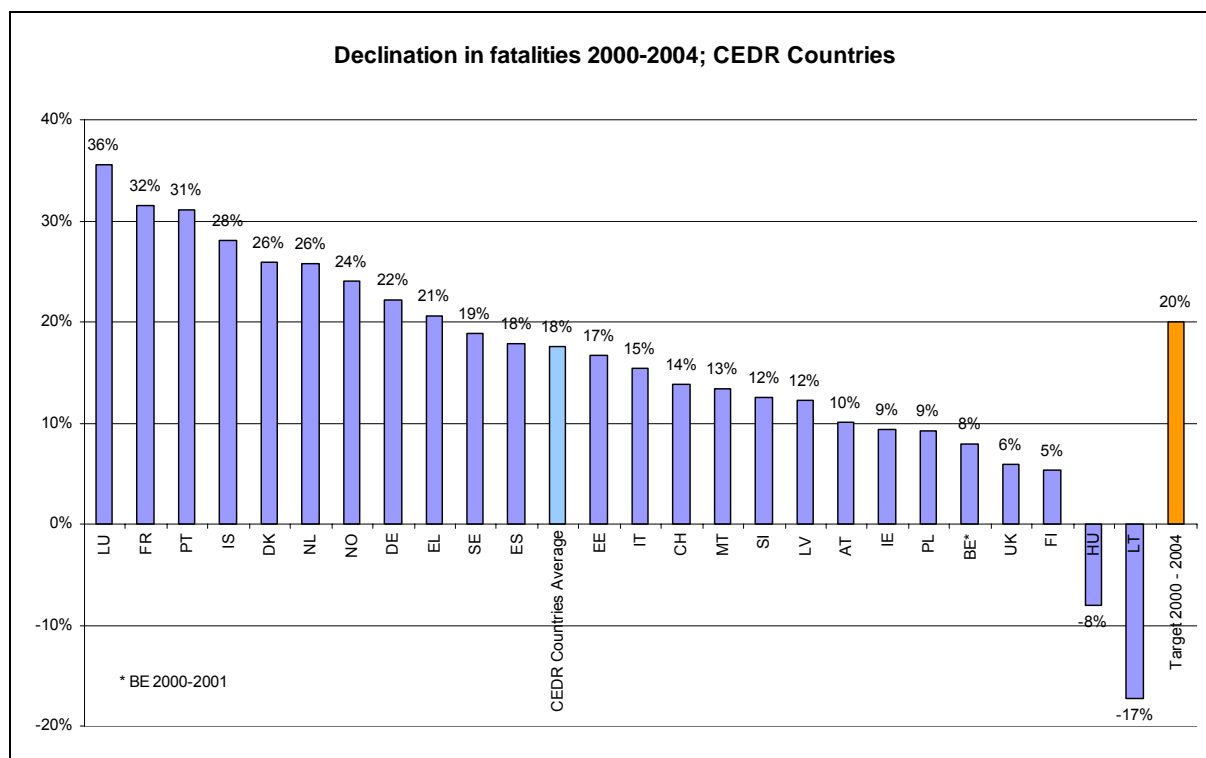
Estonia, Hungary, Latvia, Lithuania, Malta, Poland, and Slovenia

### 3. The size of the problem

The number of deaths on European roads has decreased over the last years, although the traffic volume has increased significantly, especially in the new EU Member States. Since 2001 the number of fatalities in CEDR countries was reduced by 18%. Still, in absolute figures about 42 200 were killed on CEDR Member States' roads in 2004. The following figures show the number of fatalities per 1 million inhabitants in 2004 and the reduction of fatalities between 2000 and 2004.



**Fatalities per million inhabitants in CEDR Countries 2004**

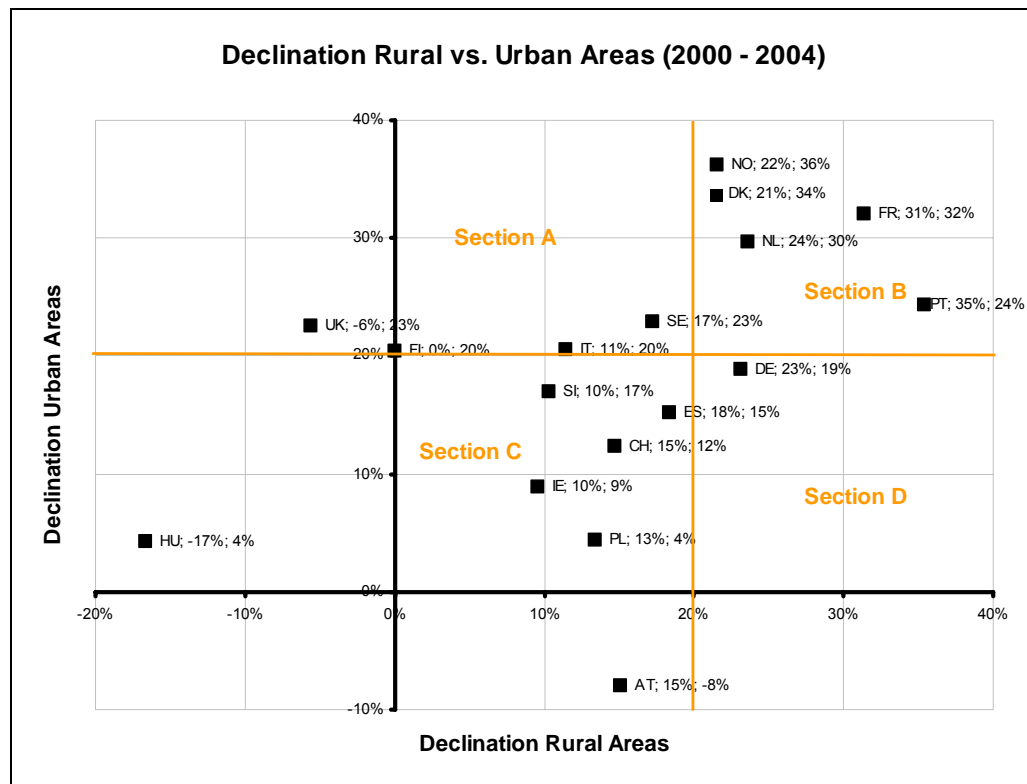


### Reduction of fatalities in CEDR Countries (2000 – 2004)

The figure shows that not all CEDR countries contribute the same share of reduction to the general target which is a reduction down to 50% by 2010. Hungary and Lithuania show even an increase in the total number of fatalities when comparing data for 2004 vs. 2000.

All CEDR countries show an average reduction of 18% in the period 2000 – 2004. This is slightly below the target of 20% (Basis for calculation: 100% is year 2000; linear reduction down to 50% by the year 2010)

Some of the CEDR countries are able to split the total number of fatalities into rural and urban areas. The following figure reveals the development of these areas in these countries in the period 2000 – 2004.



### Breakdown of overall reduction of fatalities (2000 – 2004) by area type

Each point in the figure represents a CEDR country. The first value of the x-axis represents the reduction of fatalities (2000 – 2004) in rural areas whereas the second value (y-axis) shows the reduction of fatalities in urban areas.

The figure can be divided into four sections (A to D).

Countries in section B show a better reduction compared to the target of 20% in rural as well as in urban areas. These countries outperform these targets in both areas.

Countries in section C are the opposite. They could not reach the target in the rural areas and also did not reach this target in the urban areas. Moreover Austria shows an increase of fatalities in urban areas (8%) and Hungary reported an increase of fatalities in rural areas (17%).

Countries in section A outperformed the target in terms of the target for urban areas but failed to achieve a comparably good result in rural areas.

Finally, countries in section D outperformed the target in rural areas but failed in urban areas.

## 4. Priorities of Road Directors

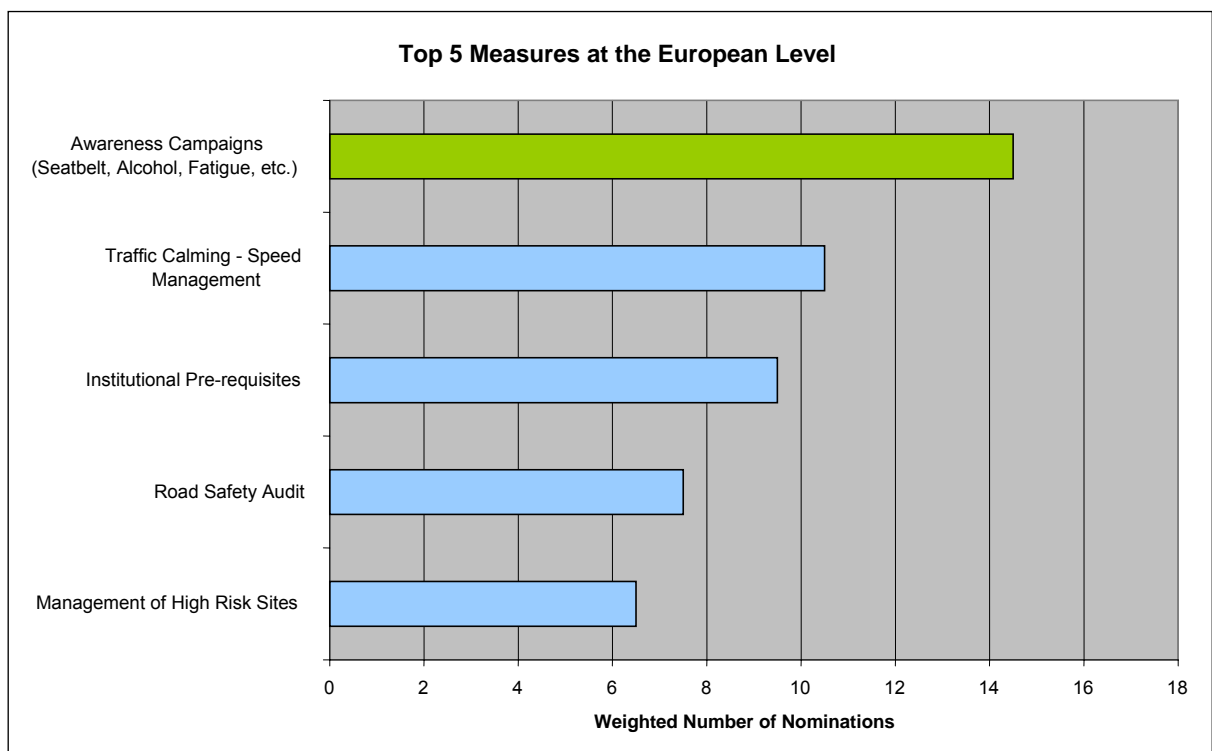
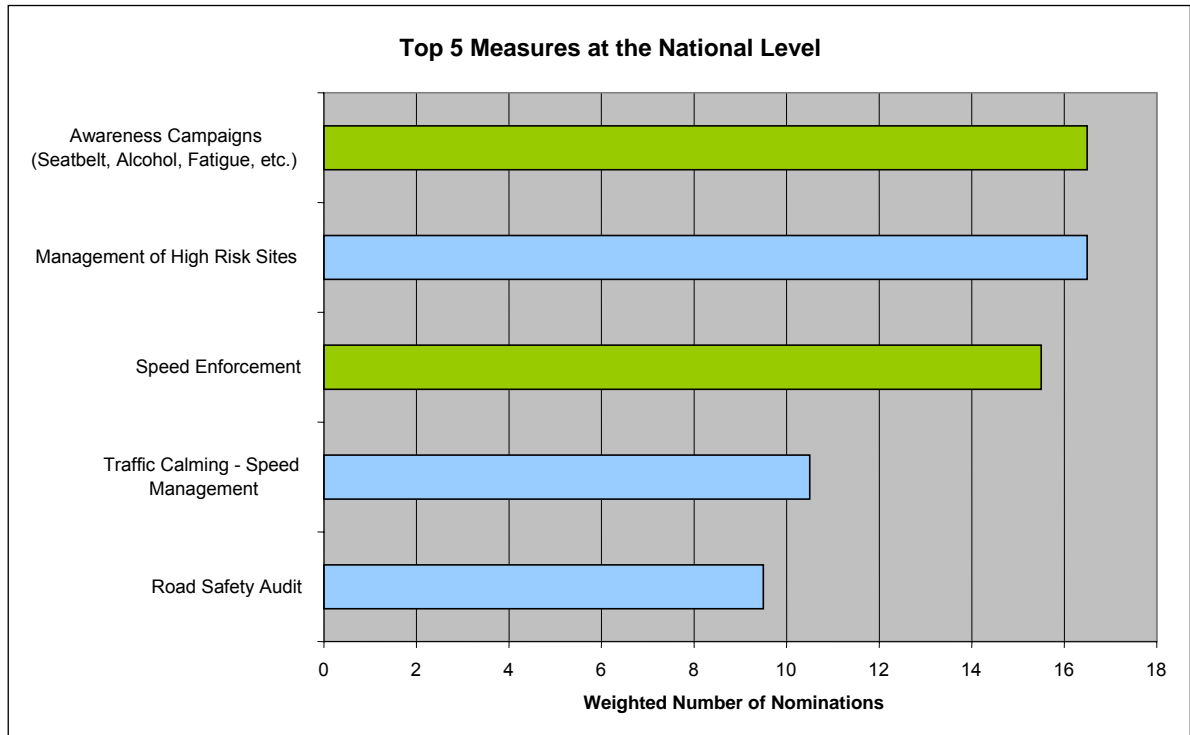
The Annex to Questionnaire 2 asked the Road Directors which measures they consider the most effective short-, medium-, and long-term measures to improve road safety and reduce fatalities on European roads. Short term stands for a time span from 2006 to 2008, medium term from 2009 to 2012, and long term after 2012. 18 answers with at least three measures per time span were received. Since the answers were quite diverse, they had to be categorised in order to be properly compared, leading to 20 categories (listed alphabetically):

- Accident-Databases
- Awareness campaigns (Seatbelt, Alcohol, etc.)
- Daytime Running Lights (DRL)
- Fitness-check
- Forgiving Roadsides
- Improve Land Use Regulations
- Institutional Prerequisites
- In-Vehicle Technology
- Lane Separation
- Management of High Risk Sites
- Motorway Measures
- Penalty Points-Systems
- Road signals
- Roadside Telematics
- Road Safety Audit (RSA)
- Road Safety Inspection (RSI)
- Speed Enforcement
- Traffic Calming - Speed management
- Traffic Education
- Vulnerable Road Users

The number of nominations was counted for each category and weighted according to the priority in the list (factor 2 for first place, factor 1.5 for second and third places). This leads to scores for every category in the short, middle, and long term, as well as an overall score.

### 4.1. *Top 5 priorities at national and at European levels*

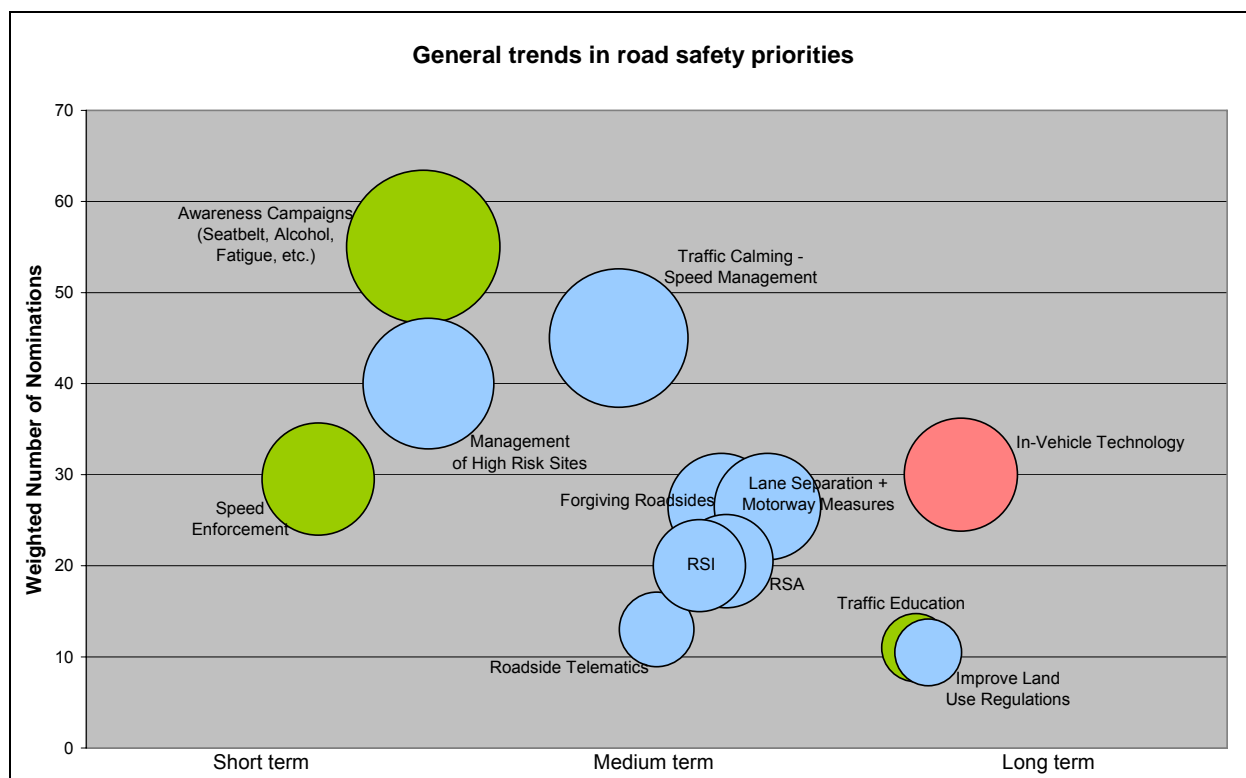
To get the right perspective on which road safety measures are considered to be of a national nature and which are deemed to be European issues, a survey with twenty pre-defined measures was carried out among the CEDR members. The following charts show two top 5 lists of national and European priorities, regardless of timeframe. Every measure was awarded a score according to its number of nominations weighted by their respective rankings (factor 2 for first place, factor 1.5 for second and third places). The colours of the bars are in accordance with the colour code used in the chart for Road Safety Responsibilities of Road Directorates.



The survey clearly shows the high importance of influencing human behaviour by means of awareness campaigns at national and at EU levels, whose effects can be greatly intensified by legislative measures and appropriate enforcement. Measures related to infrastructure management, such as High Risk Site Management, Road Safety Audit, and Road Safety Inspection, are generally recognised as a high priority. Most of the tasks are to be realised on the national level, but frames should be given by the European level to harmonise definitions and general procedures in order to make the results comparable and suitable for benchmarking. High priority is also dedicated to speed enforcement, traffic calming and speed management, the latter two at national and at European levels. Apparently, a European contribution to this issue is expected, e.g. in terms of a best-practice guideline. An important measure at the European level is the creation of institutional pre-requisites, particularly concerning European legislation for cross-border enforcement, e-safety measures concerning the automotive industry, as well as fostering implementation-related research and exchange of knowledge.

## 4.2. General trends in road safety priorities

The following bubble chart shows how the categorised measures rank compared to each other on a time axis. Measures further up have a higher score and are considered of high overall importance. Measures further to the left are considered mainly short- to medium-term measures, the ones on the right are of a more long-term nature. Measures in the centre of the chart usually have similar importance throughout the different time spans. The colours of the bubbles are in accordance with the colour code used in the chart for Road Safety Responsibilities of Road Directorates. Measures in blue constitute the core competencies of most Road Directors.



Each bubble represents a set of measures. Its x-coordinate denotes if the measure is considered to be more of a short-, medium-, or long-term measure among CEDR-Road Directors. The y-coordinate is a score calculated from the number of nominations weighted with their respective priorities (factor 2 for first place, factor 1.5 for second and third places). The colours correspond with the three pillars of road safety, where green is road user behaviour, blue is infrastructure, and red is vehicle technology.



## ▪ Infrastructure

- The infrastructural measure of highest importance in the short and medium term is the management of high-risk sites. Around 85% of all CEDR Member States are currently dealing with this set of tools to improve the safety on the most dangerous road sections. Now, especially the new Member States are willing to learn from the good experience gained by the EU-15 countries in the past years and want to start implementing remedial measures. Almost nine out of ten Road Directorates are at least in part responsible for the implementation of the respective measures.
- Traffic calming measures paired with speed management in rural and urban areas are deemed to be most promising for increasing road safety in the medium term but also rank very high in the short and long term. This makes for a high overall priority, especially since these measures can be directly influenced by the Road Directors. They are widely in use or at least in the planning stage throughout Europe and usually under the main or shared responsibility of the respective Road Directorates. As these measures continue to be of utmost importance, the European Road Directors are willing to intensify their efforts in these areas.
- Many Road Directors rank forgiving roadsides high among the most promising infrastructural measures. The treatment of trees and other roadside hazards as well as the heightening of overall road standards are recognised as a high priority regardless of the timeframe. Road Directors plan to conduct thorough research in this field to gain knowledge on what constitutes good self-explaining roads and forgiving roadsides.
- The principle of the Road Safety Audit (RSA) is already well-known throughout Europe and has been adopted by almost three quarters of the CEDR Member States. Most of the other countries plan to do so in the short or medium term. This instrument stands in high regard among Road Directors and – with few exceptions – is among their core competencies. Several European Road Directorates would also welcome best practice guidelines issued by the European Commission in this field.
- The Road Safety Inspection (RSI) is a little less known than the Road Safety Audit, but no less important. More than half of the CEDR Member States are already using this tool, another 30% plan to do so in the near future. Road Safety Inspection ranks moderately but consistently along the time scale among Road Directors who are widely responsible for its implementation.
- The priorities of lane separation and specific motorway measures exhibit a pronounced peak for medium-term implementation. These measures usually comprise the extension of existing 2-plus-1 road programmes in several countries, the increased use of guardrails and median barriers as well as new motorway systems and the improvement of motorway junctions.
- Roadside telematics are another core competency of European Road Directorates and can be found in the top-ten priorities lists for the short and medium term. Around 90% of CEDR Member States are already pursuing activities in this fast-growing field. Planned measures include interactive road signs and markings as well as other new technologies to influence driver behaviour. Road Directors all over Europe are in the process of conducting pilot studies to test and improve these new technologies.
- The Improvement of land use regulations is a typical long-term measure. The development of residential, commercial, and industrial activities poses new challenges for safety management. It must be made sure that safety becomes an inherent part of land use regulations. More than half of the Road Directorates have influence in this important field.

## ▪ Road User Behaviour

- Awareness campaigns (including alcohol/drug-, seatbelt-, driver fatigue-, etc.) rank very high among the measures considered effective by the Road Directors. However, this category of measures very seldom lies within the responsibility of Road Directorates. Still, as the road user – along with the vehicle and the infrastructure – is the most important pillar of effective road safety work, Road Directors are convinced that awareness activities especially in the fields of seatbelts, alcohol, drugs, speeding, motorcycles and fatigue, have to be increased. Road Directors invite the national level as well as the European Commission to intensify efforts in this field.
- Speed enforcement: European Road Directors are very aware of the fact that successful speed management can only be achieved together with an optimized enforcement strategy. Therefore, enforcement also ranks high in the chart. In most CEDR Member States, enforcement is not under the responsibility of the respective Road Directors. Cooperation with the police or other responsible authorities has to be intensified. Enforcement is not only a national issue, but also a trans-European concern. Thus, Road Directors would welcome the Commission's efforts to foster cooperation between national authorities and prepare the grounds for optimized cross-border enforcement.
- Traffic education is a typical long-term measure that is in high regard among Road Directors. Almost all CEDR Member States have driver and road user education programmes. Nowadays, this important field also comprises the training of new and professional drivers. Twenty per cent of the Road Directorates share responsibilities for this issue.

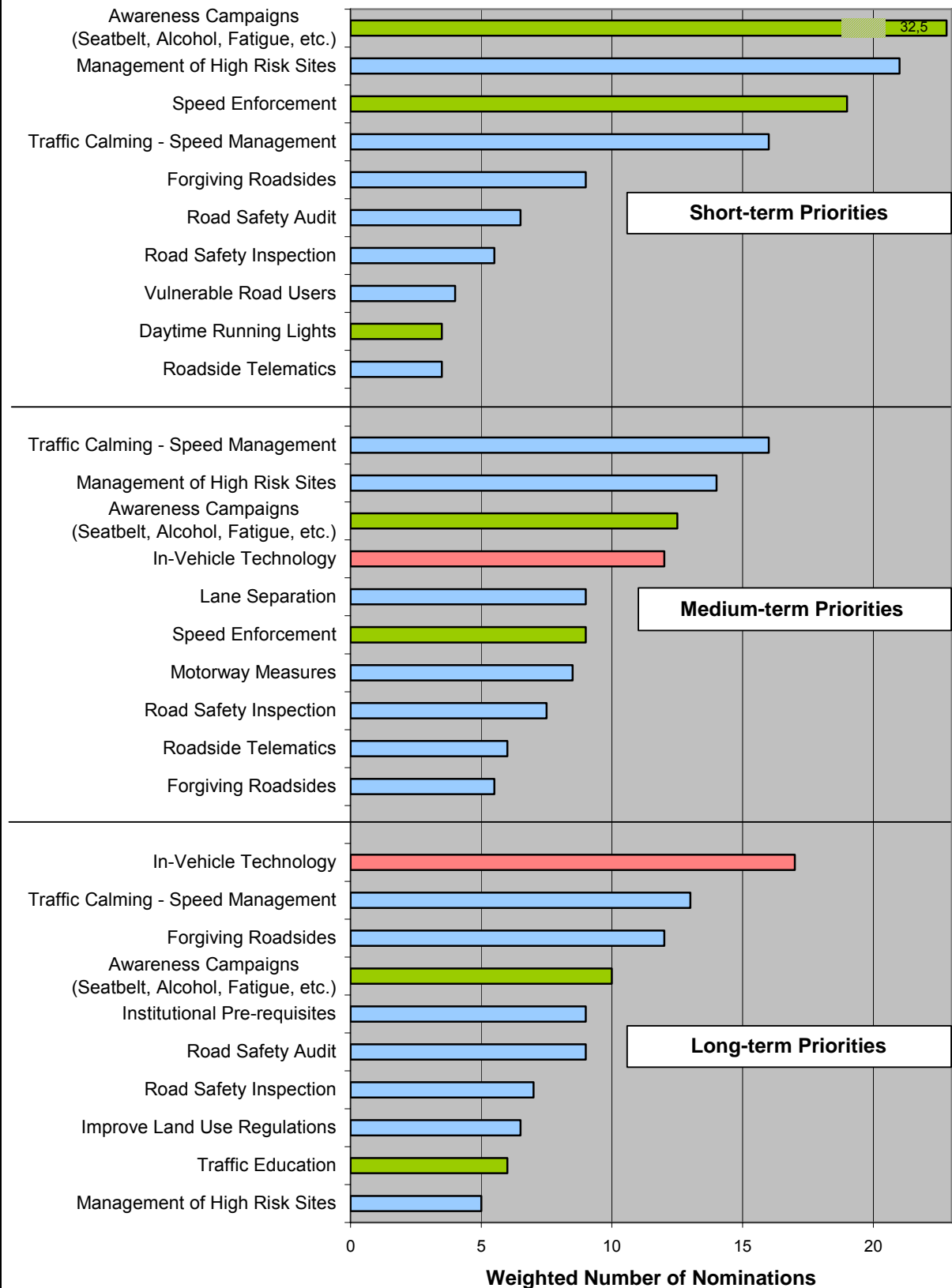
## ▪ Vehicle technologies

- In-Vehicle safety technologies are by far the most prominent safety measures in the long term, but already rank high in the medium term as well. They include new safety technologies such as Electronic Stability Control (ESP), Antilock Braking Systems (ABS) or other issues of the eSafety initiative. Although this is not a typical field of responsibility for Road Directors, about a quarter of the European Road Directorates number In-Vehicle safety technologies among their competencies.

### 4.3. *Specific short-, medium-, and long-term priorities*

For more detailed information with regard to the timescale, the three top ten lists for the most promising short-, medium-, and long-term measures show the actual scores achieved by the respective categories of measures. The scores are calculated by counting the number of nominations by the CEDR Member States and weighting them according to their placement in the respective lists (factor 2 for first place, factor 1.5 for second and third places). As with the bubbles in the last chart, the bars have been coloured in the same fashion to allow better comparison, taking into account the diverse responsibilities.

### Specific short-, medium-, and long-term priorities



## 4.4. *Categorisation and original answers*

The following list gives an account of the answers received from the Road Directorates in the original wordings. Similar wordings have been grouped. The measures are sorted by implementation period (short-, medium-, long-term) and categories. The two-letter abbreviations of the countries who nominated the respective measure can be found in square brackets at the end of each entry.

### Short-term measures:

1. Category "Campaigns (Seatbelt, Alcohol, etc.)"
  - 0.2 ppm alcohol for new and for professional drivers [CH]
  - Awareness campaigns for foreign drivers [IS]
  - Fighting driving under the influence of alcohol or drugs [SE, AT, NO, IS, PT, IT, NL]
  - Increasing use of seat belts, child restrains, crash helmets [BE (F), PT, IS, NO, SE, AT, DK]
  - Licensing mopeds on the roadway [NL]
  - Lower alcohol limit young drivers [NL]
  - Measures against motorcycle accidents [FR]
  - Measures against tuned mopeds [SE]
  - Measures against young drivers' accidents [FR]
  - New driver training models [NL]
  - Reducing the problem of driver fatigue [IS, IT]
  - Road safety campaign aimed at motorcyclists, young drivers & truck drivers [UK]
2. Category "Management of High Risk Sites"
  - Management of high-risk sites, Network Safety Management (black spots) [NO, UK, IE, BE(W), GR, AT, DK, SI, BE (F), EE, IS, IT]
3. Category "Speed Enforcement"
  - Automated Speeding Surveillance [FI, EE, PT, GR, IT]
  - Decreasing driving speeds (incl. automatic cameras) [SE, IS, DK]
  - Enforcement [DK, FR, CH]
  - Periodic Speed Limits at Schools on National Roads [IE]
4. Category "Traffic Calming - Speed Management"
  - Essential road marking (self explaining roads concept) [NL]
  - Speed Management and other measures in urban areas [FI, SE, NL, GR]
  - Speed management and other safety measures on rural roads [SE, BE (F), FI, NO]
  - Traffic Calming Schemes [IE]
5. Category "Forgiving Roadsides"
  - Forgiving roadsides [NL, PT, NO, UK, IE]
  - Low-cost measures of road-side interventions in the inter-urban road network [GR]
  - Roundabout [NL]
6. Category "RSA"
  - Road Safety Audit (RSA) [AT, DK, SI, IT, EE]
7. Category "Vulnerable Road Users"
  - Management of the risk of vulnerable road users [IT, EE, BE (W)]

8. Category “Roadside Telematics”
  - Increasing the installation of roadside telematics [PT]
  - Influencing Driver behaviour: Close Following on Motorways - Chevron Markings, Interactive road signs [UK]
  - Influencing Driver Behaviour: Inappropriate Speeds - Warning signs and additional safety cameras & Interactive speed warning road signs [UK]
9. Category “RSI”
  - Road Safety Inspection (RSI) [IE, IT, NO]
10. Category “DRL”
  - Obligatory daytime running light [CH, DK]
11. Category “Lane Separation”
  - Extend 2plus1 programme [IE]
  - Increased use of guardrails [IS]
12. Category “Accident-Databases”
  - Development of a national road database and a traffic statistics database [IT]
13. Category “Institutional Prerequisites ”
  - Increased winter service, especially ice control [IS]
  - Safety requirements as part of Public Service Contracts [SE]
14. Category “In-Vehicle Technology”
  - Euro NCAP [SE]
  - In-vehicle safety technology (ESC) [SE]
15. Category “Penalty Points-Systems”
  - Penalty point system (driving license) [DK]
16. Category “Improve Land Use Regulations”
  - Improve Land Use Regulations [SI]

#### **Medium-term measures:**

1. Category “In-Vehicle Technology”
  - ADA systems [NL]
  - Alco-locks [DK, NL, SE]
  - Euro NCAP [SE]
  - Implementation of ITS technologies [IT]
  - In-vehicle (Intelligent) Safety Technology, e.g. ABS, ESP [IS, FR]
  - Roadside Telematics and In-Vehicle (Intelligent) Safety Technology [NO, SE]
2. Category “Traffic Calming - Speed management”
  - Applying different speed limits to roads based on their design and local circumstances. [IS, GR]
  - Speed Management and other measures in urban areas [FI, SE]
  - Speed Management and Other Safety Measures on Rural Roads [FI, NO, SE, SI]
  - Traffic calming measures [CH, PT]
3. Category “Management of High Risk Sites”
  - High-risk Sites and Network Safety Management [IE, CH, BE(W), AT, DK, EE, PT, SI]

4. Category “Campaigns (Seatbelt, Alcohol, etc.)”
  - Continued funding of Road Safety Campaigns with DfT using the "Think" logo [UK]
  - Continuous campaigns [EE]
  - Fighting drink driving (enforcement & campaigns) [AT, NO, SE]
  - Increasing seat belt use (enforcement & campaigns) [AT, NO, SE]
5. Category “Lane Separation”
  - 2+1 roads [PT, IS, IE]
  - Increase the use of medium barriers [PT, FI, NO, IT]
6. Category “Speed Enforcement”
  - Automated Speeding Surveillance [FI, SE, EE]
  - Enforcement [DK, FR, NL]
7. Category “Motorway Measures”
  - Increasing capacity and throughput on freeways [NL]
  - Motorway junction improvements [UK]
  - New Motorway System to link main cities by 2010 [IE]
  - Roll out of the Motorway Incident Detection System (MIDAS) on the remaining 2/3 network [UK]
  - Separate driving lanes distributor roads [NL]
8. Category “RSI”
  - Road Safety Inspection (RSI) [AT, DK, IE, PT, SI]
9. Category “Forgiving Roadsides”
  - Ensuring forgiving road sides/ securing of roadside hazards [IS, IT, NO, IE]
10. Category “Roadside Telematics”
  - Roadside Telematics [BE (F), EE, GR]
  - Roadside Telematics and In-Vehicle (Intelligent) Safety Technology [NO]
11. Category “Vulnerable Road Users”
  - Construction of separated path for pedestrians and bicycles [EE, FI]
  - Safety enhancement of pedestrian crossing [BE (W)]
12. Category “Traffic Education”
  - Continuous safety education [EE, FR]
13. Category “RSA”
  - Road Safety Audit (RSA) [DK, SI]
14. Category “Improve Land Use Regulations”
  - Improve Land Use Regulations [BE (F), SI]
15. Category “Institutional Prerequisites”
  - Issuing of new Guidelines and Standards for the benefit of Road Safety (e.g. signing, restraint systems) [GR]
  - Safety requirements as part of Public Service Contracts [SE]
16. Category “Fitness-check”
  - Periodical check of driving fitness [CH]
17. Category “Accident-Databases”
  - Development of a detailed accident database. Joint analysis with traffic database [IT]

18. Category “Road signals”
  - Improvement actions on road signal [IT]
19. Category “Penalty Points-Systems”
  - Penalty Points Driving Licences [BE (F)]

**Long-term measures:**

1. Category “In-Vehicle Technology”
  - 100% EuroNcap [NL]
  - Accident data recorders [AT]
  - Black box in vehicles [DK]
  - In-vehicle safety technology [SE, UK, FI, IT, DK]
  - ISA [NL, SE]
  - Pedestrian-friendly cars [NL]
  - Whiplash prevention [SE]
2. Category “Forgiving Roadsides”
  - Modernisation on the heavy traffic main roads [FI]
  - Removal of roadside hazards (forgiving roadsides) on rural roads [NO, IT, PT, IT, IE, IS]
3. Category “Campaigns (Seatbelt, Alcohol, etc.)”
  - Awareness (public and political) [AT, CH]
  - Fighting driving while under the influence of alcohol [UK, NO, SE]
  - Increasing use of seat belts [NO]
  - Measures against motorcycle accidents [SE]
4. Category “Traffic Calming - Speed management”
  - Roads to induce calm driving [FR]
  - Self explaining roads [PT]
  - Speed Management [UK, FI, SI, SE]
  - Speed management on rural roads [AT, NO]
5. Category “Institutional Prerequisites”
  - Actions on the insurance companies to enforce road safety (not under the direct jurisdiction of ANAS) [IT]
  - Building a National Commission for road safety [CH]
  - Euro RAP [SE]
  - Investing in road security experts [CH]
  - PIN system (Performance Indicator) as presented by ETSC/EU COM, [SE]
  - Way sharing (way for all users designing) [FR]
6. Category “RSI”
  - Road Safety Inspection (RSI) [BE (W), GR, IE, SI]
7. Category “Improve Land Use Regulations”
  - Improve land use regulations [IS, SI, PT, FI]
  - Road safety skates in land use regulations [FR]
8. Category “RSA”
  - Road Safety Audit (RSA) [BE(W), GR, PT, SI]

9. Category "Traffic Education"
  - Road Education in schools [IT, FR]
  - Safety education on all levels [EE, IS]
10. Category "Lane Separation"
  - 2plus1 roads - 400 km by 2015 [IE]
  - Further improvement actions on barriers [IT]
  - Median barriers on rural roads [NO]
11. Category "Management of High Risk Sites"
  - High-risk Sites and Network Safety Management [BE (W), SI]
12. Category "Roadside Telematics"
  - Roadside Telematics [EE, SI]
13. Category "Motorway Measures"
  - Building motorways with two traffic lanes in each direction [NO]
  - Extend Motorway System [IE]
14. Category "Accident-Databases"
  - Development of road database for the national road network [GR]
15. Category "Vulnerable Road Users"
  - Bicycle helmet use [SE]
16. Category "Speed Enforcement"
  - Automated Speeding Surveillance [FI]



## 4.5. Priorities of Road Directors for specific measures

Questionnaire 2 includes a section “Priority” for each measure. The following table summarises the responses given by the Road Directorates. Green boxes symbolise the highest, yellow ones medium and red ones the lower priority. White boxes represent missing answers.

	Infrastructure								Road User Behaviour								Vehicle Technologies							
	Road Safety Audit (RSA)	Road Safety Inspection (RSI)	Management of high-risk sites, Network Safety Management			Roadside Telematics	Speed management in urban areas	Speed management and other safety measures on rural road	Improve Land Use regulations	EuroRAP	Increasing use of seat belts, child restraints, crash helmets	Fighting driving under the influence of alcohol	Fighting the driving under the influence of illicit drugs	Decreasing driving speeds	Reducing the problem of driver fatigue	Penalty Points Driving Licences (Demerit point systems)	Driving licensing systems directed at young drivers	Traffic Education	Daytime Running Lights	In-Vehicle (Intelligent) Safety Technology, e.g. ABS, ESP	Measures against tuned mopeds	Measures against motorcycle accidents	Safety requirements as part of Public Service Contracts	Accident Data Recorders
Austria																								
Belgium (F)																								
Belgium (W)																								
Denmark																								
Estonia																								
Finland																								
France																								
Germany																								
Greece																								
Hungary																								
Iceland																								
Ireland																								
Italy																								
Latvia																								
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Luxembourg																								
Malta																								
Netherlands																								
Norway																								
Poland																								
Portugal																								
Slovenia																								
Spain																								
Sweden																								
Switzerland																								
United Kingdom																								




= high priority  
 = medium priority  
 = low priority  
 = no information available

## 5. Organisation and responsibilities of Road Directors in CEDR-countries

### 5.1. General responsibilities of Road Directors

The goal of Questionnaire 1 was to find out about the general responsibilities of Road Directors. As the following table suggests, responsibilities vary across the CEDR Member States, but as a general rule, all Road Directorates are responsible for infrastructure, very few are responsible for more than one of the "transport legislation"-issues, but again, almost all Road Directorates have a say in several road safety strategies.

	Infrastructure								Transport Legislation								Road Safety Strategies										
	Infrastructure	National roads	Motorways	Main trunk roads	All trunk roads	Interurban roads only	national roads in cities and villages	other national roads	other roads	Road Transport	Highway code	Vehicle code	Driving licences	Dangerous goods	Permits for international goods transport	Permits for int. bus transport and occ. services	Vehicle inspections	other	Road Safety Strategies	National Road Safety Action Programme	National Accident Database	National Road Safety Observation	Road Safety Research	Road Safety Information / Awareness Campaign	other	Road Safety Education	Enforcement of Traffic Rules
Austria																											
Belgium (F)																											
Belgium (W)																											
Denmark																											
Estonia																											
Finland																											
France																											
Germany																											
Greece																											
Hungary																											
Iceland																											
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Luxembourg																											
Malta																											
Netherlands																											
Norway																											
Poland																											
Portugal																											
Slovenia																											
Spain																											
Sweden																											
Switzerland																											
United Kingdom																											

 = responsible  
 = not responsible  
 = no information available

## 5.2. “Is the issue dealt with in your country?”

The answers of the Road Directorates to this first question for every measure in Questionnaire 2 is reflected in the following table, where dark green denotes “yes”, red “no”, and light green “not yet (but planned)”.

	Infrastructure								Road User Behaviour								Vehicle Technologies					
	Road Safety Audit (RSA)	Road Safety Inspection (RSI)	Management of high-risk sites, Network Safety Management	Roadside Telematics	Speed management in urban areas	Speed management and other safety measures on rural road	Improve Land Use regulations	EuroRAP	Increasing use of seat belts, child restraints, crash helmets	Fighting driving under the influence of alcohol	Fighting the driving under the influence of illicit drugs	Decreasing driving speeds	Reducing the problem of driver fatigue	Penalty Points Driving Licences (Demerit point systems)	Driving licensing systems directed at young drivers	Traffic Education	Daytime Running Lights	In-Vehicle (Intelligent) Safety Technology, e.g. ABS, ESP	Measures against tuned mopeds	Measures against motorcycle accidents	Safety requirements as part of Public Service Contracts	Accident Data Recorders
Austria																						
Belgium (F)																						
Belgium (W)																						
Denmark																						
Estonia																						
Finland																						
France																						
Germany																						
Greece																						
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Norway																						
Poland																						
Portugal																						
Slovenia																						
Spain																						
Sweden																						
Switzerland																						
United Kingdom																						

= issue dealt with  
 = issue not dealt with yet  
 = issue not dealt with  
 = no information available

### 5.3. Specific Road Safety Responsibilities of Road Directors

This table summarises the question of responsibility for each of the 22 measures discussed in Questionnaire 2. Here, main responsibility is symbolised by a dark green box, shared responsibility by a light green box, and no responsibility by a red box. It is important to have in mind the responsibilities of the Road Directorates when reading the report as the priorities given to different measures depend to a certain degree on the actual specific responsibility of the respective Road Directors.

	Infrastructure								Road User Behaviour								Vehicle Technologies					
	Road Safety Audit (RSA)	Road Safety Inspection (RSI)	Management of high-risk sites, Network Safety Management	Roadside Telematics	Speed management in urban areas	Speed management and other safety measures on rural road	Improve Land Use regulations	EuroRAP	Increasing use of seat belts, child restraints, crash helmets	Fighting driving under the influence of alcohol	Fighting the driving under the influence of illicit drugs	Decreasing driving speeds	Reducing the problem of driver fatigue	Penalty Points Driving Licences (Demerit point systems)	Driving licensing systems directed at young drivers	Traffic Education	Daytime Running Lights	In-Vehicle (Intelligent) Safety Technology, e.g. ABS, ESP	Measures against tuned mopeds	Measures against motorcycle accidents	Safety requirements as part of Public Service Contracts	Accident Data Recorders
Austria																						
Belgium (F)																						
Belgium (W)																						
Denmark																						
Estonia																						
Finland																						
France																						
Germany																						
Greece																						
Hungary																						
Iceland																						
Ireland																						
Italy																						
Latvia																						
Lithuania																						
Luxembourg																						
Malta																						
Netherlands																						
Norway																						
Poland																						
Portugal																						
Slovenia																						
Spain																						
Sweden																						
Switzerland																						
United Kingdom																						

	= main responsibility
	= shared responsibility
	= no responsibility
	= no information available

## 6. Areas of action

**Note:** The Flemish and the Walloonish regions of Belgium are treated as separate countries in the charts and statistics. Should their respective responses diverge, the filling pattern for the maps contains both colours in pinstripe.

### 6.1. Road Safety Audit (RSA)

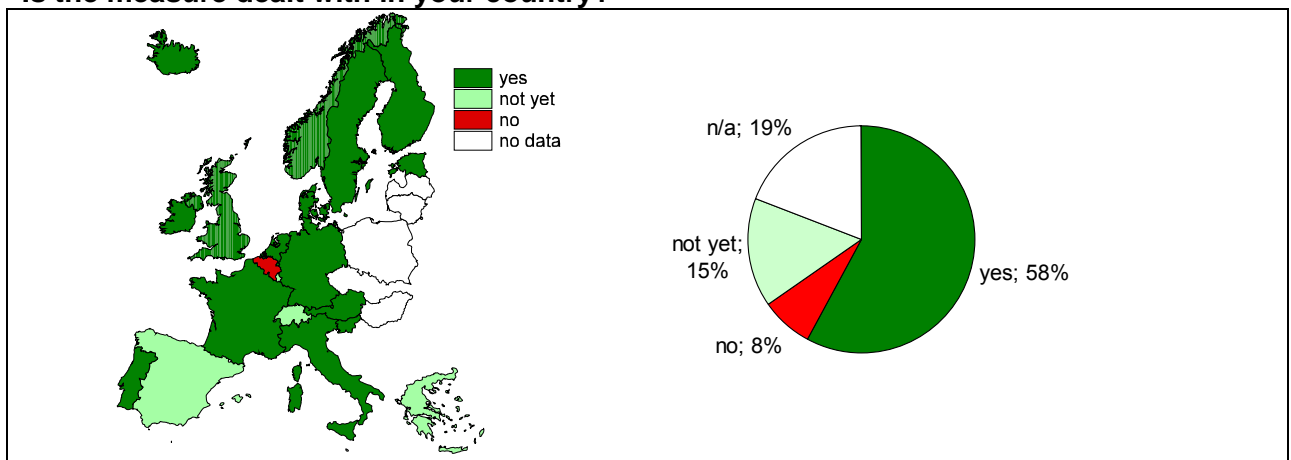
#### Explanation

*Road Safety Audit means a systematic independent safety analysis of the design characteristics of a road project, either new or rehabilitation, at different stages of planning, design and early operation.*

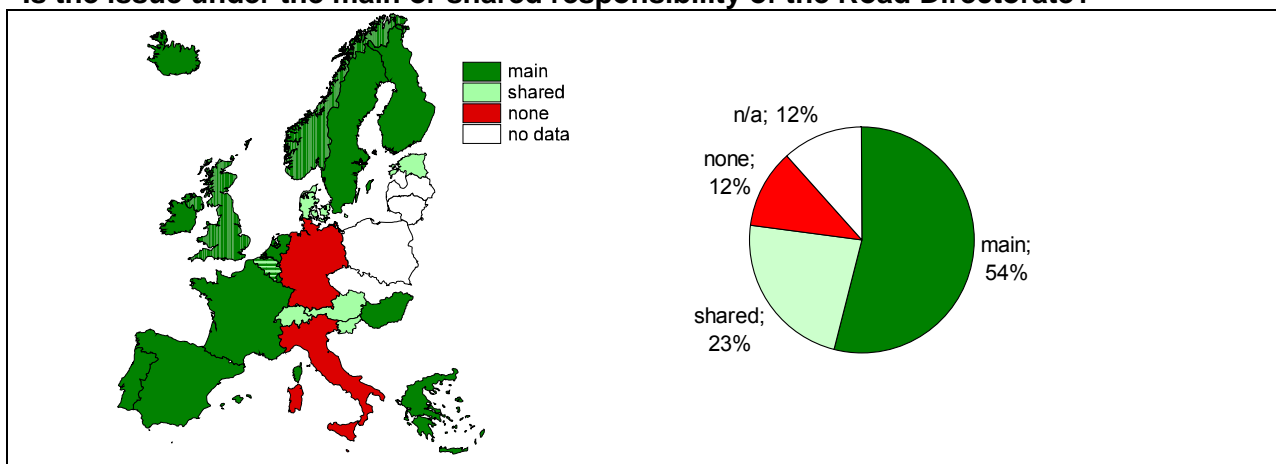
#### Synopsis

*A road safety audit is performed in 58% of the CEDR Member States. Only 8% of the countries which did not start an RSA programme until now do not plan to introduce one in the future. In 54% of the countries, this issue is under the main responsibility of the road directorate, in one quarter of the countries, the road directorates share the responsibility with other road authorities. About half of the countries which specified where their funding comes from fund the RSA from road projects; financing is diverse in the remaining countries. This issue is a top priority for 23% of the countries, for 43% of the countries it is of medium priority, for the rest it is of low priority.*

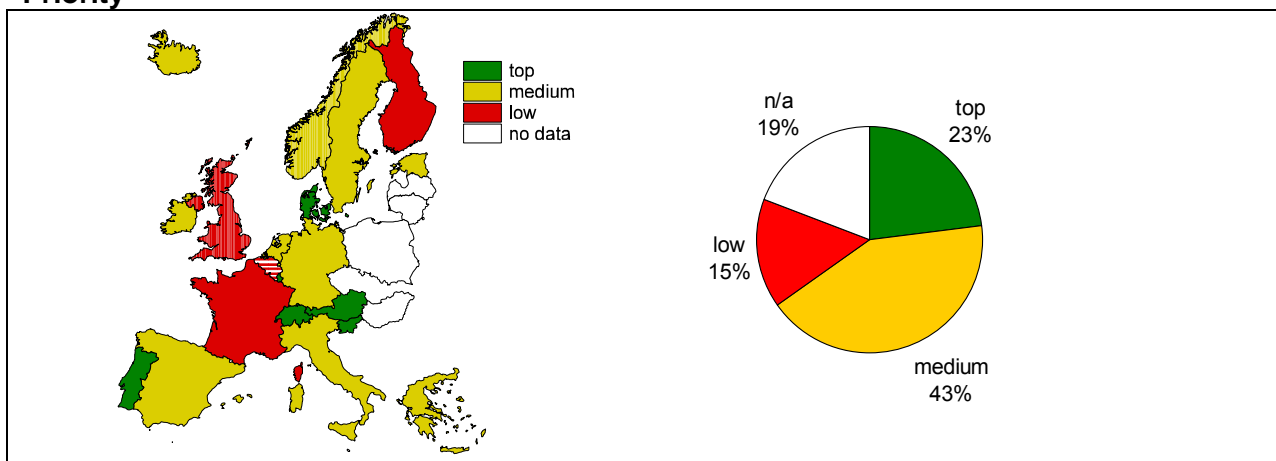
#### Is the measure dealt with in your country?



### Is the issue under the main or shared responsibility of the Road Directorate?



### Priority



## 6.2. Road Safety Inspection (RSI)

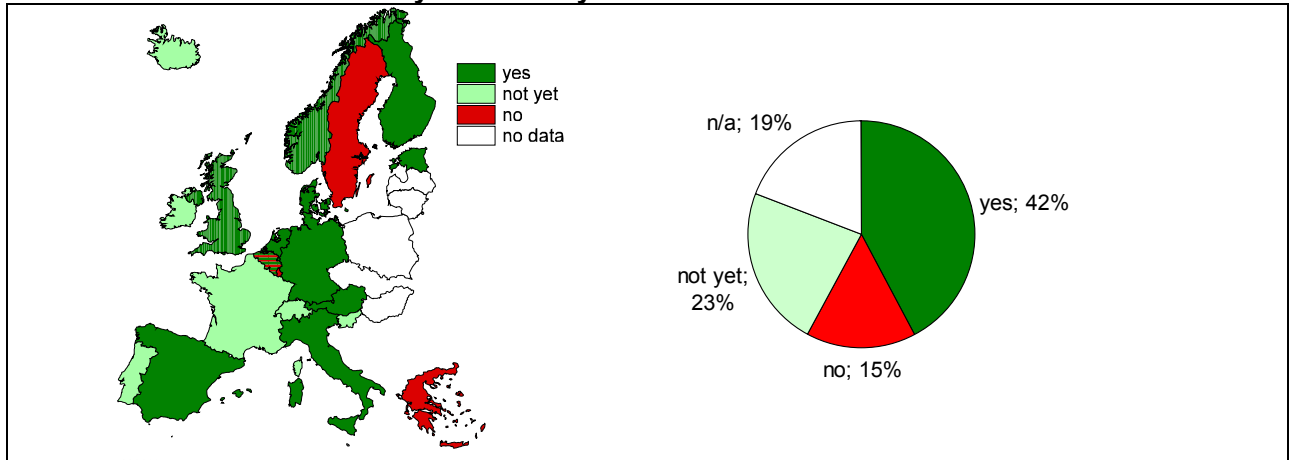
### Explanation

*Safety Inspection designates a periodical review of a road network in operation by trained experts from a safety point of view. It involves visiting the road network.*

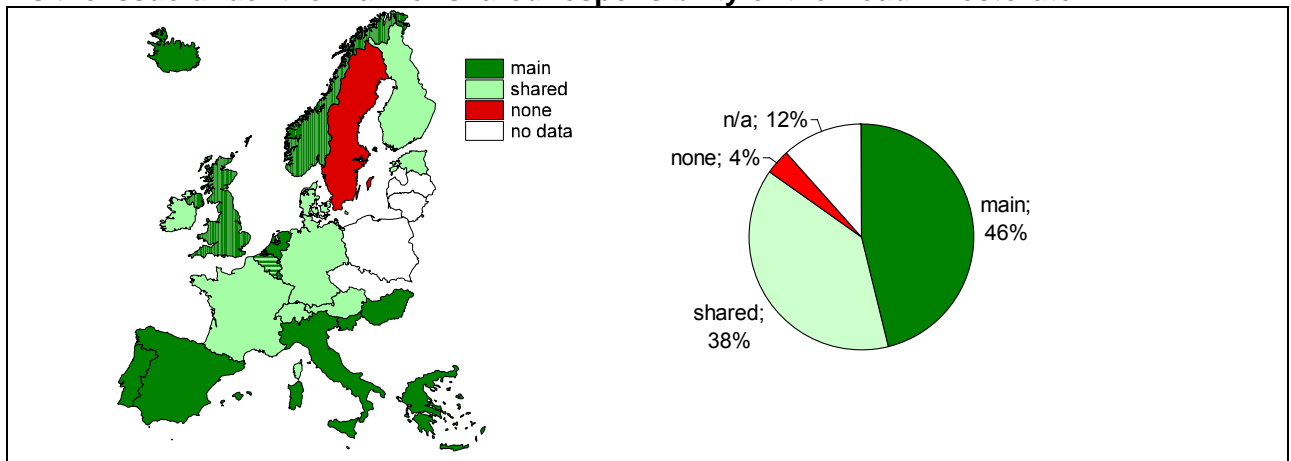
### Synopsis

*Road safety inspections are performed in 42% of the countries; about one quarter of the CEDR countries does not plan to implement this measure. Almost all of the countries which plan to implement this measure intend to do so in the near future. The road directorate is the main responsible for this measure in half of the cases. Usually, there are no special budgets for RSI: the measure is usually funded with public annual budgets. For about one quarter of the countries, the measure has top priority. 12% of the countries perceives it as a low priority measure.*

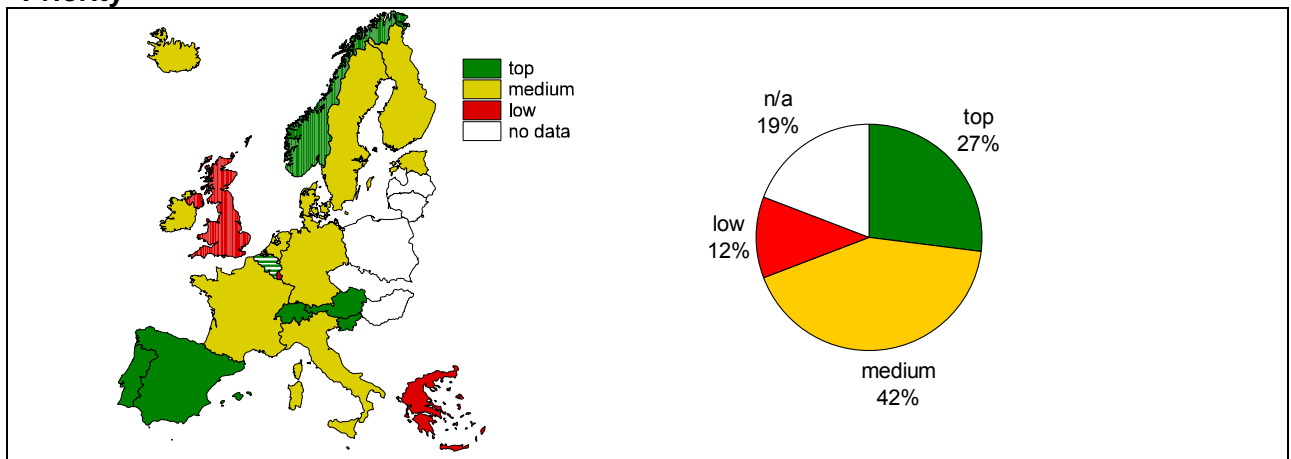
### Is the measure dealt with in your country?



### Is the issue under the main or shared responsibility of the Road Directorate?



### Priority



### 6.3. Management of high-risk sites, Network Safety Management

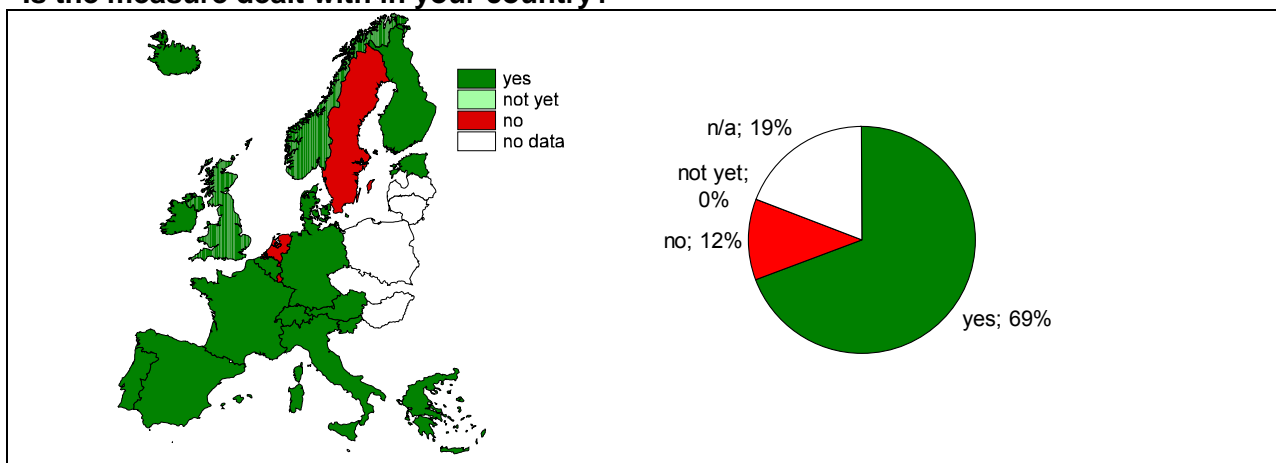
#### Explanation

Safety development of the road network in operation shall consist of management of high-risk road sections and network safety management. Management of high-risk road sections is to reduce future accidents by targeting remedial treatment to parts of the road network where accidents occurred most frequently during previous years. Network safety management is to reduce future accidents by targeting remedial treatment to sections of the road network where accident cost reduction potential is highest.

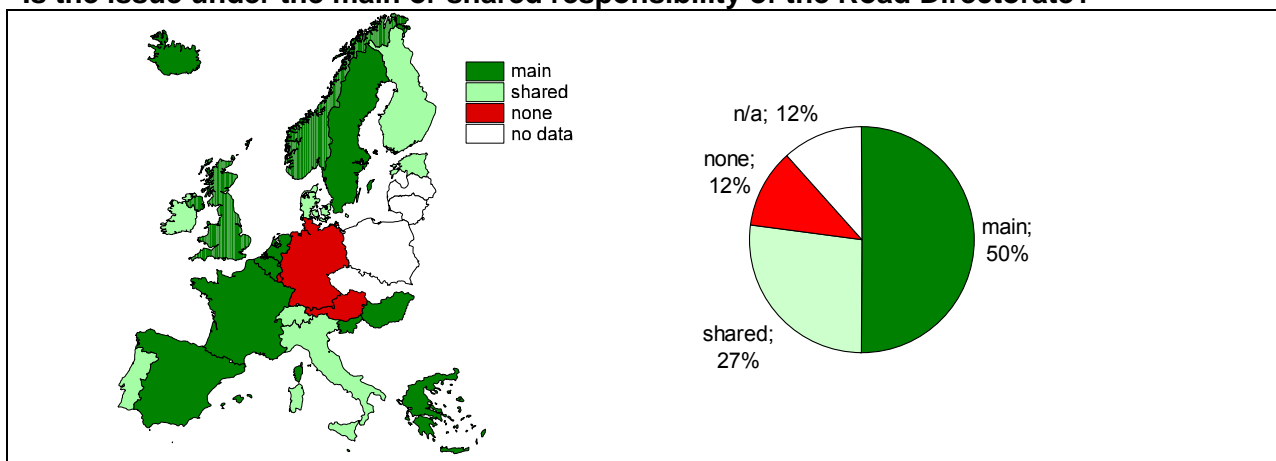
#### Synopsis

A majority of the responding countries (69%) manage high-risk sites since a long time, e.g. the UK has implemented this measure since the 1960s. In half of the countries, this issue is under the main responsibility of the road directorate. Funding varies but is usually based on the national road budget. This measure is a top priority for about two thirds of the countries.

#### Is the measure dealt with in your country?

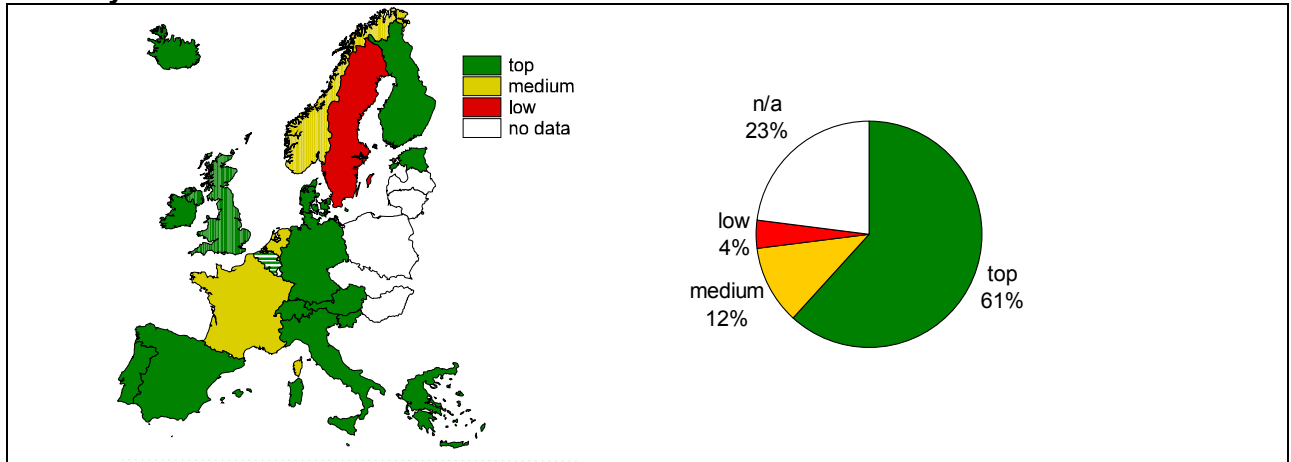


#### Is the issue under the main or shared responsibility of the Road Directorate?





## Priority



## 6.4. Roadside Telematics

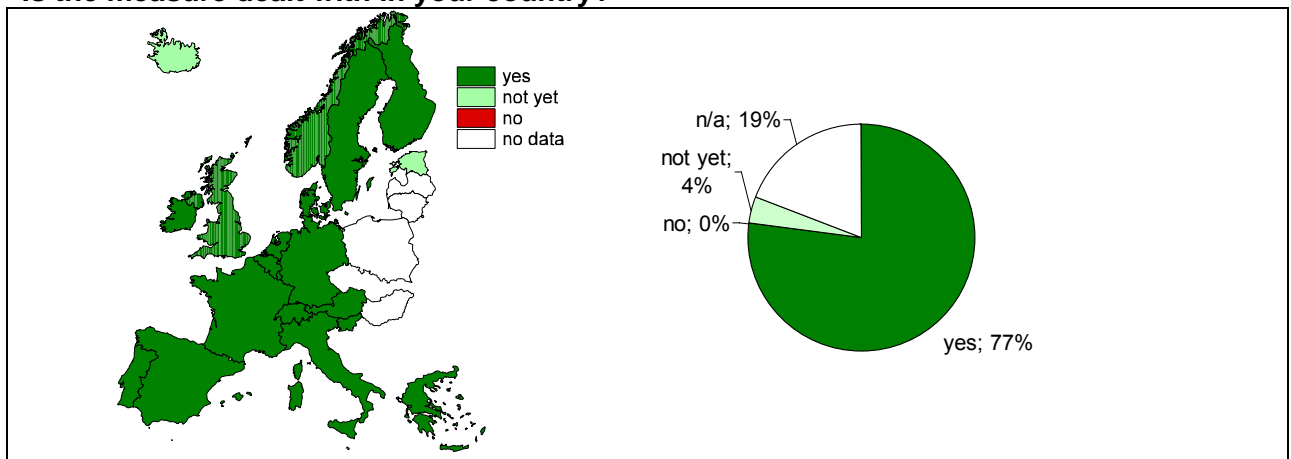
### Explanation

Use new safety technology to control traffic flows and to inform drivers. (Variable Message Signs): speed limits, congestion, incidents, adverse weather conditions.

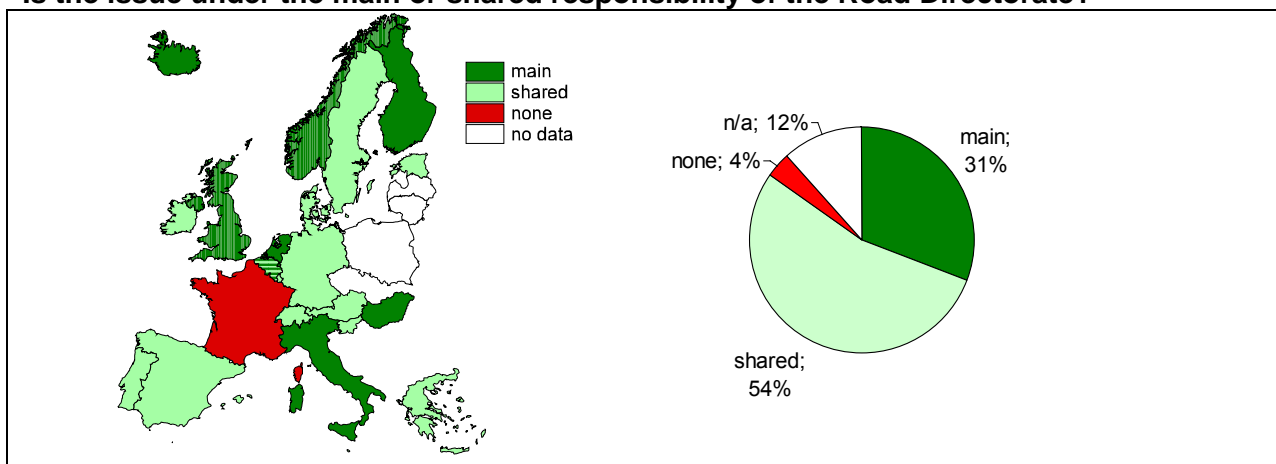
### Synopsis

Almost all the responding countries do have a programme for roadside telematics in urban areas, usually since at least a decade. When specified, responsibility in the other countries is often shared with local or regional authorities. This is also reflected in the funding structure: at least part of the funding is provided by local budgets. For 23% of the countries, this measure is a top priority.

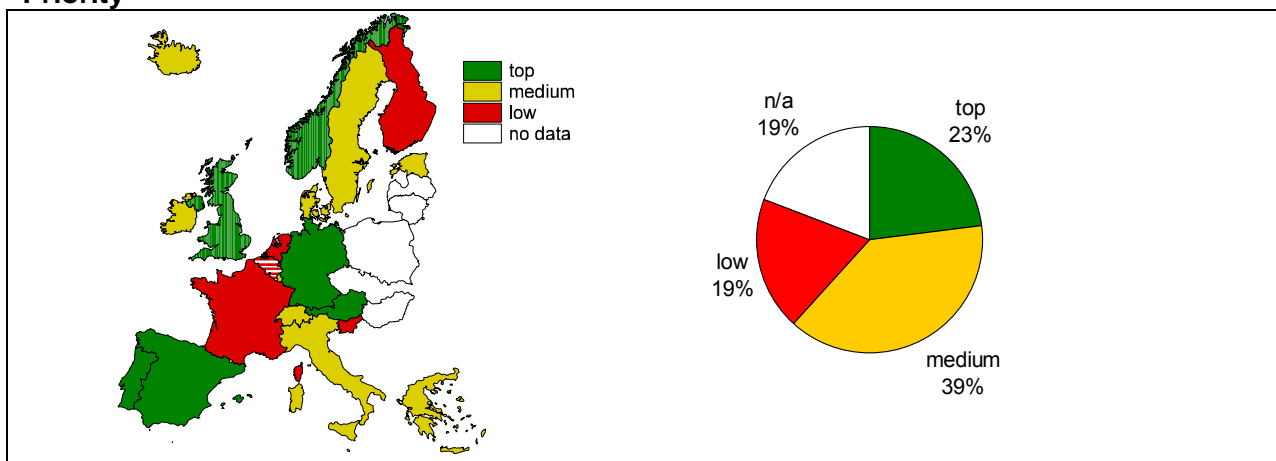
### Is the measure dealt with in your country?



### Is the issue under the main or shared responsibility of the Road Directorate?



### Priority



## 6.5. Speed management in urban areas

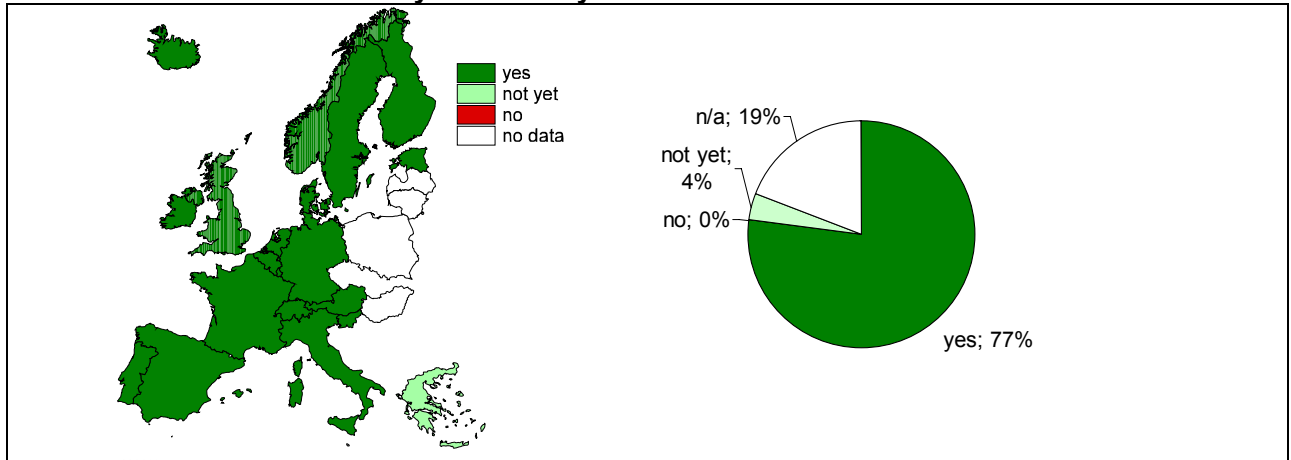
### Explanation

*De-facto standard in the EU is 50km/h, and 30km/h in residential areas. Physical measures such as speed humps and chicanes are well-established means of ensuring that these low limits are self-enforcing.*

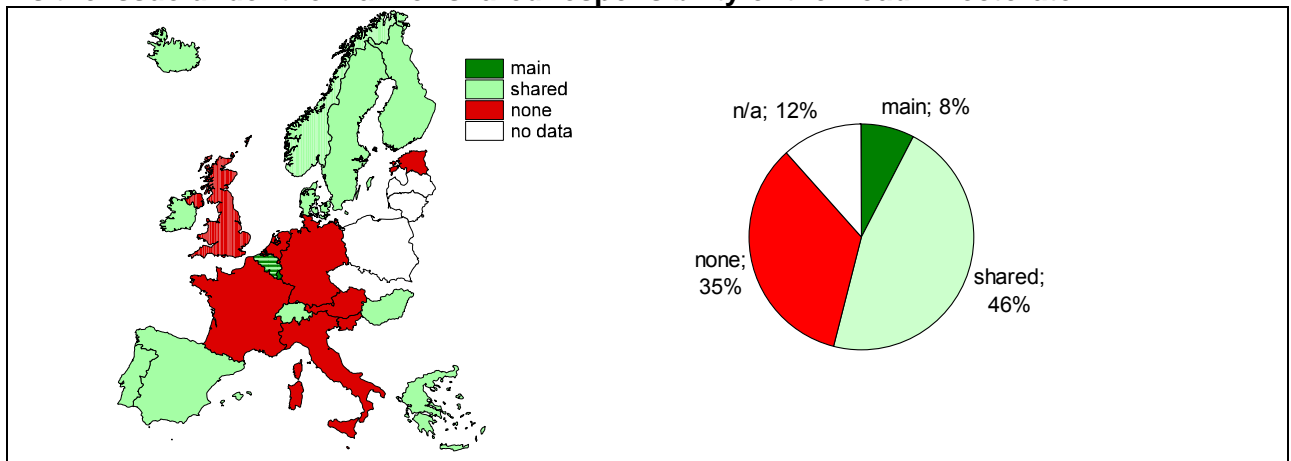
### Synopsis

*77% of the CEDR Member States deal with speed management in urban areas and all of the remaining countries plan to do so in the future. Only in Belgium and Luxemburg, this issue is under the main responsibility of the road directorate, whereas in 46% of the countries the road directorates share the responsibility with other road authorities. This issue is a top priority for 34% of the countries, for 35% of the countries it is of medium priority.*

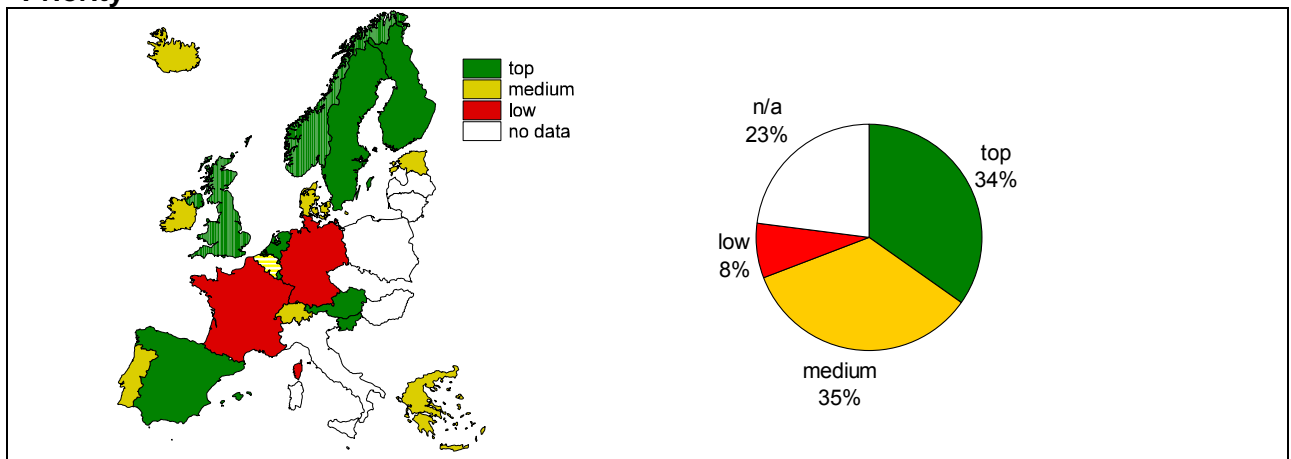
### Is the measure dealt with in your country?



### Is the issue under the main or shared responsibility of the Road Directorate?



### Priority



## 6.6. Speed management and other safety measures on rural roads

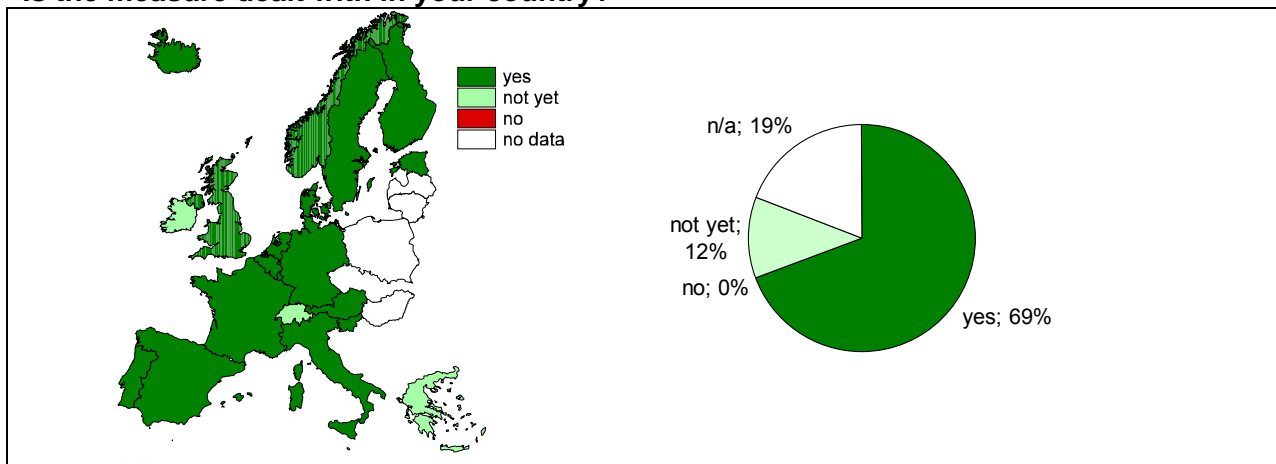
### Explanation

Measures to reduce death toll on rural roads; rural roads represent a significant share of all road fatalities in most countries. Examples are: road hierarchy = self explaining roads, forgiving roadsides (systematic removal or securing of roadside hazards such as tree poles), lowering speed limits, implementation of median barriers etc.

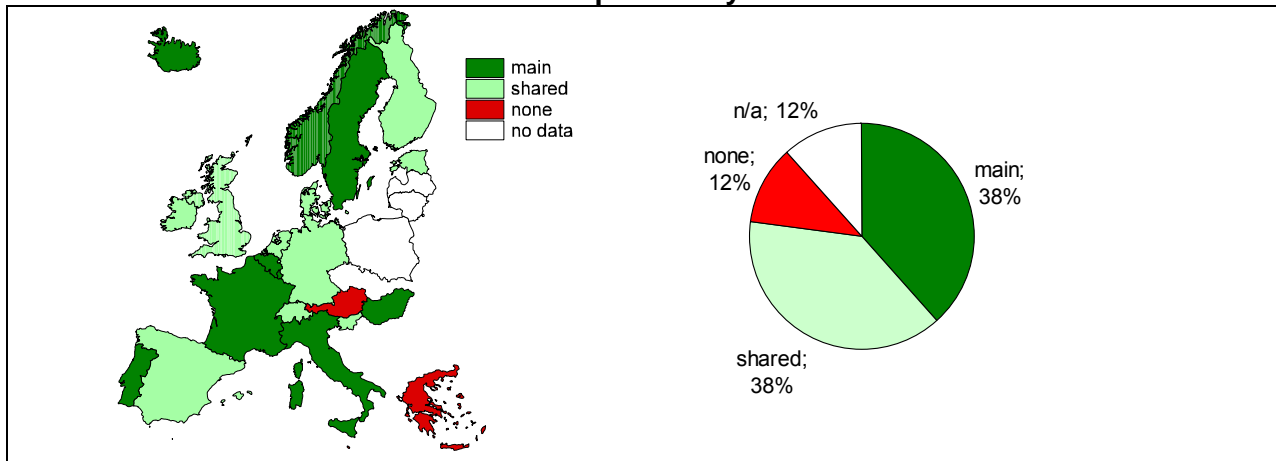
### Synopsis

Around 70% of all CEDR Member States have started dealing with this set of topics between the 1960s and the 1990s. All remaining countries plan to do so in the future. 40% of all Road Directorates hold the main responsibility for the implementation of measures, the same number of countries share responsibilities with local authorities or the police (in Denmark). Only the Greek and the Austrian Road Directorates are not responsible for speed management on rural roads. Measures are funded mainly by the national road budget, with the exception of Denmark (maintenance costs). For 34% of the countries, this measure is of low or unspecified priority, half of the rest (31%) considers it to be a top priority measure.

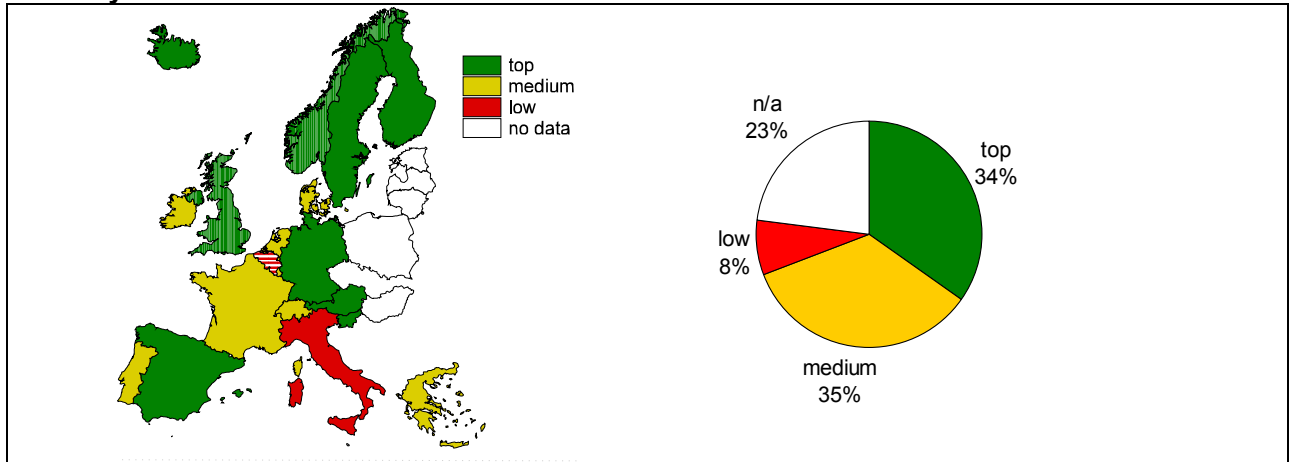
### Is the measure dealt with in your country?



### Is the issue under the main or shared responsibility of the Road Directorate?



## Priority



## 6.7. Improve Land Use regulations

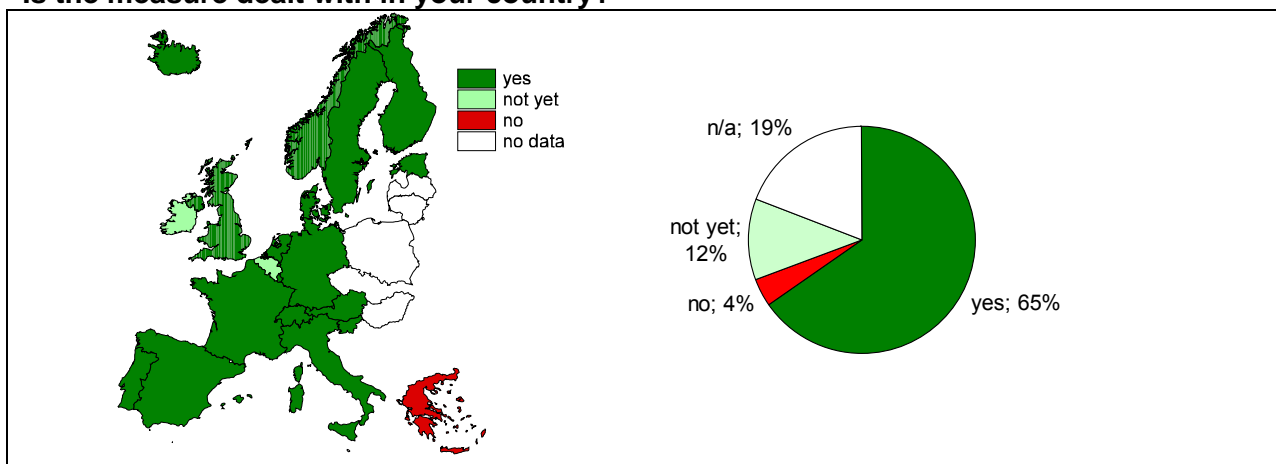
### Explanation

*Development of residential, commercial and industrial activities poses new challenges for safety management. It must be made sure that safety becomes an inherent part of land use regulations. In addition, ensuring the separation of pedestrians and motor traffic at speeds of over 30 km/h in and around cities, towns and villages is a high priority for land-use and network planning.*

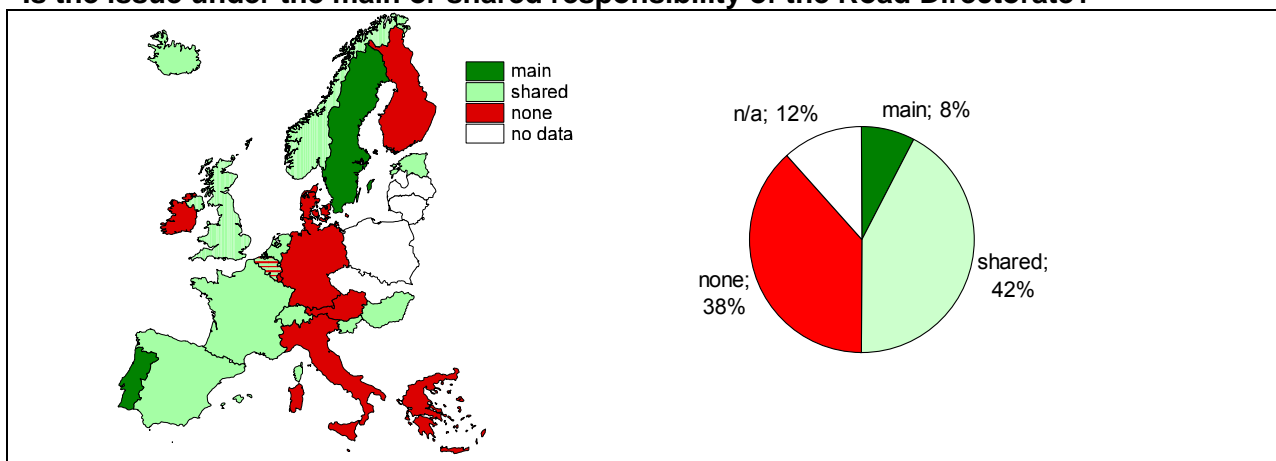
### Synopsis

*Land use regulations are being improved in 65% of the countries polled and, with the exception of Greece, 16% of the responding countries plan to deal with this issue in the short or medium term. However, very little responsibility lies solely with the Road Directorates: only the Road Directorates of Sweden and Portugal have the full power of decision, whereas about half of the remaining ones share their responsibility with local communities, planning agencies, or other departments. The rest is not responsible for the improvement of land use regulations. This high degree of responsibility of local communities and municipalities is reflected in the budget. This issue is not considered to be of very high priority among almost all countries polled.*

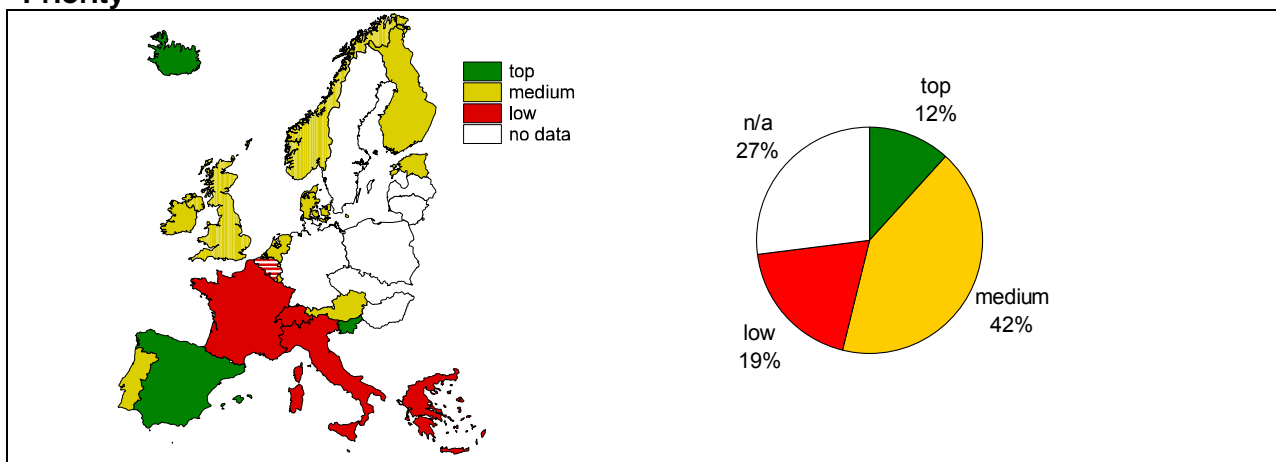
### Is the measure dealt with in your country?



### Is the issue under the main or shared responsibility of the Road Directorate?



### Priority



## 6.8. EuroRAP

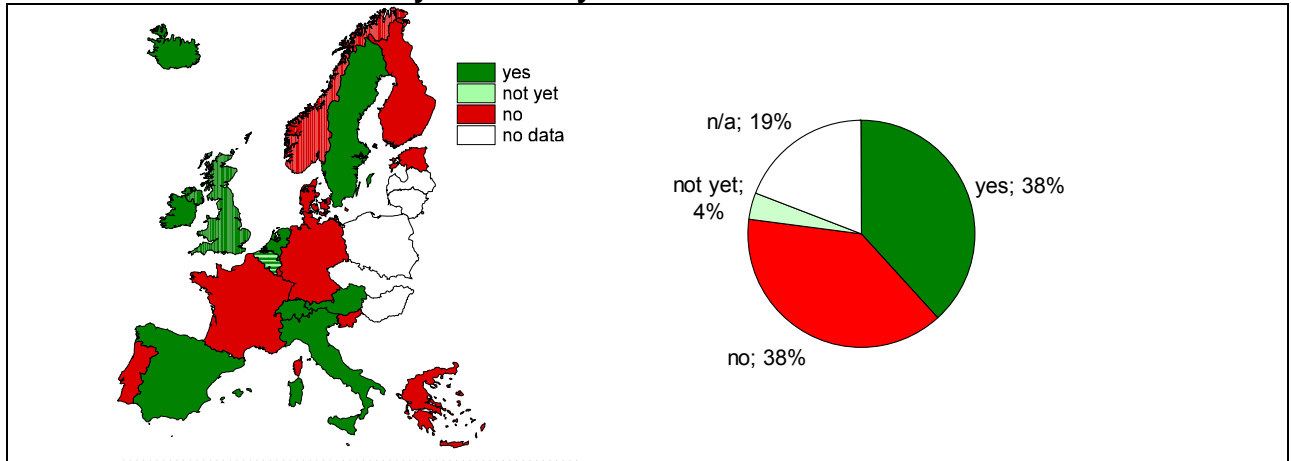
### Explanation

*The European Road Assessment Programme aims at establishing a risk rating of the high-level road network in the EU Member States.*

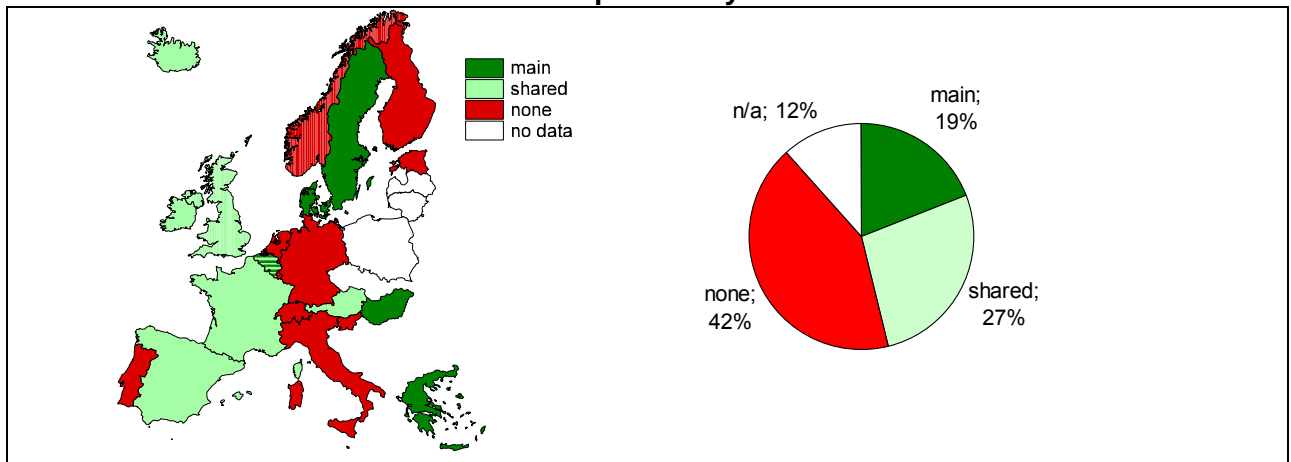
### Synopsis

*Half of all CEDR Member States are currently participating in EuroRAP. Only one country (Belgium) plans to do so in the future. More than half of the Road Directorates are responsible for the programme, and its funding is very diverse. EuroRAP ranks very low on the priority scale.*

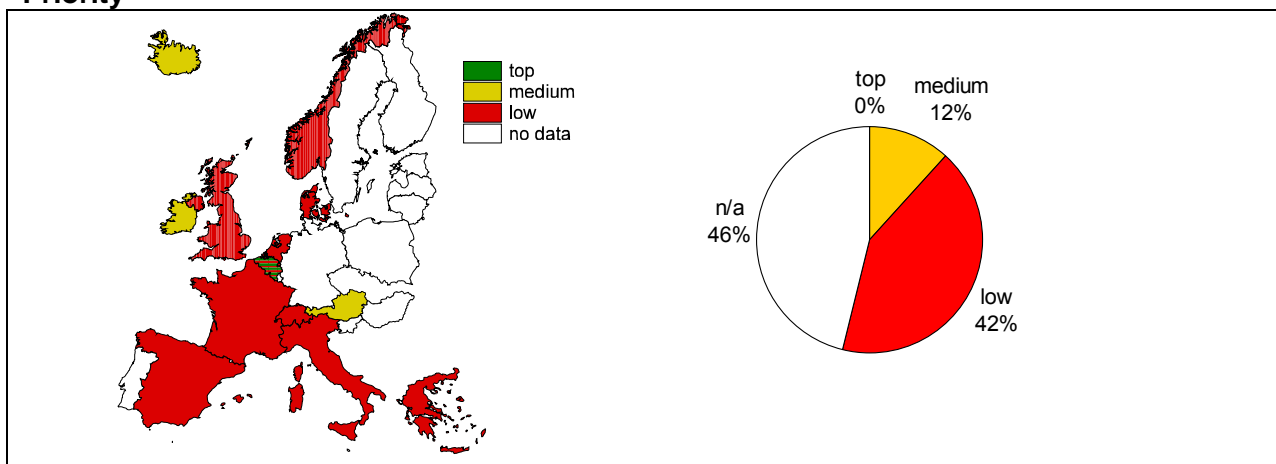
### Is the measure dealt with in your country?



### Is the issue under the main or shared responsibility of the Road Directorate?



## Priority



## 6.9. Increasing use of seat belts, child restraints, crash helmets

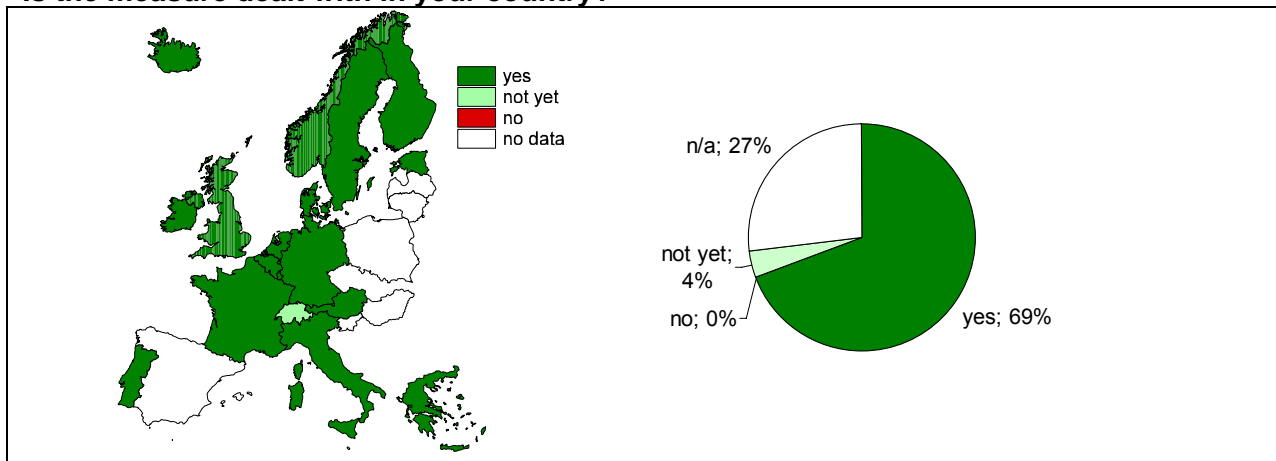
### Explanation

Measures to increase the use rates of seat belts, child restraints and helmets, e.g. by awareness campaigns

### Synopsis

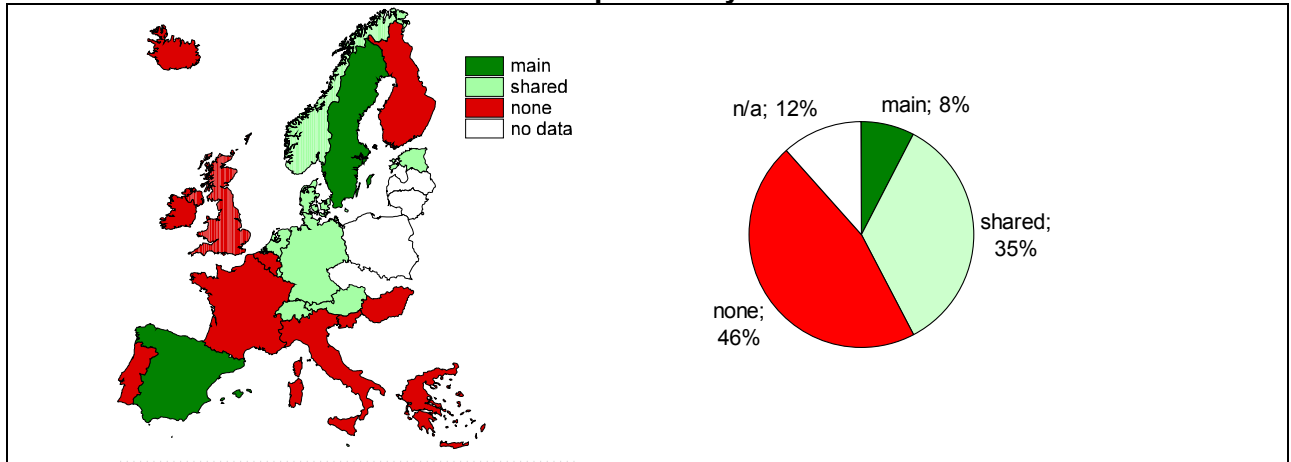
Restraint systems awareness is dealt with in 70% of all CEDR Member States. Almost half of all Road Directorates are responsible for the respective measures, of which the better part shares them with the police and provincial authorities. Funding comes mainly from special campaign funds, insurances, and the national road budget. Almost half of the countries polled consider this issue to be of top priority.

### Is the measure dealt with in your country?

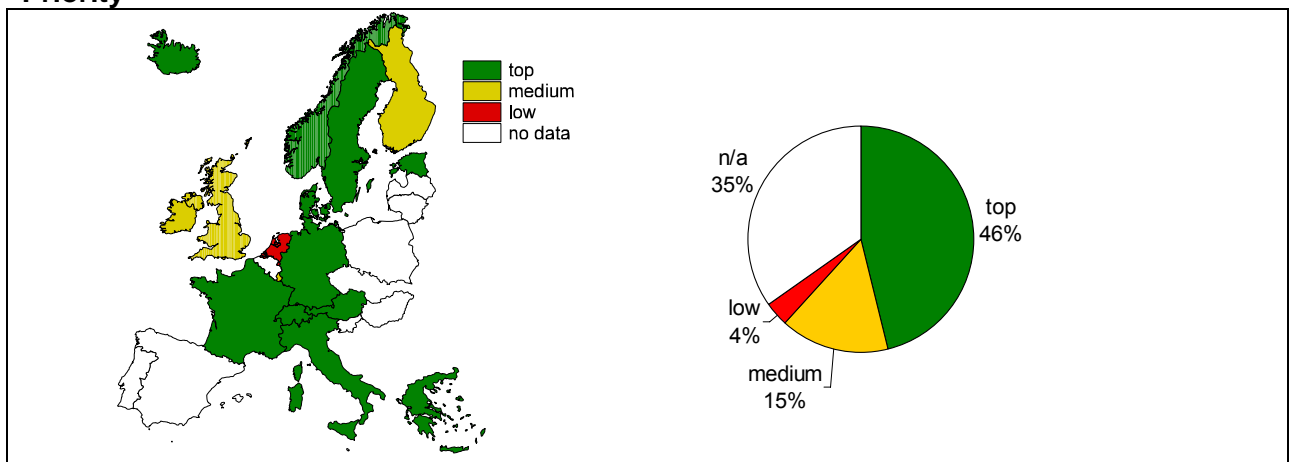




### Is the issue under the main or shared responsibility of the Road Directorate?



### Priority



## 6.10. Fighting driving under the influence of alcohol

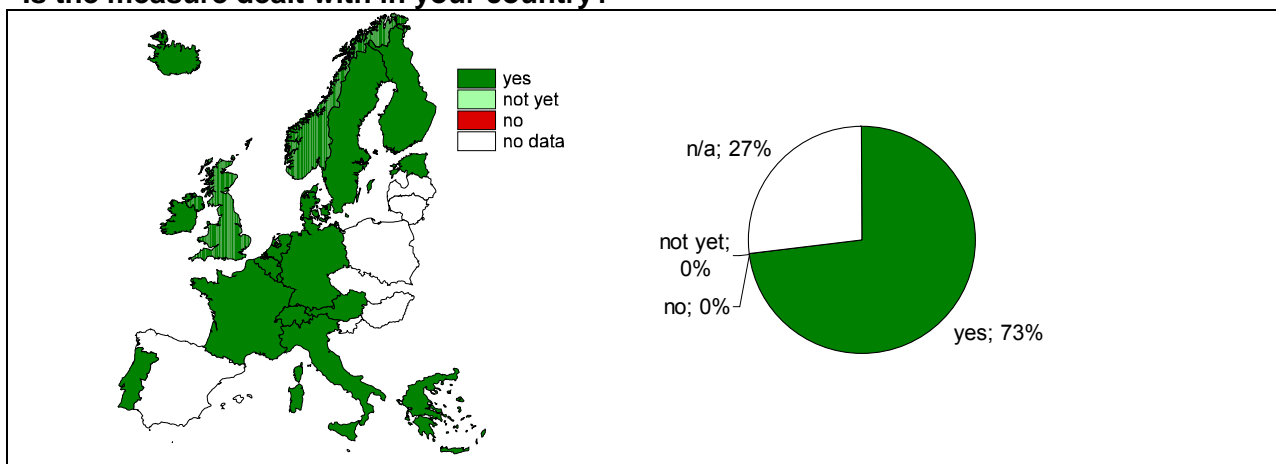
### Explanation

Measures to decrease alcohol abuse rate, e.g. by awareness campaigns.

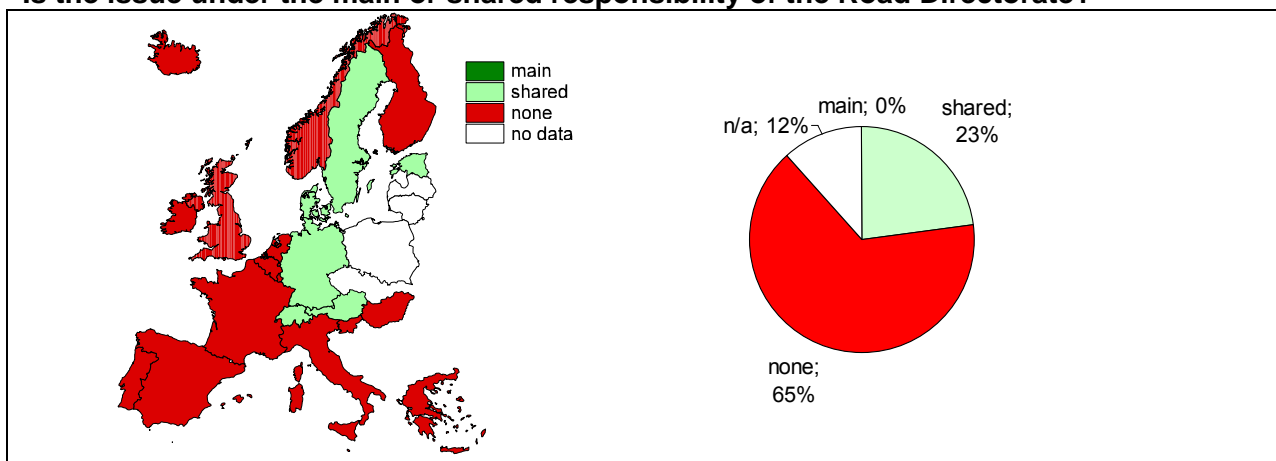
### Synopsis

This very important issue is dealt with in almost every country. Quite often, programmes date back to the 1960s. However, it is never the responsibility of the Road Directorates alone. 65% do not have any responsibility at all. Usually, the Ministries of the Interior and/or the police are in charge. In most of the countries, the measures are funded with the annual budgets. In Belgium, the well known "Bob"-campaign has its own budget. This issue ranks very high in the priority list of almost all the CEDR countries.

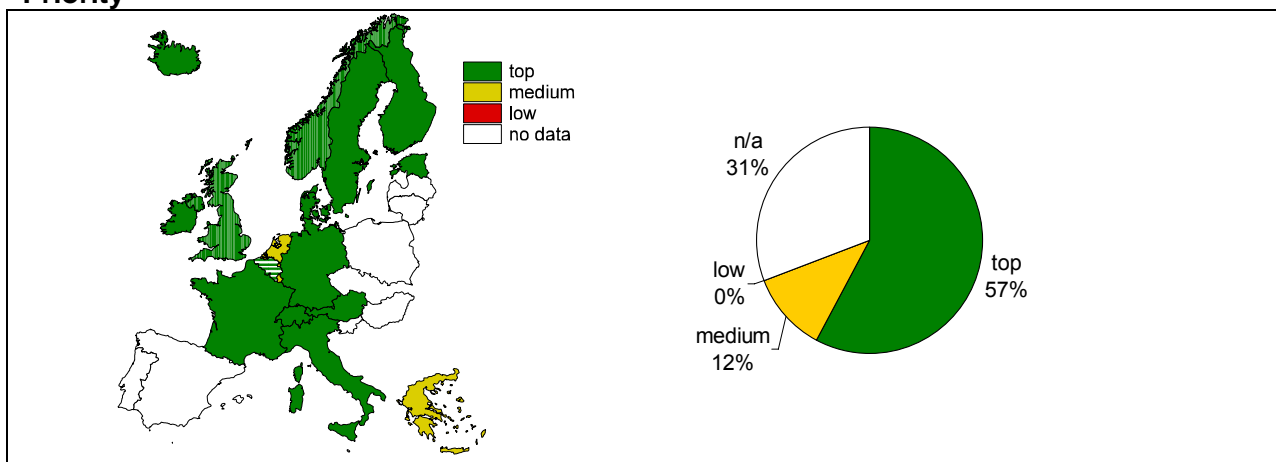
### Is the measure dealt with in your country?



### Is the issue under the main or shared responsibility of the Road Directorate?



### Priority



## 6.11. Fighting the driving under the influence of illicit drugs

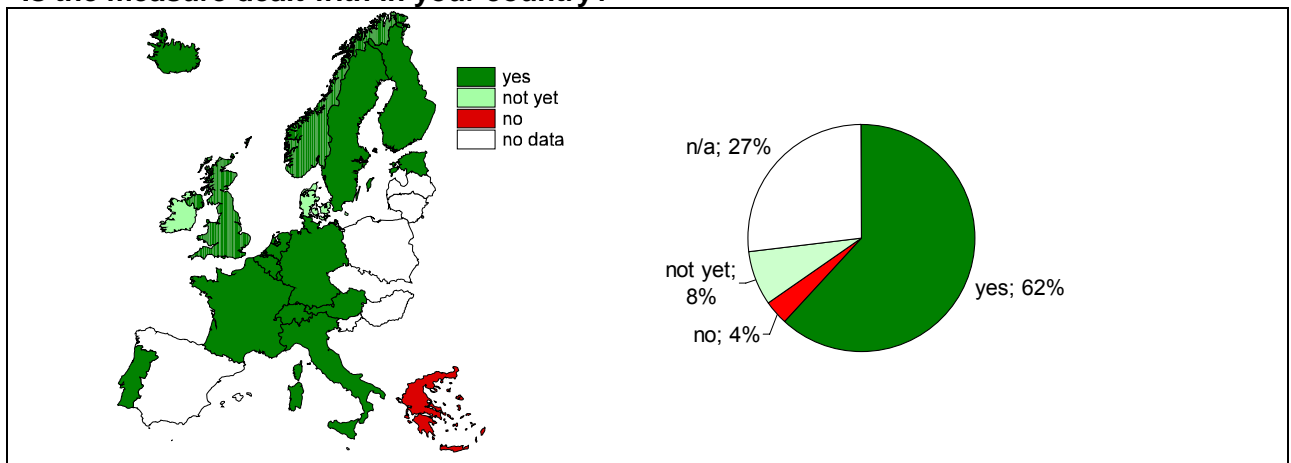
### Explanation

Use measures to decrease illicit drug abuse rate, e.g. by awareness campaigns.

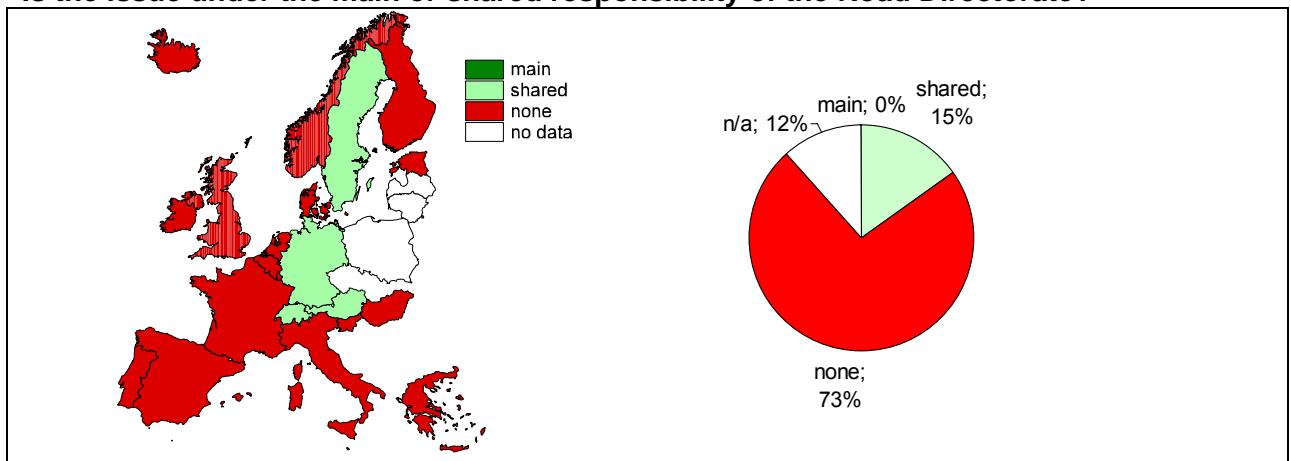
### Synopsis

About two thirds of all polled countries deal with the decrease of the illicit drug abuse rate. Only Greece does not plan to start tackling this issue. Switzerland, Sweden, Austria and Germany share responsibilities with the police, on whom most other countries rely completely. Funds mainly come from annual budgets, sometimes aided by insurance federations or the EC. One third of the interviewees rate this issue as top priority.

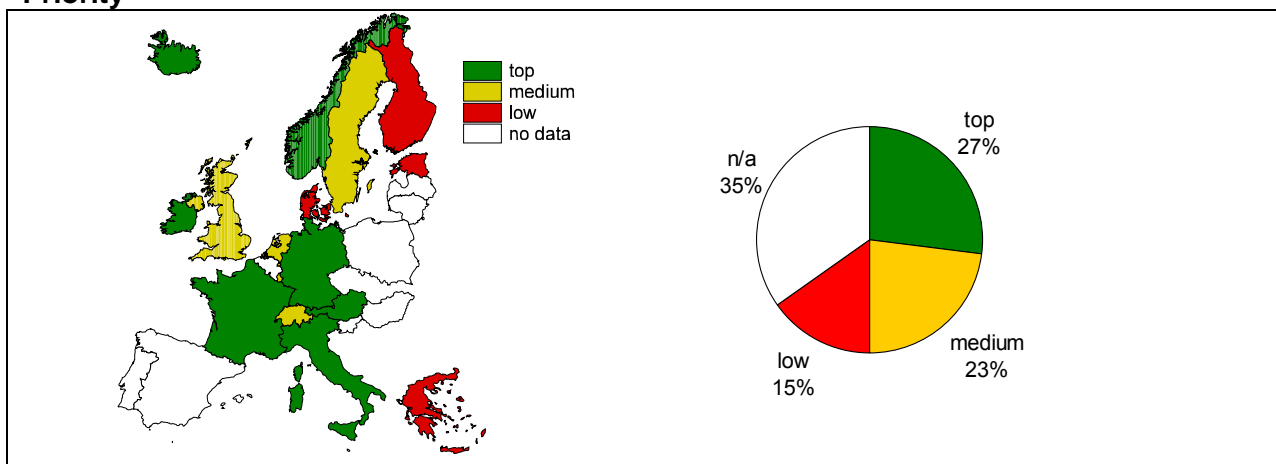
### Is the measure dealt with in your country?



### Is the issue under the main or shared responsibility of the Road Directorate?



## Priority



## 6.12. Decreasing driving speeds

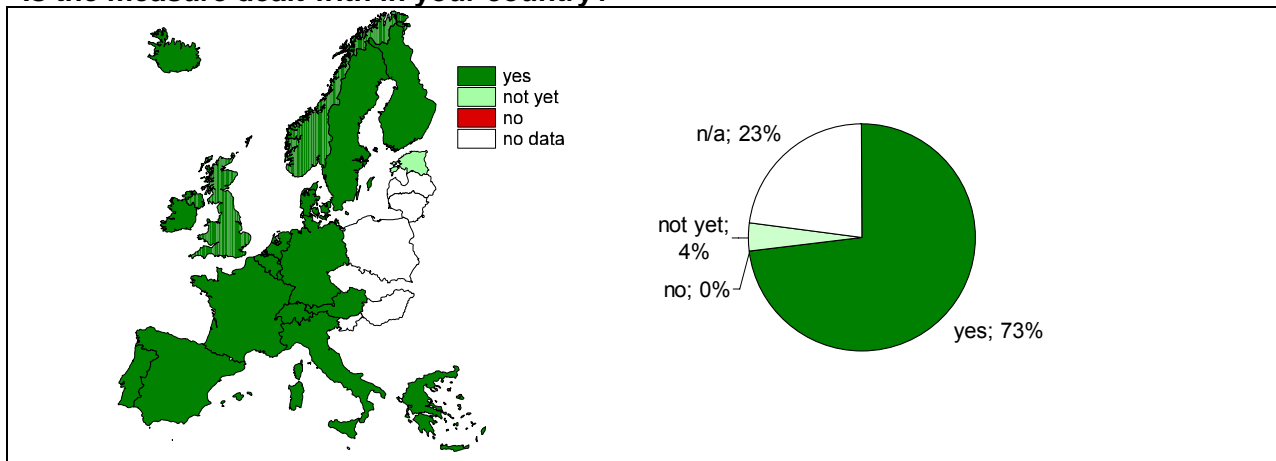
### Explanation

Awareness raising measures to decrease driving speeds, e.g. by campaigns

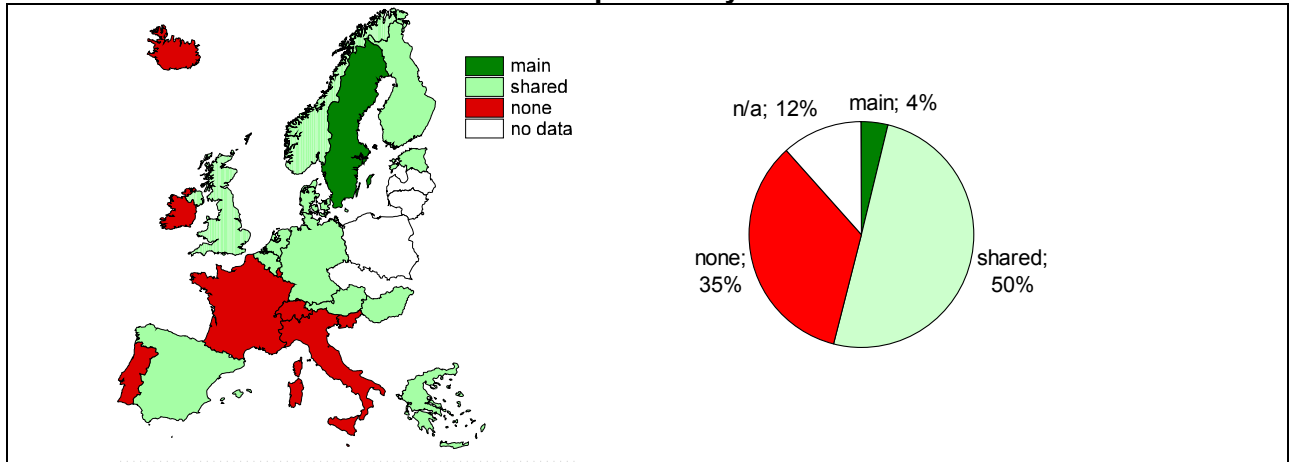
### Synopsis

Almost all CEDR Member States deal with the decrease of driving speeds, while Estonia plans to introduce this measure. More than half of the Road Directorates are at least partly responsible for associated measures, which are shared with or completely in the hands of the police, other ministries, and traffic directorates. Funding comes from the governments, speed cameras, and some insurance federation help. More than half of all CEDR Member States consider the decrease of speeds to be of top priority.

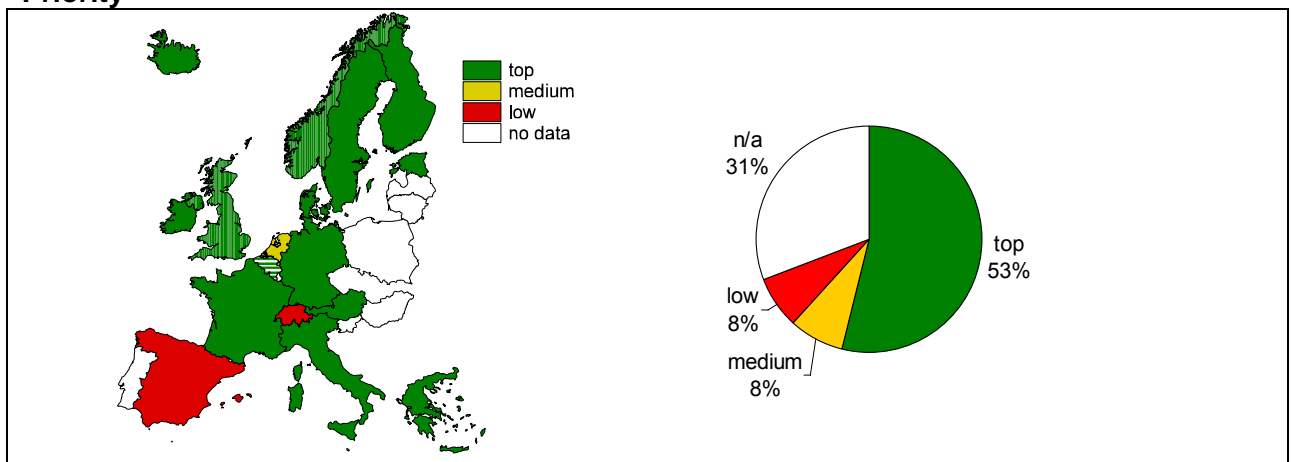
### Is the measure dealt with in your country?



### Is the issue under the main or shared responsibility of the Road Directorate?



### Priority



## 6.13. Reducing the problem of driver fatigue

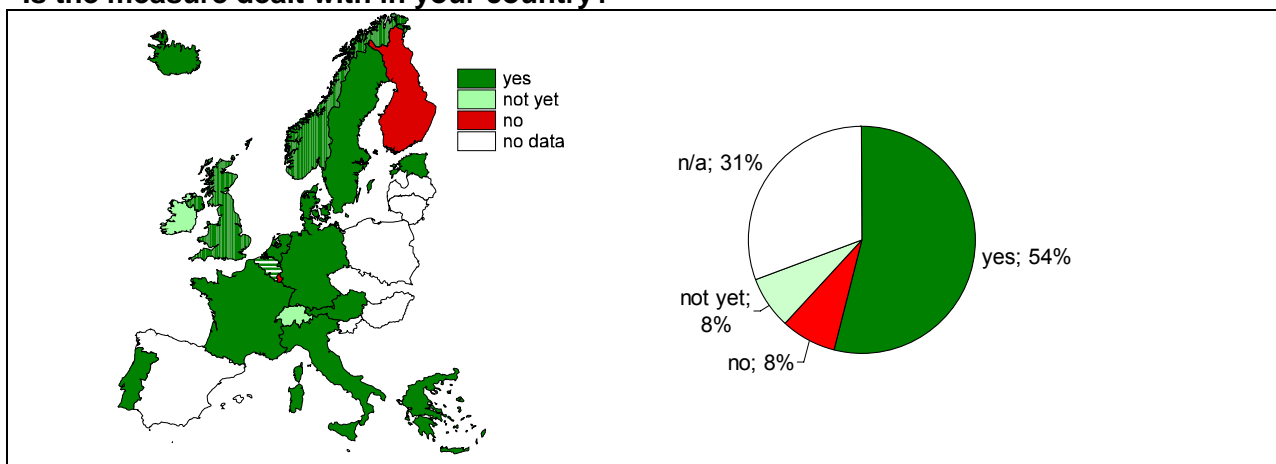
### Explanation

Use measures to reduce fatigue behind the wheel in commercial and private road transport.

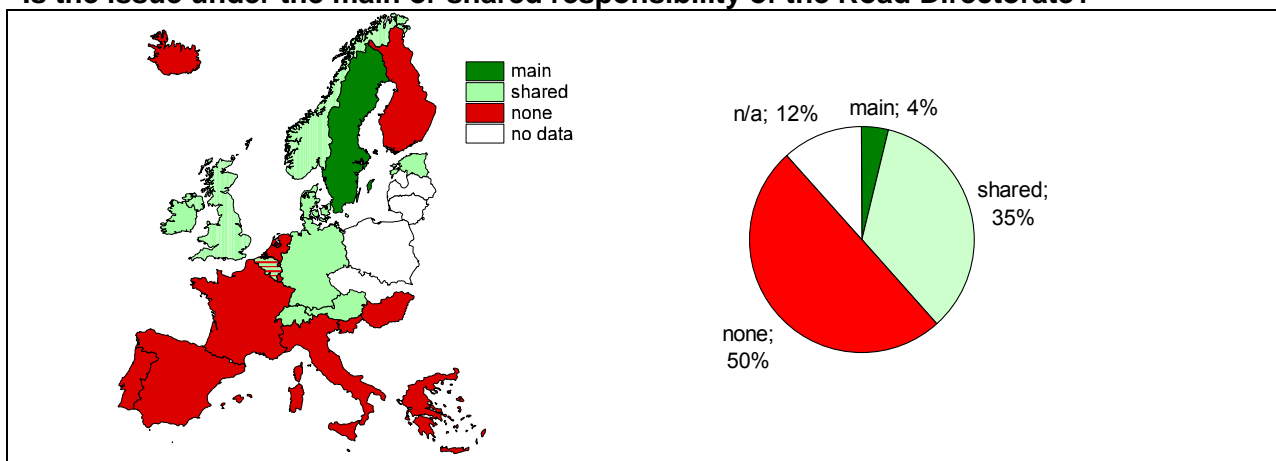
### Synopsis

More than half of the countries polled aim at reducing driver fatigue. Luxembourg and Finland have no plans so far, while Ireland and Switzerland are developing programmes at the moment. The Swedish Road Directorate holds the main responsibility, whereas other Road Directorates share with local authorities and other ministries. Half of the interviewed Road Directorates are not in charge of this issue. Almost half of all CEDR Member States consider this measure to be of top to medium priority.

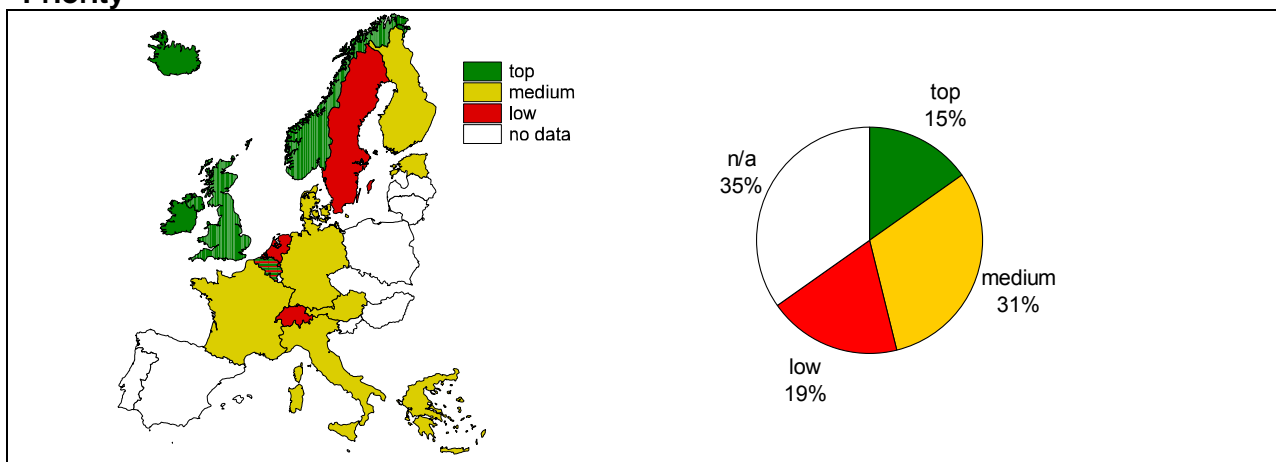
### Is the measure dealt with in your country?



### Is the issue under the main or shared responsibility of the Road Directorate?



### Priority



## 6.14. Penalty Points Driving Licences (Demerit point systems)

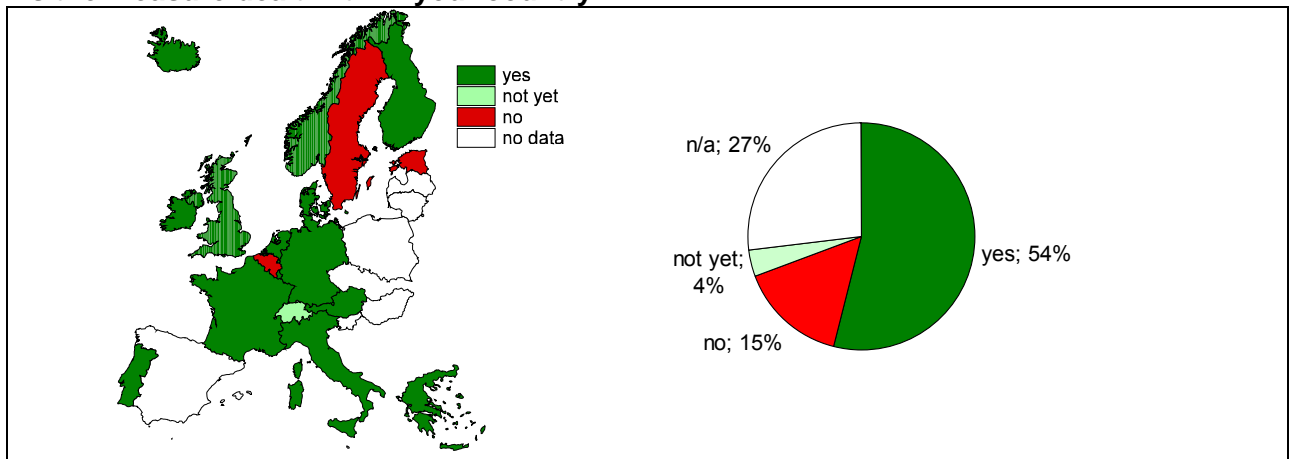
### Explanation

*Introducing advanced driving licence systems to prosecute repeat offenders.*

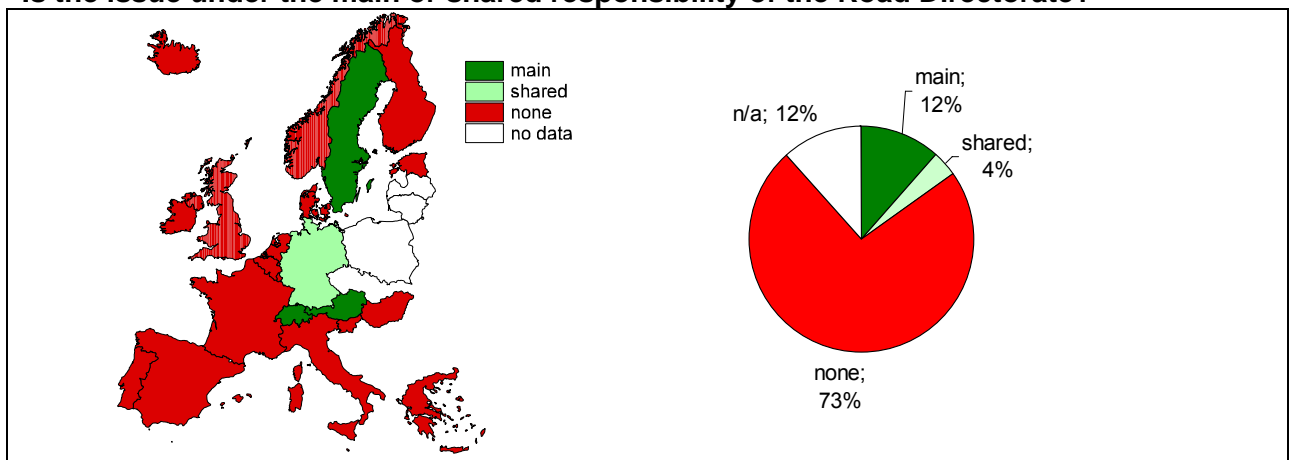
### Synopsis

*This relatively young topic is dealt with in more than half of the countries. Of the remaining ones, only Switzerland is planning to introduce demerit point systems. The Swedish, the Austrian and the Swiss Road Directorates hold the main responsibility, whereas in most other countries it is taken care of by other ministries. Penalty points systems are considered a top priority in more than one third of all countries.*

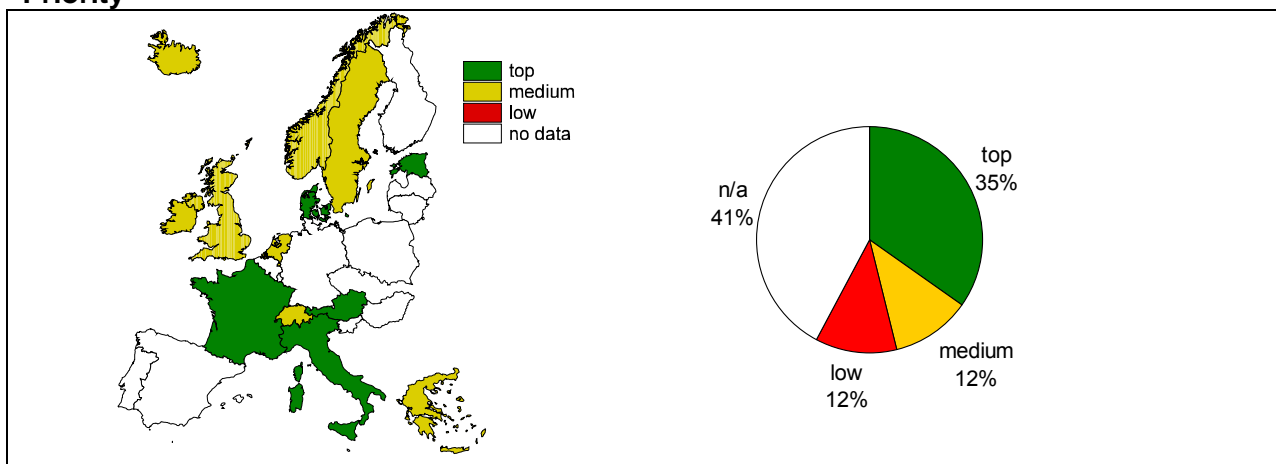
### Is the measure dealt with in your country?



### Is the issue under the main or shared responsibility of the Road Directorate?



## Priority



## 6.15. Driving licensing systems directed at young drivers

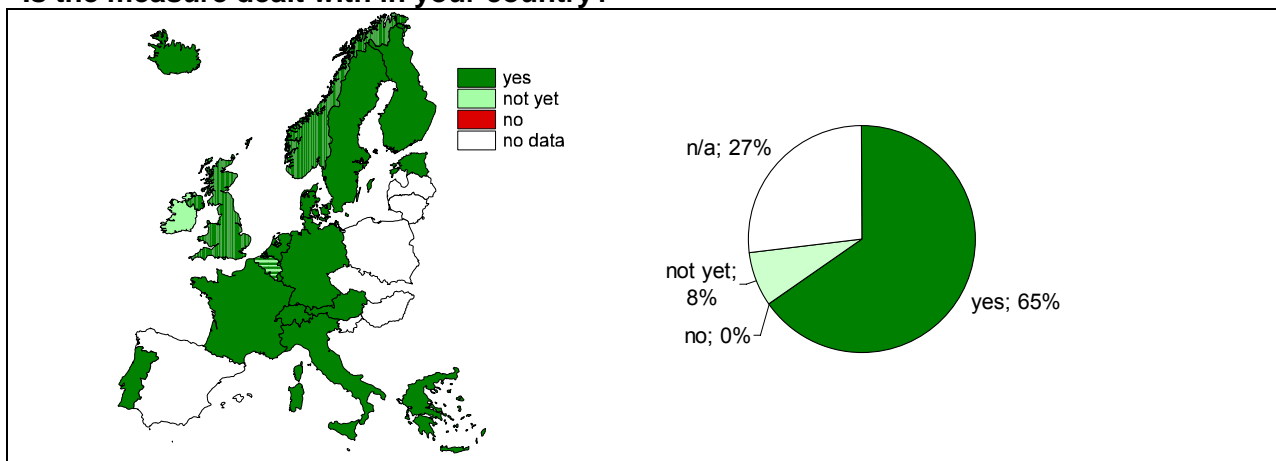
### Explanation

Advanced driving licence systems, such as graduated driving licences (specifically for motorcycles), probation driving licences, second phase driving education, accompanied driving prior to licensing...

### Synopsis

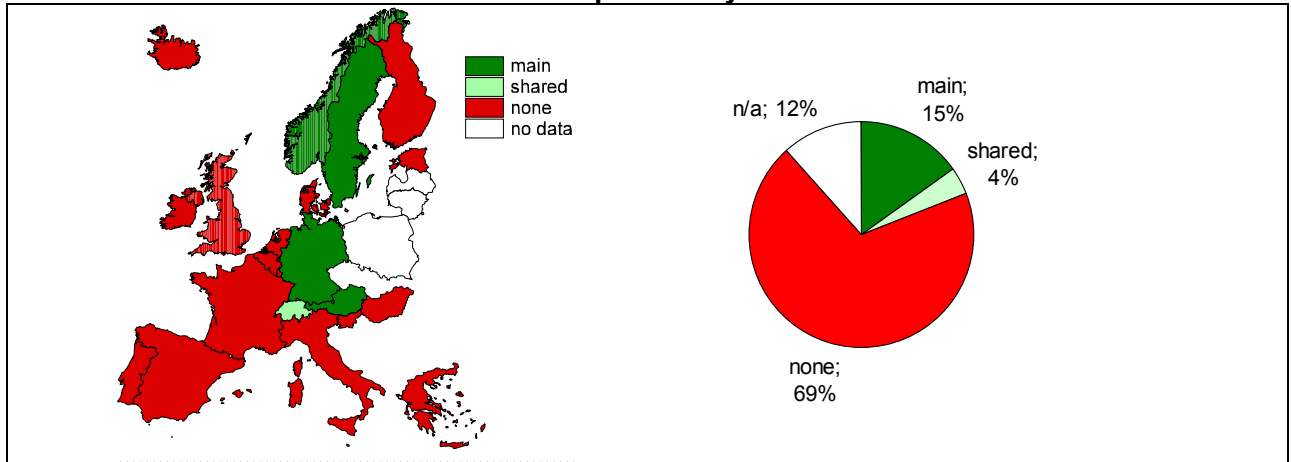
Almost two thirds of the countries currently have programs for young drivers. Of all the other countries, only Ireland and Flanders have short term plans. Responsibilities usually lie with other ministries, but the Norwegian, the Swedish, the Austrian and the German Road Directorates handle this issue themselves. It is mainly considered to be of medium importance.

### Is the measure dealt with in your country?

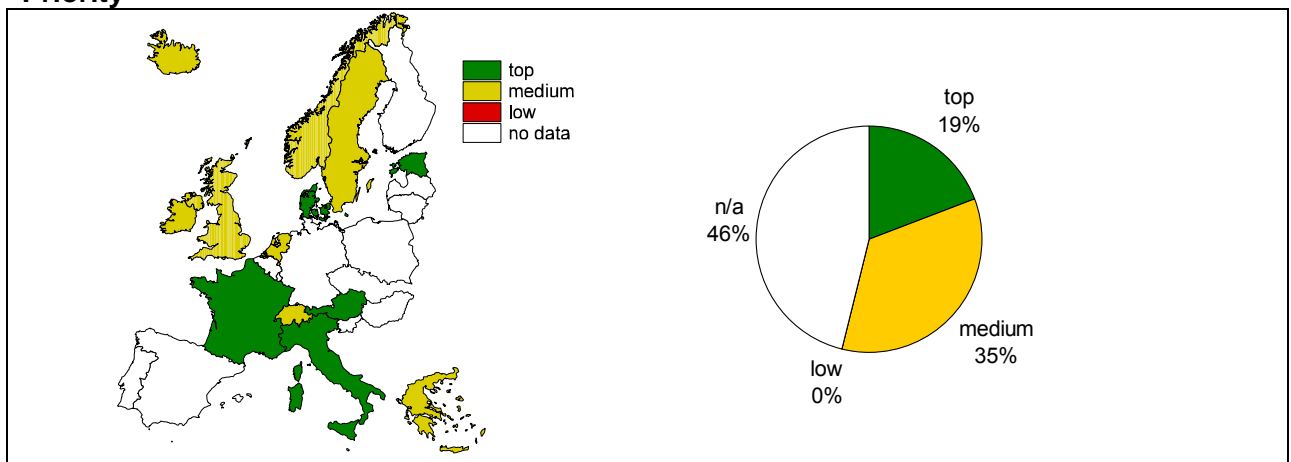




### Is the issue under the main or shared responsibility of the Road Directorate?



### Priority



## 6.16. Traffic Education

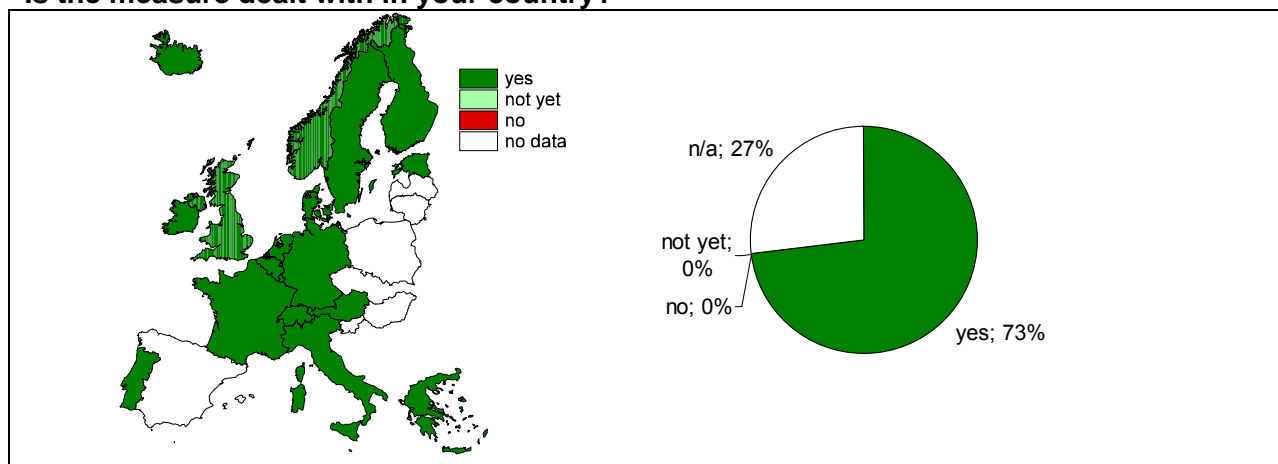
### Explanation

*Various educational programmes which are usually taking place in schools, kindergartens, pre-schools etc.*

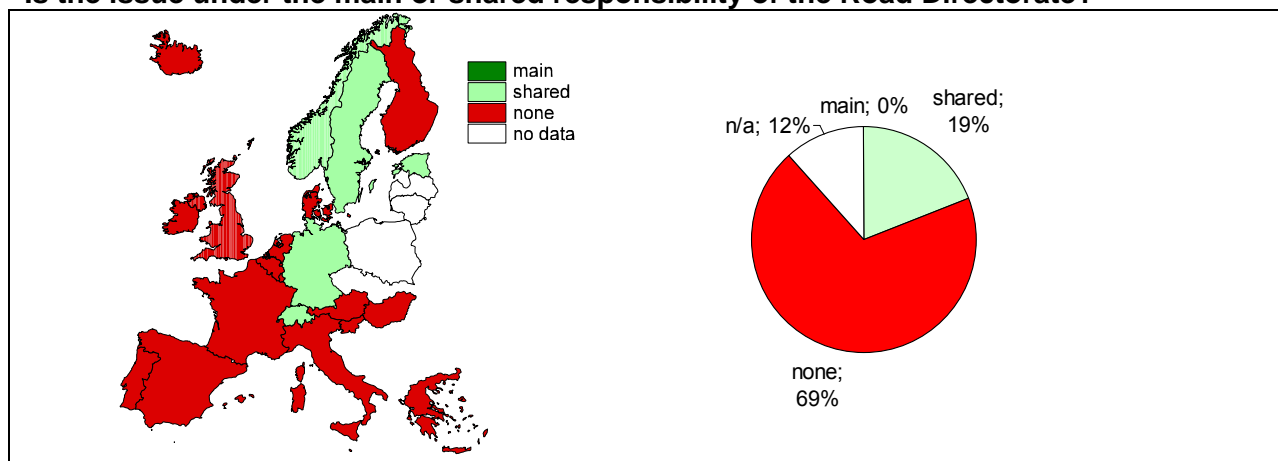
### Synopsis

*Almost all the countries polled have education plans which often started at least thirty years ago. However, only a few (19%) of the Road Directorates have a say in this issue; most responsibilities lie with education ministries, local authorities, and schools. Traffic education is usually funded by the governments and is of top importance for 31% of the countries.*

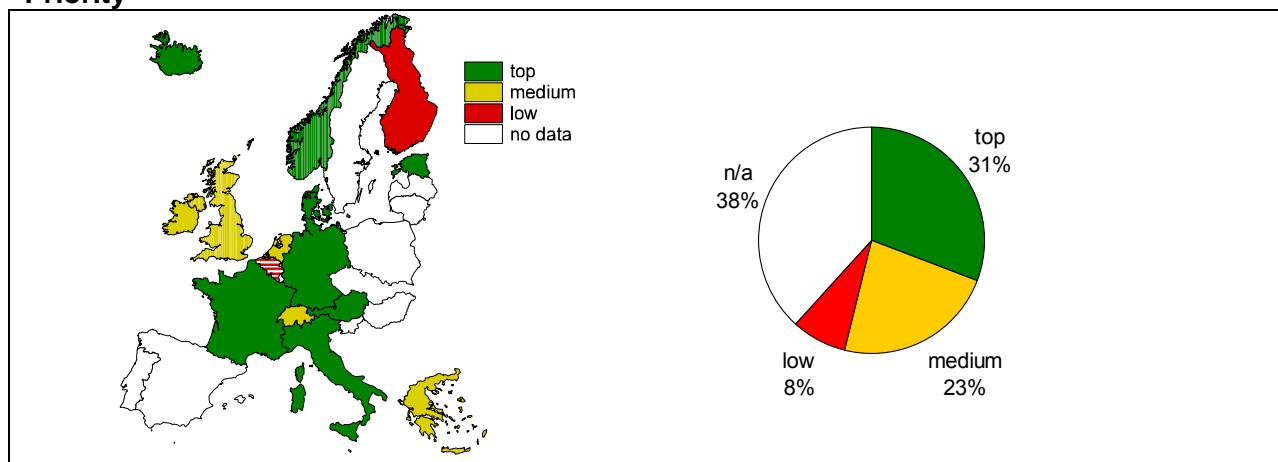
### Is the measure dealt with in your country?



### Is the issue under the main or shared responsibility of the Road Directorate?



### Priority



## 6.17. Daytime Running Lights

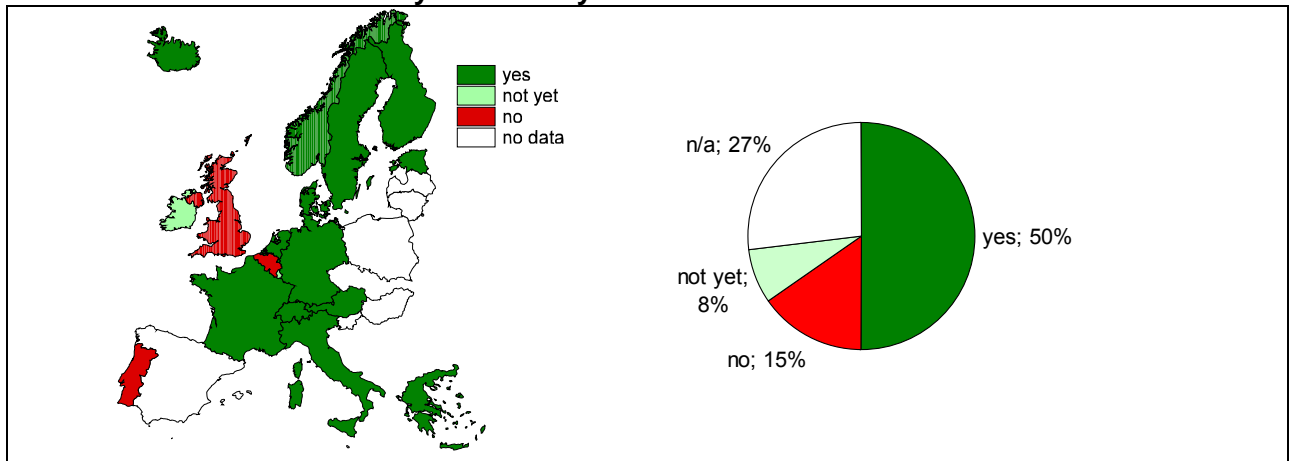
### Explanation

Many studies have shown the positive safety effects of driving with dipped headlights (low beam) or special DRL-lamps in daytime

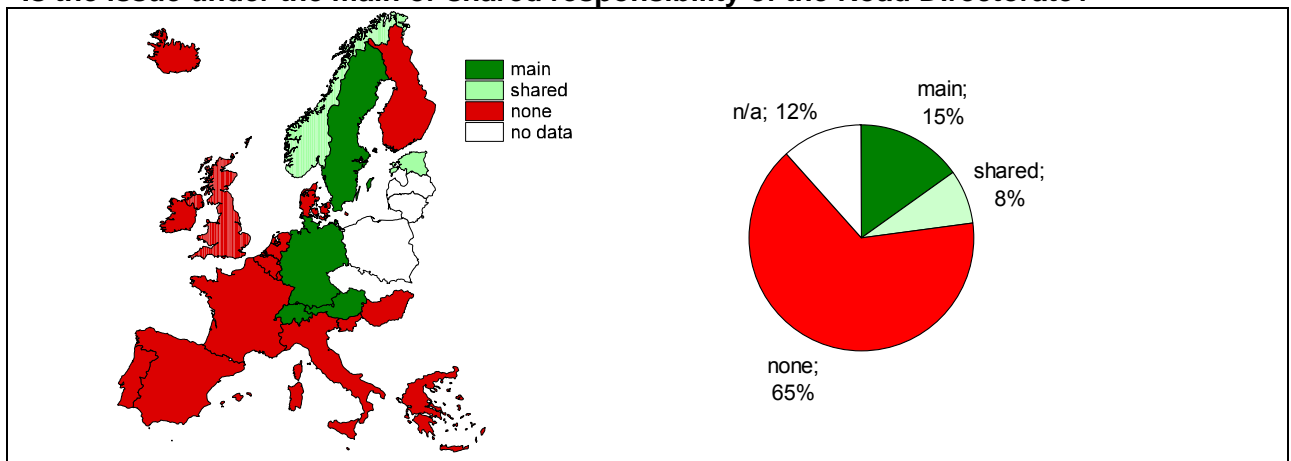
### Synopsis

About half of all CEDR countries have experience with daytime running lights, while Ireland and Luxembourg are planning short-term measures. Only the Swedish, Swiss, Austrian, and German Road Directorates have full authority; in Norway and Estonia, it is shared. The responsibilities are held by other ministries in most countries. On average, the measure is of medium priority.

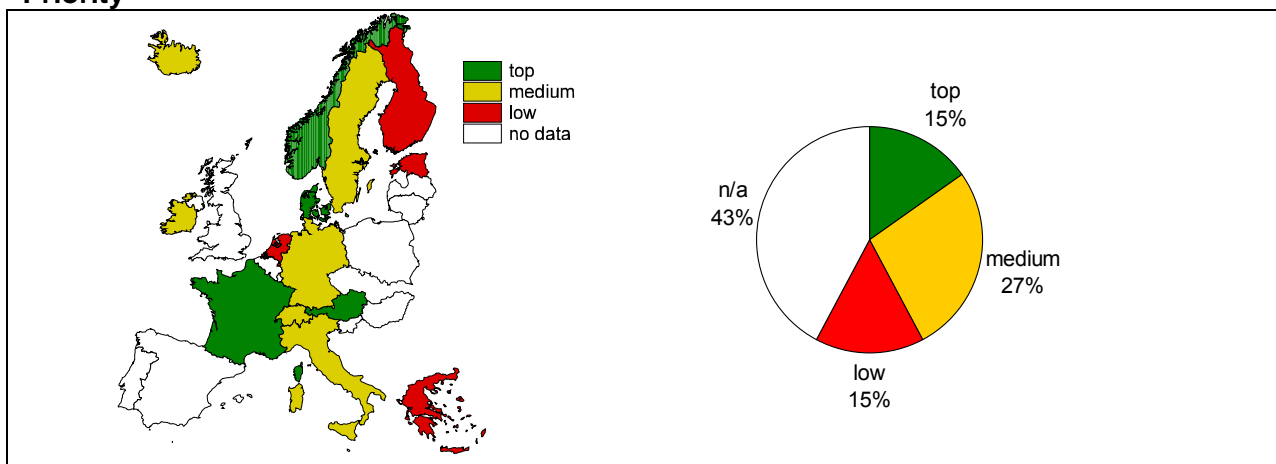
### Is the measure dealt with in your country?



### Is the issue under the main or shared responsibility of the Road Directorate?



## Priority



## 6.18. In-Vehicle (Intelligent) Safety Technology, e.g. ABS, ESP

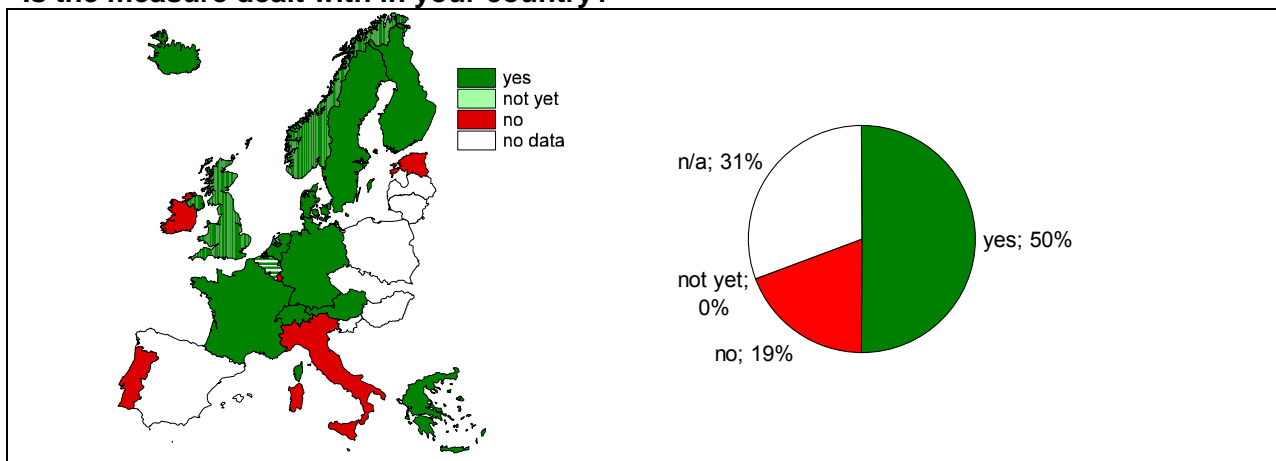
### Explanation

National efforts to support the development and increase the deployment of new safety technologies such as Electronic Stability Control (ESP), Antilock Breaking Systems (ABS) or other issues of the eSafety initiative.

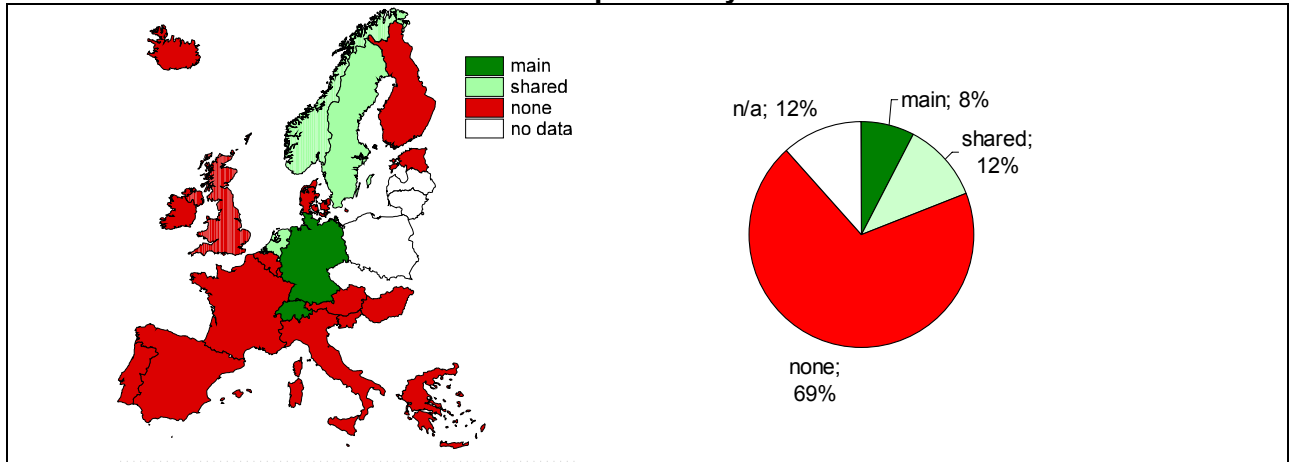
### Synopsis

Half of all CEDR members deal with In-Vehicle safety, the rest of those who supplied information does not. The Swiss and German Road Directorates carry full responsibility, but in more than two thirds of the Member States, other institutions are in charge. Almost half of the countries deem ABS, ESP and the likes to be of top or medium priority for reaching the 50% reduction target.

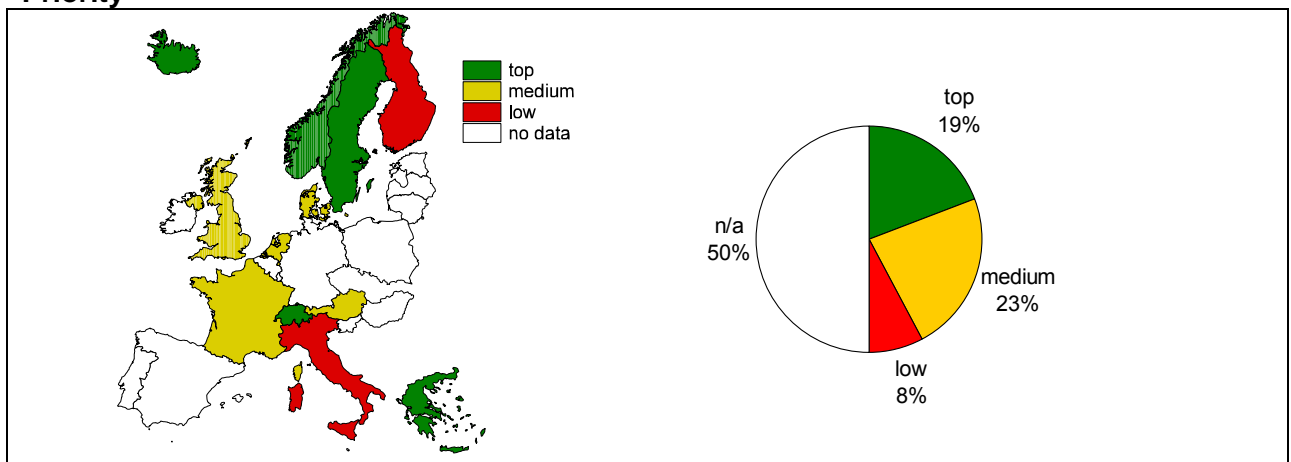
### Is the measure dealt with in your country?



### Is the issue under the main or shared responsibility of the Road Directorate?



### Priority



## 6.19. Measures against tuned mopeds

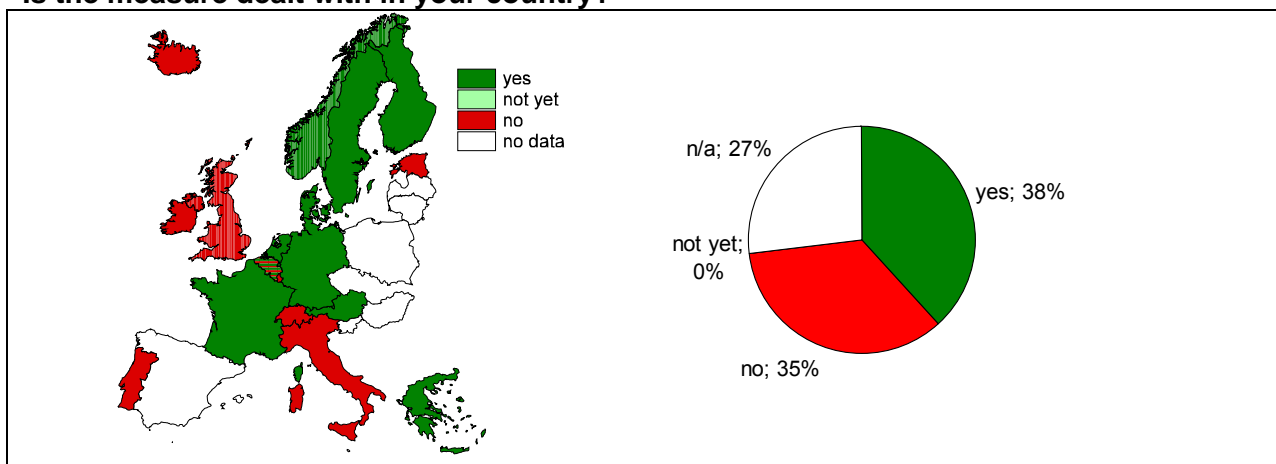
### Explanation

Measures against dealers who import mopeds with too high top speeds and against the import of tuning-parts

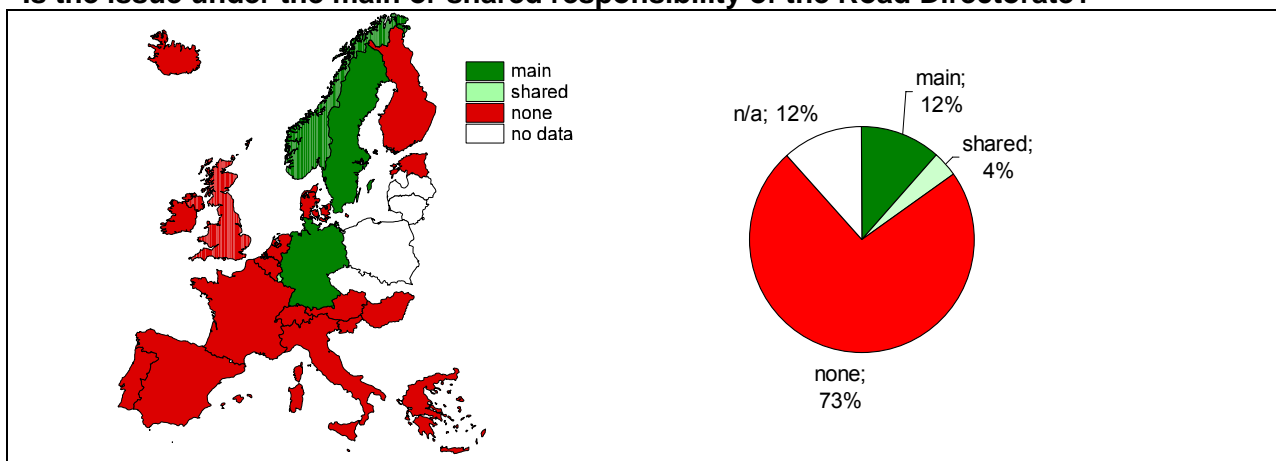
### Synopsis

More than one third of the CEDR members have measures against tuned mopeds, and the responsibilities lie with other ministries and the police by over 70%. Only France considers this issue a top priority.

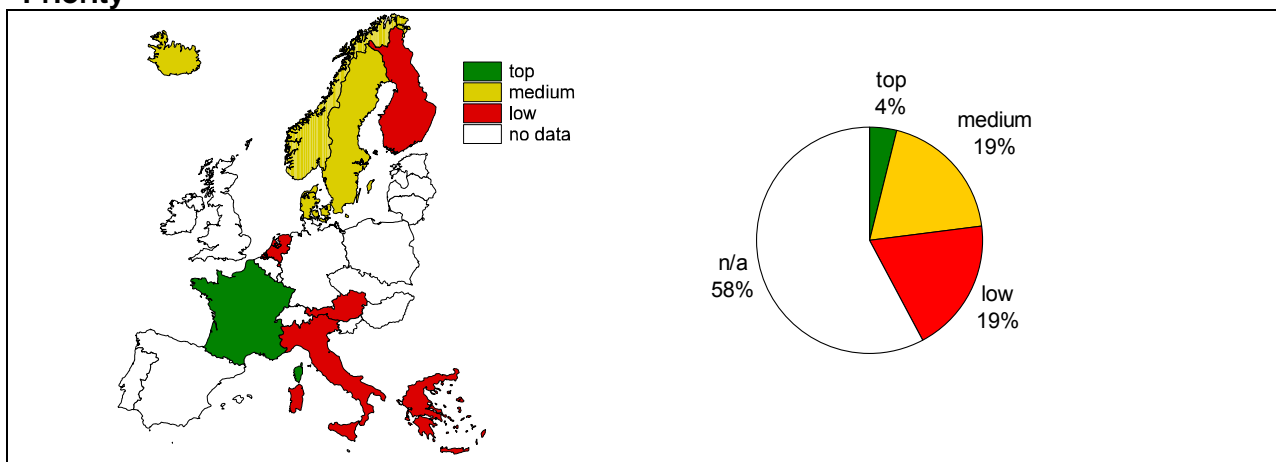
### Is the measure dealt with in your country?



### Is the issue under the main or shared responsibility of the Road Directorate?



### Priority



## 6.20. Measures against motorcycle accidents

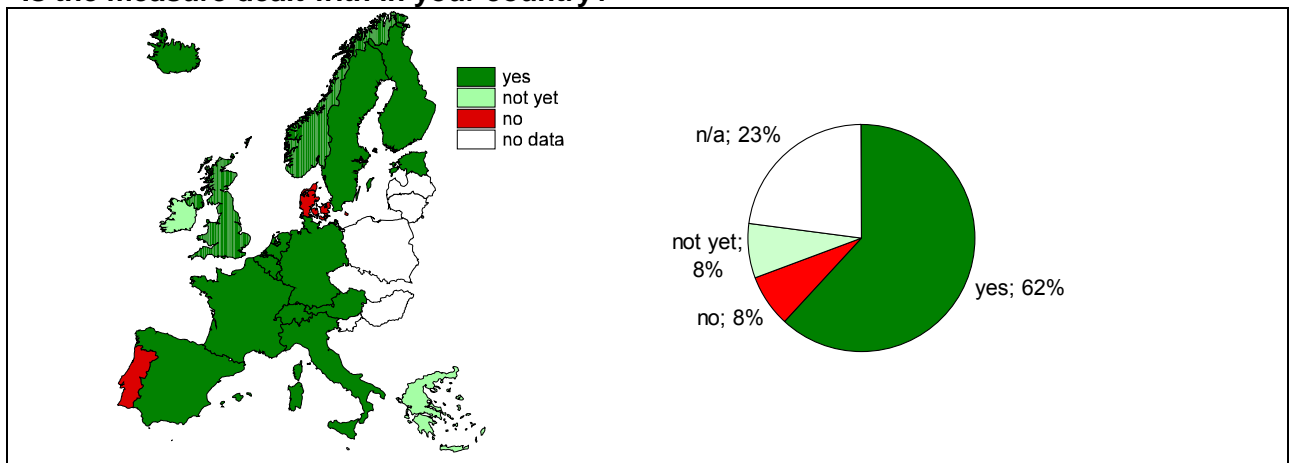
### Explanation

Use various measures to reduce the death toll among motorcyclists. These include measures such as awareness rising towards risk taking and protective equipment, education and training, dedicated technical controls and enforcement.

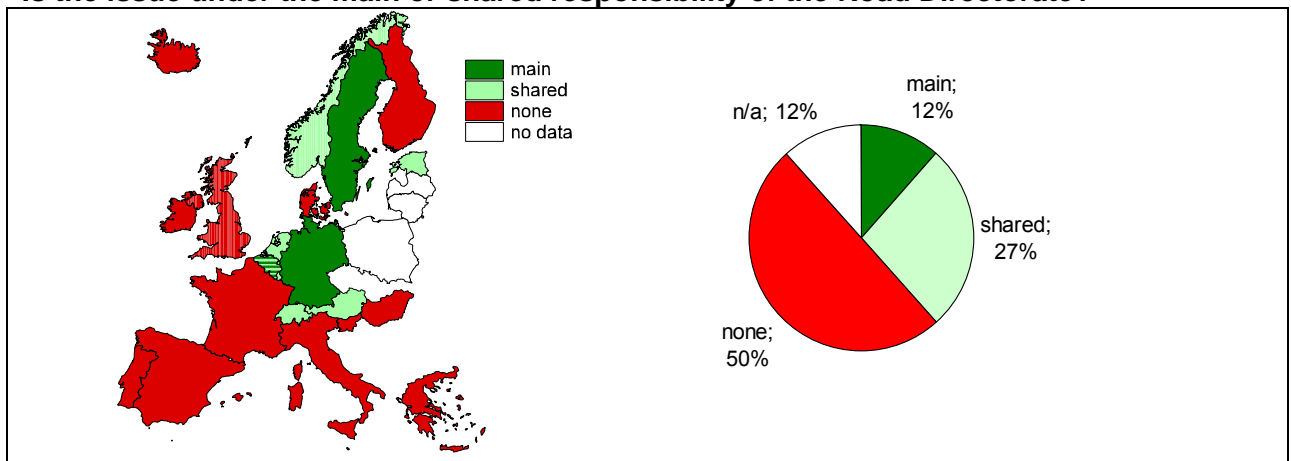
### Synopsis

Around 60% of all Member States are tackling motorcycle accidents. Ireland and Greece have short-term plans. Almost half of the Road Directorates have a say with regard to this issue, most of it shared. Some countries boast special funds for motorcycle-related measures. Still, the better part of the interviewed countries considers them to be of medium or low importance.

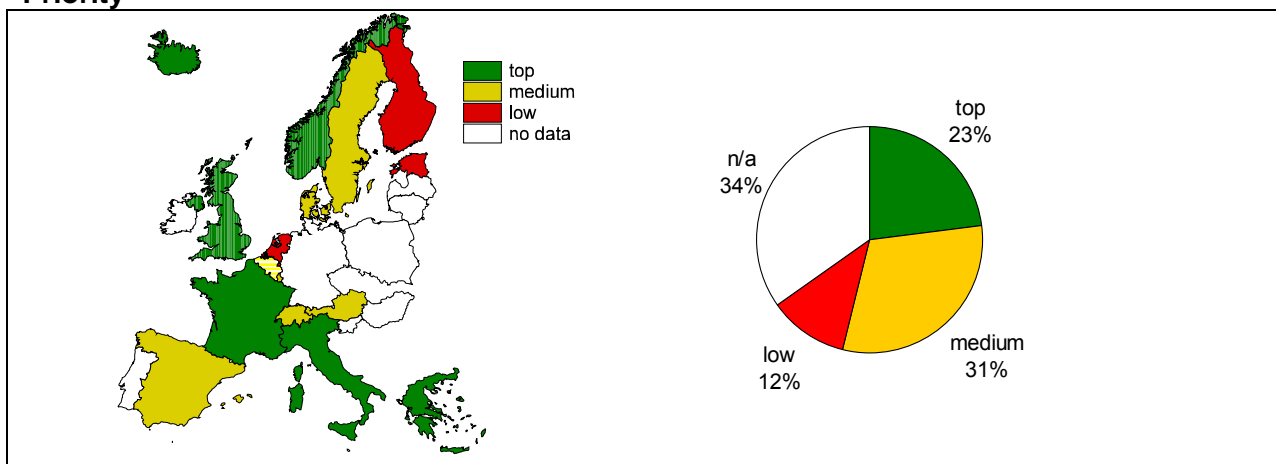
### Is the measure dealt with in your country?



### Is the issue under the main or shared responsibility of the Road Directorate?



## Priority



## 6.21. Safety requirements as part of Public Service Contracts

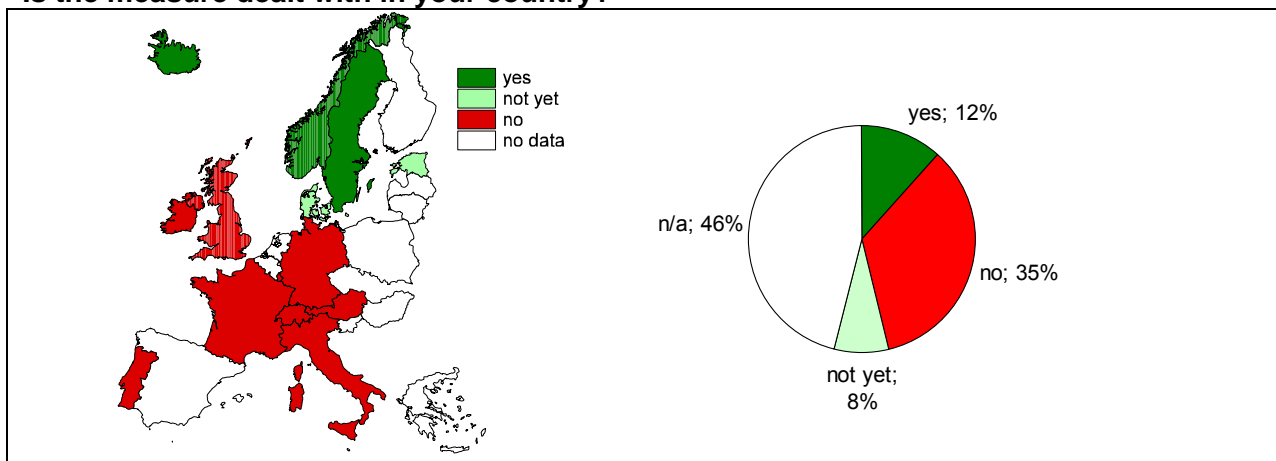
### Explanation

*Introducing safety requirements in public service contracts, such as the obligation for authorities to acquire 5star EuroNCAP cars, busses equipped with seatbelts for all passengers, cars equipped with crash recorders.*

### Synopsis

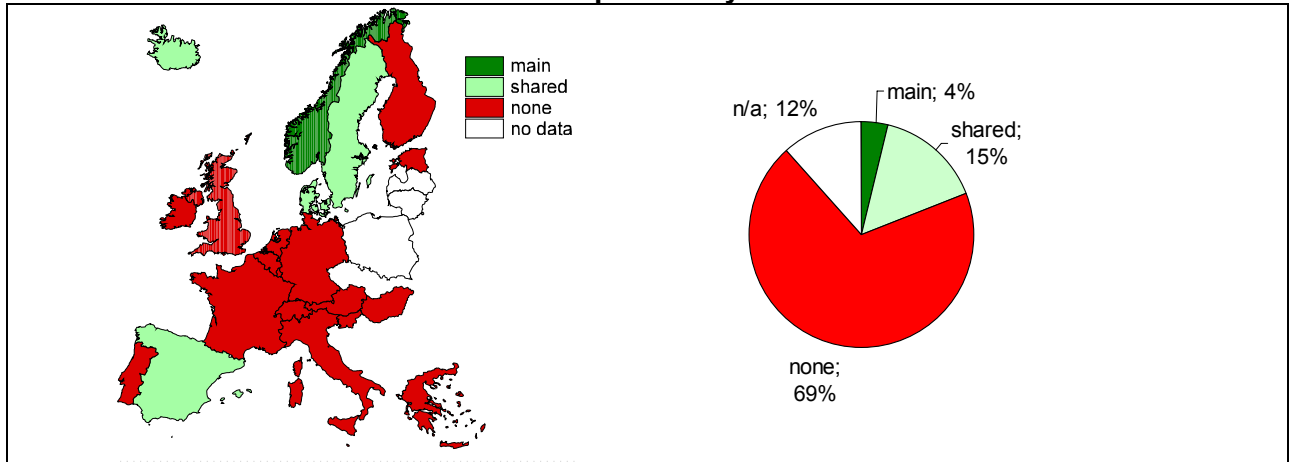
*This issue is currently dealt with in Iceland, Norway, and Sweden, whereas Denmark and Estonia will pick up the new trend in the near future. Apart from Estonia, these are also the countries in which the Road Directorates are responsible for the matter. Only 12% of the responding countries deem it to be of high importance so far.*

### Is the measure dealt with in your country?

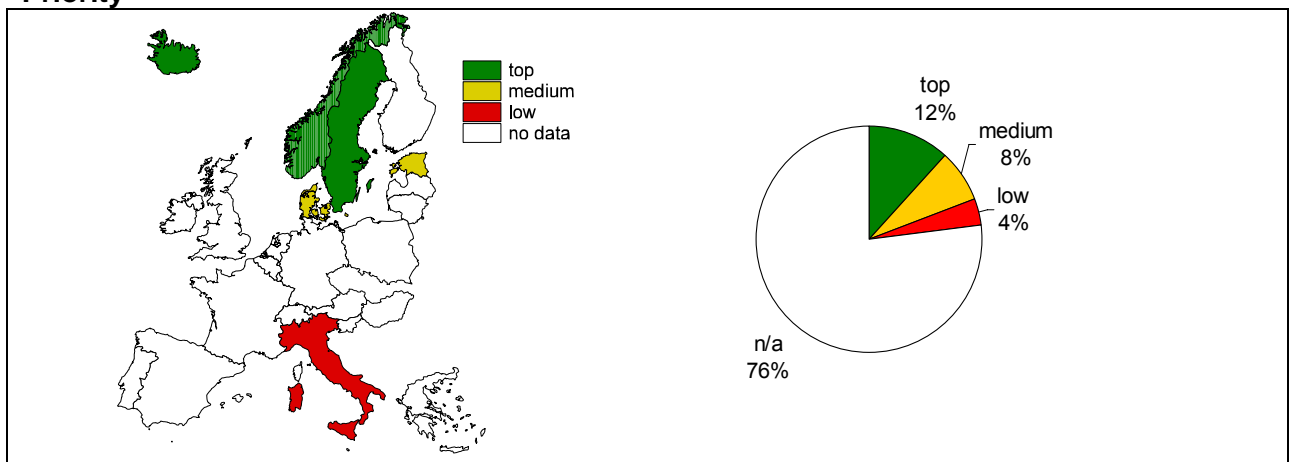




### Is the issue under the main or shared responsibility of the Road Directorate?



### Priority



## 6.22. Accident Data Recorders

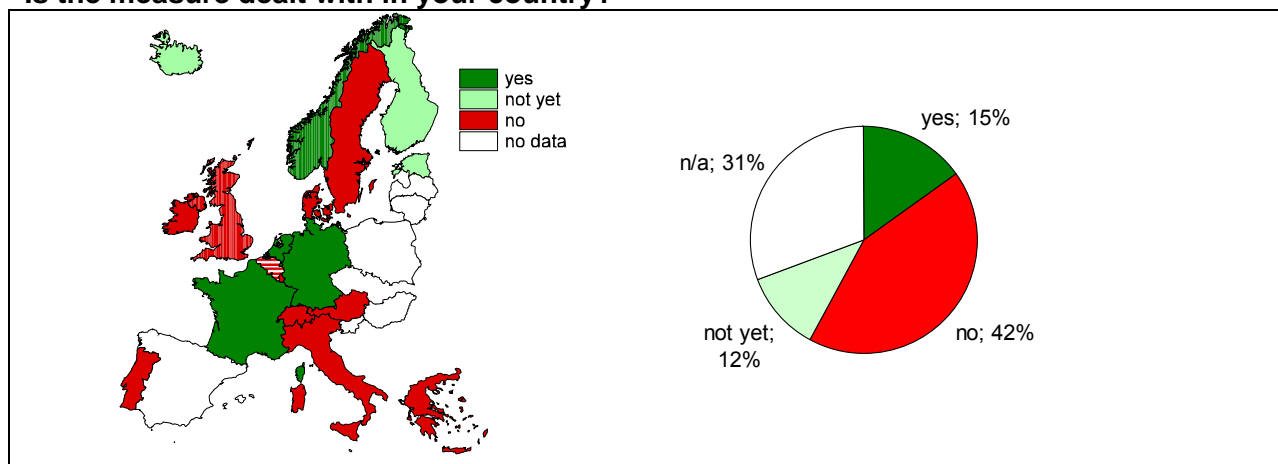
### Explanation

*Promote the use of crash recorders in private and fleet vehicles.*

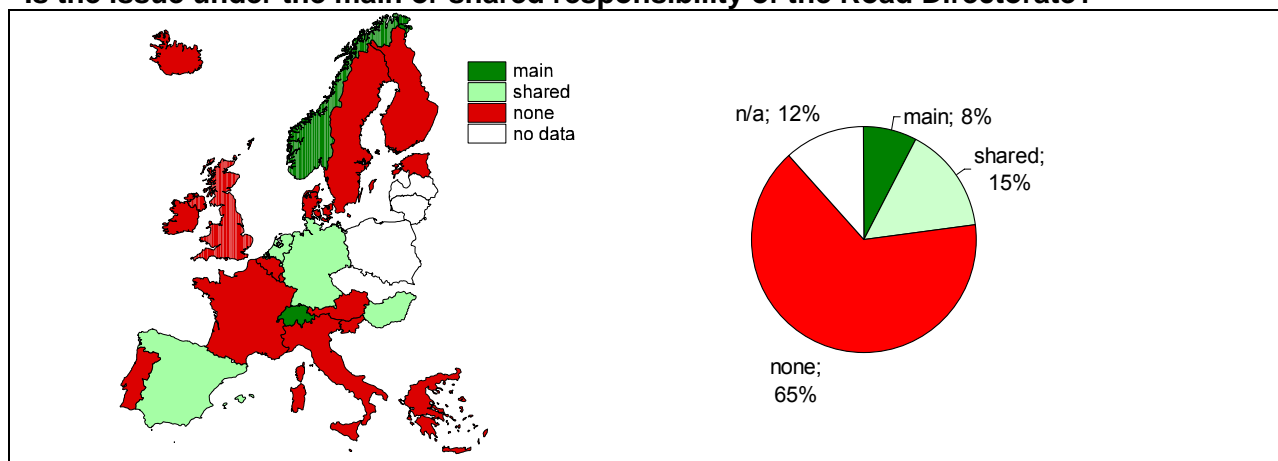
### Synopsis

*Norway, France, Germany and the Netherlands are currently promoting the use of crash recorders; Estonia, Finland, and Iceland are planning to introduce this measure. Very few Road Directorates are responsible for the issue at the moment. This measure is considered to be of low or medium importance in most countries.*

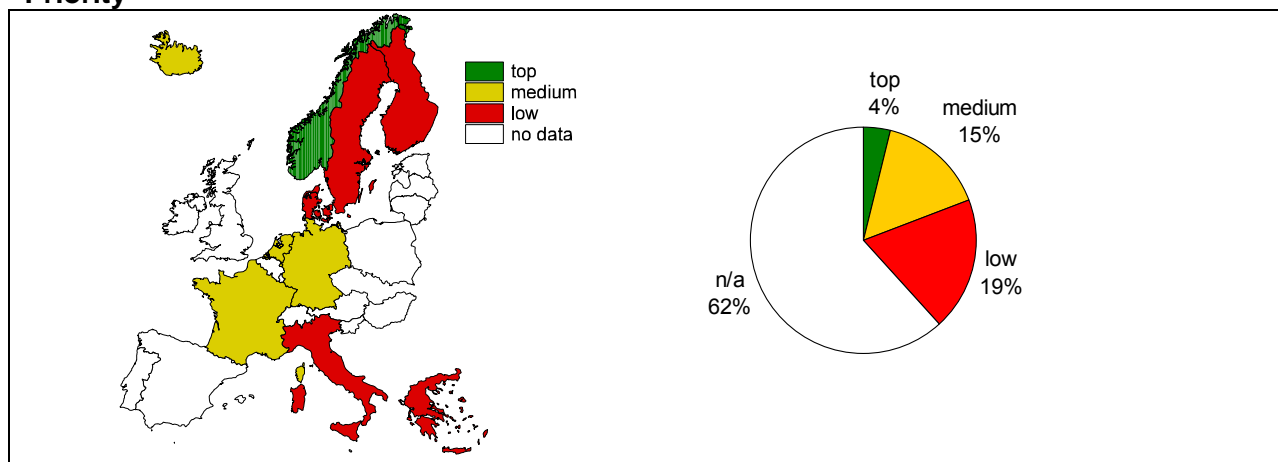
### Is the measure dealt with in your country?



### Is the issue under the main or shared responsibility of the Road Directorate?



### Priority



## 7. Wishes of Road Directorates

### 7.1. *Best Practice guidelines*

About half of all interviewed Road Directorates consider Best Practice guidelines useful to improve safety in their field of competence.

Best Practice guidelines would be considered helpful by the countries in square brackets in the following fields:

- Implementation of infrastructure safety measures (in addition to a general directive), awareness (best practice including impact assessment) [AT]
- Road Safety Audits [BE (F)]
- Road signs and equipment [FR]
- Speed Camera implementation, Drink Driving, Exchange of Penalty Points between jurisdictions [IE]
- Dangerous Loads [IT]
- Low-cost road safety improvements and urban areas infrastructure measures [PT]
- RSA, RSI, NSM [SI]
- Driving HGVs in other countries, particularly local rules of road, dangers of Left-hand drive/Right-hand drive (LHD/RHD), most common causes of HGV accidents [UK]

### 7.2. *Directives*

Between 40% and 50% of the CEDR-Road Directorates find directives in the fields of Infrastructure Safety, Daytime Running Lights, Blind Spot Mirrors for Lorries, and Cross Border Enforcement helpful.

Denmark adds that it is important that a directive does not limit or obstruct existing well working procedures. Some of the areas in question might also be covered by the principle of subsidiarity. France would agree with a directive project on Infrastructure safety as long as the proposal is limited to general framework. Germany would prefer a technical solution for DRL and would consider the determination of transition periods for DRL one of the key assignments of the corresponding directive. The United Kingdom would like to see a directive on HGV driving standards and a mandatory ISA provision by motor vehicle manufacturers, capable of speed limiting.

### 7.3. *Further Fields of Action at the European Level*

Belgium would welcome harmonisation of the Trans-European Road Network (TERN). Several countries support the idea of developing standards for Intelligent Transport Systems (ITS). Italy would like to see harmonization on design rules and the funding of road research, while the United Kingdom would wish for HGV vehicle maintenance standards and driver training, and the Flemish region of Belgium proposed European funding of the missing links of the TERN network. An information policy and campaigns for the many trucks coming from the “new” (Central and Eastern European) countries are also on Flanders’ wish list. Among other desired actions by the European Commission, Austria mentioned a Road Safety Observatory, while the United Kingdom would like to see the distribution of good practice and guidance fostered.

*In all, this very important section should be revised with information from CEDR Member States who may not yet know what the European Commission could do for them.*

## 8. Contact Persons for the Questionnaire

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**Ref: CEDR report 2006/01    Sécurité routière / Road Safety**



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