**RSA** 



Road Safety Strategy
2013 — 2020

An tÚdarás Um Shábháilteacht Ar Bhóithre Road Safety Authority





## **Target**

A reduction of road collision fatalities on Irish roads to 25 per million population or less by 2020 is required to close the gap between Ireland and the safest countries. This means reducing deaths from 162 in 2012 to 124 or fewer by 2020.

A provisional target for the reduction of serious injuries by 30% from 472 (2011) or fewer to 330 by 2020 or 61 per million population has also been set.

There is a considerable amount of work being undertaken by the European Commission to establish and agree the definition of a serious injury. This work will inform the ultimate target for serious injury reduction in this Strategy when it is agreed.



# Closing the Gap

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#### Introduction by Minister For Transport, Tourism And Sport, Leo Varadkar T.D.

Road safety is one of the defining issues of the last decade. Ireland has made huge progress and now has one of the best road safety records in the EU. Countless lives have been saved through widespread changes in driver behaviour, better engineering and enhanced enforcement. Ireland has gone from being one of the worst EU countries for road safety, to one of the safest.

However, there is still a long way to go. 162 lives were lost on the roads last year, each one of them a tragedy. This new Road Safety Strategy is called 'Closing the Gap' because we want to match the safety records of the UK, Netherlands and Sweden.

The last Road Safety Strategy showed what can be achieved when national Government and local authorities work together with the Road Safety Authority, Gardaí, NRA and many others to improve education, engineering and enforcement. This new Strategy sets out to make our roads safer, but there will also be a renewed focus on reducing the severity of injuries for those who survive a serious collision and reducing serious injuries overall.

So how will we do this? There will be a particular emphasis on public education and awareness programmes targeting schools, communities and vulnerable road user groups. National medical fitness to drive guidelines for medical practitioners are being developed and disseminated. And we will continue to work closely with the Northern Ireland authorities on joint North/South road safety campaigns and initiatives.

There will be a stronger focus on the roads network to ensure that infrastructure plays its part in reducing collisions. Enforcement measures will have a particular emphasis on safety offences like speeding, mobile phone use and drink and drug driving. Every effort will be made to detect and prosecute for drug driving.

Last year Ireland achieved a record low in terms of the number of deaths and serious injuries. It won't be easy to close the gap further. We will have to work harder, with fewer resources. The success of this new Strategy will depend on close co-operation among many agencies including voluntary groups, business organisations, media and the public. But the last few years have shown time and again that the single most important factor is public support. Road users have embraced safety like never before. By working together, we can make Ireland one of the safest countries in the world.

Leo Varadkar T.D., Ministers for Transport, Tourism and Sport March 2013



#### Introduction to the 2013—2020 Road Safety Strategy

The distance that we have come since the first Road Safety Strategy, in 1998, is something of which we should all be immensely proud. I won't repeat the statistics again — you know them, and they are profound.

But, as we must remind ourselves every day, these are not just "statistics". Behind each number is a life. A life ended, or a life badly broken. And I would like to dwell for a few moments, if I may, on those broken lives. The lives of people who have experienced the devastation of road traffic collisions, and survived, and must go on living.

The individuals themselves. Their families. Their carers. The communities around them. All of those for whom, if you will, that first shocking impact doesn't ever end.

The new Government Road Safety Strategy focuses, to a much greater degree than any previous strategy, upon serious injuries. It sets out a clear and ambitious target for reducing serious injuries on our roads, as well as new targets for reducing fatalities.

It sets out the practical means by which we can reach these targets together, by making the entire road network and our behaviour on the road safer and safer, incrementally, day by day.

If we apply this new strategy with as much spirit and stamina as we have brought to bear over the period of the last Strategy, the benefits for our island will be far-reaching. Reduced fatalities and serious injuries will benefit our health services, and our emergency services. A safer road environment will encourage more people to walk and to cycle, improving their wellbeing, and improving our environment. Better driving will reduce fuel costs, and emissions.

The journey we are on, towards safer roads, is a virtuous circle, with benefits for everyone to share. And we have momentum now, on this journey. And it is so important that we cherish and strengthen that momentum.

And I use the word "we", in this instance, in its very broadest sense. It is not just the road-builders, and the educators, and enforcers, and all of the other specialists, who shoulder the responsibility for making our roads safer each day.

It is every man, woman and child on every highway and byway, on four wheels, on two wheels, on 16 wheels, on foot.

Our mantra is "Safer roads. Only you can get us there."

Because it is all of us who own the success to date. And it is all of us who can and should and must and will carry that success on, keep that momentum going, to 2020 and beyond. This new strategy is for all of us—and is just a document with words on pages, without us.

Gay Byrne, Chairman March, 2013

## 1. Introduction



#### Introduction

#### Overview

The Irish Government and, in particular, the Minister for Transport, Tourism and Sport, have set the country the task of making Ireland's roads as safe as the best performing countries in the European Union and beyond. The target set is for Ireland to close the gap on countries with the most progressive road safety records<sup>1</sup>. This task will be completed by 2020.

Significant progress has already been achieved since Ireland first began to pursue a strategic approach to road safety in 1998. Roads deaths are down by 60% (1997−2011) and Ireland is now the fifth safest country in the European Union for road collision fatalities per million population. This achievement may be set against an increase in the number of cars during this period of 66%. This represents a substantial achievement and with the cost benefit of preventing a fatality currently amounting to €2.58m at 2010 prices, represents a benefit to society of €0.75bn per annum². This excludes the costs of injuries, which also impose a heavy cost on society as a whole and the Exchequer in particular, and are conservatively estimated at €0.38bn per annum. The annual savings as a whole are thus in excess of €1bn. Road traffic collisions also cause an additional societal and economic cost, when traffic flow itself is interrupted and congested by such collisions.

Robust actions in terms of education, engineering and enforcement have contributed to this reduction in the number of fatalities. These developments are a consequence of and have contributed to a huge shift in both the behaviour of road users and attitudes towards road safety.

All previous strategies can be seen as representing a cohesive and substantial commitment to address the very serious level of casualties on Irish roads. Continuity of approach is a cornerstone of the new Strategy and the collaborative and consultative approach which characterised previous strategies will be maintained.

<sup>1.</sup> Wegman.F. et al, (2010) Benchmarking road safety performance of countries. Safety Science Volume 48 pages 1203—1211

<sup>2.</sup> Estimate based on accident costs in Project Appraisal Guidelines Unit 6.11: National Parameter Values Sheet, NRA, 2011

#### Road Safety in an EU Context

Although Ireland is now one of the best performing EU countries in terms of road safety, with a developing culture of road safety among the road-using public, there is no room for complacency. Road safety is still a major concern for the people of Ireland. In the most recent SARTRE (Social Attitudes to Road Traffic Risk in Europe) survey, road safety was the second issue that they were most concerned about, behind unemployment but ahead of the crime rate, health care, pollution and traffic congestion<sup>3</sup>.

The Government has adopted a highly ambitious vision for road safety in Ireland and for the remainder of the decade, it is their intention to raise Ireland's road safety performance to that of the best performing countries in the world, and close the gap with countries such as the United Kingdom, Netherlands, Sweden and Australia. And the gap is still considerable<sup>4</sup>. Ireland had approximately 41 fatalities per million population in 2011. These countries are targeting a reduction in fatalities of some 25% by 2020, meaning that they are setting targets in the region of 25 fatalities per million population which corresponds, in the Irish context, to 124 fatalities in 2020.

#### A Focus on Serious Injuries

In addition to continuing to reduce fatalities, a number of actions will be taken within the Strategy to refine the definition of a serious injury with a target for doing so. With a target of 124 fatalities by 2020, a realistic target for serious injuries should be in the region of 330 by 2020 or 61 per million population. Reduced fatalities and serious injuries will realise benefits for public health policy objectives, as well as reduced demands on the emergency services. A safer road environment will encourage more road users to walk and cycle, thus improving their wellbeing, reducing congestion and improving the environment. Better driving will reduce fuel costs and transport related emissions which will benefit everyone, especially those involved in business and industry.

#### Road Safety - A Shared Responsibility

Road safety is a shared responsibility and it has to be based on co-operation and co-ordination by all the state agencies, the general public and the private/business sector, working together at every level — national, regional, local and community — to develop effective and innovative road safety initiatives and interventions. It is also the responsibility of every road user to ensure their own personal safety on the roads and to make a contribution to the safety of others through responsible road use.

#### A New, Longer-Term Strategic Approach

There are no quick wins left. The challenge now is to ensure that the benefits already secured in terms of the reduction in fatalities are maintained and enhanced and that the problem of serious injuries is addressed. With this focus, Ireland is now moving towards a Safe Systems approach to road safety for the remainder of this decade<sup>5</sup>. This approach builds on existing road safety interventions, but reframes the way in which road safety is viewed and managed in the community. It addresses all elements of the road transport system in an integrated way, with the aim of ensuring collision energy levels are below the level that would cause fatal or serious injury. It requires acceptance of shared responsibilities and accountability between system designers and road users. It stimulates the development of innovative interventions and new partnerships necessary to achieve ambitious long term targets.

<sup>3.</sup> SARTRE4 (2012) European Road Users' Risk Perception and Mobility

<sup>4.</sup> Tingvall C. et al (2010.) The properties of Safety Performance Indicators in target setting, projections and safety design of the road transport system. Accident Analysis and Prevention Volume 42 pages 372-376

<sup>5.</sup> Salmon. P., et al. (2012). Road Transport in drift? Applying contemporary systems thinking to road safety Safety Science Volume 50 1879-1838

The development of the Road Safety Strategy 2013—2020 has taken account of this new approach to road safety and will enable Ireland to continue to play a substantial role in the reduction of collisions across the expanded European Union as a whole, particularly in terms of demonstrating the huge change that can be achieved through focused and inclusive action programmes.

This Strategy adopts a longer time horizon than previous strategies. This will bring Ireland into line with the timing of the European Union's Strategy<sup>6</sup>. This longer term makes it all the more essential to engage in a continuing process of review and adaptation of measures through the lifetime of the Strategy. In this context, provision is made for a mid-term review of the Strategy in 2016.

This Strategy will have a stronger foundation in research and analysis, and will use all the data and intelligence available to target resources in areas where they will have the greatest impact on safety, recognising that resources are scarce in the current economic climate. This collaborative approach will bring about a culture change, so that information to guide strategic thinking and to maintain public support is delivered in a streamlined way, without detracting from operational performance.

This Strategy also encourages relevant bodies to engage at an international level to ensure that best practice initiatives are implemented here where they are appropriate in an Irish context. State agencies will also participate in EU road safety partnerships such as the European Conference of Ministers of Transport, the European Transport Safety Council (ETSC), TISPOL (European Traffic Police Network), CICEA (International Commission for Driving Testing), OSHA (European Agency for Safety and Health at Work) and CEDR (Conference of European Directors of Roads) to name but a few.

All the measures contained in this Strategy are intended to make the roads safer. The basic assumption in this Strategy is that the objectives can be achieved, without fundamentally changing our mobility system, and within the budgets set aside for the purpose.

#### **Our Road to Safety**

The biggest single success factor in Ireland's improved road safety performance over the past decade has been the marked change in personal behaviour and attitudes to responsible road user behaviour. The Irish population deserves huge credit for their commitment to and engagement in road safety. The challenge for the Road Safety Strategy 2013—2020 is to avoid complacency, build on the culture that has developed, and ensure that Irish road users continue to engage in saving lives, preventing injuries and making Ireland one of the safest countries in the EU. We can be the best, we can be the safest. Our citizens deserve no less.

<sup>6.</sup> Towards a European road safety area: policy orientations on road safety 2011-2020. European Union Communication, 2010.

# 2. Progress and Trends



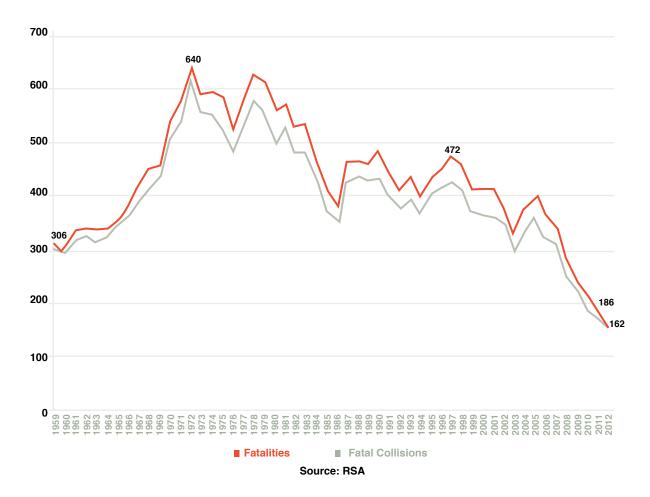
#### **Progress and Trends**

The strategic approach to road safety was first adopted in 1998 and demonstrates how making a substantial, co-ordinated commitment to addressing the very serious level of casualties on Irish roads can contribute to reductions in deaths and serious injuries and an improvement in road user behaviour. In this chapter, we will present an overview of Ireland's progress during the lifetime of the Government's Road Safety Strategy 2007—2012 and look at the emerging trends that will inform the objectives of the new strategy.

#### **Fatal Collisions and Fatalities**

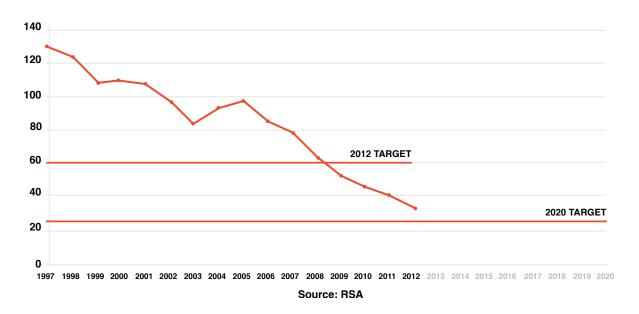
Prior to the start of the first strategy in 1997, the number of fatalities on Irish roads was 472. In 2012, there were 162 fatalities, representing a reduction of 65.7%. This achievement may be set against an increase in car numbers of 66% over the same period (**Figure 1**).

Figure 1: Road Fatalities and Fatal Road Collisions



The primary target set for the 2007 — 2012 Strategy of reducing the number of fatalities to 60 or less per million of the population by 2012 was achieved in 2009 and further positive progress has been made since that date (Figure 2). The reduction in the number of fatalities has been achieved through a number of robust actions under the headings of education, engineering, and enforcement, as well as significant legislative changes in alcohol testing, vehicle testing and sanctions for road and vehicle offences, and the development and upgrade of much of the major inter-urban road network.

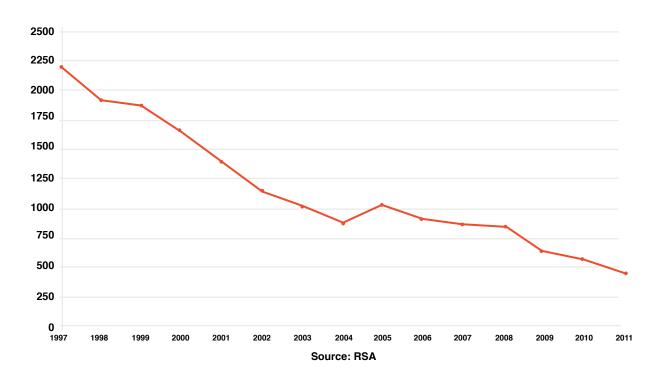
Figure 2: Fatalities Per Million Population



#### **Serious Injuries**

Figure 3 depicts the trend in persons reported seriously injured between 1997 and 2011. During this time, there was a reduction of 36% in the number of people injured. While the target set in the 2007—2012 strategy of a 25% reduction by 2012 has been surpassed, there is a need for further progress. In addition, there is concern that some injuries go unreported. Therefore, it is important to continue to address the issue of serious injuries as they can lead to life-long disability and high costs associated with treatment and care, whilst agreeing a new way of defining a serious injury.

Figure 3: Serious Injuries (1997 - 2011)



#### **Ireland in an International Context**

Despite the progress made, there is considerable scope for further achievements, particularly in comparison to other countries (**Figure 4**). Ireland still lags behind the Netherlands, the United Kingdom and Sweden. The implication is that much work remains to be done in improving Ireland's road safety performance and that the successes of the past indicate that further progress can be made, provided effective policies and measures are put in place and supported.

Poland Greece Romania 223 Lithuania Cyprus Bulgaria Portugal Latvia Belgium Estonia Czech Republic Slovenia Luxemburg Hungary 130 Italy France Austria Slovakia **Finland** Germany Spain Malta Ireland Denmark 56 49 Sweden Netherlands **United Kingdom** 0 50 100 150 200 250 ■ 2011 **2006** 

Figure 4: European Road Deaths Per Million Population, 2011 Versus 2006 (Reference)

**Rate Per Million Population** 

#### **High Risk and Vulnerable Road Users**

**Table 1** presents an analysis of fatalities by road user type, covering the period of the three former road safety strategies, in terms of the average annual number of fatalities. Fatalities declined from an average of 439 in the years before the first strategy to an average of 215 in the five year period 2008—2012, a reduction of 51%. The rate at which fatalities have reduced has tended to accelerate, with the achievements during the 2007—2012 Strategy being particularly noteworthy. Fatalities among vulnerable road users have also reduced significantly with, for example, a 66% reduction in fatalities among pedal cyclists. This can be contrasted with fatalities among car users which fell by 37%.

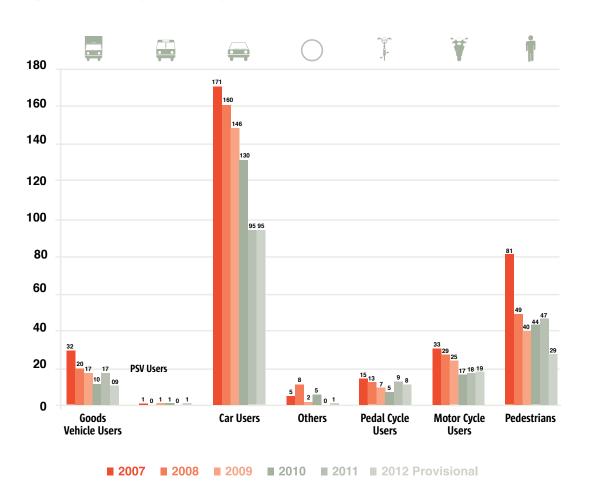
Table 1: Annual Average Fatalities by Road User Type

	1993-1997	1998-2002	2003-2007	2008-2012	% Change over the Period
Pedestrians	123.0	93.2	72.4	41.8	-66.0
Pedal Cyclists	24.8	15.0	11.2	8.4	-66.1
Motorcyclists	58.2	42.6	44.6	21.6	-62.9
Car Users	199.2	235.8	199.8	125.2	-37.1
<b>Goods Vehicle Users</b>	24.8	21.4	24.8	14.6	-41.1
Other	9.6	6.6	8.8	3.8	-60.4
Total	439.4	414.6	361.6	215.4	-51.0

Source: Compiled from Road Collision Facts. Note: fatalities averaged over the respective periods to reduce the effect of random variations in level of fatalities.

However, as **Figure 5** shows, the absolute number for car user fatalities remains very high.

Figure 5: Fatalities by Road User Type

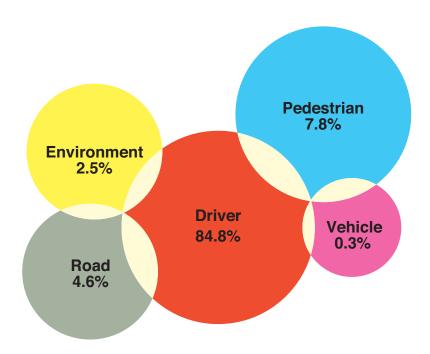


Despite the overall reduction in road fatalities, the fatality risk for some groups remains high due to different exposure levels; for example, for motorcyclists, the fatality risk on a vehicle per kilometre basis is high relative to that of car users. Motorcyclists are part of a group of vulnerable road users that includes pedestrians, cyclists, young children (under 14 years) and older people car users (65 years and over) and it is vital that this Strategy contains actions to reduce road safety risks for this group because:

- · 2 in 5 of those who died on our roads over the period 2007—2012 were vulnerable road users.
- 1 in 5 were pedestrians.
- 1 in 10 were motorcyclists.
- 1 in 3 pedestrians killed was aged 65 and over.
- 1 in 25 was a pedal cyclist.

#### **Contributory Factors to Road Collisions**

The contributory factors to road traffic collisions are many and varied. When combined, as they do in nearly every collision, they create a very complex picture of what actually happened. These varied causation factors are often categorised as: human, environment, road and/or vehicle. The Venn diagram below compiled by the Road Safety Authority from Garda data for the period 2007—2011 is a demonstration of that complexity.



Note: Based on data for fatal/injury collisions provided by An Garda Síochána

#### Statistics show that between 2007 and 2011:

- · Single vehicle collisions accounted for 38% of all fatal collisions and 25% of all injury collisions.
- · Head on collisions accounted for 19% of fatal collisions and 12% of injury collisions.
- · Collisions involving pedestrians accounted for 22% of all fatal collisions and 17% of all injury collisions.

Four out of five of all fatal collisions were single vehicle, head-on or pedestrian collisions. This indicates that single vehicle, head-on conflict or pedestrian collision types are, on average, more severe than angle, rear-end or 'other' road collision types, which together accounted for 46% of injury collisions but only 21% of fatal collisions.

#### The contributory factors listed by An Garda Síochána on collision report forms between 2007 and 2011 showed that:

- Driver error accounted for 87% of all contributory factors identified in fatal collisions; pedestrian error accounted for 8%, road factors accounted for 2%, environment accounted for 1% and vehicle factors accounted for 1%.
- · The highest number of fatalities occurred in early evening rush hours, i.e. between 6:00pm and 7:00pm.
- 333 people were killed in 301 fatal collisions between 9:00pm and 3:00am, the hours most strongly associated with drinking and driving; this period accounted for 26% of fatal collisions and 27% of fatalities.
- 175 people were killed between 12 midnight and 3:00am. Fatalities that occurred during these hours accounted for approximately 14% of all road collision fatalities between 2007 and 2011.

This analysis of road collision statistics shows that despite the gains made, there is a need for a continuing focus on vulnerable road users and on the traditional causal factors of alcohol consumption and speeding.





#### Speeding Compliance Targets for 2012 as set out in the Road Safety Strategy 2007—2012

The following table charts the progress against targets set out in the Road Safety Strategy using the most recent data published in 2011. There are still significant compliance issues with articulated vehicles on urban national and national primary 2 lane roads.

**Table 2: Compliance with Speed Targets** 

Vehicle Type	Road Type	2012 Compliance %	Target Compliance %
<b>Articulated Vehicles</b>	Urban National – 50km/h	22	70
	National Primary 2 lane	30	60
	National Secondary 2 lane	68	60
	Regional Roads	98	95
	Local Roads	100	95
Buses	National Primary 2 lane	51	85
	National Secondary 2 lane	91	86
Cars	Urban National – 50km/h	15	60
	Urban Arterial – 60km/h	38	60
	Urban Arterial – 50km/h	26	60
	National Primary 2 lane	84	90
	National Secondary 2 lane	94	90
	Regional Roads	66	90
	Local Roads	87	95
Rigid Vehicle	Urban National – 50km/h	24	70
	National Primary 2 lane	47	60
	National Secondary 2 lane	79	60
	Regional Roads	90	90
	Local Roads	99	95



#### Seatbelt Wearing Targets for 2012 as set out in the Road Safety Strategy 2007 – 2012

Front seatbelt wearing rates have increased substantially since the early 1990s when just over 50% of people wore seatbelts. This figure increased to 94% in 2011. The wearing rate for rear seats for adults has also increased substantially from just 26% in 2005 to 90% in 2011.

**Table 3: Compliance with Seatbelt Wearing Targets** 

	2011	Target
	Compliance %	Compliance %
Adult front wearing rate	94	95
Adult rear wearing rate	90	95
Primary school front wearing rate	85	95
Primary school rear wearing rate	94	95
Secondary school front wearing rate	93	95
Secondary school rear wearing rate	93	95

In 2011, a school seatbelt survey showed a consistent increase in seatbelt wearing rates for both primary and secondary schools. For primary school pupils, the rear seatbelt wearing rate was 94%, 14% higher than was recorded in 2009. For secondary school pupils, the rear seatbelt wearing rate was 93%, 10% higher than 2009. Front seatbelt wearing rates were 85% for primary school pupils and 93% for secondary school pupils.



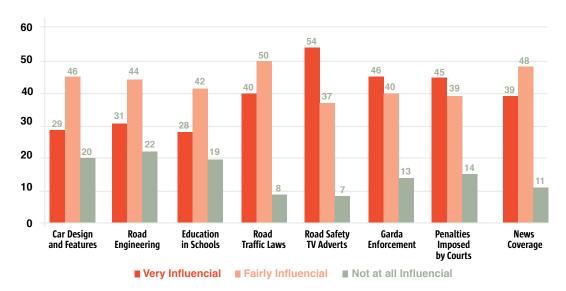


#### **Developing a Road Safety Culture**

Since the launch of the last Road Safety Strategy, there has been a hugely positive shift in public attitudes towards road safety in general and specifically with regard to the issues of speeding and drink driving. Road safety advertising and mass media campaigns have been extremely successful in changing behaviour and have contributed significantly to the overall strategy of reducing death and injury on Ireland's roads. When asked about the most influential factors in saving lives on Ireland's roads, road safety advertising is continuously regarded as very influential and broadly on a par with Garda enforcement and penalties imposed by courts (**Table 4**).

Table 4: Road user's view of the efficacy of road safety counter measures

Question: How influencial or not do you think each of the following factors have been in saving lives on Ireland's roads?



One example of the success of road safety advertising is the 'Damage' seatbelts campaign. Independent Observational Surveys conducted at the time showed that overall seatbelt wearing rates increased from 50% to 72% and rear seatbelt wearing rates increased from 20% to 46% in the space of two years. No other intervention occurred during this time, such as increases in enforcement or new legislation. Similarly, twelve years ago, research showed that less than a third (30%) of drivers supported the view that you should never ever drink and drive. By 2006, before the third strategy was published, this had increased to almost half the driver population (49%). By September 2011, attitudinal research, conducted on the eve of the lowering of the drink drive limits, showed that 95% of the population agreed with the statement that you should never ever drink and drive. Ten years of delivering an uncompromising message on drink driving coupled with the introduction of effective enforcement powers and harsher penalties have brought about this change.

For over a decade, Ireland's road safety advertising has been based upon the Education/Enforcement Model in which advertising is designed to win the moral argument, shape the climate of public opinion and build community support for enforcement of our road safety laws. This is consistent with the policy of the European Commission:

"Studies and research on this subject have shown that, to achieve a significant improvement in compliance with the rules by road users, an overall approach is needed which combines police checks with education and awareness campaigns for users."

"From the same scientific sources it appears that enforcement actions are only optimally effective if they are combined with actions to make the public aware of such enforcement actions and of the reasons why they are being held."

It is clear that the improvement of attitudes and behaviour across a number of road behaviours over the last decade has meant that road safety advertising has made a significant contribution to the long-term reductions in road deaths in Ireland.

#### In summary

The various road safety interventions and targets set out in the Road Safety Strategy 2007—2012, coupled with an ever strengthening road safety culture, have resulted in a successful period in road safety for Ireland. Deaths and injuries are decreasing at a rate that is comparable with other best performing countries in the EU. There has been significant improvement in compliance by road users in respect of the main collision causation factors such as seatbelt wearing, speeding on some roads, and alcohol related offences. However, despite an overall reduction in road deaths, there is a need to focus on vulnerable road-users and causal factors where there are low levels of compliance and this will be a major focus of the Government Road Safety Strategy 2013—2020.

<sup>7.</sup> European Commission; European Road Safety Action Programme, 2nd June 2003.

<sup>8.</sup> European Commission Recommendation on Enforcement in the Field of Road Safety, 2003, Page 9, Paragraph 7.

# 3. The Consultation Process



#### **The Consultation Process**

Before identifying key actions, an effective road safety strategy must focus on the key challenges that need to be addressed in order to minimise road collisions and fatalities. In order to identify these challenges, the Road Safety Authority embarked on a substantial consultation process, seeking input from all stakeholders.

#### The consultation process comprised a number of elements:

- A multi-agency Road Safety Strategy Workshop held in June 2012.
- · Detailed public consultation (including an online facility) held in summer of 2012.
- Face to face consultations with key stakeholders, who will be charged with delivering measures under the Strategy.

Over 400 written responses were received during the public consultation, of which approximately 320 were from individuals with the balance from organisations. A total of over 1,800 separate issues were raised. Many of the responses were very detailed and reflected a high level of interest in road safety matters.

The bulk of the issues raised related to enforcement and road and vehicle engineering. With regard to enforcement, there was an emphasis on the need for a high level of enforcement activity by An Garda Síochána, expanding the use of the penalty points system, graduated driving licensing system and the enforcement of vehicle regulations. With regard to engineering, the most frequent issues related to road design including cycle lane design and junction design, speed limits and road signage. Issues relating to in-vehicle technology and standards for vehicle peripherals were also raised.

All of the submissions were reviewed and considered when identifying measures to be undertaken as part of the new Strategy. Specific suggestions that have been taken up in the Strategy include actions in relation to:

- The rationalisation of speed limits and signage on roads.
- · The targeting of high collision road sites for remedial treatment.
- The introduction of graduated driving licences.
- The use of in-vehicle and on-road technologies.
- · The improvement of enforcement methods.
- · The maintenance of the road network.

The key elements of the process were the setting of targets for the new strategy, the identification of actions, assigning actions to lead agencies with identified completion dates, and the annual review of progress. In addition, the impact of the political commitment of the Minister for Transport, Tourism and Sport and the Ministerial Committee on Road Safety must not be underestimated.

The stakeholder partners who were part of the Strategy process were uniformly positive that a multi-agency approach to road safety would generate the best outcomes, and that a 5 to 7 year Strategy is an appropriate timescale to address the current challenges facing road safety.

#### Review of the Road Safety Strategy 2007—2012

A comprehensive review of the Road Safety Strategy 2007 - 2012 was also undertaken during this process. This helped to identify the inputs, outcomes and impacts associated with the Strategy measures and assessed their contribution to the achievement of the Strategy's objectives.

#### The conclusions of the review are outlined below9:

- The number of fatal vehicle-on-vehicle collisions has more than halved over the period of the Strategy.
- · The number of other fatal collisions has reduced by around a third.
- The reported rate of serious collisions in 2011 was less than half that at the start of the Strategy period.
- The impact of the strategy equates to the prevention of 686 fatal collisions, 1,312 serious injury collisions and 649 minor collisions.
- · A road safety culture firmly embedded in the road-using public.

The review found that the vast majority of the actions that were committed to as part of the Strategy were implemented in full. Measures that required cross-agency co-ordination proved more difficult to implement.

#### Value for money

The review found that the overall benefit-to-cost ratio for the Strategy is estimated to be close to 3 to 1, which compares favourably with many investment options elsewhere in the economy.

One of the main factors in the safety gains that have been achieved by the Strategy has been the completion of the major inter-urban network, now largely designated as motorways which have been very effective. Rates of return from safety schemes such as small, infrastructure improvements, targeted at locations with a history of multiple collisions and other measures that are targeted at people or places or situations where there is a substantially above-average risk, are likely to offer value for money and safety dividends.





<sup>9.</sup> Evaluation of the Road Safety Strategy 2007—2012 (Draft Report) December 2012 RPS Consulting

# 4. The Challenges



#### **The Challenges**

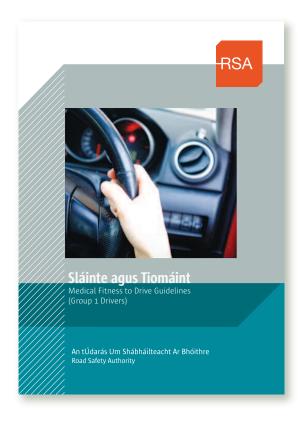
The consultation process highlighted a number of road safety challenges that will need to be addressed in this Strategy and these are outlined in detail in this chapter. Given the success of the 2007—2012 Road Safety Strategy, one of the key challenges of this Strategy is to prevent complacency and continue to progress the building of a national road safety culture. In addition, the European Union has adopted a target of halving the number of road deaths in the European Union by 2020, starting from 2010. This represents a much more ambitious target than previously adopted and challenges Ireland to play its part by committing to further substantial progress in reducing collisions, fatalities and serious injuries. The European Union's strategy focuses in particular on reducing the number of serious injuries and on protecting vulnerable road users.

The following are some of the issues that reflect the priorities set at EU level and the views arising from the public consultation and the consultations with the primary stakeholders, including Government departments and agencies, the Gardaí, the Health and Safety Authority and the Medical Bureau of Road Safety. These are reflected in the actions in this Strategy.

#### **Work Related Vehicle Safety**

Collisions during working hours or on the way to work account for up to a third of all road traffic collisions, therefore special consideration is given in the new Strategy to work related vehicle safety issues. Ireland has many good examples of companies and organisations that have developed effective road safety interventions in the workplace and achieved reduced collision rates, less absenteeism, better vehicle maintenance, lower fuel costs, reduced insurance premiums, greater staff satisfaction and better re-saleability of vehicles. There is a need to make employers aware of the need to implement stringent road safety policies within their organisations and workplaces to improve their business and reduce unnecessary costs. While there is good progress in many private organisations in developing road safety policies, there is a need to focus on Government and Local Authorities to put such policies in place within their organisations.

Experience has shown that road safety is a shared responsibility involving the broader community as well as government agencies. A challenge for the new Strategy will be to draw companies and employers into the task of building a national road safety culture, so as to make more progress in relation to work-related road safety. Duty of care, occupational health and safety and road safety compliance are legal necessities in all EU Member States and are an essential consideration for employers. The European Directive 89/391/EEC on the health and safety of workers requires every employer in Europe to undertake a risk assessment according to the principles of prevention. This includes employees travelling for work, or whose work occurs on or near the road. An examination of possible legislation to prohibit certain work-related activities, especially roadside retailing/marketing, on safety grounds will be considered within the lifetime of this strategy.



#### **Medical Fitness to Drive**

The National Programme Office for Traffic Medicine was established by the Road Safety Authority (RSA) and the Royal College of Physicians of Ireland (RCPI) in July 2011 to take the lead on the development and implementation of a national framework on standards in traffic medicine. Based in RCPI, the priorities of the National Programme Office are:

- The establishment and updating of medical fitness to drive guidelines in line with emerging evidence and research.
- To promote and prolong safe driving by supporting medical practitioners and drivers in making decisions about medical fitness to drive.
- Ongoing professional education and the development of a network of accredited specialist driver assessors, and
- A continuing focus on research so as to expand and harness the evidence base on medical fitness to drive.

The discipline of traffic medicine is aimed at understanding and mitigating the road safety risks to which disability or illness give rise, and reducing the harm traffic crashes inflict on fragile human beings. There is also an enabling/rehabilitative element which tries to ensure that transport mobility (an important constituent of well-being and social inclusion) is not hampered, or rendered unsafe, by remediable illness or functional loss. Consideration will be given to move away from age-defined medical screening to more evidence-based interventions.

As traffic medicine is a relatively new specialism, there is a need to improve our understanding of both medical fitness to drive and of the support requirements of doctors and other professionals engaged in this area.

#### **Drug Driving**

Following several decades of successful efforts to understand and reduce the magnitude of the problems associated with driving after consuming alcohol, driving while impaired by other psychoactive substances has emerged as a road safety issue of its own. There is a wide variety of substances, from illegal drugs to some over-the-counter preparations that can adversely affect the cognitive and behavioural skills required to operate a vehicle safely.

Despite the apparent similarity with the problem of alcohol use and driving, drug-driving presents a whole new array of challenges for research, policy and programmes. This is because drug-driving is a much more complex issue. Not only are there numerous substances that have the potential to impair driving abilities, detecting and measuring these substances cannot be done using breath samples but require other methods to gather samples of bodily fluids such as blood, urine, and/or oral fluid. In addition, whereas alcohol use is common among most segments of the driving age population, different types of drugs tend to be used by subgroups within the population for a variety of purposes.

To a large extent, countries have used their drink-driving legislation as a model for their legal approach to drug-driving. Legislation falls into two general categories – behaviour-based (*i.e.* impairment) statutes and per se laws. Behaviour-based statutes focus on the degradation of driving skills as a consequence of consuming a psychoactive substance. The alternative used by a number of jurisdictions is to set the per se limit for drugs at zero. 'Zero tolerance' laws specify that any detectable amount of particular substances found in the body of a driver would be considered to constitute an offence.

Roadside testing of drivers who may be impaired by drugs will commence in 2013. Drivers suspected of being under the influence of drugs will be asked to perform a series of tests at the roadside by the Gardaí to measure the motorist's co-ordination abilities by, for example, walking in a straight line or balancing on one leg. Any driver who fails the roadside impairment test, or who appears to be under the influence of drugs according to the Garda at the scene, will be arrested and brought to a Garda station. New legislation is currently being drafted to allow for the introduction of the measure, which will be part of the Road Traffic Bill 2013. Gardaí are already being trained in the new procedures by the Medical Bureau of Road Safety (MBRS) and University College Dublin in preparation for the introduction.

The introduction of Mandatory Alcohol Testing (MAT) has been a very effective intervention to improve road safety since 2006. Consideration will be given during this strategy to extend the initiative to drugs, thus replacing MAT with Mandatory Intoxicant Testing (MIT). This would then allow for the addition of roadside chemical testing as soon as suitable and effective devices for testing have been identified, tested and approved.



#### **Fatigue**

Road traffic collisions often have multiple causes, with the two most frequently cited contributory factors being excessive speed and/or alcohol. However, there is increasing recognition of the effects of fatigue and sleepiness on driver performance and recent Road Safety Authority campaigns have specifically highlighted driver fatigue as a risk factor for road collisions. Although published estimates vary, sleep-related crashes may account for 15 – 20% of all road traffic collisions.

There is a range of factors that can cause fatigue such as lack of quality sleep, the time of day driving and extended work hours. Sleepiness is also a common symptom associated with several sleep disorders including obstructive sleep apnoea syndrome (OSAS) and narcolepsy, in addition to neurological or other medical disorders such as Parkinson's disease, hepatic failure and hypothyroidism. The most prevalent medical disorder associated with sleepiness presenting to sleep clinics is OSAS, which affects in excess of 4% of males and 2% of females in the general population, which implies that up to 100,000 of the Irish population have some degree of the disorder OSAS. Numerous studies have examined the association between OSAS and road collision risk, and the overall risk of crashes is increased between 2 and 10 times in OSAS patients compared to controls in different reports.

Treatment of OSAS with Continuous Positive Airway Pressure (CPAP) is relatively cheap and highly effective in reducing sleepiness, and therefore can have a direct effect on reducing sleep related road traffic collisions. There is a need to include information on OSAS and its treatment in any awareness campaign in the future.

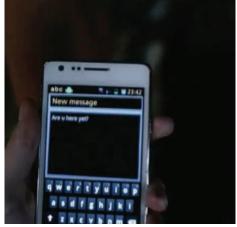
Cognisance must be taken of the role technology can play in making drivers aware of fatigue. In-vehicle devices that sense drivers' tendency to tire and can warn them, or even satellite navigation systems that can advise drivers to consider a rest when they input long journeys, needs to be encouraged.

#### **Distraction - Mobile Phones**

Driver distraction is thought to play a role in 20-30% of all road collisions and the device that has become a real road safety concern is the mobile phone and its use while driving, whether hand-held or hands-free. Up to 45% of drivers report using their mobile phone at least sometimes while driving, and it is estimated that at any given moment during the day, 2-6% of drivers are using a mobile phone (Road Safety Authority, 2010). Epidemiological studies strongly suggest that using a mobile phone while driving can increase the risk of being involved in a road collision up to four times.

The enforcement of the use of mobile phones whilst driving must remain a priority for the Gardaí. Although it is a difficult offence to detect, efforts will be made to continue to focus on this problem. An increase in penalty points for those who offend will also reinforce the serious issue it is for drivers. Technology also has a role in prohibiting the use of mobile phones in vehicles. The use of devices which prevent a mobile phone being used while a vehicle is being driven must also be encouraged. Good work practices are employed by some employers whereby mobile phones in work vehicles will not operate unless the hand brake is engaged.





#### **Vulnerable Road Users**

Vulnerable road users – older people, children, motorcyclists and those using non-motorised modes of transport *i.e.* cycling and walking – are particularly prone to serious injury in the context of road collisions and the focus on these groups needs to be maintained in the new Strategy.

#### **Pedestrians**

The attractiveness of walking depends strongly on the safety of the infrastructure provided<sup>10</sup>. Collisions involving pedestrians account for 1 in 5 fatalities annually. Since many collisions involving pedestrians occur during the winter months and in rural areas, increased emphasis will be placed on encouraging the use of reflective materials.

Walking has many health benefits when practised safely and responsibly. However, pedestrians should also be made aware of the danger they can cause themselves and other road users when they consume alcohol and/or drugs. Studies estimate that two thirds of pedestrians killed on Irish roads (for which BAC level information is available) had consumed alcohol and of these, 50% were three times over the legal driving limit.

Particular attention should also be paid to providing accessibility to all roads, maintaining the safe condition of roads with adequate signage for pedestrians, supporting elderly people or people with reduced mobility through additional aids such as acoustic aids or tactile paving, and gritting and cleaning paths and public areas.





#### **Cyclists**

Cycling has become increasingly popular over the last decade and has many benefits including better health, a cleaner environment and less congestion. Government policy through the National Cycling Framework is to encourage and support cycling, with initiatives like the cycle to work scheme.

However, it should be remembered that collisions involving cyclists account for 1 in 25 road deaths annually, and many collisions involving cyclists lead to serious head injuries. According to the latest observational study by the Road Safety Authority, nearly 50% of cyclists wear helmets, although there is no legal requirement to wear them. Positive awareness-raising for the wearing of helmets by all age groups, especially children, will be continued through the Strategy to achieve a higher rate of compliance by cyclists.

Wearing rates for reflective clothing among cyclists is 42%. Greater efforts will be taken to encourage cyclists to wear reflective clothing and to ensure bicycles are equipped with legally compliant lights and bells. Awareness campaigns will continue to inform road users who are protected by their vehicles and those who are not. This information will continue to be part of the learner driver training and testing procedures.

While the Safe Systems approach is applicable to vulnerable road users, these road users are still responsible for acting appropriately while on the road network. The Gardaí will continue to target aberrant behaviours on the part of cyclists, particularly improper use of footpaths, cycling the wrong way on roads and going through red lights. Consideration will be given to extending the penalty points systems to cyclists where offences are relevant to safety.

Cycle training is an issue that has received considerable focus as part of the public consultation process for this strategy. The roll out of a standardised cycling training programme in collaboration with schools as outlined in the National Cycling Policy Framework document will be commenced. It is expected that the implementation of separate cyclist and pedestrian facilities on certain low-volume National Secondary road schemes will also commence under the strategy.

#### Children

Children use the roads as pedestrians, cyclists and as occupants of vehicles, especially school buses. They may live close to a road or play on a road. All these interactions with roads, together with a range of other risk factors associated with childhood, increase the susceptibility of children to road traffic injury.

The number of children killed on Irish roads between 1997 and 2011 dropped by almost 74%. However 259 children were killed and more than 1,000 seriously injured during this period. The Road Safety Authority has and will continue to distribute high-visibility vests to every child starting school to ensure they are seen by other road users as part of its back to school campaign which also includes advice for parents and teachers.

The Road Safety Authority, with the support of the Department of Education and Skills and the Department of Children and Youth Affairs, will implement a comprehensive road safety educational programme in all pre-Primary and Primary schools. The Gardaí, through their schools programme, will also reinforce these messages of road safety. Children will be introduced to road safety as an example of responsible and healthy citizenry. The resources provided will be continuously reviewed and updated to ensure they can be used effectively in the education structure in schools today.

The Road Safety Authority, with support from the Gardaí, will carry out an awareness campaign about the legal requirement for seatbelts on all school buses.





#### **Older Road Users**

Older people today are driving further and more often than their predecessors. Many older people feel reliant upon their car and see driving as a genuine necessity and can feel suddenly isolated and vulnerable when they no longer have access to a car. Yet there are, inevitably, concerns about the road safety of older drivers.

However, there is little or no evidence that older drivers, up to the age of around 80, are less safe behind the wheel than younger drivers. In fact, they have fewer collisions than most other age groups. This is, in part, because older drivers already self-regulate their driving behaviour in later life by avoiding driving in more risky circumstances such as heavy traffic or bad weather, or in unfamiliar areas. However, it may also be the case that some older drivers cease driving too soon, therefore unnecessarily undermining their mobility and well-being. Self-regulation may be inadequate for maintaining the road safety of some older drivers and therefore what is needed is more behavioural 'nudges' so that older drivers are self-regulating sooner.

The Road Safety Authority will continue to implement an older road user awareness programme 'Mobility Matters' to encourage elderly road users to continue to drive as long as possible in a safe manner. This will be supported by the National Programme Office for Traffic Medicine.





#### Motorcyclists

For a motorcyclist, the risk of dying in a traffic crash per vehicle kilometre travelled is about 24 times higher than it is for a car occupant. Motorcycles represented 1 in 70 of all licensed vehicles in Ireland between 2007 and 2011, but motorcyclists accounted for 1 in 10 road deaths over the same period. One of the main reasons is that, in a crash, motorcycle and moped users have less protection than drivers or passengers in vehicles. Trained motorcyclists around the world prove every day that biking can be a fun, safe and satisfying activity. However, if a motorcyclist does not have the appropriate skills, the right attitude to safety and the benefit of education and training, it's a much riskier pursuit. It is important to note that in 36% of injury collisions involving motorcyclists, the fault lay with another road user, typically a driver who failed to see the motorcyclist.

The Road Safety Authority will continue to target motorcyclists and drivers with awareness raising campaigns, the promotion of Personal Protection Equipment (PPE) and will reform and expand the way riders are trained and licensed.

#### **Road Works**

Specific legislation and guidance exists including the 'Guidance for the Control and Management of Traffic at Road Works', Chapter 8 of the Traffic Signs Manual (Temporary Traffic Measures and Signs for Roadworks) and the Guidelines of the Health and Safety Authority. These guidelines provide guidance for temporary traffic management on the road network. However, research has shown that road works create road safety risks. The ETSC PRAISE project has concluded that road works complicate the driving task and can lead to driver errors and/or violation.

Road work sites need to be effectively managed by their operators, monitored by the Local Authorities and the National Roads Authority, and policed by the Gardaí and the Health and Safety Authority. There needs to be closer co-operation and notification between the Local Authorities and the Gardaí about the locations and conditions applicable to such road work sites. There is also a need for road users to be made aware of their role when engaging at road works.

#### **Emergency Response and Care**

The way in which people injured in road crashes receive emergency care will determine their chances and the quality of their survival. The provision of an evidence-based emergency care model for victims of crashes, including pre-hospital and hospital-based care that provides for a consistent appropriate emergency response which reflects best international practice and which improves the survival, treatment and recovery of those involved is required. This will not only save lives but also greatly reduce the severity and long term consequences of serious injuries and will be a major determinant in the outcome for the crash survivor and their rehabilitation to health. The imperative is to ensure the best possible emergency care at the scene followed by transfer to hospital/trauma care centre by road or air as clinically determined. The introduction of emergency call systems for road collisions (eCall) and Helicopter Emergency Medical Services (HEMS) will assist in speeding up the arrival of emergency services to the scene as well as the transport of survivors to hospital.



#### **Data Analysis and Evaluation**

The Road Safety Authority will focus on developing better data and information on serious injuries caused in road traffic collisions. There are a number of issues in the collection, collation, analysis and dissemination of serious road injury data that need to be resolved. For example, the current definition of a serious injury is very broad and includes a wide range of injuries from a bone fracture to a severe life changing injury. Current practice, both here and internationally, is that the diagnosis of a serious injury is based on the Garda's opinion at the scene of the collision.

It is acknowledged by the OECD and the EU that the current system of injury definition and categorisation that is used internationally is not acceptable. Ireland, by its participation with the EU High Level Group on Road Safety and in the OECD IRTAD Group, will within the first year of the Strategy explore how an international definition of a serious injury can be agreed and how a medical categorisation (rather than a police categorisation) can be arrived at.

Effective road safety management can only be achieved if the necessary core data is available for analysis and evaluation. That is why an integrated collision analysis system will be created in Ireland and links established between collision, injury, road traffic and road data. The collision data recording and reporting system will be revised as part of the Road Safety Authority and An Garda Siochána collision data management system. The revision will see changes to the Garda PULSE system to enable the timely transfer of data to the Authority in order to disseminate information on collision trends more effectively.

While the data on road collision fatalities that is provided by the Gardaí is the most comprehensive data available, there is scope to supplement it with data from other sources. Additional information on road deaths from the files of the Coroners is provided by the Health Research Board (HRB) in the annual National Drug-Related Deaths Index (NDRDI). This epidemiological database records death by drugs and alcohol poisoning. The potential to get more data from the Coroners' files on other aspects of fatal collisions will be explored by the Road Safety Authority and the Health Research Board.

There is also a requirement for road traffic serious injury data to be part of a National Trauma Registry<sup>11</sup> to enable a comprehensive usage of collective police, hospital, emergency service, insurance and any other data source which will provide knowledge about the incidence of injury including those caused on the roads to be illustrated.

#### **Post-collision Investigation**

An Garda Síochána has a duty to conduct a thorough investigation to establish the circumstances that have led to a road death, and to discharge their responsibilities to the coroner. Most importantly, the investigation enables the Gardaí to provide an explanation of what happened to the family and friends of the deceased. In addition, the outcome of investigations can be used to learn lessons which may assist in the prevention of further deaths and serious injuries on the road.

The principle is that all fatal collisions should be investigated as 'unlawful killings' until the contrary is proved. Whatever the initial circumstances appear to be, all fatal collisions must be investigated to the highest standard. As there can be no prescriptive response to cover all types of fatal collision investigations, the key investigative principles, in conjunction with the appropriate resources, provide investigators with a suitable framework to ensure that the most thorough and appropriate investigation is conducted.

Although the focus of this practice is to support the effective and professional investigation of fatal collisions, it is important that staff involved in this area can contribute to the identification of longer-term prevention, intelligence and enforcement opportunities with regards to wider roads policing and road safety issues. The findings of investigations into fatal collisions can help to reduce future road casualty numbers.

<sup>11.</sup> The National Emergency Programme – A Strategy to improve safety, quality, access and value in Emergency Medicine in Ireland. Royal College of Surgeons in Ireland — 2012.

As part of the shared responsibility of a Safe Systems approach to road safety, there is now a need for better co-ordination of the results of Garda investigations of fatal and serious injury collisions. While the Gardaí are the prime investigation authority and their priority is to pursue, where appropriate, a successful prosecution in some cases, there are secondary issues which must be addressed such as how a collision occurred and the remedial initiatives that can be taken to prevent a repeat of such occurrences.

A number of initiatives highlighted in this Strategy will endeavour to improve the situation. The more efficient transfer of road collision data from the Garda PULSE system to the Road Safety Authority would get information about collision occurrence quicker to the local authority engineers and to the safety engineers of the National Roads Authority. This initiative may in time remove the current necessity for the completion of the LA16 form used by the Local Authority when made aware of a fatal or serious injury collision by the Gardaí.

However, there is still a need for some additional examination of road traffic collision sites in order to rectify, where necessary, any road factor which may have contributed to the collision. It may be a requirement to establish within some state authority a group of engineering experts to carry out such a review of a scene and to make recommendations. There may also be a need to refer to the Garda forensic collision investigation reports in order to learn about any other causation factor(s). These issues are especially important where a Garda investigation may not become a prosecution and therefore the information is not revealed to any other authority. It is acknowledged that these files are often presented at Coroners' Courts and can be of tremendous assistance in arriving at a decision by the relevant Coroner. Both the issue of additional scene examination and the availability of Garda forensic investigation reports to other interested state authorities needs to be reviewed in the early stages of this Strategy.

Provision must be also made for the further development and implementation of an immediate (and also for the longer term) support and information/counselling response for the families of those killed and seriously injured in road traffic collisions. The HSE and the Gardaí, who operate effectively in this area, will continue to work specific to their areas of responsibility with road victim advocacy groups in such development and implementation.

#### In Summary

While the issues identified above are very serious and require additional innovative and effective solutions, the issues of the previous Strategy are still with us. It would be remiss to believe that the hard won reductions in road collisions and fatalities can be maintained without continuing the education, enforcement and engineering initiatives already in place. Given the current constraints on Exchequer finances, a key challenge for the new Strategy is to maintain and enhance road safety activity in a cost-effective manner, ward against complacency and address emerging road safety issues. This will require innovative responses and increased cross agency co-operation and funding, as well as building the economic case for road safety investment. This approach would be reinforced in road safety and be built into other policies and strategies *e.g.* health and education.

# 5. The Safe Systems Approach



#### The Safe Systems Approach

As outlined in the introduction, this Strategy presents a more holistic approach to road safety, which builds on existing road safety interventions, but reframes the way in which road safety is viewed and managed in the community. This is called the Safe Systems approach and its key principles are outlined in this chapter.

#### **Vision and Values**

In addition to continuing to implement successful road safety interventions, there is a need to maintain high levels of cooperation and co-ordination between the key stakeholders so as to ensure an integrated approach to improving road safety. Innovative measures and solutions are required into the future. Vehicle and road technologies will become increasingly important to road safety over the lifetime of this strategy. However, despite the opportunities offered by technology, human behaviour continues to be the most important focus for road safety policy.

Ireland has pursued what can be termed a traditional model in road safety strategies over the last decade and a half. This approach has been based on the road user having a personal responsibility for their behaviour while using the road. This approach has served us well.

However, other better performing countries have adopted a Safe Systems approach to road safety and this Strategy has as its focus the principles of the Safe Systems approach. The Safe Systems approach recognises that even with an emphasis on prevention of road collisions, some collisions will occur and therefore the road system must be designed and maintained to take account of human error, the management of collision forces in vehicles to reduce injury and fatality risk, as well as reducing the contribution of careless driving to road collisions. The approach was originally developed in the Netherlands in the early 1990s and has seen many applications of the concept since then in Sweden, New Zealand, Switzerland, Norway and Australia. A recent report has highlighted the need for a phased approach to the introduction of the Safe Systems approach in Ireland, so that a consensus is established and stakeholders are fully engaged.<sup>12</sup>

#### The Safe Systems approach to road safety is built on several key principles:

**Human Behaviour** — no matter how well we are trained and educated about responsible road use, people make mistakes and the road transport system needs to accommodate this.

**Human Frailty** — the finite capacity of the human body to withstand physical force before a serious injury or fatality can be expected is a core system design consideration.

**Forgiving Systems** — roads that we travel on, vehicles we travel in, speeds we travel at and the attitudes of road users to each other, need to be more forgiving of human error.

**Shared Responsibility**; Everyone has a responsibility to use the road safely with organisations, businesses and communities taking responsibility for designing, managing and encouraging safe use of the road transport system. Co-operation and co-ordination must be developed and enhanced between all key stakeholders together and by these stakeholders with the road-using public.

There is sometimes a mistaken view that the Safe Systems approach relates only to infrastructural engineering and not to anything else. This is not the case: the system relates to all the stakeholders who are involved in the road transport network. This includes those who enforce the law, those who educate, emergency and health agencies that operate within the system and, most importantly of all, those who use the system.



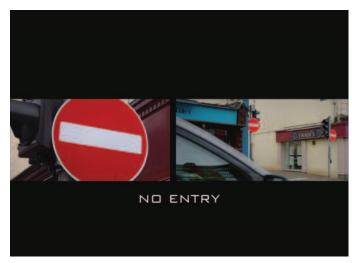


#### **Safer Roads**

Responsible behaviour on the part of every individual driver is the basis for safety on the roads. However, since drivers are human and make mistakes, roads should be designed and operated in a manner that not only promotes safe driving and appropriate speed choice, but also mitigates the consequences of collisions.

The functionality of the road needs to be considered. Roads and their signage, markings and linings need to be inspected on a regular basis from a safety perspective to ensure they are as safe as can be reasonably expected to reduce the possibility of road users making errors. Remedial interventions should be carried out to correct any issues that arise from inspections. Interventions do not have to be very costly — routine maintenance, such as removing overgrown hedging from stop/yield signs, prevents a driver making a mistake that could have very costly consequences.

There are very effective guidelines and manuals available, such as the NRA Design Manual for Roads and Bridges, and these need to be used to ensure there is a consistently safe network across the state. The road network itself needs to be protected, especially from the use of heavy goods vehicles that are overweight (including insecure loads). The Gardaí, as the main enforcement authority, with support from the Road Safety Authority, the National Roads Authority and the Local Authorities will ensure compliance in this regard. The Gardaí and the Road Safety Authority/Local Authorities need to employ appropriate technological developments to ensure the problem of overweight vehicles is effectively addressed.





#### Safer Behaviour

Education and awareness campaigns encourage safe behaviour by targeting key high-risk behaviours such as speeding, impaired driving through alcohol, drugs and fatigue, mobile phone use and unsafe behaviour by and towards vulnerable road users. There is also a need to acknowledge that people with substance misuse issues (alcohol and drugs) and who drive may require specialist help. The approach adopted in this Strategy is complimentary and supportive of the measures contained in the National Substance Misuse Strategy recognising that a whole of Government and whole of society approach to alcohol and drug misuse will deliver real benefits for improved road safety.

Education in schools at all levels, pre-school, primary, secondary, further education and third level and in the community, provides the information that influences road users' decisions and continues to be a critical element in the State's approach to reducing fatalities and serious injuries.

Communication and education strategies must emphasise responsible behaviour and empowerment of individuals to achieve positive road safety outcomes and be based on targeted road safety research. Training, as part of the driver testing and licensing programmes, will play a substantial role in enhancing behaviour, improving skills and reducing error making. Such training must be continually assessed and developed. The implementation of the graduated driver licensing system will improve training standards by allowing novice drivers to advance their driving skills on a gradual basis and make them safer drivers. The development of essential driver training will be continuously reviewed and developed. It should be applicable to all learner drivers, not just for drivers of cars and motorbikes.

Training, education and awareness of road safety are a necessity in the workplace. The safety benefits of having such policies in place will accrue to all staff, their families as well as to business operations in general. State agencies have the important role here of encouraging organisations to pursue such policies and to demonstrate to employers the benefits of such initiatives.

Traffic law enforcement plays a vital role in improving behaviour. The primary aim of traffic policing is to create, promote and maintain a safe road environment by ensuring that road users adhere to the traffic laws. Enhanced enforcement could reduce road fatalities by approximately one third. This potential can be realised with the help of innovative active and passive enforcement systems and technology.



#### **Safer Vehicles**

Research has shown that if each motorist upgraded their vehicle to the safest model in its class, road deaths and injuries could be reduced by up to a third<sup>13</sup>. Vehicles with higher safety ratings not only reduce the likelihood of collisions occurring but also reduce the severity of injuries.

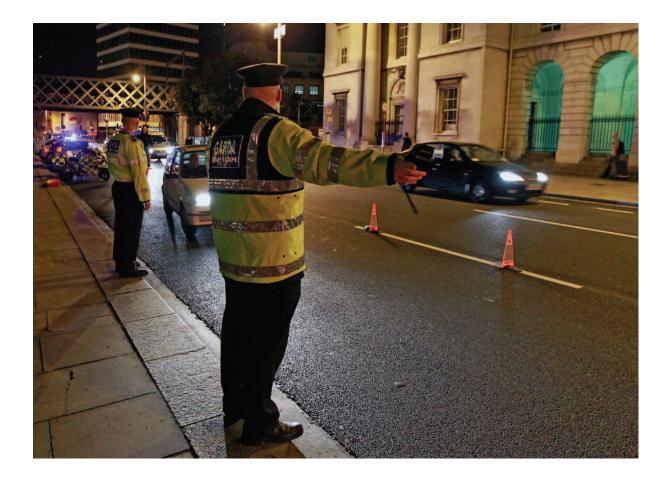
Continued improvements in vehicle design and the incorporation of new technologies have increased the level of protection for occupants and other road users when vehicles are involved in collisions. Improvements include better side impact protection, frontal crash protection, padded head areas, seatbelt reminders, intelligent air bags and pedestrian protection. Such initiatives improve vehicle standards and make the transport system safer. The use of Electronic Stability Control (ESC) improves a vehicle's stability by detecting and reducing loss of traction (skidding). Ireland will support the ideal of CARS 21 High Level Group that seeks to develop the European Automotive Industry in the European Union by improving the safety and environmental performance of vehicles<sup>14</sup>.

Consideration will be given, during the period of this strategy, to examine the feasibility of removing or reducing the rate of VAT and/or VRT on safety related equipment and/or technology. Vehicles need to be properly maintained to ensure their safe operation. Recent economic challenges may deter vehicle owners from undertaking routine maintenance. In addition, the vehicle fleet is ageing, giving rise to increased risk of vehicles becoming defective. Awareness of the necessity to maintain vehicles needs to be reinforced, so as to avoid increased collision risks on the road network. A vehicle rectification scheme that would require prompt repair of any vehicle defects will be considered during the course of this road safety strategy. The National Car Test will be reviewed continually to ensure it provides the safest standards of vehicles on the road.

Within the period of this strategy, all vehicles will be required to have an emergency kit in the vehicle. This emergency kit will contain at least first aid material, a high visibility vest and a breakdown triangle.

<sup>13.</sup> Victoria Road Safety Strategy Arrive Alive 2008-2017

<sup>14.</sup> CARS, 2. (2012). CARS 21 High Level Group on the Competitiveness and Sustainable Growth of the Automotive Industry in the European Union. European Commission.



#### **Safer Speeds**

Vehicle travel speeds affect both the risk and severity of collisions and subsequent injuries. A very important and relatively recent development in addressing the problem of speeding has been to recognise the thresholds of physical resistance of the human body to the forces imposed on it, during rapid changes in speed in a collision. For example, according to the World Health Organisation, pedestrians incur a risk of being killed of about 80% at an impact speed of 50km/h, while the risk is reduced to 10% at 30km/h. For car occupants, wearing seatbelts and driving well-designed cars can provide protection to a maximum of 70km/h in frontal impacts and 50km/h in side impacts.

Speed control is a vital part of the management of the road transport network. Infrastructure improvement, appropriate speed limits, pertinent signage and markings, vehicle engineering, enforcement, awareness/education, training and driving assistance technologies are all initiatives to make speeding levels more tolerable to human frailty, improve driver speed behaviour and make the transport system safer.

Use of technology such as Intelligent Speed Adaptation (ISA) should be encouraged. Also known as intelligent speed assistance and speed alerting, ISA is any system that constantly monitors vehicle speed and the local speed limit on a road and implements an action when the vehicle is detected to be exceeding the speed limit. This can be done through an advisory system, where the driver is warned, or through an intervention system where the driving systems of the vehicle are controlled automatically to reduce the vehicle's speed.

Modern vehicles are capable of travelling far in excess of a legal speed limit and this encourages drivers to speed. There is a requirement for policy makers at an EU level to address the issue of awarding a car a five-star safety rating, while having an indicator that states the vehicle can travel at 240km/h or over twice the legal limit. The automotive industry must be encouraged to enhance their vehicle design to include passive intelligent speed adaptation to assist drivers in their speed choices and prevent them mistakenly travelling in excess of the legal limit.

#### **In Summary**

As outlined in this chapter, Ireland is now looking to move towards a Safe Systems approach to road safety for the remainder of this decade. This approach builds on existing road safety interventions, but reframes the way in which road safety is viewed and managed in the community. It addresses all elements of the road transport system in an integrated way with the aim of ensuring collision energy levels are below what would cause fatal or serious injury. It requires acceptance of shared overall responsibilities and accountability between system designers and road users and it stimulates the development of innovative interventions and new partnerships necessary to achieve ambitious long term road safety targets.



## 6. Targets



#### **Targets**

The setting of targets is crucial to the success of the new Strategy. Our approach is to set targets that are stretching, in the sense of encouraging robust actions to reduce the risk of collisions, injuries or fatalities. The targets must also reflect the principles of the new Safe Systems approach, and contribute to the overall aim of reducing deaths and serious injuries on our roads, and closing the gap between Ireland and the best performing countries.

#### **Fatalities**

The intention of the Government is to raise Ireland's road safety performance to that of the best performing countries in the world. Ireland needs to close the gap with the United Kingdom, Netherlands and Sweden. In order to achieve this, an ambitious target has been set for the reduction of fatalities on Irish roads by 2020.

A target of reducing the number of fatalities on Irish roads to 25 per million population or less by 2020 is required to close the gap and contribute to the European Union target.

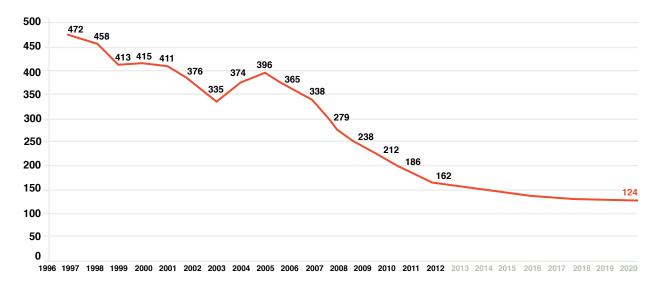


Figure 6: Road Traffic Fatalities 1997 — 2012 With Provisional Targets For 2020

#### **Serious Injuries**

There is a need to focus on reducing serious injuries as well as deaths. Establishing a target for serious injuries will make a contribution in this regard. However, it is difficult to establish a precise target for serious injuries at present when there is uncertainty about the definition of a serious injury. This has led the European Union to conclude that with regard to serious injuries 'a European target is not possible, due to the lack of a common definition of severe and minor injuries' 15.

<sup>15.</sup> Towards a European road safety area: policy orientations on road safety 2011—2020. European Union Communication, 2010.

There is considerable work being undertaken at European level to establish an acceptable definition of a serious injury. Pending the outcome of this work, an interim target has been established for serious injuries until the mid-term evaluation of the Strategy in 2016. As part of the research activity under this Strategy, a number of actions will be taken to progress the establishing of a definition and the setting of a target, including co-operating with European initiatives in this area. Serious injuries under the current definition have been reducing in line with fatalities over the last decade and a half. The average ratio of serious injuries to fatality has been on average 3:1. While it is the intention within the first year or two of this Strategy to establish an enhanced definition of a road traffic serious injury and to determine a scientific method for counting them, nevertheless a target for serious injuries is set here for the year 2020.

It is expected that with the decrease in the fatality target to reach 124 fatalities by 2020 or 25 fatalities per million population, then a realistic target for serious injuries should be in the region of 330 by 2020 or 61 per million population.

907 860 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

Figure 7: Road Traffic Serious Injuries 1997 — 2012 With Provisional Targets For 2020

#### **Targets for Compliance**

There is a need to have some other targets to ensure that over the period of the Strategy, the primary targets of fatalities and serious injuries are being met. The primary intermediate targets have in the past focused on the primary causation factors that can be effectively measured. These are speeding rates and seatbelt wearing rates.

Source: RSA

Similar targets are in place for the period 2013—2020. These are set out in **Tables 5 and 6**. A target of 100% compliance has been set and whilst it is acknowledged it may difficult to achieve, it is a necessary requirement to support the primary targets of fatality and serious injury reduction in this Strategy.

**Table 5: Speed Compliance Targets 2020** 

Vehicle Type	Road Type	2012 Compliance %	Target Compliance %
<b>Articulated Vehicles</b>	Urban National – 50km/h	22	100
	National Primary 2 lane	30	100
	National Secondary 2 lane	68	100
	Regional Roads	98	100
	Local Roads	100	100
Buses	National Primary 2 lane	51	100
	National Secondary 2 lane	91	100
Cars	Urban National – 50km/h	15	100
	Urban Arterial – 60km/h	38	100
	Urban Arterial – 50km/h	26	100
	National Primary 2 lane	84	100
	National Secondary 2 lane	94	100
	Regional Roads	66	100
	Local Roads	87	100
Rigid Vehicle	Urban National – 50km/h	24	100
	National Primary 2 lane	47	100
	National Secondary 2 lane	79	100
	Regional Roads	90	100
	Local Roads	99	100

**Table 6: Seatbelt Wearing Compliance Targets 2020** 

#### **In Summary**

From a practical viewpoint, it is recognised that it will not be possible to eliminate deaths and serious injuries on our roads by 2020. However, it is not accepted that any death or serious injury is inevitable and this strategy will strive to achieve the maximum reduction in casualties by 2020. There is a cause for every collision, fatality and injury. Collisions are avoidable, they are not accidents.

# 7. Objectives and Measures



#### **Objectives and Measures**

In previous chapters, we have outlined what we believe will be the key challenges facing road safety over the next few years as identified during a comprehensive and extensive public and stakeholder consultation process. Against these challenges, we have set ambitious targets for further reducing deaths and serious injuries on our roads and bringing us in line with best performing countries in the EU and internationally.

#### This Strategy is based on three key areas of intervention:

- **Education** measures relating to awareness raising, formal education and training to ensure that all road users have the appropriate attitudes, knowledge and skills to ensure safe road behaviour and to reduce the chance of committing errors.
- **Engineering** measures relating to the design of roads and vehicles, the operation of the road system and the integration of land use and road planning to promote safe and forgiving spaces to ensure that Irish roads and the vehicles that use them maximise road user safety.
- **Enforcement** measures for the prevention, policing and mitigation of the effect of collisions to ensure that road users behave in a safe manner and where collisions occur, that the impact on casualties is minimised.

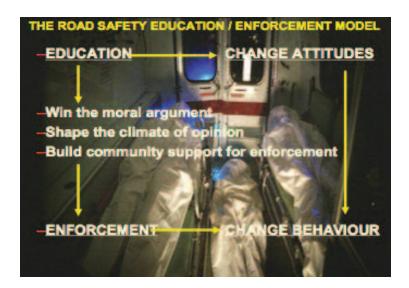
Focusing on these three areas has worked well in the past and facilitates the identification of intervention measures and the agencies responsible for carrying them out. The measures under these headings are informed by the challenges identified above and are underpinned by a programme of research, monitoring and evaluation.

The new Strategy will extend over a period of eight years. Over this period of time, new safety issues will emerge and new actions will be shown to be effective, therefore, it is important that the Strategy is responsive to change and reflects the changing priorities of the various stakeholders. To this end, a strong implementation structure will be put in place, which will encompass regular monitoring and evaluation of progress in co-operation with the major stakeholders.

#### **Education and Awareness Measures**

The Road Safety Authority's policy is to deliver road user education in an age-appropriate cumulative approach up to third level. There is a comprehensive integrated road safety education programme in pre-schools, primary, post primary, further education and third level and in the community. These programmes are supplemented with targeted mass media communication campaigns focusing on the causal factors for deaths and injuries on Irish roads. It is also important to note that these mass media campaigns are integrated with the policing plans of An Garda Síochána and other enforcement agencies. The mass media campaigns target the killer behaviours, in particular, speed, impaired driving, restraint use and vulnerable road users. The road safety educational model used is based on the fact that enforcement actions are optimally effective in changing behaviour only if they are combined with actions to make the public aware of these actions and the reasons why they are being implemented.

In line with the Safe Systems approach, every effort must be made to ensure that people realise just how vulnerable they are on the road. Over the lifetime of this Road Safety Strategy, awareness-raising measures will seek to 'enrol' the public at individual level to take personal responsibility and ownership of road safety within their communities. This will be encapsulated in the call to action: 'Safer Roads — Only You Can Get Us There'.



#### There are significant communications challenges ahead including:

- · Tackling public attitudes towards mobile phone use and drug driving.
- · Targeting cyclists, pedestrians and motorcyclists to remind them of their vulnerability.
- Tackling drivers' attitudes towards low level and inappropriate speeding, particularly in the context of vulnerable road users.

While it will be important to communicate messages that are designed to change attitudes towards these socially unacceptable behaviours, equally it will be important that issues that have been tackled successfully are not neglected. In such cases, it will be important to conduct 'preventative' campaigns that are designed to remind road users of the dangers they face if they do not use the roads safely.

A number of channels will be employed including the use of mass media, the publication of brochures and guidelines, and the holding of a number of events, including Irish Road Safety Week. There is a focus on reaching the maximum possible audience and the use of new media, such as social media, will be a feature of the new Strategy.

The Road Safety Authority adopts an approach that seeks to integrate awareness raising activities with other road safety interventions, particularly those of enforcement agencies including An Garda Síochána, and in a cross-border context.

The formal education sector has a crucial role to play in the implementation of the Road Safety Strategy. The Strategy contains individual measures aimed at ensuring Irish schools and colleges have the support and resources they need to drive home the safety message. Take up by teachers of the resources provided by the Road Safety Authority is critical to the delivery of the road safety message to students. In this context, a feature of the new Strategy is a focus on integrating road safety materials into the school's curricula *e.g.* the New Junior Cycle Framework which will be in place from 2014. Many of the measures are thus focused on the review of existing material and approaches, with a view to integrating the road safety message into the routine of school life.

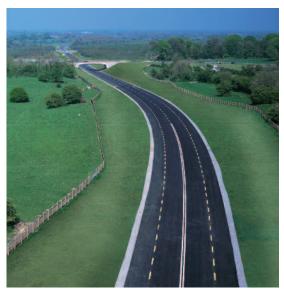
The RSA recognises that the modern driving environment is particularly demanding with increased volumes of traffic, more complex road networks and faster vehicles. Whilst driver instruction is regulated and there are mandatory training requirements for new drivers, it is essential that drivers continue to drive safely for life. In designing a graduated driver licensing system for Ireland, the RSA has sought to maximise the safety of inexperienced drivers and those with whom they share the road. The RSA will further refine the way drivers are trained and licensed, including post-licence measures, so that driver education is a lifelong learning process. The Strategy incorporates measures to promote this objective. It aims to extend initial basic training to categories of learner drivers not previously covered.

#### **Engineering Measures**

The NRA and the Local Authorities are charged with the provision of a safe, forgiving and efficient network of roads. The completion of the Major Inter-urban Route network has improved the safety of the National Route system, as motorways are approximately seven times safer than single carriageway roads. The emphasis is now shifting to the impact of maintenance and operational aspects of the road network on road safety, including traffic management at road works.

This Strategy contains measures aimed at improving the standards of Irish roads and implementing safety-focused remedial measures. While there is reduced emphasis on large scale road construction, there is an increased focus on value for money road improvements that will enhance the safety of the road system as a whole. Further motorway service areas are planned to protect against driver fatigue.

The very substantial investment already made in improving the National Route system is already paying dividends in terms of a reduction in collisions. The Strategy contains measures aimed at ensuring the safe operation of national, regional and local roads and the vehicles that use them. The European Directive 2008/96/EC on Road Infrastructure Safety Management provides new legal requirements for the safety management of the Trans-European Road Network (TERN). In the context of the Directive, the Strategy contains a number of actions to apply an enhanced road safety management approach to the National Road network as a whole.





#### **Enforcement Measures**

An Garda Síochána, supported by the Department of Justice and Equality, ensures compliance with all road traffic legislation. They are supported in this by the work of the Medical Bureau of Road Safety and the Road Safety Authority itself. The inclusion of a Safe Systems approach to road safety in this Strategy does not in any way reduce the role of enforcement in reducing deaths and serious injuries on the roads.

Maintaining a high level of enforcement is critical to further progress in reducing collisions. The new Strategy seeks to ensure that an effective and efficient approach is adopted. Working through the Garda Roads Policing Operation Plan, the Strategy will target enforcement on key high risk behaviours such as speeding and impaired driving resulting from alcohol and drug misuse.

The Safety Camera Network is now in place and continued high level of enforcement activity is envisaged. Extension of the use of the camera network to cover other offences will be considered. Roadside drug impairment testing will also be implemented, while mandatory alcohol testing checkpoints will continue to be operated. It is envisaged that a dedicated forensic engineering assessment unit will be established to report on road related factors at collision sites.

The use of ANPR (Automated Number Plate Recognition) has proved to be a great success for the Gardaí to enable them to be more targeted and effective in their enforcement interventions. This technology needs to be further advanced and developed. There is a necessity to monitor similar developments of new enforcement technologies to ensure that the Gardaí and the Road Safety Authority can operate efficiently and effectively to continue the level of enforcement to maintain the decreasing trends in road deaths and injuries.

Increased surveillance and new sanctions for non-compliant commercial vehicle operators will be considered as well as ways of reducing the compliance burden generally. A more integrated approach to vehicle testing and surveillance will be established.

The penalty points system has proved to have been an effective deterrent in changing road users' behaviour for the better over the past decade. The system needs to be continuously reviewed and updated to keep ahead of driver behaviour trends and actions. It will be extended over the course of this Strategy to cover new safety related traffic offences.

#### In Summary

As outlined above, focusing on the areas of Education, Enforcement and Engineering has proven very successful in the past in terms of identifying actions that will have the most impact on reducing deaths and serious injuries on our roads and encouraging further changed attitudes and behaviours to road safety. Focusing on these areas of intervention will continue to underpin the implementation of the actions in the new Strategy.



## 8. Critical Success Factors



#### **Critical Success Factors**

#### **Political Commitment**

The Ministerial Committee on Road Safety is chaired by the Minister for Transport, Tourism and Sport and attended by five other Ministers, their supporting officials, the Attorney General, Commissioner of An Garda Síochána and the CEO of the Road Safety Authority. This Committee proved to be instrumental in driving the last Strategy and will be vital to the success of this new Strategy.

#### **Public Support**

Public support for road safety is now very strong and a safety culture is developing in Irish society. That support is vital if the targets set out in this strategy are to be achieved. The road-using public play an important part in the success of this strategy and must be seen as equal partners with all the key stakeholders in road safety.

#### **Policy Implementation**

While setting of road safety policy remains the function of the Minister for Tourism, Transport and Sport, the Road Safety Authority is the primary organisation responsible for advising on and evaluating road safety policy. In this Strategy, Ireland is now looking to move towards a Safe Systems approach to road safety. Therefore there must be a committed buy-in to the Safe Systems approach to road safety. All departments and authorities must understand the concept fully and use every opportunity to provide a safe, forgiving and efficient transport network.

#### **Collaborative Approach**

Successful delivery of the Strategy requires a high level of collaboration among the agencies and departments involved, a clear delineation of roles, and an institutional framework that facilitates the collaborative approach. This Strategy sets out the lead department or agency for each action and establishes a process of formal and informal consultation and review with the key stakeholders.

#### **Garda Traffic Corps**

The Gardaí established the Garda Traffic Corps with the supporting command structure, equipment and resources. The Traffic Corps, with the support of the Medical Bureau of Road Safety (MBRS), the Road Safety Authority, Local Authorities and the National Roads Authority, ensures the necessary enforcement capacity to achieve increased compliance with road traffic law. The Safe Systems approach does not see any diminution in enforcement; it requires the maintenance of the Garda Traffic Corps to ensure that those who deliberately decide to violate traffic regulation are apprehended and receive the appropriate sanction.

#### **Road Engineering**

Significant investment has gone into the building and maintenance of the road transport network. It is now safer and needs to be kept that way. The maintenance of the built infrastructure is a particular challenge and road condition surveys and site visits will be conducted in order to identify the priorities for maintenance funding.

#### **Media Support**

Print, broadcast, electronic and social media have a very important role to play in communicating road safety matters and to ensure it remains a high priority social issue in communities.

#### Legislation

As the Strategy unfolds, the speedy introduction of the necessary legislation will be crucial to its success.

#### **Funding**

Dedicated funding is available for the work of the Road Safety Authority, National Roads Authority, National Transport Authority, the Medical Bureau of Road Safety, and the Garda Traffic Corps. This brings together the funding for critical road safety interventions over the lifetime of the Strategy. It facilitates best practice in service delivery, transparency in resource allocation and enables quality evaluation. Co-funding initiatives will be examined and considered where required to deliver the actions under the Strategy. Delivery of the Strategy within the budgets set aside for this purpose will require the sharing of resources, data and information among the key stakeholders as appropriate.

#### **Ongoing Consultation Process**

The Road Safety Authority will consult on an annual basis with the principal partners. This consultation shall be part of the ongoing review of the Strategy when actions can be reviewed, evaluated and new developments and innovations considered. Such reviews will be included in the Annual Road Safety Strategy Report to the Minister for Transport, Tourism and Sport and the Ministerial Committee on Road Safety.

#### **Non Government Agencies and Organisations**

This Strategy recognises the role of Non-Governmental Organisations who advocate for road safety, provide support through their networks for those who have lost loved ones or have been injured themselves in road collisions. These organisations have an important role in maintaining road safety within the public domain and social consciousness.

#### **EU Commission**

The Commission has an important role in road safety policy formation in Europe and its paper 'Towards a European Road Safety Area; policy orientations in road safety 2011-2020' sets out objectives to lower the number of road user casualties and provides a general governance framework and challenging objectives which should guide national or local strategies.

#### **World Health Organisation**

The World Health Organisation identifies the need for a co-ordinated response to road safety, including the development and implementation of a multi-sectoral strategy on injury prevention with sufficient finances for planned activities to be achieved within a specified timeframe.

#### Organisation for Economic Co-Operation and Development (OECD)/IRTAD

Provides an International Comparison of road collision data on a continuous basis informing the development of policy.

#### **UN Road Safety**

The United Nations advocates that the creation of an adequately funded lead agency on road safety and an accurate assessment of a country's road safety situation are important steps that need to be taken to effectively tackle road traffic injuries. Regulatory and other actions that address those risk factors have led to dramatic decreases in road crashes in many countries. The provision of emergency trauma care services has also been shown to be important in mitigating the negative impacts of road traffic crashes.

With resolution A/RES/64/255 of 10 May 2010, the UN General Assembly proclaimed the period 2011—2020 as the Decade of Action for Road Safety, with a goal to stabilise and then reduce the forecast level of road traffic fatalities around the world by increasing activities conducted at regional, national and global levels.



## 9. Road Safety Strategy 2013— 2020; Key Actions



#### Road Safety Strategy 2013—2020; Key Actions

This chapter outlines the key actions that form the Government's Road Safety Strategy 2013—2020. They are categorised under the headings of Education, Enforcement and Engineering and clearly identify the lead agency responsible for their implementation, the support agency, if any, and the target date for the completion of the action. But the overall objective of each action is the same; to contribute to the further reduction of deaths and serious injuries on our roads.

#### 1. Education Measures

No.	Action	Lead Agency or Department	Responsibility	Completion Date	Support Department or Agency
1.	Implement public education/awareness campaigns which target the main causal factors for collisions, deaths and serious injuries for all road users but in particular the high risk groups.	RSA	Director—Road Safety, Research & Driver Education	Annually	HSA/AGS
2.	Integrate public education/awareness campaigns with the policing plans of An Garda Síochána.	RSA	Director—Road Safety, Research & Driver Education	Annually	AGS
3.	Apply new media techniques/initiatives to road safety awareness/education campaigns which are interactive and age-appropriate including the development of a social media strategy.	RSA	Director—Road Safety, Research & Driver Education	Annually	Public and Private Organisations
4.	Conduct a public education/awareness campaign to improve road users' understanding of how and why speed limits are set.	RSA	Director—Road Safety, Research & Driver Education	Q4 2014	AGS
5.	Conduct an education/awareness campaign on the use of seatbelts on school bus transport.	RSA	Director—Road Safety, Research & Driver Education	Q3 2013	LAs/DES/ Bus Éireann
6.	Conduct a public awareness campaign on EURO NCAP ratings designed to focus awareness on each vehicle's safety features to assist the public when purchasing a car.	RSA	Director—Road Safety, Research & Driver Education	Q3 2014	SIMI
7.	Update the suite of publications on the collision- causing factors (speed, impaired driving, seatbelt wearing and vulnerable road users) aimed at all road-users to complement the Rules of the Road and the Driver Theory Test.	RSA	Director—Road Safety, Research Driver Education	Annually	AGS
8.	Implement specific educational measures aimed at vulnerable road users. In particular:  • safe crossing by pedestrians  • awareness of intoxicated pedestrians  • use of personal protection equipment for cyclists and motorcyclists  • awareness of blind spots on HCVs  • road users and workers at road works  • care for young and older people.  Promote the voluntary use of high visibility material for pedestrians, cyclists & motorcyclists.	RSA	Director—Road Safety, Research & Driver Education	Annually	HSA
9.	Develop and implement education/awareness interventions aimed at the high risk 17 to 24 year age group.	RSA	Director—Road Safety, Research & Driver Education	Annually	DCYA
10.	Monitor the implementation of guidelines to assist advertisers to depict positive images of safe driving behaviour and avoid showing unsafe road behaviour.	RSA	Director—Road Safety, Research & Driver Education	Annually	AGS

No.	Action	Lead Agency or Department	Responsibility	Completion Date	Support Department or Agency
11.	Develop a Code of Practice to inform retailers and parents on the appropriate and correct fitment of child restraints in line with legal requirements and best practice.	RSA	Director — Road Safety, Research & Driver Education	Q4 2013	Retailers
12.	Update the education/awareness programme on the dangers of fatigue to include sleep disorders such as Obstructive Sleep Apnoea Syndrome (OSAS).	RSA	Director—Road Safety, Research & Driver Education	Annually	DoH, HSA
13.	Ensure that education/awareness materials are readily accessible to the road-using public via internet and in hard copy through a minimum of 500 public buildings across the country.	RSA	Director—Road Safety, Research & Driver Education	Q2 2014	Stakeholders
14.	Develop, disseminate and implement national medical fitness to drive guidelines for medical practitioners for Category 1 and 4 drivers.	RSA/NPOTM	CEO/Director NPOTM	Q1 2013 Category 1 drivers Q3 2013 Category 4 drivers	Medical Practioners
15.	Integrate international road safety awareness events such as UN Global Road Safety Awareness Week, EU Road Safety Day and World Day of Remembrance for Road Traffic Victims into road safety plans nationally and at local level.	RSA	Director—Road Safety, Research & Driver Education	Annually	AGS/NRA/ HSA/CCMA
16.	Host annual road safety awards ceremony recognising 'Leading Lights' in road safety.	RSA	Director—Road Safety, Research & Driver Education	Annually	Stakeholders
17.	Undertake an annual Road Safety Back to School Campaign highlighting important road safety messages and enhancing the safety of school going children at the start of each academic year.	RSA	Director—Road Safety, Research & Driver Education	Annually	AGS/Schools
18.	Organise an annual Irish Road Safety Week with a series of local and national co-ordinated events aimed at raising awareness of road safety.	RSA	Director—Road Safety, Research & Driver Education	Annually	AGS/LAs
19.	Promote joint North/South cooperation on road safety awareness campaigns and jointly run campaigns where appropriate.	RSA	Director—Road Safety, Research & Driver Education	Annually	DTTAS/DoE NI
20.	Implement a comprehensive integrated road safety education programme, co branded with An Garda Síochána for Pre-school, Primary, Post-Primary, Third Level, Community and Further Education programmes.	RSA/AGS	Director—Road Safety, Research & Driver Education/ Commissioner of An Garda Síochána	Q2 2014	DES
21.	Review all primary and secondary road safety educational resources and continue such road safety education as a component of the primary and secondary level syllabus where opportunities arise and when syllabi are reviewed.	RSA	Director—Road Safety, Research & Driver Education	Annually	DES
22.	Implement a regional structure led by a Road Safety Officer to lead the delivery of road safety education and awareness programmes at a local level in each local authority area.	RSA	CEO	Q1 2014	LAs/CCMA
23.	Update the Streetwise Programme to reflect changes made to the Junior Cycle Syllabus and include first aid at the scene of a collision as a component of the new Junior Certificate Programme.	RSA	Director—Road Safety, Research & Driver Education	Q1 2015	DES/NCCA
24.	Develop and implement public education/ awareness actions aimed at minority/ disadvantaged groups in the community.	RSA	Director—Road Safety, Research & Driver Education	Q1 2015	AGS

No.	Action	Lead Agency or Department	Responsibility	Completion Date	Support Department or Agency
25.	Promote the implementation of the 'Lets Go' Road Safety Guidelines for Primary and Secondary schools.	RSA	Director—Road Safety, Research & Driver Education	Annually	DES
26.	Develop a standardised guide to reducing road safety school gate risks and implement nationally.	RSA	Director—Road Safety, Research & Driver Education	Q4 2014	AGS/LAs/DES
27.	Encourage organisations to sign up and be committed to the European Road Safety Charter and report on their actions/outcomes annually.	RSA	CEO	Annually	DTTAS/HSA
28.	Develop and implement a specialist ADI category to deliver initial training for drivers of Category 'BE' vehicles with trailers over 750kg design gross weight (car and trailer).	RSA	Director—Road Safety, Research & Driver Education	Q3 2014	ADI Forum
29.	Develop and implement a programme for initial training for drivers of category 'W' vehicles (tractor).	RSA	CEO	Q4 2014	ADI Forum
30.	Introduce road safety awareness campaigns that promote Personal Protection Equipment (PPE) for vulnerable road users (pedestrians and cyclists), and which support modal shift to healthier forms of mobility such as walking and cycling.	RSA	Director—Road Safety, Research & Driver Education	Annually	DTTAS/ Pedestrian & Cycling Groups An Taisce
31.	Develop a standardised road safety cycling training proficiency programme for children and seek to make this programme available to as many schools as possible.	DTTAS/RSA	DTTAS Principal Officer/Director— Road Safety, Researc & Driver Education	ch Q3 2014	LAs/DES
32.	Develop and implement a programme for the compulsory initial and 'periodic' training of driving instructors.	RSA	Director—Road Safety, Research & Driver Education	Q4 2014	ADI Forum
33.	Reduce long term reliance on multiple learner permits by introducing measures to ensure that learner permit holders sit a driving test before they can obtain a subsequent learner permit.	RSA	Director—Driver Testing	Q1 2014	ADI Forum
34.	Develop a network of accredited specialist driver trainer/assessors to support medical fitness to drive clinical decision making.	RSA	Director—Driver Testing	Q1 2014	NPOTM
35.	Introduce education awareness raising campaigns on the dangers of in-car, driver distraction, in particular the use of hands-free mobile phones.	RSA	Director—Road Safety, Research & Driver Education	Annually	HSA
36.	Develop an Emergency Services Driving Standards & Syllabus for front line personnel required to drive emergency vehicles.	RSA	CEO	Q4 2013	HSE/NAS, Defence Forces, AGS, Coastguard, PHECC, CFOA, Civil Defence, Coastguard
37.	Develop, introduce and oversee the implementation of a driving standard, training syllabus and assessment process for emergency service drivers. Maintain a Register of qualified drivers.	RSA	Director—Road Safety, Research & Driver Education	Q1 2015	IPS/AGS/CFOA/ Civil Defence/Irish Coast Guard/Irish Defence Forces/ PHECC
38.	Review, update and expand the GDL programme to include new requirements to enhance skill progression for learner, novice drivers and consider the inclusion of other driver categories for post test training/experience during the N plate phase.	RSA	Director—Driver Testing	Q4 2015	DTTAS
39.	Work with the Irish Tyre Industry Association (ITIA) to educate drivers about tyre safety, maintenance and checking. Run two national campaigns jointly per annum.	RSA	Director—Road Safety, Research & Driver Education	Annually	ITIA

No.	Action	Lead Agency	Responsibility	Completion Date	Support
	Action (	or Department	The open circuit,	Completion Bate	Department or Agency
40.	Work with the Society of the Irish Motor Industry (SIMI) to educate drivers about the importance of maintaining vehicles in a roadworthy condition and in preparation for adverse weather conditions. Run two national campaigns jointly per annum.	RSA	Director — Road Safety, Research & Driver Education	Annually	SIMI
41.	Work with the Irish Insurance Federation (IIF) to promote compliance with learner permit regulations and rules relating to vehicle modifications. Run campaigns and utilise customer databases to ensure that every learner permit holder covered by an insurance policy receives specific advice on learner permit regulations.	RSA	CEO	Q2 2014	IIF/Individual Insurance Companies
42.	Work with the Car Rental Council of Ireland to promote road safety to tourists and visitors to Ireland who use hire vehicles.  • Ensure that every vehicle hired contains basic road safety materials.  • Ensure that all car hire websites provide road safety information/links to Irish road safety sites.	RSA	Director—Road Safety, Research & Driver Education	Q2 2014	Car Rental Council of Ireland
43.	Establish a Road Safety Working Together Group (RSWTG) in each Local Authority area to co-ordinate multi-agency road safety policy and implementation at a local level.	CCMA	County Manager	Q4 2013	RSA/AGS/ HSE/NRA
44.	Each Local Authority RSWTG to publish a multi- agency Road Safety Action Plan and to publish an annual review on progress with implementation.	CCMA	Chair RSWTG/ Designate Road Safety Officer	Annually	AGS/RSA/ NRA/HSE
45.	Ensure that all employers are aware of the legal requirement to notify the HSA of relevant collisions involving a road user in the course of their employment and publish data on collision volumes and reporting compliance.	HSA	CEO	Q2 2013	RSA/AGS
46.	Report and publish annual data on workplace road collisions, deaths and injuries to Eurostat.	HSA	CEO	Annually	AGS/Coroners RSA
47.	Develop a national programme (education/ enforcement) for load securing to influence improved standards of load safety in the workplace and on the road.	HSA	CEO	Q1 2014	RSA/AGS
48.	Work with victim advocacy groups to inform the development and implementation of support/ advisory information/counselling for families affected by road fatalities and serious injuries.	RSA	CEO	Q1 2015	HSE/AGS/ Advocacy Groups/ DJ&E
49.	Work with larnród Éireann and the Railway Safety Commission to educate road users on the correct use of railway level crossings by conducting awareness campaigns on an annual basis, updating the ROTR publication and collaborating on other joint safety initiatives.	RSA/larnód Éireann	Director—Road Safety, Research & Driver Education	Q4 2013 Annually	Railway Safety Commisson
50.	Work with and educate Fleet Management Companies and procurers of fleet vehicles to ensure that vehicle safety (NCAP) ratings are given consideration when choosing and purchasing vehicles.	RSA	Director—Road Safety, Research & Driver Education	Q1 2015	Reps from Fleet Management Industry
51.	Work with public and private organisations to ensure that road safety is a key determinant in specification for services and tender documents when considering the procurement of goods and services.	RSA	CEO	Annually	Public and Private Organisations

#### 2. Engineering Measures

No.	Action	Lead Agency or Department	Responsibility	Completion Date	Support Department or Agency
52.	Extend measures in the EU Road Infrastructure Safety Management Directive 2008/96/EC relating to road safety inspection and traffic management, which currently apply to the Ten-T routes, to the entire national road network by 2016.	NBA	CEO	Q4 2016	LAs
		NDA	CLO	Q4 2010	LAS
53.	Carry out 150 minor realignment schemes on the national road network by 2020.	NRA	CEO	Q4 2020	LAs
54.	Implement safety schemes at high risk locations on regional and local roads.	LAs	County Manager	Annually	DTTAS
55.	Develop design guidelines for forgiving roadsides.	NRA	CEO	Q4 2013	_
56.	The provision of at least 5 new service areas on or immediately adjacent to the motorway network by 2020.	NRA	CEO	2020	_
57.	Report on the number of designated and equipped enforcement checkpoint sites for commercial vehicles and their drivers for inclusion in the Annual Road Safety Strategy Report to the Minister of Transport, Tourism and Sport.	RSA	Director – Standards & Enforcement	Q4 2014	NRA/AGS
58.	Each Local Authority to publish/renew their prioritised plan on road building construction and maintenance on an annual basis.	LAs /CCMA	County Manager	Annually	DTTAS
59.	Review road worthiness testing of vintage vehicles to determine the safety case and cost benefits if any for inclusion in roadworthiness testing.	RSA	Director—Standards & Enforcement	Q1 2015	Stakeholders
60.	Increase from 88% to 95% the percentage of national road pavement that is measured as above Investigatory Level in the annual skid resistance (SCRIM) surveys.	NRA	CEO	Q3 2019	_
61.	Increase from 84% to 90% the percentage of the national road network in which the pavement condition, as measured by annual survey indices, is characterised as fair or better.	NRA	CEO	Q1 2020	_
62.	Review the legislation to control the re-introduction of written off vehicles which are no longer suitable for use on public roads and to control the repair and re-use of vehicles written off for financial purposes.	DTTAS	Secretary General	Q1 2014	RSA
63.	Improve the standard of agricultural vehicles on our roads by implementing the recommendations of the 2008 review of the use of agricultural vehicles on public roads.	DTTAS	Secretary General	Q4 2013	RSA/AGS
64.	Research emerging 'in-road' and 'in-vehicle' road safety technologies and make recommendations on their introduction.	RSA	CEO	Annually	Public and Private Organisations
65.	Reduce the number of access points outside speed limit areas on national roads by 5% by 2020.	NRA	CEO	Q1 2020	CCMA/LAs

No.	Action	Lead Agency or Department	Responsibility	Completion Date	Support Department or Agency
66.	Review and make recommendations in relation to the standard of the vehicle service industry, in particular in relation to vehicle maintenance and repairs and the supply and fitment of components and market surveillance requirements.	RSA	Director—Standards & Enforcement	Q4 2015	DTTAS
67.	Implement measures to ensure timely and parallel implementation of the eCall service by the three involved stakeholder groups (automotive industry, mobile network operators and public emergency services), in line with forthcoming EU regulations.	DTTAS	DTTAS Principal Officer	Q4 2015	Automotive Industry/SIMI HSE/DECLG/ DCENR/RSA
68.	Review and determine the most appropriate method of making vehicle odometer reading history available to the public to prevent odometer fraud (clocking) thereby protecting consumers and providing more accurate data on vehicle servicing and replacement of safety critical components.	RSA	Director — Standards & Enforcement	Q4 2015	Data Protection Commissioner SIMI/NCTS

#### 3. Enforcement Measures

No.	Action	Lead Agency or Department	Responsibility	Completion Date	Support Department or Agency
69.	Publish and implement an annual Garda Roads Policing Operation Plan.	AGS	Commissioner of An Garda Síochána	Annually	RSA
70.	Carry out targeted operations of traffic law enforcement with a particular emphasis on safety offences. These priority offences are:  • Excessive and inappropriate speeding  • Impaired driving (alcohol and drugs)  • Restraint/helmet use  • Mobile phone use.  Other offences will be targeted as a result of evidence-based policing and research.	AGS	Commissioner of An Garda Síochána	Annually	MBRS
71.	Maintain a Garda Traffic Corps structure and report annually on the number of Gardaí assigned to the Corps.	AGS	Commissioner of An Garda Síochána	Annually	_
72.	Continue with the outsourcing of the operation of safety cameras to produce 6,000 hours of enforcement per month up to the end of 2015.	AGS	Commissioner of An Garda Síochána	Q4 2015	_
73.	Review the effectiveness of the outsourcing of the operation of safety cameras and establish if there is a business case to continue with outsourcing beyond 2015.	AGS	Commissioner of An Garda Síochána	Q1 2014	DJ&E
74.	Report on the number of breath tests administered at mandatory alcohol testing checkpoints.	AGS	Commissioner of An Garda Síochána	Annually	MBRS
75.	Legislate for and implement intoxicant impairment testing for drivers.	DTTAS	Secretary General	Q4 2014	AGS/MBRS
76.	Report on the number of intoxicant impairment tests administered.	AGS	Commissioner of An Garda Síochána	Annually	MBRS
77.	Legislate for the introduction of zero tolerance approach for illicit drug driving and impairment approach for other drugs.	DTTAS	Secretary General	Q2 2015	MBRS/AGS
78.	Legislate for the implementation of chemical roadside testing for drugs.	DTTAS/MBRS	Secretary General/ Director of MBRS	Q2 2015	AGS
79.	Carry out a feasibility study on the introduction of a rectification notice scheme for defective vehicles targeting common faults such as lights, insufficient tread depth on tyres, broken mirrors etc that would require prompt repair of any defects.	DTTAS	Secretary General	Q2 2014	RSA/AGS
80.	Enforce driver's hours and checking of operator licences in line with EU requirements checking an estimated 260,000 working days per annum in 2013 rising to 350,000 working days over the following 3 years.	AGS/RSA	Commissioner of An Garda Síochána/ Director—Standards & Enforcement	Q4 2016	_
81.	Assess the effectiveness of introducing targeted checks of roadworthiness of light goods vehicles at roadside HCV checkpoints.	AGS/RSA	Commissioner of An Garda Síochána/ Director—Standards & Enforcement	Q3 2014	_
82.	Implement and enforce new maintenance obligations for commercial vehicle operators including an annual self declaration for operators of large commercial vehicles.	RSA	Director—Standards & Enforcement	Q3 2014	AGS

No.	Action	Lead Agency or Department	Responsibility	Completion Date	Support Department or Agency
83.	Develop and implement an agreed effective roadside enforcement strategy for large commercial vehicles and drivers targeting roadworthiness, drivers' hours, tachograph and operator licensing showing increases in the number of vehicles checked at roadside and report annually on progress in implementing the strategy.	AGS/RSA	Commissioner of An Garda Síochána/ Director—Standards & Enforcement	Q3 2013	HSA/Customs
84.	Implement a targeted risk-based approach to enforcement of drivers' hours and roadworthiness offences related to HCVs which would target enforcement at less compliant drivers and operators and support compliant drivers and operators by minimising disruption to them as they go about their daily business.	AGS/RSA	Commissioner of An Garda Síochána/ Director—Standards & Enforcement	Q1 2014	_
85.	Review and update the penalty point system to ensure relevant sanctions are in place, amended as required and new sanctions are introduced to cover new and emerging road safety issues with particular relevance to drivers and vulnerable road users.	DTTAS	Principal Officer DTTAS	Q4 2014	RSA
86.	Establish a new system for risk rating compliance which will incorporate commercial vehicle roadworthiness testing into the risk rating system as set out in the RSA (Commercial Vehicle Roadworthiness) Act 2012 and support the achievement of Action 77.	RSA	Director — Standards & Enforcement	Q3 2013	AGS
87.	Develop protocols for data sharing with other enforcement/statutory agencies with a view to sharing intelligence data where appropriate to inform enforcement activity.	RSA	CEO	Q4 2013	AGS/HSA/ Customs/ NRA
88.	Review policy on licensing of road transport operators to assess if own account operators should be included.	DTTAS	Secretary General	Q3 2014	RSA
89.	Conduct a feasibility study into integrating collision related data into the commercial vehicle enforcement risk rating system.	RSA	Director—Standards & Enforcement	Q4 2013	AGS
90.	Publish the Speed Limits Review report and implement its recommendations.	DTTAS	Principal Officer DTTAS	Q4 2014	NRA/LAs/RSA/ LGMA/AGS
91.	Legislate for, subject to legal advice, and implement the use of average speed cameras at appropriate locations including the Dublin Port Tunnel and at road works.	DTTAS	Secretary General	Q2 2014	AGS/NRA/LAs
92.	Legislate for the extension of fixed charge notices to other offences including those related to cyclists and drivers' hours.	DTTAS	Secretary General	Q2 2014	RSA/AGS
93.	Review the feasibility of alternative sanction options such as corrective training courses for commercial vehicle operators and drivers.	RSA	Director—Standards & Enforcement	Q3 2013	DTTAS/AGS/ DJ&E
94.	Carry out a feasibility report on establishment of independent post-collision engineering assessment programme to review fatal and serious injury cases to include on-site engineering inspections.	DTTAS	Secretary General	Q3 2013	NRA/AGS/RSA/ CCMA
95.	Legislate for the expansion of RSA Enforcement Officer statutory powers to allow for Driver CPC requirements to be enforced as part of roadside checks.	DTTAS	Secretary General	Q1 2014	RSA

No.	Action	Lead Agency or Department	Responsibility	Completion Date	Support Department or Agency
96.	Develop guidelines for organisations and strengthen the permitting system to ensure that all aspects of road safety are considered when organising public events on Irish roads.	RSA	Director—Road Safety, Research & Driver Education	Q4 2013	AGS/CCMA/LAs
97.	Review Driver CPC Regulations to ensure the the most effective enforcement measures are available.	RSA	Director—Road Safety, Research & Driver Education	Q1 2014	AGS
98.	Review and make recommendations on the systems required to control and improve the standard of modifications to vehicles that are already in service (post registration modification scheme).	RSA	Director—Standards & Enforcement	Q1 2014	Stakeholders
99.	Review the options for ensuring that the quality of work carried out by vehicle maintenance and repair services is of a consistent minimum standard so that vehicle owners and the general public can be assured that the vehicles in use on our roads comply with the minimum legal and safety standards.	RSA	Director — Standards & Enforcement	Q1 2015	NCA/NSAI
100.	Conduct a review of current roads network to support extension of the centralised permit system to include overweight vehicles/loads and vehicles/loads over 4.3m in width and 27.4m in length.	NRA	CEO	Q3 2013	AGS
101.	Implement a process for detention, storage, disposal and sale of vehicles impounded during roadside inspections involving RSA personnel in conjunction with An Garda Síochána.	RSA/AGS	Director—Standards & Enforcement/ Commissioner of An Garda Síochána	Q4 2013	_
102.	Integrate NCT and Commercial Vehicle Roadworthiness Test data into the An Garda Síochána ITS system.	RSA/AGS	Director—Standards & Enforcement/ Commissioner of An Garda Síochána	Q2 2014	_
103.	Promote the greater use of the An Garda Síochána Traffic Watch scheme.	AGS	Commissioner of An Garda Síochána	Annually	NRA/RSA
104.	Undertake education/awareness raising and roadside checks to ensure that trailers comply with the road traffic and type approval legislation.	RSA/AGS	Director—Standards & Enforcement/ Commissioner of An Garda Síochána	Annually	Stakeholders
105.	Make it compulsory for a breakdown emergency pack including a first aid kit, a high visibility vest, a breakdown triangle and a torch to be carried in all vehicles by end 2014.	DTTAS	Secretary General	Q4 2014	RSA
106.	Legislate, subject to legal advice, to prevent persons over the legal blood alcohol limit from acting as an accompanying driver for a Learner Permit holder.	DTTAS	Principal Officer DTTAS	Q3 2016	RSA/AGS/MBRS
107.	Legislate for, subject to legal advice, and implement rehabilitation and driving awareness courses as court-based sentencing options for specific offenders.	DTTAS	Secretary General	Q1 2015	RSA/DJ&E
108.	Undertake further cross-border enforcement actions in co-operation with Northern Ireland in relation to commercial vehicles and drivers.	RSA/AGS	CEO/Commissioner of An Garda Síochána	of Annually	PSNI
109.	Consider the introduction of new legislation to prohibit high risk activities including on road marketing, vending and charitable collections.	DTTAS	Principal Officer DTTAS	Q4 2014	RSA/HSA/AGS

#### 4. Evaluation Data and Research Measures

No.	Action	Lead Agency or Department	Responsibility	Completion Date	Support Department or Agency
110.	Report to the Minister for Transport, Tourism and Sport annually on progress in implementing the Strategy.	RSA	Director—Road Safety, Research & Driver Education	Annually	Stakeholders
111.	Maintain the Ministerial Committee on Road Safety to monitor progress on the implementation of the Road Safety Strategy 2013–2020.	DTTAS	Secretary General	Annually	RSA
112.	Conduct a Mid Term Evaluation of the Road Safety Strategy 2013–2020 in 2016, incorporating a review of the Strategy targets and actions.	RSA	Director—Road Safety, Research & Driver Education	Q4 2016	Stakeholders
113.	Commence an Ex-post Evaluation of the Road Safety Strategy 2013–2020.	RSA	Director—Road Safety, Research & Driver Education	Q2 2020	Stakeholders
114.	Undertake annual surveys of speed, seatbelt usage and other road user behaviours and publish findings each year.	RSA	Director—Road Safety, Research & Driver Education	Annually	_
115.	Review format and content of annual Road Collision Fact publication and promote greater uptake and utilisation of this data.	RSA	Director—Road Safety, Research & Driver Education	Q3 2013	AGS
116.	Establish the definition of serious injuries to be used in the collection of serious injury data and the setting of a target for a reduction in serious injuries.	RSA	Director—Road Safety, Research & Driver Education	Q4 2013	HSE/HSA/AGS/ NRA/ESRI/DoH
117.	Collect data on serious injuries in the context of the National Health and Welfare Survey.	DoH/RSA	CEO RSA/ CEO HSE	Q1 2014	<u> </u>
118.	Improve the recording, collection and dissemination of road collision data, including the enhanced use of the Pulse System.	RSA/AGS	Director—Road Safety, Research & Driver Education	Q1 2014	HSA/NRA
119.	Provide data on the number of fatalities where the deceased had a positive toxicology for alcohol or drugs.	RSA	Director—Road Safety, Research & Driver Education	Annually	MBRS/AGS/ Coroners/HRB
120.	Carry out a feasibility study to extend the remit of the National Drug-Related Death Index to collect all data on fatalities from coroner files.	RSA	DDirector—Road Safety, Research & Driver Education	Q3 2013	HRB/Coroners
121.	Undertake a cost benefit analysis for the use of alcohol interlocks as a sanction for repeat offenders.	RSA	Director—Road Safety, Research & Driver Education	Q1 2014	AGS/MBRS/DJ&E
122.	Conduct a review of maximum driving times for professional drivers not subject to tachograph rules to determine road collision risk and make recommendations.	RSA	Director—Road Safety, Research & Driver Education	Q2 2014	AGS
123.	Research and publish a report on the economic costs that arise as a result of the congestion/ disruption to traffic consequent to road collisions.	RSA	Director—Road Safety, Research & Driver Education	Q4 2015	CCMA/NRA
124.	Evaluate on an ongoing basis the use of roadside drug screening devices.	MBRS	Director	Annually	AGS

No.	Action	Lead Agency or Department	Responsibility	Completion Date	Support Department or Agency
125.	Develop a strategy for road safety research at third level institutions to include research to support monitoring and evaluation of the Strategy.	RSA	Director—Road Safety, Research & Driver Education	Q4 2014	HEA/NRA
126.	Explore the potential for a third level qualification in road safety.	RSA	Director—Road Safety, Research & Driver Education	Q2 2015	NRA/HEA
127.	Produce estimates of road safety related expenditure to inform the Annual Road Safety Strategy Report.	RSA	Director—Road Safety, Research & Driver Education	Annually	AGS/LAs/DES NRA/DTTAS
128.	Implement a research programme that supports enforcement efforts and measures the benefits of the commercial vehicle roadworthiness reform programme (attitudinal surveys, annual surveys etc)	. RSA	Director—Road Safety, Research & Driver Education	Q2 2016	AGS
29.	Establish a technology assessment panel to evaluate new and emerging road safety related technologies and advise on how appropriate technology can be implemented in Ireland.	RSA	CEO	Q3 2015	NRA/AGS
130.	Host an annual international conference on road safety to update and review best practice developments.	RSA	Director—Road Safety, Research & Driver Education	Annually	Stakeholders
131.	Host an annual academic lecture targeting a specific cohort of expertise that reflect topical issues on best practice road safety and that informs future road safety policies.	RSA	Director—Road Safety, Research & Driver Education	Annually	Stakeholders
132.	Participate in the European International road safety research programmes – IRTAD, ETSC, CARE, CEDR and FERSI.	RSA, NRA	Director—Road Safety, Research & Driver Education	Annually	_
133.	Implement Prüm and EUCARIS <sup>16</sup> Directives to support the effective exchange of information relating to vehicle and driver infringements between Member States.	DTTAS	Secretary General	Q2 2014	_
134.	Evaluate the cost benefit of reducing VAT from Personal Protective Equipment (PPE) including child restraints, motorcycle and cyclist PPE with a view towards increasing usage of highest quality PPE and make recommendations to Department of Finance.	RSA	Director—Road Safety, Research & Driver Education	Q1 2014	DoF
135.	Evaluate the cost benefit of incentivising the purchase of vehicle components/devices and personal protection equipment (PPE) that are proven to have positive road safety impact.	RSA	Director—Road Safety, Research & Driver Education	Q2 2015	DoF
136.	Evaluate the business case and benefits for the establishment of a National Trauma Registry and publish recommendations.	DOH	Secretary General	Q4 2017	RSA
137.	Develop more effective means to measure risk exposure data for road safety especially in the area of vehicle/kilometres travelled.	RSA	Director—Road Safety, Research & Driver Education	Q3 2015	NRA
138.	Work with the Irish Insurance Federation/individual insurance providers and Motor Insurance Bureau of Ireland (MIBI) to enable further research and a greater understanding of collision causation and other contributing variables.	RSA	CEO	Q1 2014	IIF/Individual Insurance Providers/MIBI
139.	Develop a professional qualification for RSA Road Safety Promotion Officers to enhance the quality and consistency of service to the public.	RSA	Director—Road Safety, Research & Driver Education	Q1 2017	Stakeholders

<sup>16.</sup> EUCARIS is the European CAR and driving licence Information System and Prüm Decision refers to council decision 2008/615/JHA. EU CARIS is a unique system that provides opportunities to countries to share their vehicle and driving licence registration information, helping to fight vehicle theft and registration fraud. EUCARIS is developed by and for governmental authorities.

No.	Action	Lead Agency or Department	Responsibility	Completion Date	Support Department or Agency
140.	Report on the implementation of a target emergency response time for life threatening emergency calls in line with the HIQA recommendations of 8 minutes in 75% of all cases.	DoH/HSE	Secretary General/ CEO	Annually	HIQA/PHECC
141.	Report on the implementation of a target emergency response time for life threatening emergency calls in line with the National Policy Document 'Keeping Communities Safe — A Framework for Fire Safety in Ireland'.	DECLG/National Directorate for Fire & Emergency Management	CFOs	Q1 2013	LAs/AGS/HSE
142.	Support development of an evidenced based emergency care model for victims of crashes, including pre-hospital and hospital based care, that provides for a consistent appropriate emergency response which reflects best practice and which improves the survival, treatment and recovery of those involved.	HSE/DECLG	CEO/ Secretary General	Q4 2015	PHECC/HIQA
143.	Identify potential philanthropic agencies/ organisations with access to private funding that could further augment the road safety effort in Ireland and set funding targets to achieve this objective.	RSA	CEO	Annually	Private Organisations
144.	Work with the Irish Insurance Federation/Irish Health Care Insurers to secure better access to road safety data and information on minor and serious injuries.	RSA	CEO	Q4 2013	DTTAS/IIF

# 10. Monitoring, Evaluation and Research



#### Monitoring, Evaluation and Research

The new Strategy is flexible and will respond to changing circumstances and new research emerging internationally. To ensure that the Strategy develops in the most effective manner, a programme of monitoring, evaluation and research will be put in place. This will be undertaken primarily by the Board of the Road Safety Authority, with support from other agencies and the Oireachtas Committee on Transport. Ireland will continue to participate in research and evaluation activities of the EU and OECD to ensure that access to the best information regarding safety measures and their effectiveness is maintained.

#### Strategy Monitoring and Evaluation

The broad monitoring arrangements that were instrumental in the success of the previous Strategy will be maintained. There will be an annual review of the Strategy involving the lead Departments and Agencies. Progress in implementing the Strategy will be reported in the context of the Annual Road Safety Strategy Report to the Minister for Transport, Tourism and Sport. This report will be informed by consultation with the major stakeholders. A mid-term evaluation of the Strategy will be implemented in 2016 and this will provide an opportunity to recalibrate targets and to implement adjustments to the education, engineering and enforcement measures as required.

The Ministerial Committee on Road Safety will continue to oversee the implementation of the Strategy. Ongoing monitoring and outcome measurement will be augmented by the midterm review. The review will include an analysis of all socio-economic costs and burdens in relation to road safety as well as congestion/disruption costs.

#### **Reviews and Evaluations**

An evidence-based approach to the development of road safety measures is the best way of ensuring that the Strategy is effectively and efficiently delivered. This means that appropriate data must be developed and policies and initiatives for reducing collision risk evaluated. During the lifetime of the Strategy, the collection and dissemination of road collision data will be improved and the use of the Pulse System as a data source will be reviewed. A particular challenge will be to agree a definition of what constitutes a serious injury and to provide for the collection of data on such injuries.



#### Research

There is a need to draw on international research and to disseminate this to the various road safety stakeholders. The Road Safety Authority, the National Roads Authority and the National Transport Authority, along with the Health and Safety Authority, will continue to participate in European road safety research programmes and encourage Irish academic research. In addition, research into serious injury risks and emerging in-vehicle and on-road safety technologies will be undertaken.

There is a desire for a focused research initiative in one of the main universities in the state. Road safety is by its nature a complex multidisciplinary subject. To fully comprehend the issue, knowledge of the following is desirable: law, engineering (civil and mechanical), urban design and development, public health, psychology, public policy, sociology, media/communication, electronics, economics and medicine. Aspects of road safety are researched in many of the universities in Ireland, but there is no great co-ordination of the research. Authorities such as the Road Safety Authority, the National Roads Authority, the Health and Safety Authority and the National Transport Authority fund and carry out research on aspects of road safety, but again with little or no co-ordination. This is a classic case for shared responsibility within the Safe Systems approach to road safety. All the relevant authorities must co-ordinate their research programmes and attempt to influence at least one university to establish an institute of excellence in the area of road safety research.

There are now many professionals working in the area of road safety with the state; these include staff in the Road Safety Authority, National Roads Authority, Health and Safety Authority, National Transport Authority, Local Authorities and Government departments as well as in the private sector. Yet there is no academic qualification in the subject of road safety, a subject which as mentioned above is complex and multi-disciplinary. The Road Safety Authority will examine the feasibility of some academic authority establishing such a qualification within the lifetime of this strategy.

Over the course of this strategy it is expected that developments in technology will have a significant role in making the roads safer. Technology in the vehicle will assist drivers to drive better and safer. Technology on the road will result in more forgiving roadsides and lead to less road user error. The Gardaí and the Road Safety Authority will use advanced technologies to enhance enforcement. There are many opportunities for individuals/organisations here to play a significant role in developing such technologies. The collaboration between the universities and institutes of technologies, the private sector and interested individuals must be harnessed to ensure that no opportunity is missed. The Road Safety Authority, with the support of all relevant authorities and bodies, will examine how a streamlined process for the assessment of technology to assist in road safety can be effectively put in place.



# 11. Delivery – A Shared Responsibility



#### **Delivery — A Shared Responsibility**

The aim of the Government's Road Safety Strategy 2013—2020 is to save lives and prevent injuries by reducing the number and severity of collisions on the road. This is reflected in the maxim of the Road Safety Authority, *Safer Roads Only You Can Get Us There*.

In the Safe Systems approach in this Strategy, the principle of **Shared Responsibility** is established—where everyone has a responsibility to use the road safely with organisations, businesses and communities taking responsibility for designing, managing and encouraging safe use of the road transport system. Co-operation and co-ordination will be developed and enhanced among all key stakeholders together and by these stakeholders with the road using public.

These State departments and public authorities must work together, and with the road-using public, to deliver the targets and outcomes set out in the strategy:

- Department of Transport, Tourism and Sport
- An Garda Síochána
- National Roads Authority
- Medical Bureau of Road Safety
- · Department of Justice and Equality
- Department of Education and Skills
- Department of Environment, Community and Local Government
- · Department of Health
- Department of Children and Youth Affairs
- · Health Services Executive
- National Programme Office for Traffic Medicine
- Health and Safety Authority
- Local Authorities
- · County and City Managers Association
- · National Transport Authority
- · larnród Éireann
- Railway Safety Commission
- European Commission
- · European Transport Safety Council
- Bus Éireann
- Higher Education Authority
- Office of the Attorney General
- Department of the Taoiseach

All agencies will have their own corporate strategies and annual business plans supporting their efforts under the Government Road Safety Strategy 2013—2020.

## 12. Appendices



### **Board Members**



Mr. Gay Byrne, Chairman



Mr. Aaron MacHale



Ms. Myra Garrett



Mr. Ronan Melvin



Ms. Áine Cornally



Mr. Eddie Rock



Dr. Áine Carroll



Mr. Sean Finan

#### **Executive Management Team**



Mr. Noel Brett Chief Executive



Mr. Simon Buckley Acting Director, Corporate Services



Mr. Michael Rowland Director, Road Safety, Research and Driver Education



Ms. Denise Barry Director, Enforcement and Vehicle Standards



Mr. Declan Naughton Director, Driver Testing and Licensing

## **Bibliography**

- European Commission. European Road Safety Action Programme, 2nd June 2003.
- European Commission. Recommendation on Enforcement in the Field of Road Safety, 2003.
- European Union. Towards a European Road Safety Area: Policy Orientations on Road Safety 2011—2020. European
  Union Communication, 2010.
- NRA. Design Manual for Roads and Bridges, 2010
- NRA. Guidance for the Control and Management of Traffic at Road Works, 2007
- NRA. Project Appraisal Guidelines Unit 6.11: National Parameter Values Sheet, 2011
- OECD. Pedestrian Safety, Urban Space and Health International Transport Forum, 2012
- Royal College of Surgeons in Ireland. The National Emergency Programme A Strategy to Improve Safety, Quality,
   Access and Value in Emergency Medicine in Ireland. 2012.
- RPS Consulting. Evaluation of the Road Safety Strategy 2007 2012 (Draft report) December 2012.
- RSA. A Safe Systems Approach to Road Safety in Ireland, 2011.
- RSA. Road Collision Facts. Various Issues.
- Salmon. P., et al. Road Transport in Drift? Applying Contemporary Systems Thinking to Road Safety. Safety Science volume 50, 2012.
- Tingvall C. et al. The Properties of Safety Performance Indicators in Target Setting, Projections and Safety Design of the Road Transport System. Accident Analysis and Prevention, Volume 42, 2010.
- Wegman.F. et al. Benchmarking Road Safety Performance of Countries. Safety Science Volume 48, 2010.

## **Acronyms**

ADI Approved Driving Instructor

AGS An Garda Síochána

ANPR Automated Number Plate Recognition

BAC Blood Alcohol Concentration

CARE European Centralised database on road accidents

CCMA County and City Managers' Association
CEDR Conference of European Directors of Roads

CFOs Chief Fire Officers

CFOA Chief Fire Officers Association

CICEA International Commission for driving testing

CPAP Continuous Positive Airway Pressure
CPC Certificate of Professional Competence

DCENR Department of Communications, Energy & National Resources

DCYA Department of Children and Youth Affairs

DECLG Department of Environment Community and Local Government

DES Department of Education and Skills
DJ&E Department of Justice and Equality

DOENI Department of the Environment (Northern Ireland)

DOF Department of Finance
DOH Department of Health

DTTAS Department of Transport Tourism and Sport ECMT European Conference of Ministers of Transport

ESC Electronic Stability Control

ETSC European Transport Safety Council

ESRI The Economic and Social Research Institute

EU European Union

EUCARIS European Car and Driving Licence Information System
FERSI Forum of European Road Safety Research Institutes

GDL Graduated Driver Licensing
HCV Heavy Commercial Vehicle
HEA Higher Education Authority

HEMS Helicopter Emergency Medical Services
HIQA Health Information and Quality Authority

HRB Health Research Board
HSA Health and Safety Authority
HSE Health Service Executive
IIF Irish Insurance Federation

IPS Irish Prison Service

IRTAD International Road Traffic and Accident Database

ISA Intelligent Speed Adaptation
ITIA Irish Tyre Industry Association

LA Local Authority

MAT Mandatory Alcohol Testing
MBRS Medical Bureau of Road Safety
MIBI Motor Insurers Bureau of Ireland
MIT Mandatory Intoxicant Testing
NAS National Ambulance Service
NCA National Consumer Agency
NCAP New Car Assessment Programme

NCCA National Council for Curriculum and Assessment

NCT National Car Test

NCTS National Car Testing Service
NDRDI National Drug-Related Deaths Index

NPOTM National Programme Office for Traffic Medicine

NRA National Roads Authority

NSAI National Standards Authority of Ireland

OECD Organisation for Economic Co-operation and Development

OSAS Obstructive Sleep Apnoea Syndrome

OSHA European Agency for Safety and Health at Work

PHECC Pre-Hospital Emergency Care Council
PPE Personal Protection Equipment

PRAISE Preventing Road Accidents and Injuries for the Safety of Employees

PSNI Police Service of Northern Ireland
PULSE Police Using Leading Systems Effectively
RCPI Royal College of Physicians of Ireland

RSA Road Safety Authority

RSWTG Road Safety Working Together Group

SARTRE Social Attitudes to Road Traffic Risk in Europe
SIMI The Society of the Irish Motor Industry

TERN Trans-European Road Network
TISPOL European Traffic Police Network
UCD University College, Dublin

UN United Nations
VAT Value Added Tax
VRT Vehicle Registration Tax

# Working To Save Lives

#### Údarás Um Shábháilteacht Ar Bhóithre

**Road Safety Authority** 

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