



An Roinn Iompair
Turasóireachta agus Spóirt

Department of Transport,
Tourism and Sport

Speed Limits and ISA in Ireland

RSA Annual Road Safety Conference

Dublin Castle

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Speed Limits and ISA in Ireland

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An Roinn Iompair
Turasóireachta agus Spóirt

Department of Transport,
Tourism and Sport

Speed Limits Review 2013 Background











- ❑ February 2012 Working Group established
- ❑ Tasked: -
 - To review and make recommendations on the existing overall system of Speed Limits
 - To review and make recommendations on signs that accompany Speed Limits
 - To make recommendations on the issue of awareness and communication
 - To make recommendations on the implementation of changes

Speed Limits Review 2013 Background

- Review Group consisted of a number of Key Stakeholders including: -
 - Department of Transport Tourism and Sport (DTTAS)
 - National Road Authority (NRA)
 - Road Safety Authority (RSA)
 - National Transport Authority (NTA)
 - An Garda Síochana
 - Local Authorities
 - AA Ireland

Speed Limits Review 2013 Background

- Last review in 2004: -
 - Metric Speed Limits
 - 100 km/h for National Roads
 - 80 km/h for Regional and Local Roads

-	-					
						

Speed Limits Review 2013 Background

Issues arising in relation to: -

- Consistency for Speed Limits and Signs
- Appropriateness for Speed Limits and Signs:

Particularly in relation to: -

- Sensible limits for different roads
- Deployment particularly on minor Rural Roads
- Appeals
- Inappropriate Signs
- Road Works

ISSUES

Speed Limits Review 2013 Issues

❑ Signs at Interfaces



Speed Limits Review 2013 Issues

- Entering a bend



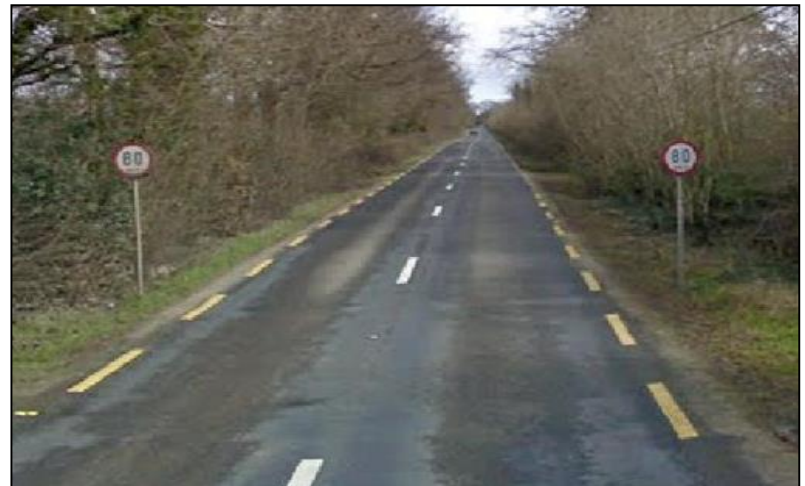
Speed Limits Review 2013 Issues

- ❑ Signs in advance of a junction



Speed Limits Review 2013 Issues

- ❑ Inconsistency and Inappropriateness



Speed Limits Review 2013 Issues

- ❑ Inconsistency and Inappropriateness



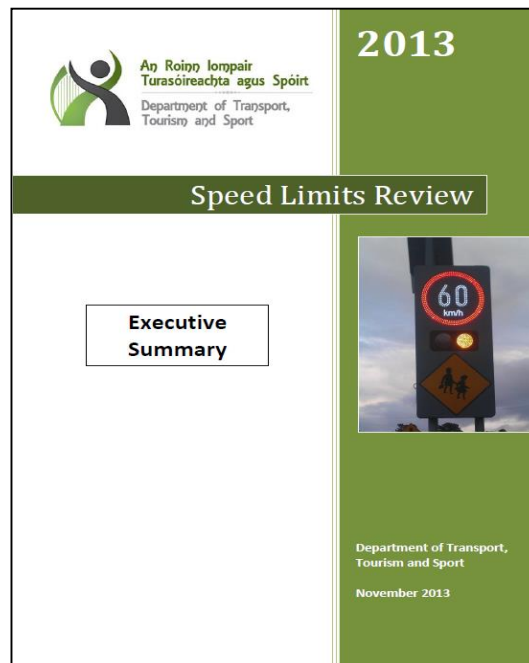
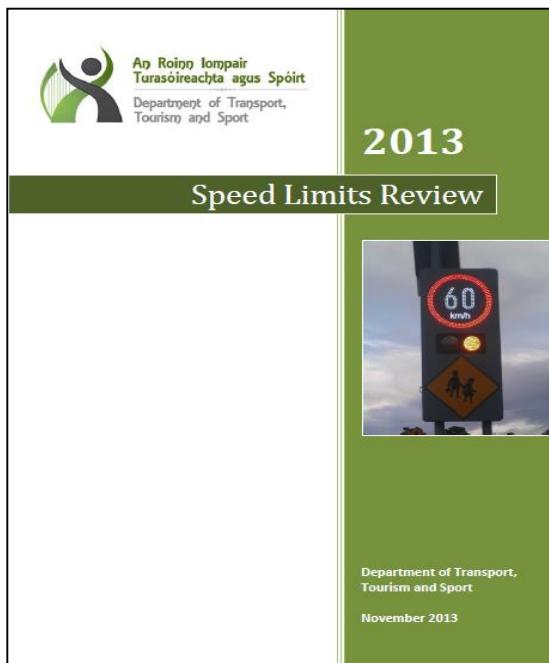
Other Issues

- Urban areas – Housing Estates



SOLUTIONS

Speed Limits Review 2013 Solution



Speed Limits Review 2013 Solution

- ❑ International Practice (OECD)
 - Safe Systems & Speed Limits Management Framework
- ❑ Generic progression: -
 - Decide on the function of the road within the network;
 - Apply engineering techniques to road infrastructure;
 - Apply a Speed Limit appropriate to the particular road;
 - Apply clear and constant signing of the Speed Limits;
 - Enforce the Speed Limit;
 - Periodically assess the Speed Limit, and revise if required.
- ❑ **4 Es' – Engineering; Education; Enforcement and Economy**

Speed Limits Review 2013 Solution

- ❑ Recommended Solution seeks to and address: -
 - Achieve Safe and Sensible Speed Limits
 - Achieve appropriate Speed Limits and signs
 - Address the variety and inconsistency of the road network
- ❑ Single overall plan of consisting of 18 Actions: -
 - 10 Lead and 8 Support
 - 2 year initial implementation
 - Longer term

Speed Limits Review 2013 Actions

1. 10 Lead Actions and 8 Support Actions

Action 1	Revise Speed Limit Signs That Speed Limit signs on Local Roads be replaced, simplified and amended by a new 'Rural Speed Limit' sign to address issues arising.
Responsibility	DTTAS supported by local authorities
Timeframe	Q2 2014 to Q3 2015
Action 2	Update and Implement Driver Education, Training and Communication That a communication strategy be developed and that existing education and training programmes and documents, such as 'The Rules of the Road' be updated.
Responsibility	RSA supported by DTTAS / NRA
Timeframe	Q1 2014 to Q4 2015. Also on-going.
Action 3	Implement Appeals, Oversight and Co-ordination That an independent unit be established to: - manage appeals and queries, manage and update Speed Limit Guidelines as well as to monitor, audit and inspect Local authorities and NRA. DTTAS to consider options and make recommendations in advance.
Responsibility	DTTAS
Timeframe	Q1 2014 to Q2 2014
Action 4	Update National Road Speed Limits That Speed Limits on the National Road Network be updated in accordance with the Guidelines for Special Speed Limits to ensure appropriate fit. To be repeated at intervals no greater than 5 years.
Responsibility	NRA supported by local authorities
Timeframe	Q2 2014 to Q1 2015
Action 5	Update Regional and Local Road Speed Limits That the Speed Limits on the Regional and Local Road Networks be updated in accordance with the Guidelines, to ensure appropriate fit. To be repeated at intervals no greater than 5 years.
Responsibility	Local authorities
Timeframe	Q2 2014 to Q4 2015
Action 6	Remove Inappropriate Signs That existing locations of inappropriate (repeater) Speed Limit signs be identified (logged and mapped) and subsequently removed, relocated or replaced as appropriate.
Responsibility	Local authorities and NRA
Timeframe	Underway. To Q2 2014 for National Roads and end of Q4 2015 for Regional and Local Roads.
Action 7	Strengthen Road Works Speed Limits That the system of Road Works Speed Limits be reformed to improve use & implementation.
Responsibility	DTTAS
Timeframe	Q1 2014 to Q1 2015
Action 8	Update and Strengthen Guidelines and Circulars That the Guidelines for Special Speed Limits be updated to address a number of issues including clarity for road types; approaches to towns; approaches to schools; the use of Variable Speed Limits; the use of Driver Feedback Signs; and training.
Responsibility	DTTAS
Timeframe	Q1 2014 to Q2 2014
Action 9	Update Functions to Set Speed Limits That legislation for the Function to set Special Speed Limits be implemented so that the Local Authority Reserved Function be subject to an appeals process and the NRA have a stronger supervisory and controlling role for National Roads.
Responsibility	DTTAS
Timeframe	Q1 2014 to Q1 2015
Action 10	Update Legislation That legislation to support Speed Limits is implemented to provide for: - Guidelines for Special Speed Limit to be mandatory; appeal mechanism; strengthened powers and functions for the Minister; the NRA for National Roads as well as improvements to Roadworks Speed Limits.
Responsibility	DTTAS
Timeframe	Q1 2014 to Q1 2015

Action 11	Update Traffic Regulations and Signs Manual That the Traffic Regulations and Signs Manual and other related guidelines be revised to address amendments to Speed Limit Signs; Clarity in the use and type of Speed Limits Signs; and Driver Feedback Signs
Responsibility	DTTAS
Timeframe	Q1 2014 to Q2 2014
Action 12	Implement Speed Limit Management Awareness and Training That the Local Authority Roads Service Training Group (RSTG) hold workshops and seminars; and to develop and run a standardised course on the managing and updating of Speed Limits.
Responsibility	Roads Service Training Group (RSTG) supported by DTTAS, NRA, Gardaí
Timeframe	Underway. Q4 2013 to Q4 2014
Action 13	Maintain Digital Records and Maps That Speed Limit records be logged and maintained on a national standardised MapRoad Road Management (SRM) System to facilitate consistency.
Responsibility	DTTAS supported by Local authorities, NRA and LGMA
Timeframe	Underway. Q4 2013 to Q4 2014
Action 14	Strengthen Engineering and Infrastructure Guidelines and Standards That road design and traffic management standards and guidelines be updated to support road fit to Speed Limits, gateways to urban/built up areas, self-explaining roads and a range of low cost solutions, based upon international practice. DTTAS to co-ordinate with NRA and NTA.
Responsibility	DTTAS supported by NRA & NTA
Timeframe	Q3 2014 to Q4 2015
Action 15	Trial and Implement Quiet Lanes and Shared Space That proposals for Rural Quiet Lanes and Urban Shared Space (or Homezones) be developed and implemented and provide for very low Speed Limits such as 30km/h or 20km/h. Proposals to be supported by research and trials.
Responsibility	DTTAS
Timeframe	Q1 2015 to Q4 2015
Action 16	Trial Intelligent Speed Adaptation That proposals and recommendations for the deployment of Intelligent Speed Adaptation (ISA) be developed based on research and pilot studies.
Responsibility	RSA
Timeframe	Q4 2014 to Q4 2015
Action 17	Develop New Legal Evidence Mechanisms That new evidence mechanisms be legislated for, regulated and developed to strengthen enforcement and use of new technologies such as Variable Speed Limits and Average Speed Enforcement.
Responsibility	DTTAS
Timeframe	Q1 2014 to Q1 2015
Action 18	Improve Detection and Enforcement To improve speed detection the Gardaí to review and make recommendations on: increased deployment and outsourcing; average speed detection; widening the function of outsourced back office work and seeking to maximise the integration and shared use of ITS technologies.
Responsibility	Gardaí
Timeframe	Q1 2015 to Q4 2015



Lead Actions

- 1. Revise Speed Limit Signs**
2. Promote greater awareness on Speed Limits and Signs.
3. Appeals, Oversight & Co-ordination
- 4. Update Speed Limits - National Roads**
- 5. Update Speed Limits – Regional & Local Roads**
- 6. Remove Inappropriate Signs**
7. Road Works Speed Limits
- 8. Strengthen Speed Limit Guidelines**
9. Function to Set Speed Limits
10. Update Legislation

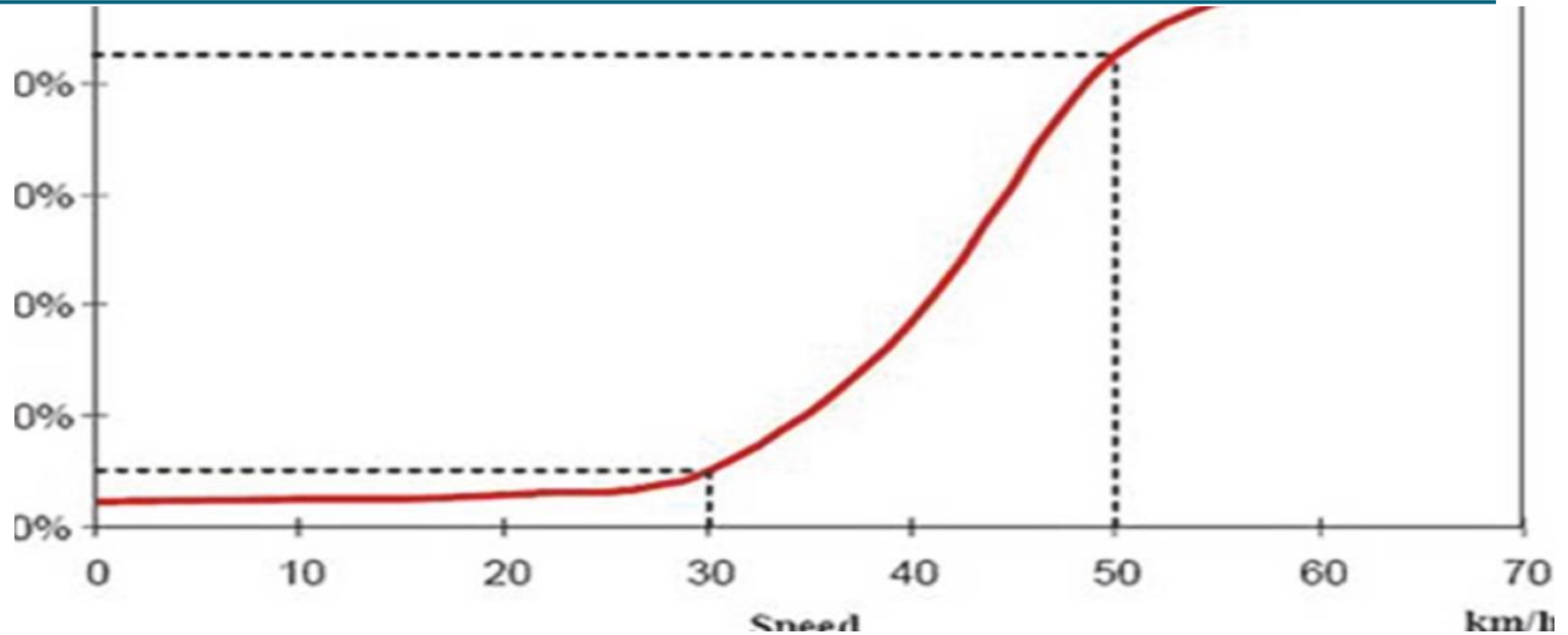


Support Actions

11. **Legislation and Regulations**
12. **Improved Training**
13. **Digital Speed Limit Records Maps and Database**
14. Engineering Guidelines & Standards
15. Trial special lower limit zones in Urban and Rural areas
16. **Intelligent Speed Adaption**
17. Legal Evidence Mechanism
18. Detection and Enforcement



Collision Risk



GUIDELINES

Lead Actions

8. Update and Strengthen Guidelines and Circulars

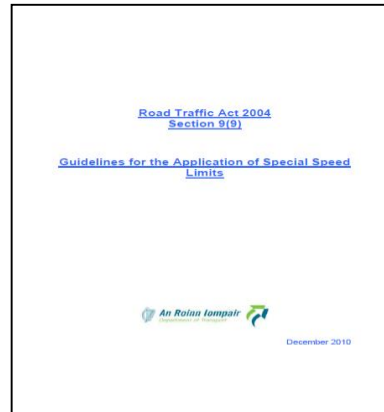
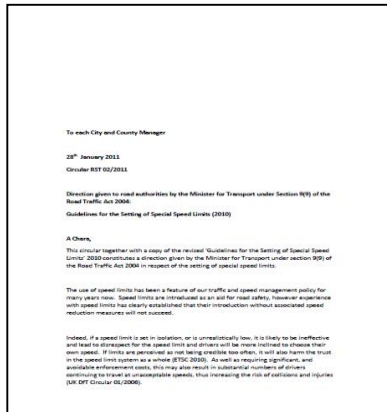
Action 8	<p><u>Update and Strengthen Guidelines and Circulars</u></p> <p><i>That the Guidelines on Speed Limits be updated to:</i></p> <ul style="list-style-type: none">- <i>Improve clarity on Speed Limits for road types</i>- <i>Address Speed Limits for approaches to towns</i>- <i>Address Speed Limits for approaches to Schools</i>- <i>Address the use of Variable Speed Limits</i>- <i>Address the use of Driver Feedback Signs</i>- <i>Require training in assessing Speed Limits</i> <p><i>That the Speed Assessment Framework should be monitored and strengthened where necessary.</i></p> <p><i>That other existing Circulars on Speed Limits be updated or withdrawn to ensure consistent approach in accordance with the Guidelines for the Application of Speed Limits</i></p>
Lead	DTTAS
Supporting	-
Timeframe	Q1 2014 to Q2 2014



Guidelines – pre Existing

□ Speed Limits Pre-Existing

- Guidelines for the Application of Special Speed Limits
- Department Circular (28th February 2011) on Special Speed Limits
- All speed limits in each road authority required to be logged on MapRoad
- Facility already existed on Desktop Version



Guidelines – Sept / Oct 2014

Speed Limits - Housing Estates

The most important objective is to reduce vehicle speeds in housing estates so as to improve safety for pedestrians and cyclists and especially children and the Department sees the increased use of a 30km/h speed limit in residential areas as a measure that will help to achieve that objective.



DTAS Speed Ramp Survey and 30 km/h speed limit implementation in local areas

Existing national guidelines regarding speed limits and ramps

There are a number of existing documents which are relevant to the discussion of low speed limits and ramps:

- Traffic Management Guidelines 2003
- Guidelines for the Application of Special Speed Limits 2010
- Traffic Signs Manual 2010
- Design Manual for Urban Roads and Streets 2013

Traffic Management Guidelines 2003

This was the first Irish document to give detailed guidance regarding suitable traffic calming measures for different situations and to give detailed advice on the design and use of different types of ramps and other types of traffic calming measures. It also addresses the issue of speed management on roads. It introduces the concept of approaching the design of roads in new housing estates in a different way so that speed management is an intrinsic part of the road design and layout.

Guidelines for the Application of Special Speed Limits 2010

Section 6.7 of these guidelines gives particular guidance in respect of 30 km/h speed limits. It notes that in some instances such speed limits may need to be implemented in conjunction with physical traffic calming measures such as ramps. Following the Speed Limit Review in 2013 these Special Speed Limit Guidelines are currently being updated.

Traffic Signs Manual 2010

Clear and effective traffic signs are essential for the efficient operation of the road network, for the enforcement of traffic regulations and for road safety. The Traffic Signs Manual provides details of the traffic signs which may be used on roads in Ireland, including their layout and symbols, the circumstances in which each sign may be used and rules for positioning them.

Chapter 6 of the Manual provides details of the warning signs which may be used on roads in Ireland. Warning signs are used to alert drivers to danger or potential danger ahead. They indicate the need for special caution and may require a consequent manoeuvre or reduction in speed. Appropriate use of warning signs

2

To: Local Authority Chief Executives
15th October 2014 RSD 01/2014

Circular on the control of Vehicle Speeds in Housing Estates

Dear Chief Executives,

The purpose of this Circular is threefold:

- To advise local authorities of the results of the recent survey in respect of the numbers of housing estates which have ramps and have 30 km/h speed limits.
- To release the existing policy regarding traffic calming procedures for housing estates on streets and roads in Ireland and
- To require local authorities to implement a review process of speed limits in housing estates so that the Executive and the Local Members can decide if existing limits are appropriate to ensure a safe environment, particularly for children.

The Minister for Transport, Tourism and Sport has overall policy responsibility for road safety matters and the provision of speed limits is contained in the Road Traffic Acts.

The improvement and maintenance of regional and local roads is the statutory responsibility of each local authority, in accordance with the provisions of Section 13 of the Roads Act 1993. Works on these roads are funded from local authority rates and resources appropriated by their road grant. The selection and prioritisation of works is a matter for the local authority.

Default speed limits

Default speed limits are limits which automatically apply and include the statutory speed limit of 120 km/h, the speed limit on non-urban national roads of 100 km/h, the speed limit on non-urban regional and local roads of 80 km/h and the built-up area speed limit of 50 km/h. Special speed limits (including 30 km/h) may also be applied to roads using sign-ways and these limits override the previous default limits. The making of sign-ways for special speed limits requires a public consultation procedure to be followed and ultimately any decision is made by the Electoral Members of the relevant county or city.

Definition of Housing Estates

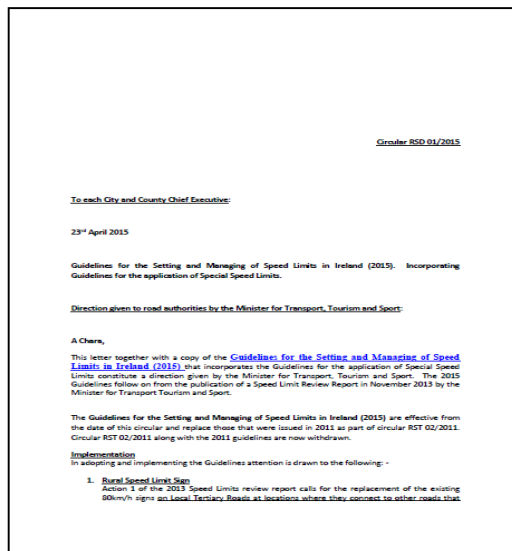
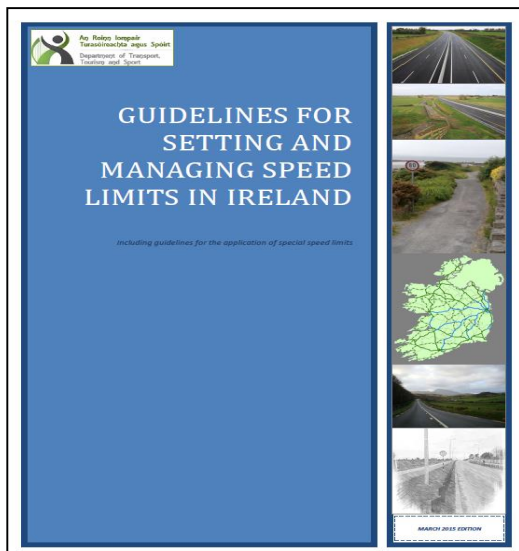
There is no standard definition of what constitutes a housing estate. For the purposes of this Circular it may be convenient to consider a housing estate as a self-contained grouping of houses with single or multiple entry points for vehicles. Such areas often have green areas or play areas associated with them.

Chapter 6 of the Manual provides details of the warning signs which may be used on roads in Ireland. Warning signs are used to alert drivers to danger or potential danger ahead. They indicate the need for special caution and may require a consequent manoeuvre or reduction in speed. Appropriate use of warning signs

Guidelines – March / April 2015

- Department Circulars RST 1 / 2015 – 23rd April 2015
 - Guidelines for Setting and Management of Speed Limits
 - Rural Speed Limit Sign – 12th June 2015
 - Publish existing bye-laws – submit 29th May 2015 published on www.speedlimits.ie by 15th June 2015
 - Inventory and MapRoad – 4th January 2016
 - Removal of inappropriate Signs – end of April 2016
 - Update of Speed Limits – end of April 2017
 - **Directions of the Minister - STATUTORY / LEGAL**

Guidelines – March / April 2015



Guidelines – 2015 – Rural Roads



- New criteria for setting Speed Limits

SPEED LIMIT (km/h)	PAVED ROAD WIDTH
80	Less than or equal to 7.0 m
100	Greater than 7.0 m

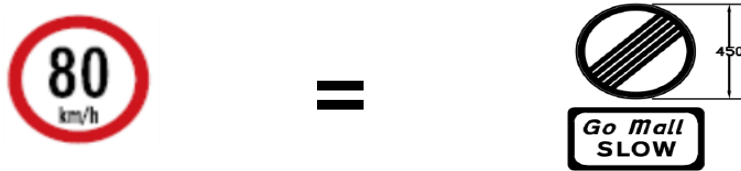


Guidelines – 2015 – Urban Roads

- New criteria for setting Speed Limits based on **Function** and **Context**
- Impact on Road Network

		 Pedestrian Priority	 Vehicle Priority	
		Urban Centers / Commercial Centers	Suburban and Housing Areas	Out of Town Business / Industrial Areas
Function	Arterial	40* - 50	40* - 50	50 - 60
	Link	30 - 40*	30 - 50	50 - 60
	Local	30	30	30 - 50
		Context		

- New Rural Speed Limit Sign (RUS 041A) alternative sign for 80 km/h: -



- 450mm diameter only
- to be used at locations where a single lane local tertiary or certain single lane local secondary road connects to roads with a: -
 - Speed Limit of 100km/h



- 30 km/h should be used for Housing Estates
- Option of new **Slow Zones** (30 km/h) for Urban Roads such as Housing Estates: -
 - community supported
 - safety measures
 - lower the incidence and severity of collisions
 - enhance quality of life
 - Self enforcing



Lead Actions

4 & 5 Update Speed Limits – April 2017

Action 4	<u>Update National Road Speed Limits</u> <i>That the Speed Limits on the National Road Network be updated in accordance with the Guidelines to ensure appropriate fit to:-</i> <ul style="list-style-type: none">- Confirm existing Speed Limit bye-laws and signs.- Implement 80km/h on those sections that are not suitable for a 100km/h Speed Limit.- Implement Speed Limits lower than 80km/h as appropriate for 'at-risk' locations.- Review Speed Limits at locations where there have been queries. <i>To be repeated at intervals no greater than 5 years.</i>
Lead	NRA
Supporting	Local authorities
Timeframe	Q2 2014 to Q1 2015.

Action 5	<u>Update Regional and Local Road Speed Limits</u> <i>That the Speed Limits on the Regional and Local Road Networks be updated in accordance with the Guidelines, to ensure appropriate fit to:-</i> <ul style="list-style-type: none">- Confirm existing Speed Limit bye-laws and signs.- Identify and implement 100 km/h Speed Limits on those sections that are suitable.- Implement appropriate Speed Limits lower than 80km/h for at-risk locations as appropriate.- Review Speed Limits at locations where there have been queries. <i>To be repeated at intervals no greater than 5 years.</i>
Lead	Local authorities.
Supporting	-
Timeframe	Q2 2014 to Q4 2015.



Lead Actions

4 & 5 Update Speed Limits

- ❑ Circulars RST 1 and 2 of 2015
- ❑ Update Speed Limits (every 5 years)
 - National Roads
 - Regional and Local Roads
- ❑ Commence April 2015 – complete May 2017



Lead Actions

6 Remove Inappropriate Signs – April 2016

Action 6	<u>Remove Inappropriate Signs</u> <i>That existing locations of inappropriate (repeater) Speed Limit signs be identified (logged and mapped) and subsequently removed, relocated or replaced as appropriate for: -</i> <ul style="list-style-type: none">- National Road Network by the NRA- Regional and Local Roads by local authorities
Lead	<i>Local authorities and NRA</i>
Supporting	-
Timeframe	<i>Underway. To Q2 2014 for National Roads and end of Q4 2015 for Regional and Local Roads.</i>



Support Actions

□ Traffic Regulations & Traffic Signs Manual

Action 11	<u>Update Traffic Regulations and Traffic Signs Manual</u> <i>That the Traffic Regulations and Signs Manual and other related guidelines be revised to address: -</i> <ul style="list-style-type: none">- Amendments to Speed Limit Signs.- Clarity in the use and type of Speed Limits Signs (particularly repeater signs)- Driver Feedback Signs
Lead	DTTAS
Supporting	
Timeframe	Q1 2014 to Q2 2014

Action 12	<u>Implement Speed Limit Management Awareness and Training</u> <i>That the Local Authority Roads Service Training Group would: -</i> <ul style="list-style-type: none">- Hold Workshops and Seminars on the setting and managing of Speed Limits;- Develop and run a standardised course on the managing and review of Speed Limits, and on the carrying out of speed assessments using the Guidelines and Speed Assessment Framework.
Lead	Roads Service Training Group
Supporting	DTTAS, NRA, Gardaí
Timeframe	Underway. Q4 2013 to Q4 2014.



SPEED LIMITS INVENTORY & ITS

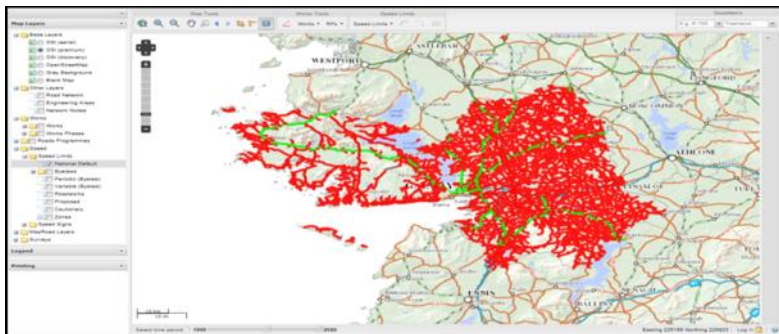
Support Actions

13 Maintain Digital Inventory Records and Maps – January 2016

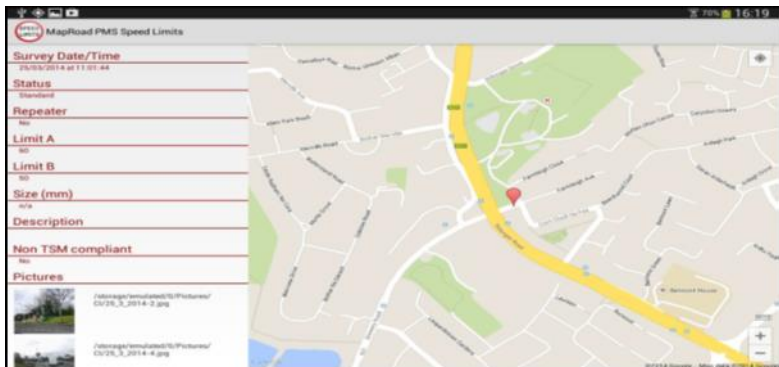
Action 13	<u>Maintain Digital Records and Maps</u> <i>That Speed Limit records be logged and maintained on a national standardised MapRoad (GIS) to facilitate consistency and that DTTAS ensure that: -</i> <ul style="list-style-type: none">- <i>Local authorities and NRA complete and maintain a digital speed map of zones and signs (including a system of sign asset register numbers) using MapRoad as currently required.</i>- <i>LGMA further upgrade MapRoad to provide additional functionality.</i>
Lead	<i>DTTAS</i>
Supporting	<i>Local authorities, NRA & LGMA</i>
Timeframe	<i>Underway. Q4 2013 to Q4 2014.</i>



Digital Records & Maps



Use of ITS and new Technologies
Digital Records, Maps and Apps



MapRoad – Road Management System

Integrating and Sharing ITS and data

Digital Records & Maps - MapRoad

Developing over 20 + years

Modular Functional Use provided for: -

- **Road Network:** manages data associated with the road itself.
- **Road Management:** Manages data associated with maintaining the road and mechanical surveys on the road.
- **Pavement Management:** Manages pavement management processes.
- **Speed Limits:** Manages Speed Limits Inventory
- **Road Licencing:** This Module manages road licencing processes.
- **Road Funding:** This Module supports funding associated with road network.
- **Road Accident:** manages data associated with accidents.
- **Road Bridge:** manages data associated with bridges.

Desktop – App - Cloud

Digital Records & Maps - RMO

Road Management Office (RMO)

Local Authority Shared Service (Donegal / Cork CoCo led)
Established in 2014

Current role relating to Road Licencing and Speed Limits

Ensure Long Term Sustainability

- Provide Support Structure for Local Authorities such as for reporting and surveys
- Builds on existing LA led collaboration

Develop Knowledge, Training and Staff Skills in Local Authority sector

Develop and support technology suitable for LAs

Support development rollout and implementation of PMS and Licencing

Modular Structure - Expandable to other areas

Support Actions

16 Intelligent Speed Adaption

Action 16	<u>Trial Intelligent Speed Adaption</u> <i>That proposals and recommendations for the deployment of Intelligent Speed Adaption (ISA) be developed based on research and pilot studies.</i>
Lead	RSA
Supporting	LGMA
Timeframe	Q4 2014 to Q4 2015



Use of ITS and new Technologies



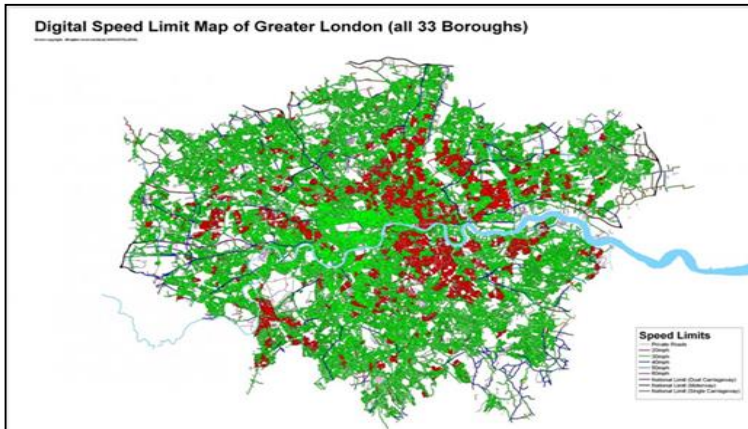
Intelligent Speed
Adaption
(Dashboard mounted)



Variable Message Signs (VMS)

- Variable Speed Limits
- Average Speed
- Driver Feedback Signs
- Periodic Speed Limits

Use of ITS and new Technologies



Digital Records and Maps

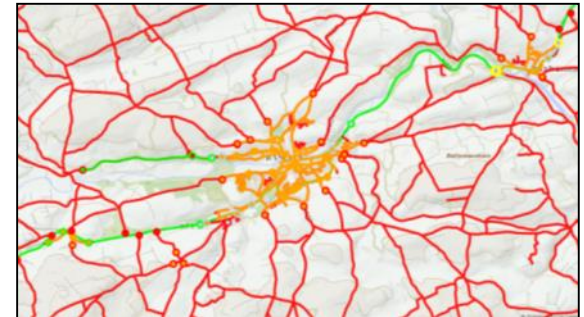
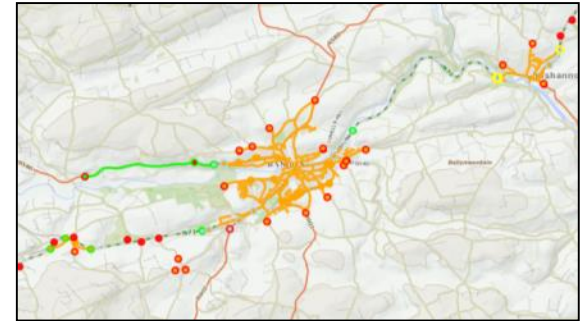
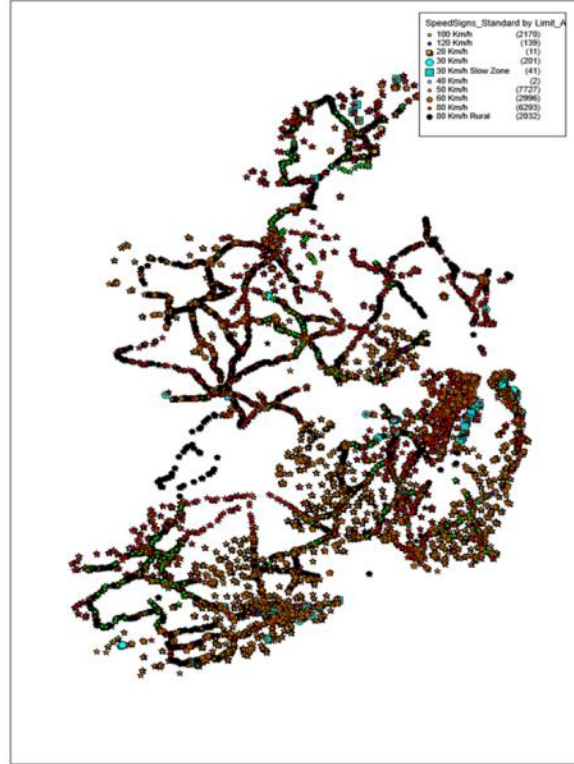
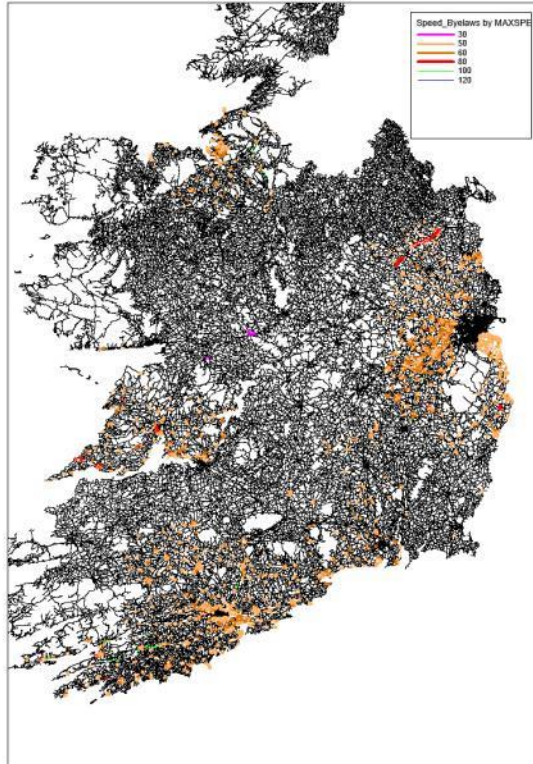
- Asset Inventory
- Consistency and Appropriateness

(MapRoad - GIS and Database)

Integrating and Sharing ITS



Use of ITS and new Technologies



IMPLEMENTATION

Implementation

□ Oversight

- Minister
- High Level Group
- Working Group
- Support Office
 - Audit
 - Use of Inventory and Mapping to support consistency
 - Inspections
 - Appeals Process



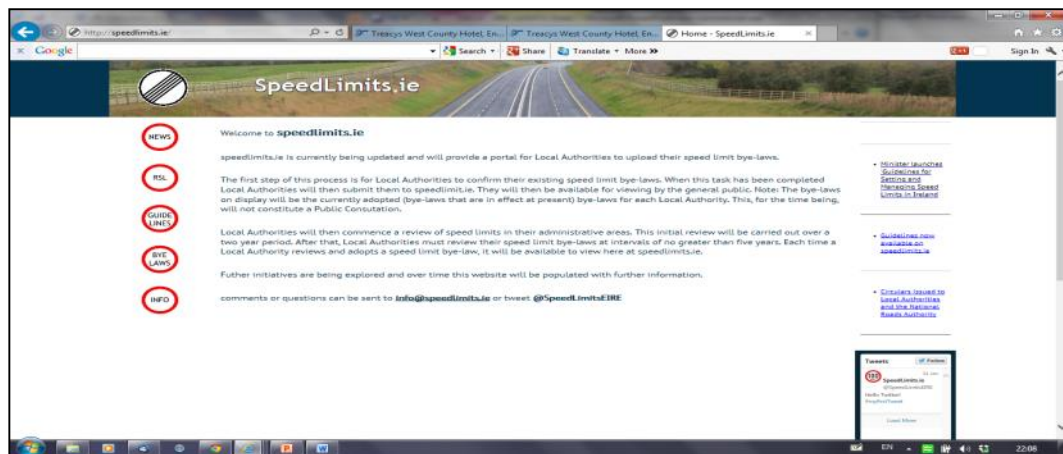
Implementation - Training

- ❑ National Seminar – 17th June 2015
- ❑ Workshops – February to March 2016
- ❑ Training Course – 2016
- ❑ Guidelines
 - Setting and Managing Speed Limits
 - Speed Limit Assessment Framework
- ❑ Required by all stakeholders such as Local Authorities, Gardai and NRA.
- ❑ Supports Consistency and Quality
- ❑ Content on E-learning platform (www.lasntg.com)



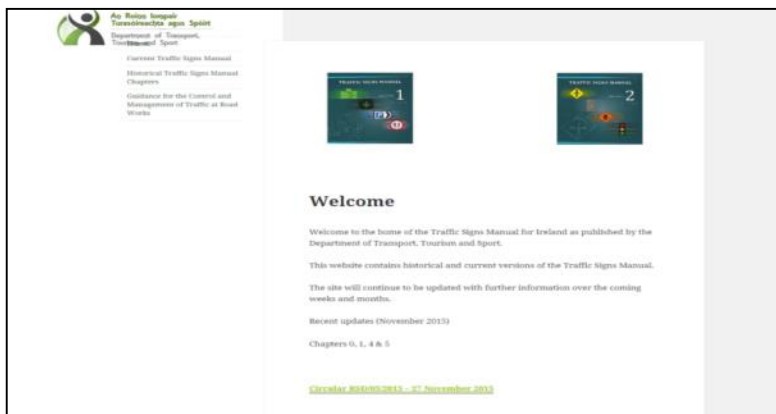
Implementation – www.speedlimits.ie

- ❑ All Bye-laws
- ❑ All proposed Bye-laws
- ❑ All Roadworks Speed Limits Orders
- ❑ Guidelines / Legislation / 2013 Review



Implementation – www.trafficsigns.ie

- ❑ Original Traffic Signs Manual (1996)
- ❑ 2010 Revision
- ❑ New Chapters 0, 1, 4 and 5 – November 2016
- ❑ Working Drawings [**coming**]
- ❑ Circulars / Legislation / SIs [**coming**]



Implementation – Next Steps

- Guidelines (further development)
 - ▣ Speed Assessment Framework (Collision Data)
- Training
- Legislation – Primary; Secondary; Traffic Signs Manual
- Appeals Process

- Software - MapRoad
- Website – www.speedlimits.ie
- Intelligent Speed Adaption (ISA)



Thank You



An Roinn Iompair
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END