

2015 ANNUAL SAFETY REPORT to EU Agency for Railways

Commission for Railway Regulation

The National Safety Authority for Railways in Ireland



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Abbreviations

AB	Assessment Body
CRR	Commission for Railway Regulation (formerly the Railway Safety Commission)
CSI	Common Safety Indicator
CSM	Common Safety Method
CST	Common Safety Target
DeBo	Designated Body
ECM	Entities in charge of maintenance
ERAIL	European Railway Accident Information Links
ERA	European Railway Agency (now European Union Agency for Railways)
EUAR	European Union Agency for Railways (formerly the European Railway Agency)
IM	Infrastructure Manager
MS	Member-State
NIB	National Investigation Body
NoBo	Notified Body
NRV	National Reference Value
NSA	National Safety Authority
NSR	National Safety Rule
RSC	Railway Safety Commission (now Commission for Railway Regulation)
RSD	Railway Safety Directive
RU	Railway Undertaking
SPAD	Signal Passed at Danger

Reference documents

Ref.	Document Title	Document ref.
/1/	Directive 2004/49/EC on safety on the Community's railways (Railway Safety Directive)	OJ L220, 21.6.2004, p.16
/2/	Directive 2008/110/EC amending the Railway Safety Directive	OJ L345, 23.12.2008, p. 62
/3/	Commission Regulation (EU) No 1077/2012 on a CSM for supervision	OJ L320, 17.11.2012, p. 3
/4/	Commission Regulation (EC) No 352/2009 on the adoption of a CSM on risk evaluation and assessment	OJ L108, 29.4.2009, p. 4
/5/	Commission Implementing Regulation (EU) No 402/2013 on the CSM for risk evaluation and assessment and repealing Regulation (EC) No 352/2009	OJ L121, 3.5.2013, p. 8
/6/	Commission Directive 2014/88/EU amending the Railway Safety Directive as regards Common Safety Indicators and common methods to calculate accident costs	OJ L201, 10.07.2014, p. 9

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A. INTRODUCTION

A.1 The purpose, scope and other addressees of this report¹

Article 18 of the Railway Safety Directive 2004/49/EC requires the Commission for Railway Regulation (CRR), formerly known as the Railway Safety Commission (RSC), as National Safety Authority, to publish an annual report each year concerning its activities in the preceding year and to send it to the European Union Agency for Railways (“the Agency”) by 30 September at the latest.

The report shall contain information on:

- the development of railway safety, including an aggregation at Member State level of the common safety indicators (CSIs) laid down in Annex I;
- important changes in legislation and regulation concerning railway safety;
- the development of safety certification and safety authorisation;
- results of and experience relating to the supervision of infrastructure managers and railway undertakings.

The scope of this report is the 1600mm gauge national railway system in the Republic of Ireland. This report is addressed to the Agency, the Minister for Transport, Tourism and Sport, the NIB, the RUs, the IM and the ECMs.

¹The report should indicate the intended addressees besides the Agency, especially at national level: Ministry of Transport, NIB, Regulatory Body, Competition Authority, RUs, IM(s), ECMs, NoBos, DeBos, associations of passengers, etc.

A.2 Significant organisational changes affecting the NSA²

The organisational chart of the RSC in year 2015 is shown in figure 1 below.

Due to an embargo on public sector recruitment, trainee graduate engineers on fixed term temporary contracts occupied six positions of Inspector within the NSA. Sanction was received from the Department of Public Expenditure and Reform permitting the RSC to recruit Inspectors, and five permanent appointments were made in Q2, 2015. Two other positions of Inspector continued to be covered by trainee graduate engineers.

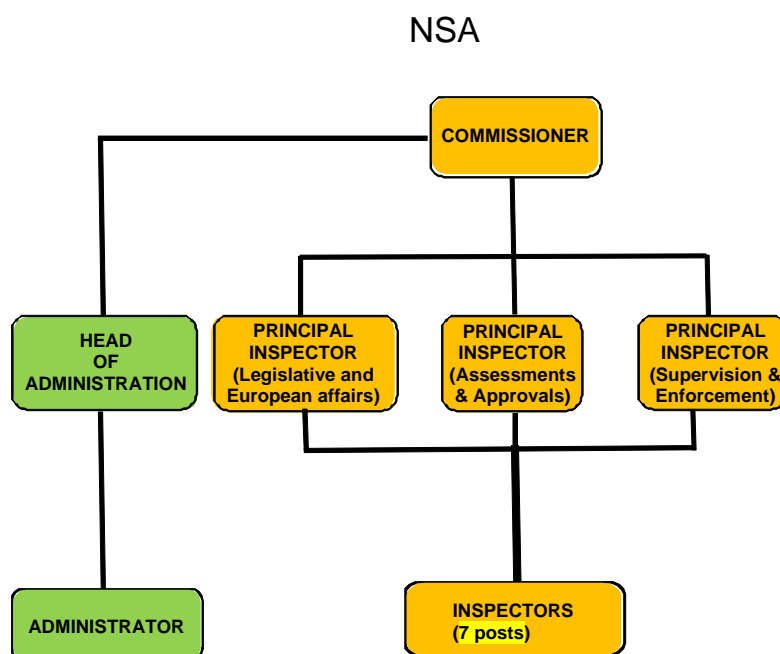


Figure 1: Staffing of the RSC at end 2015

²Significant organisational changes may be internal (creation of new departments, different allocation of tasks amongst departments, etc.) or external, such as modifications in the institutional relationship with the Ministry of Transport or other public authorities (NIB, Regulatory Body, etc.). This information should only be reported if there are organisational changes compared to the previous year.

B. OVERALL SAFETY PERFORMANCE AND STRATEGY

B.1 Main conclusions on the reporting year³

The Irish network is small, carrying less than one percent of total EU railway traffic, and it continues to have relatively low accident rates per million train-km. It is difficult to pick up any significant trend in the CSI accidents as the dataset is too small.

In 2015, there was one significant accident, i.e.

- One collision of a passenger train with a landslip, leading to no derailment and no damage to rolling stock and resulting in the railway line concerned to be closed overnight.

The overall picture of safety in the rail industry is a good one, with most indicators trending positively, in spite of the fact that passenger numbers are also increasing quite rapidly, as the economy recovers. There were no passenger fatalities or serious injuries in 2015. The Irish Network continues to have a satisfactory performance relative to other European Networks, although it is recognised there is always scope for improvement.

B.2 National safety strategy, programmes and initiatives⁴

Work is ongoing to improve the maturity level of safety management in the railway sector. In particular, the CRR has been encouraging the sector players to work towards the excellence in safety management demonstrated by high reliability organisations (HRO).

In November 2014, the CRR commissioned a consultant to undertake a Strategic Management Review of Irish Rail, the state railway in the Republic of Ireland (RU & IM) and to undertake a comparison against a HRO. The work was completed in 2015.

B.3 Review of the previous year⁵

In 2014 a comprehensive review of the inherent risks associated with the current Iarnród Éireann signalling and telecommunications systems was undertaken. This review, comprised of a risk assessment and human factors review conducted by independent experts on behalf of CRR, was delivered in Q4, 2014, and the overarching report was finalised by the CRR in 2015.

³National safety targets deriving from national safety strategy/programmes/plans (if available); EU safety targets stemming from CSTs/NRVs.

⁴Information on the main elements of the national safety strategy/programme/initiatives (if available), and a brief evaluation of current safety programmes and initiatives and information on future programmes and initiatives (if available at Ministry, NSA and IM levels).

⁵Information on the safety performance and the most important results of (internal) audits, inspections and other feedbacks (e.g. the experience of the certification work).

The year 2015 saw on-going development of the CRR's Quality Management System to enable the CRR to achieve ISO accreditation.

B.4 Focus-areas for the next year⁶

The task areas that will be the focus of particular attention for the CRR as it continues to deliver on its responsibilities under European and National legislation during 2016 are as follows:

- Continuing co-operation with, and technical support to the DTTAS in the amendment of legislation and development of functions for economic regulation of the railway sector in compliance with Directive 2012/34/EU;
- Recruitment on a permanent basis of the number of competent specialists that are required to keep the CRR adequately resourced;
- Further professional development of all CRR staff so as to ensure that adequate railway-specific technical and legal knowledge and skills are available within the organisation;
- Continued engagement with the Iarnród Éireann Railway Undertaking function for the roll out of ECM certification to all passenger and locomotive fleets;
- Establishment of Regulatory Body, Independent Monitoring Body and Licensing Authority functions and, subject to legal provisions, re-branding of the RSC as the Commission for Railway Regulation (CRR) in 2016;
- Further development of internal processes and procedures relating to the Quality Management System for the CRR.

The objective of all CRR activities during 2016 will be in accordance with its mission "To advance the safety of railways in Ireland through diligent supervision and enforcement."

⁶Indicating the key-areas on which the NSA will focus, related to the reported activities.

C. DEVELOPMENTS IN SAFETY PERFORMANCE

C.1 Detailed analysis of the latest recorded trends

The CSIs⁷ for Ireland are available on the E-RAIL website. The following is an analysis of trends related to CSIs and national safety indicators:

1. *Number of fatalities/serious injuries (total and relative to train-km).*

As indicated in B.1, traffic levels and accident rates are low. Casualty rates are low to the extent that it is difficult to outline any trends in the data. Please see charts in Annex A.

2. *Number of significant accidents (total and relative to train-km).*

The number of significant accidents remains at a low point in comparison to previous years. The trend is positive when viewed over the period of five years.

Significant accidents included -

- one collision of a passenger train with an obstacle, an incipient wet landslip which caused no damage to the train or injury to persons, but progressively blocked the railway, causing it to be closed for approximately 12 hours.

3. *Number of precursors to accidents.*

The number of precursor events in 2015 were mixed, with an increase in the number of Signals Passed at Danger (SPADs): there has been a long term decline in the number of SPADs but this trend appears to have plateaued since 2011. A graph showing this data is included in Annex A (ii).

There were also a continuing number of low risk derailments in sidings.

Injuries to customers or visitors to stations remain constant with slips, trips and falls being the dominant cause of these injuries. These incidents tend to be of a minor nature and resulting injuries are usually treated by first aid at the station.

The trend in bridge strikes is a national safety indicator). The total number of bridge strikes, i.e., under-bridge and over-bridge, in 2015 were down slightly (85 vs 87 in 2014). There does appear to be a trend developing where underbridge strikes are gradually falling, whilst overbridge strikes incrementally rise. This does need to be set against a backdrop of rising road vehicle traffic. Please see graph in Annex A (ii).

4. *Cost of significant accidents.*

As previously reported, there have been very few significant accidents on the Irish network over the five year period 2010-2014 and this continues to be the case.

5. *Technical safety of infrastructure and its implementation, management of safety.*

⁷CSIs as defined in Annex I to RSD /1/ and in Appendix to Annex I (Commission Directive 2009/149/EC) /6/.

There has been no change in % of tracks with Train Protection Systems (TPS) or Automatic Train Protection (ATP) over the past five years. A limited type of automatic protection is available on 99 track-km (4.6%) of the Iarnród Éireann network: this is now being classified as a TPS because the system does not reach all ATP criteria. A further 900 track-km (41.6%) of the network is equipped with a TPS called the Continuous Automatic Warning System (CAWS), but the remaining 1,166 track-km (53.8%) of the network is not yet equipped with any form of TPS or ATP system.

The number of level crossings on the active network increased slightly. The number of level crossings at the end of 2015 stood at 986, up from 978 in early 2015. This resulted in part from the inclusion on the list of the 12 level crossings on the Cement factory siding near Limerick city. Continued investment in this area, either through grade separation or the simple buying of land, should see this figure fall.

The CSIs relating to the management of safety are rather tenuous. In general, the RUs and IM normally achieve the audit targets which they set out for themselves. Iarnród Éireann IM completed 12 audits. Iarnród Éireann RU completed 16 audits in 2015.

6. *CSM Monitoring*

The internal monitoring regimes of the principal RU and IM are quite active. For example, Iarnród Éireann IM carried out 2147 monitoring activities and Iarnród Éireann RU carried out 3838 monitoring activities, including Safety Tours, Safety Assurance checks and Rule Book compliance checks. In addition, IÉ-IM carried out 3459 competency assessments and IÉ-RU carried out 10267 competency assessments.

C.2 Results of safety recommendations⁸

In 2015 the Railway Accident Investigation Unit (RAIU) published investigation reports relating to two occurrences that took place in 2014. The 2014 investigations (published in 2015) were:

- Vehicle struck by train at Corraun level crossing, XX024, Co. Mayo, 12th February 2014
- Car strikes train at level crossing XM250, Knockaphunta, Co Mayo, 8th June 2014

All resulted in the making of safety recommendations and these are listed in the table below.

Date Report Published	Title of Report	No. of safety recommendations made	Duty Holder
30 th April 2015	Vehicle struck by train at Corraun level crossing, XX024, Co. Mayo, 12th February 2014	3	IÉ-IM
4 th June 2015	Car strikes train at level crossing XM250, Knockaphunta, Co Mayo, 8th June 2014	2	IÉ-IM

The following tables present the individual safety recommendations made by the Railway Accident Investigation Unit (the NIB in the Republic of Ireland). They are tabulated by report and include a brief summary of the safety measures or actions taken and the status of their implementation. The CRR categorises the status of recommendations as being either 'Open', 'Complete' or 'Closed'. These are defined as follows:

Open (In progress)	- Feedback from implementer is awaited or actions have not yet been completed.
Complete	- Implementer has advised that it has taken measures to effect the recommendation and the CRR is considering whether to close the recommendation.
Closed	- Implementer has advised that it has taken measures to effect the recommendation and the CRR is satisfied that the work has been completed and has closed the recommendation.

R2015 – 001-

Vehicle struck by train at Corraun level crossing, XX024, Co. Mayo, 12th February 2014

(Report Published 30-4-15)

Summary:

At approximately 09:55 hours (hrs) on Wednesday 12th February 2014, an An Post van approached Corraun Level Crossing with the Level Crossing gates open and drove onto the Level Crossing. At the same time, the 09:35 hrs Iarnród Éireann (IÉ) passenger service from Ballina to Manulla Junction was travelling through Corraun Level Crossing and struck the van. On impact, the van was thrown clear of the train and into the adjacent drainage ditch before coming to a stop.

⁸The list may be exhaustive or present a selection of the most relevant recommendations received.

Number of recommendations made		3
Recommendation 1 (1-2015)	IÉ should consider options to upgrade the crossing to minimise direct action by the users	
Action/s taken / in progress	On the 24th June 2015, the Infrastructure Manager advised that they would consider what options are feasible and available to upgrade the crossing and minimise direct actions by the users.	
Status	Open / In progress	
Recommendation 2 (2-2015)	IÉ should carry out a full review of known misused user worked level crossings on public and private roads and either upgrade the level crossing or introduce measures to minimise their misuse.	
Action/s taken / in progress	On the 24th June 2015, the Infrastructure Manager advised that they would review known misused user worked level crossings on public and private roads and determine what if any further actions can be taken to minimise their misuse.	
Status	Open / In progress	
Recommendation 3 (3-2015)	IÉ should ensure that where a Decision Line is present at a level crossing, that the purpose of this Decision Line is appropriately conveyed to the level crossing users.	
Action/s taken / in progress	On the 24th June 2015, the Infrastructure Manager advised the following "The Decision line is a term used internally within IÉ. This is actually a STOP line at the decision point similar to a stop line on a public road at road junction. There is also a STOP sign positioned beside it. IÉ IM considers road users who have been issued with a permit or a driver's licence should be familiar with road signage and the rules of the road."	
Status	Complete	

R2014-002 - Car strikes train at level crossing XM250, Knockaphunta, Co Mayo, 8th June 2014

(Report Published 04-06-15)

Summary:

At approximately 18:42 hours (hrs) on Sunday the 8th June 2014, the 15:35 hrs passenger service from Heuston Station (Dublin) to Westport (Mayo) was approaching Knockaphunta level crossing (asset number XM250), situated at Knockaphunta, near Castlebar, Co Mayo when a Toyota Auris approached the level crossing from the Castlebar direction.

As the train travelled through the level crossing, the car drove onto the level crossing and into

the side of the train. The car was thrown clear by the impact and into the adjacent drainage ditch next to the level crossing.

The single occupant of the car was cut free from the wreckage by the emergency services and conveyed to Mayo General Hospital, Castlebar. The driver of the car was not seriously injured and was released from hospital after treatment.

Number of recommendations made		1
Recommendation 1 (4-2015)	The RSC, RSA and IÉ in consultation with any relevant stakeholders should agree a common policy in connection with instructions and warnings related to user worked level crossings.	
Action/s taken / in progress	Tri-party meeting arranged and held on 7th July 2015. 23rd July 2015 Task Force established to review relevant documents and develop a common policy.	
Status	Open / In progress	

C.3 Measures implemented not in relation to safety recommendations⁹

The CRR undertakes Post Incident Inspections (PII) following all reportable accidents and incidents (excluding acts of self-harm by adults on railway property) for the purposes of determining compliance with safety management systems and safety targets, and often identifies areas of concern. In such cases the CRR can and does make PII Outcomes. The following table lists those areas of concern, the action taken by the CRR and a brief summary of any safety measure introduced by an RU or IM.

CRR PII's Outcomes									
Year	No. of Reports	Open		Complete		Closed		Total	
		AR's	NC's	AR's	NC's	AR's	NC's	AR's	NC's
2015	3	2	0	2	0	1	0	5	0

Area of concern	Description of the trigger	Safety measure introduced
The Railway Undertaking process used by IE-RU, to risk rank a Signal Passed at Danger (SPAD) incident.	The SPAD incident report at signal MW826 near Mallow station on the 16th of May 2014.	The CRR outcomes were for IE-RU to finalise documents, train more personnel and employ external services for reviews to ensure consistency of risk ranking of SPAD's, and to consider the organisational need to develop a 'just culture' as recommended in ERA Guidance.

⁹A list of the most important safety measures introduced by the NSA and information on the underlying reasons for their application.

Iarnród Éireann – Railway Undertaking Shunting processes in Fairview Train Depot	Derailment following a flank collision in Fairview Yard	The CRR recommended that Iarnród Éireann – railway Undertaking review its internal monitoring arrangements.
Iarnród Éireann – Railway Undertaking Terminating trains at stations	Runaway train collision with a buffer stop	The CRR recommended that Iarnród Éireann – railway Undertaking review the stabling procedures for freight vehicles and review the suitability of train restraint equipment.

Table 2 – Safety measures not triggered by safety recommendations

The following Post Incident Inspections (PII) commenced in 2015 but had not concluded as of 31st December 2015:

- A planned out of normal operation on the Midleton Line Wrong Side door failure – Train door opening while train was in motion
- Flank collision between two trains in Waterford yard
- Near collision with track workers
- SPAD events
- Train collision with a landslip

D. SUPERVISION¹⁰

D.1 Strategy and plan(s)

The CRR's Supervision Programme fulfils the supervision function of the CRR in a professional and efficient manner. This is achieved through the development of multi-annual SMS audit plans and a number of annual supervision plans, one for each railway organisation operating in the Republic of Ireland. These annual plans include three core supervision activities namely, audits, inspections and meetings with the RUs and IMs.

This supervision programme formally arranges the CRR's activities to supervise the safety performance of the RUs & IMs operations. The following railway organisations were subject to CRR supervision in 2015:

- Iarnród Éireann – Railway Undertaking (IÉ-RU)
- Iarnród Éireann – Infrastructure Manager (IÉ-IM)
- Balfour Beatty Rail Ireland – Railway Undertaking (BBRI) (track maintenance machines)
- Northern Ireland Railways (Translink) - Railway Undertaking (NIR-RU)

The CRR's supervision is risk based, so railway organisations, be they an RU or IM, that expose passengers, staff and the public to risk are supervised commensurate to the level of risk to which they are exposed, or which they expose others to. The CRR targets activities that it considers to give rise to the greatest risks and primarily undertakes audits of their SMS, checking that it is effective and is being implemented.

¹⁰The application of the CSM on supervision [Commission Regulation (EU) No 1077/2012] /3/.

To assist in the development of annual supervision plans, the CRR uses a variety of inputs that include:

- Reviewing the Iarnród Éireann Risk Model
- Tracking and monitoring of key safety performance indicators
- Statistical tracking of accidents, incidents and dangerous occurrences
- NIB reports and safety recommendations
- Public or other complaints
- Previous CRR supervision findings and outcomes
- Intelligence from APIS and conformity assessment

The CRR annual plan for each railway organisation is a live document and can change. All changes to annual plans are recorded with justification for the change. An example of a change to the supervision programme in 2015 was:

- The addition of a Comprehensive Review of the proposed Iarnród Éireann Organisational change to Procurement, Materials and Contract Management Department undertaken by the Conformity Assessment Team.

D.2 Human resources

Essentially, of the seven Inspectors available within the NSA, four are needed to give full-time support the Principal Inspector for Supervision and Enforcement to deliver the CRR's annual supervision programme. In 2015, only three internal Inspectors were available so the supervision plan was not achieved. This was due to CRR Inspectors spending more time carrying out Post Incident Inspections rather than proactively auditing SMS compliance.

D.3 Competence

Inspectors involved in undertaking supervision activity on behalf of the CRR are competent engineers with relevant industry experience supplemented by further academic qualifications. An increasing number of CRR Inspectors are professionally qualified as Chartered Engineers. Six of the seven CRR inspectors have undertaken MSc studies at the University of Birmingham, UK, in addition to numerous bespoke training courses. All training records are maintained and any competencies requiring refresher training are captured and managed appropriately.

D.4 Decision-making¹¹

The Railway Safety Act 2005, as amended, provides for enforcement activity. The CRR applies the principles for national safety authority supervision and additionally applies a principle of escalation, allowing it to strive to achieve compliance without resorting to enforcement. However, on occasions where non-compliance is identified, an Improvement Plan is requested or an Improvement Notice is served. Furthermore, should a risk be identified that is considered to be immediate and substantial an CRR Inspector may serve a Prohibition Notice. Persons in receipt of

¹¹*Decision-making criteria on how the NSA monitored, promoted and enforced compliance with the regulatory framework and on the procedure for establishing those criteria, and main complaints submitted by RUs and IMs on decisions taken during supervision activities and the replies given by the NSA.*

notices have a statutory right of appeal. The CRR's criteria regarding decision-making are publically available in guidance on the website, www.crr.ie . The following enforcement activities were initiated in 2015:

1. Improvement Plan requested from Balfour Beatty Rail Ireland following an SMS audit finding deficiencies in their risk identification procedures.
2. Improvement Plan requested from Iarnród Éireann – Infrastructure Manager following a Topic audit finding paperwork and process deficiencies in the Chief Civil Engineer's department.
3. Improvement Plan requested from Iarnród Éireann – Railway Undertaking following an SMS audit finding deficiencies in their management of risk and rolling stock maintenance concession processes.
4. Improvement Plan requested from Iarnród Éireann – Railway Undertaking following a SMS audit finding deficiencies in their risk identification procedures within the Operations department and their fulfilment of specific articles of Commission Regulation (EU) No. 1078/2012.
5. Improvement Plan requested from Northern Ireland Railways – Railway Undertaking following a Part B Safety Certificate SMS audit identifying deficiencies in their training and competence of train drivers.
6. Prohibition Notice on the implementation of the proposed Iarnród Éireann Organisational change to Procurement, Materials and Contract Management Department, which was lifted when both IÉ-IM and IÉ-RU agreed to postpone the change pending a CRR comprehensive review of the IÉ safety validation of change.

D.5 Coordination and cooperation¹²

The following Memoranda of Understanding remained in place in 2015:

- with the Health & Safety Authority (Labour Inspectorate);
- with the Department for Regional Development which is the NSA in Northern Ireland.

In that context, the CRR met with both organisations sharing information on plans for supervision and highlighting areas of concern.

¹²Agreements in force during the reporting year with NSAs from other MS for coordinated supervision activities and a summary of the content of those agreements, and cooperation arrangements in force during the reporting year with other NSA and their practical use.

D.6 Findings from measures taken

Whenever the CRR has identified non-compliance, enforcement activity commences. This may be either requesting an Improvement Plan or serving an Improvement Notice. The CRR has defined non-compliance as follows:

Major Non Compliance (MaNC): an area of non-compliance with a Railway Organisation internal standard, an applicable external standard or legislation that is evidence of a system failure. In such cases it is typical for the CRR to serve an Improvement Notice.

Minor Non Compliance (miNC): an area of non-compliance with Railway Organisation internal standard, an applicable external standard or legislation that is evidence of a sporadic lapse in implementation of a system or deviation from a system. In such cases it is typical for the CRR to request an Improvement Plan.

In 2015, 11 non-compliances were identified and the five tables in annex B summarise these.

E. CERTIFICATION AND AUTHORISATION

E.1 Guidance¹³

There were no new Guidelines published in 2015.

E.2 Contacts with other NSAs

1. There were no requests from other NSAs asking for information on a Part A certificate of a RU certified in Ireland applying for a Part B certificate in the other MS.
2. There were no requests to other NSAs asking for information on a Part A certificate of a RU certified in the other MS applying for a Part B certificate in Ireland.

E.3 Procedural issues

There were no cases when the issuing time for Safety Certificates or Safety Authorisations (after having received all necessary information) exceeded the 4 months foreseen in Article 12(1) of the Railway Safety Directive.

E.4 Feedback¹⁴

There is no mechanism allowing RUs or IMs to express opinions on issuing procedures/practices or to file complaints and a summary of the opinions and complaints presented and the actions undertaken by the NSA. However, the CRR has at all times worked together with the applicant to ensure a clear understanding of requirements and to speedily resolve any issues that arise.

¹³Information on the issuing, publication and possible update of guidance by the NSA on how to obtain Part A/B certificates and authorisations.

¹⁴Information on existing mechanisms – e.g. questionnaire – allowing RUs or IMs to express opinions on issuing procedures/practices or to file complaints and a summary of the opinions and complaints presented and the actions undertaken by the NSA.

F. CHANGES IN LEGISLATION

F.1 Railway Safety Directive /1/

S.I. No. 280/2015 - European Union (Railway Safety) Regulations 2013 (Amendment) Regulations 2015 were enacted on 7th July 2015. The purpose of these Regulations was to transpose Commission Directive 2014/88/EU of 9 July 2014 which amends Directive 2004/49/EC as regards common safety indicators and common methods of calculating accident costs by replacing Annex I (Common Safety Indicators) in full.

F.2 Changes in legislation and regulation¹⁵

S.I. No. 249/2015 - European Union (Regulation of Railways) Regulations 2015 were enacted on 12th June 2015. The purpose of these Regulations was to transpose the Commission Directive 2012/34/EU on a Single European Railway Area into Irish law. The role of the Railway Safety Commission was expanded to include the role of regulatory body, responsible for regulation of the railway sector in the State.

Table 2 of annex B indicates the relevant changes in the national regulatory framework (legislation and regulation) concerning railway safety during the reporting year.

G. APPLICATION OF THE CSM ON RISK EVALUATION AND ASSESSMENT¹⁶

G.1 NSA experience

1. Decisions taken by the proposers on the level of significance of a change (e.g. too lax)

The CRR is generally satisfied that the RUs and IM apply the CSM on risk evaluation and assessment through a safety validation process in accordance with their safety management system. There was one area during 2015 where the CRR raised concerns. This arose following a supervision activity of

¹⁵Table 2 of annex C describes relevant changes in legislation and regulation during the reporting year. The changes may relate to:

- How the NSA carries out the tasks described in Article 16(2) of the RSD /1/
- How the MS intends to achieve the goals described in Article 4 of the RSD /1/
- The implementation of other EU requirements in national legislation concerning railway safety.

The legal reference indicates where to find the provision: which part of a law (i.e. articles) is relevant. The title, body, date of adoption and ID number are indicated and abbreviations explained. It is specified if the change relates to a new law or to an amendment to existing legislation.

Besides the reasons for introducing the changes, additional information may be provided on the entities that triggered the process (if different from the NSA), the consultation phase, etc.

¹⁶The application of the CSM on risk evaluation and assessment [Commission Regulation (EC) No 352/2009] /4/ remained voluntary until 1 July 2012 with respect to operational or organisational significant changes. The reporting on the application of the CSM was voluntary until that date.

Commission Implementing Regulation (EU) No 402/2013 /5/ on the CSM for risk evaluation and assessment repeals Regulation (EC) No 352/2009 /4/ with effect from 21 May 2015.

how IE applied the CSM on risk evaluation and assessment to an organisational change in relation to procurement.

2. Applications of the risk management process by the proposers

For the evaluation of change, the CSM on risk evaluation and assessment is applied in accordance with Iarnród Éireann Safety Management Standards IM-SMS-13, RU-SMS-013, IM-SMS-014 and RU-SMS-14:

- IM-SMS-13 and RU-SMS-013 are for operational or organisational significant changes;
- IM-SMS-14 and RU-SMS-014 are for significant technical changes affecting vehicles or significant changes concerning structural subsystems where required by Article 15(1) of Directive 2008/57/EC /6/ or by a TSI.

As part of the CRR's proactive supervision of duty holders, the CRR met quarterly with the principal Infrastructure Manager and Railway Undertaking operating in the Republic of Ireland. The purpose of this meeting was to review and monitor duty holders safety performance in the preceding quarter. A standing item presented by the duty holder and subsequently discussed at these meetings was the duty holder's management of change insofar as the change related to plant, equipment, infrastructure, operations or organisation.

The principal IM and RU have an approved SMS that includes a description of procedures and methods to carry out risk evaluation and implement risk control measures whenever a change of the operating conditions or new material imposes new risks, (Commission Regulations (EU) No 1158/2010 and 1169/2010, Annex II, criterion M). The CRR can and does review the duty holders' management of change.

In 2015, the principal IM and RU used the CSM RA for change management a number of times. These included:

- Dublin city centre re-signalling Phase 3&4
- Enterprise Carriages Refurbishment
- GSM-R project
- MkIV carriages – new routes
- On-track machine vehicle
- SSI interlocking project

A matter of organisational change in relation to procurement was addressed centrally by Iarnród Éireann.

3. Involvement of Assessment Bodies

For each APIS project reviewed, a safety assessment report was provided which included a statement of independence of the Assessment Body.

4. Interface management

This matter was dealt with in each case by the proposer with the cooperation of the relevant rail-sector actors through the application of their respective SMSs.

G.2 Feedback from stakeholders¹⁷

The CSM on risk assessment is integrated into the RU's and IM's safety validation processes, and they provide a quarterly update to the CRR.

G.3 Revision of NSRs to take into account the EC regulation on CSM on risk evaluations and assessment

The Regulation applies directly to the Member State and to all nominated actors, e.g., RU, IM, ECM, NoBo and DeBo. There is no national rule to define whether a change is significant or not.

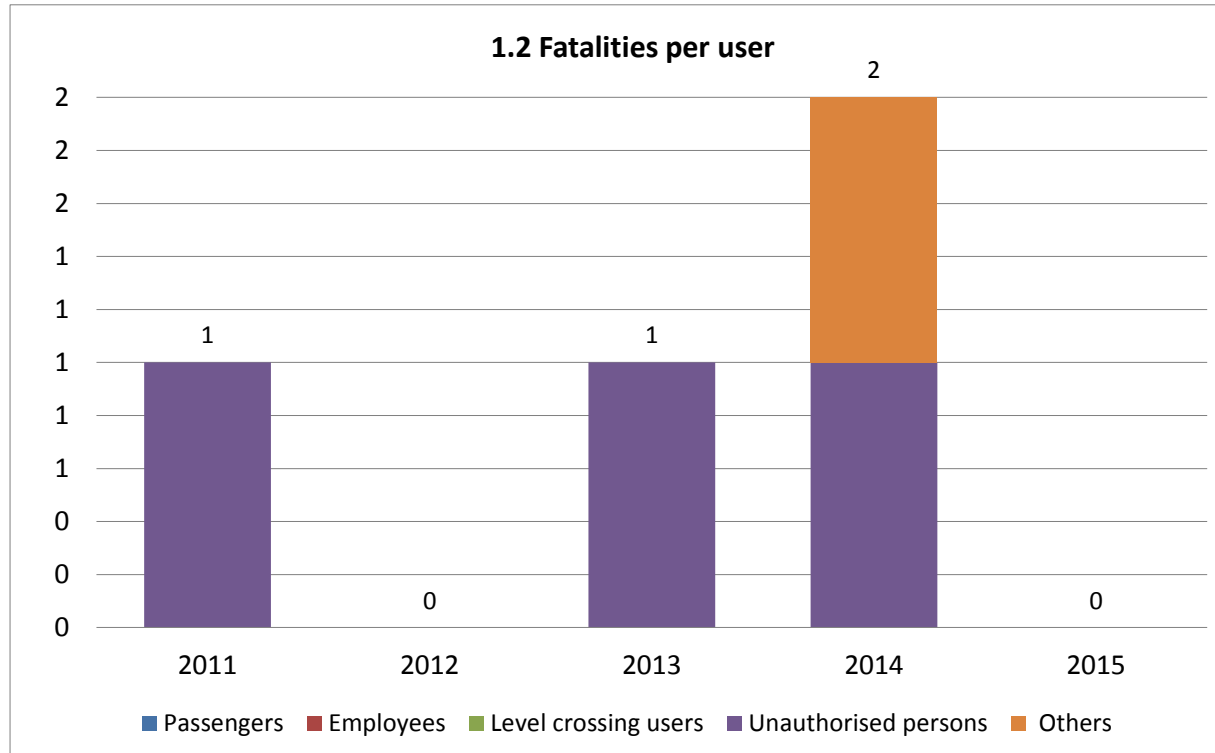
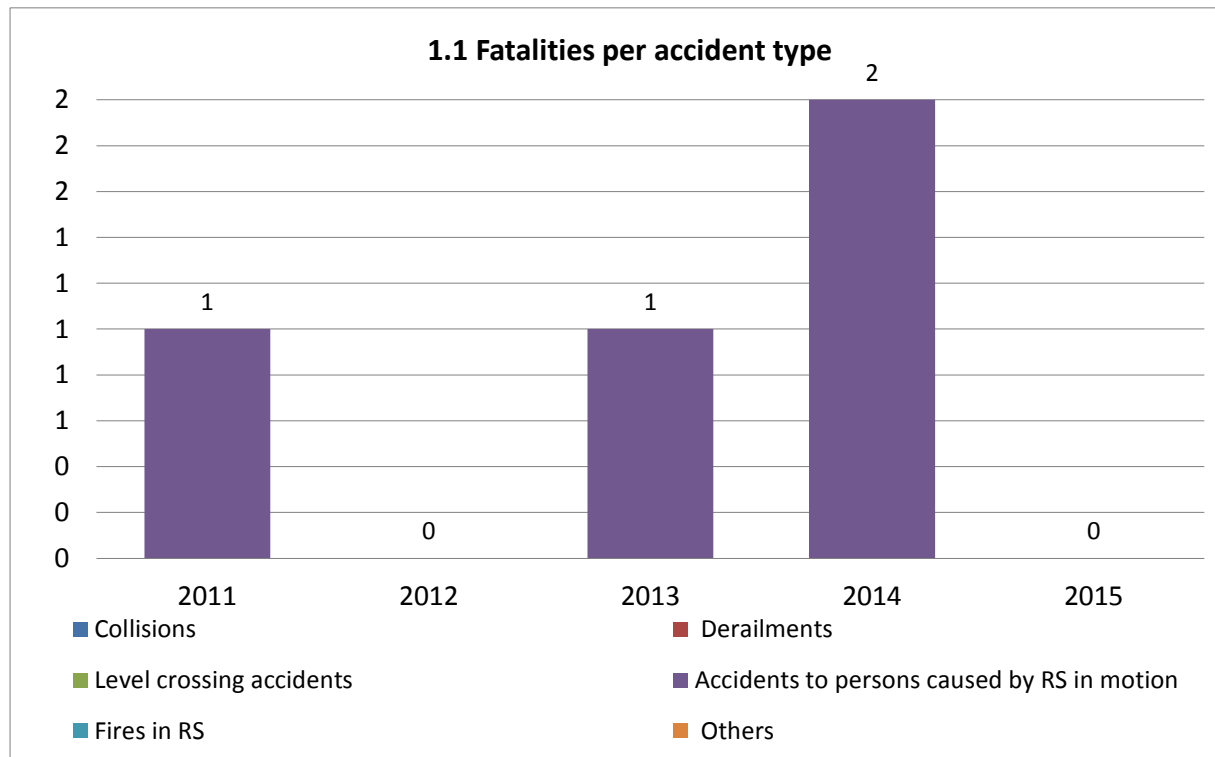
¹⁷Existing procedures – e.g. questionnaire – allowing RUs and IMs to express their experiences on the EC regulation on CSM on risk evaluation and assessment and a summary of the experiences presented and possible actions undertaken by the NSA.

H. DEROGATIONS REGARDING ECM CERTIFICATION SCHEME

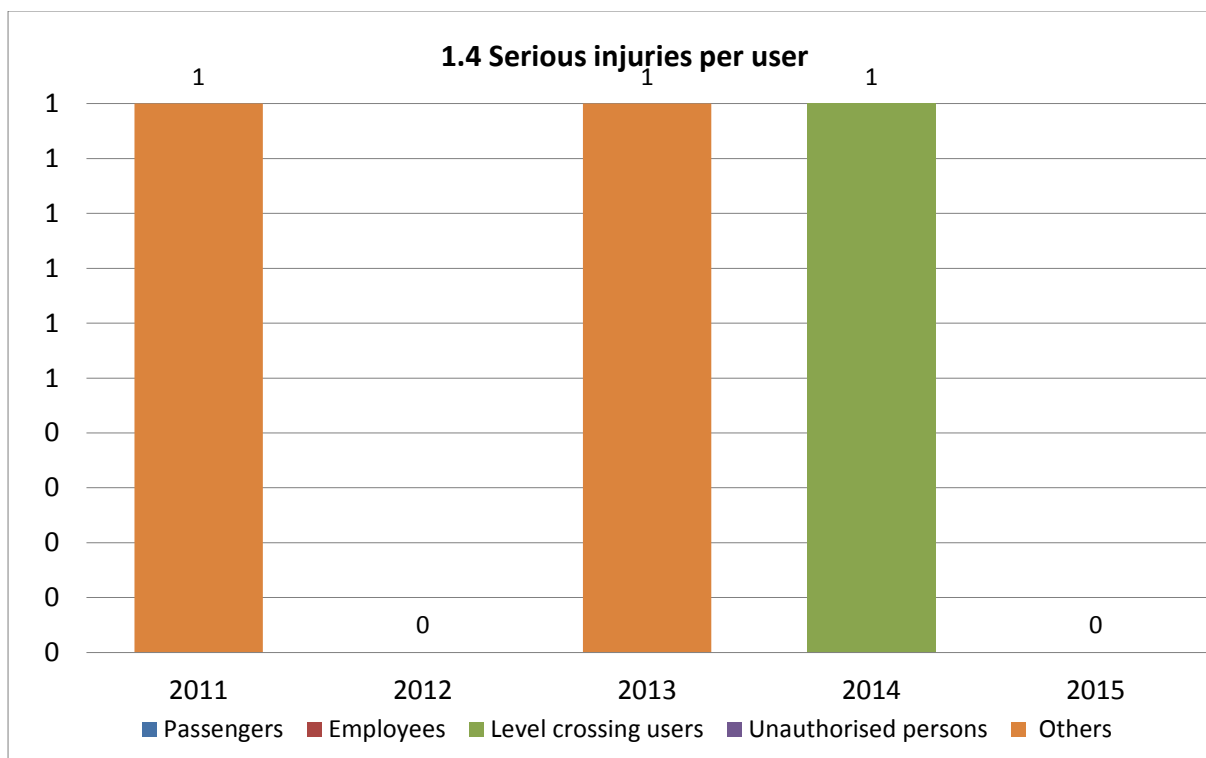
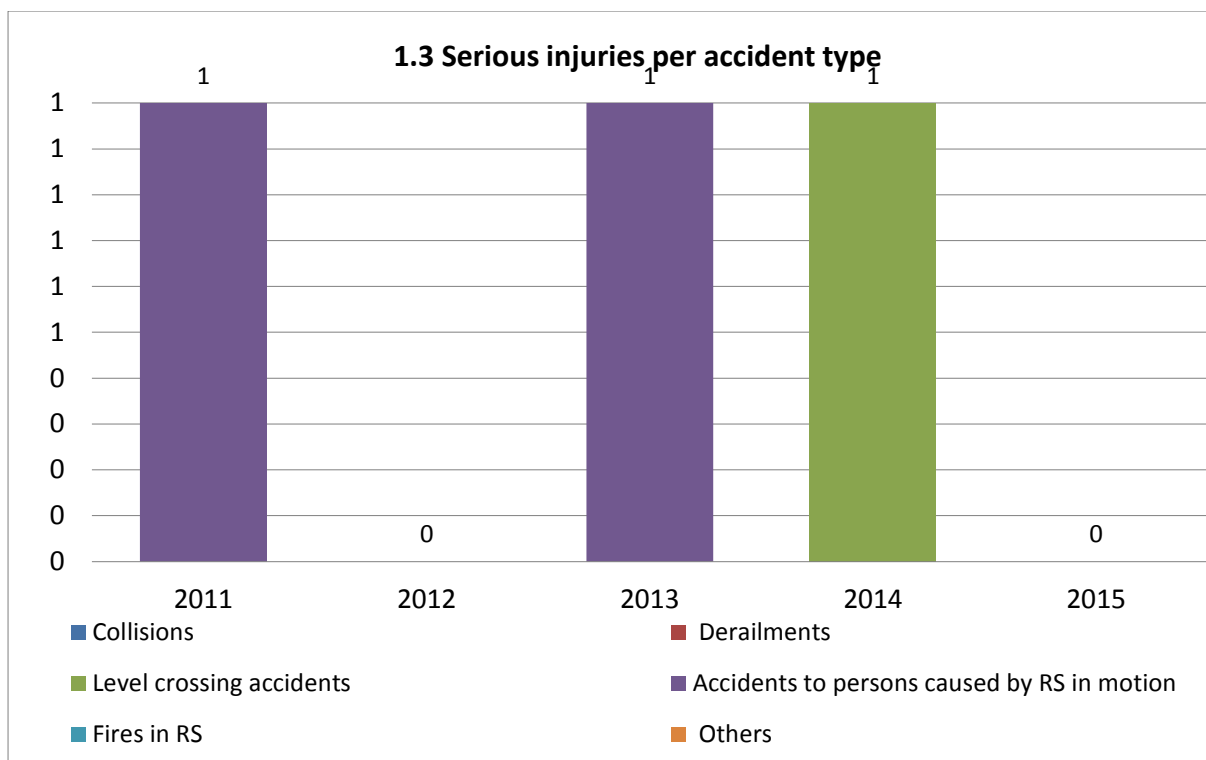
All freight wagons have certified ECM. There were no derogations in year 2015 to the ECM certification scheme, decided in accordance with article 14a(8) of Directive 2008/110/EC /2/.

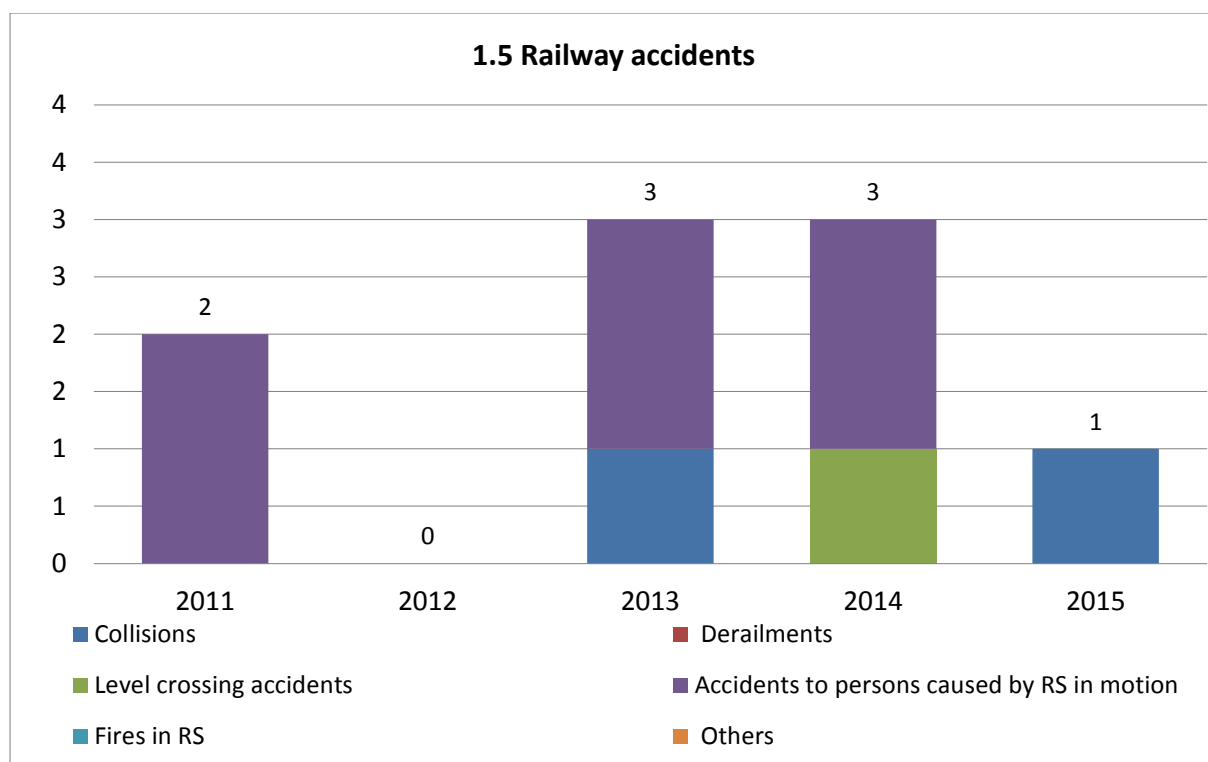
ANNEX A –

i. COMMON SAFETY INDICATORS¹⁸

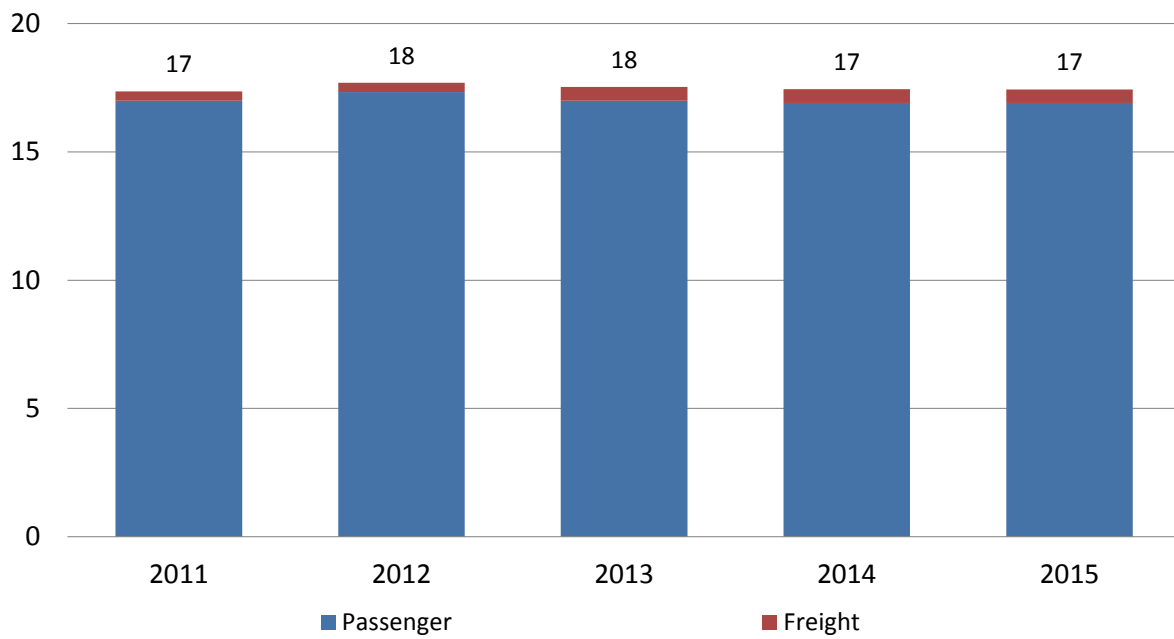


¹⁸ Please refer to Appendix of Annex I of the RSD /1/ as modified by Commission Directive 2014/88/EC /6/.

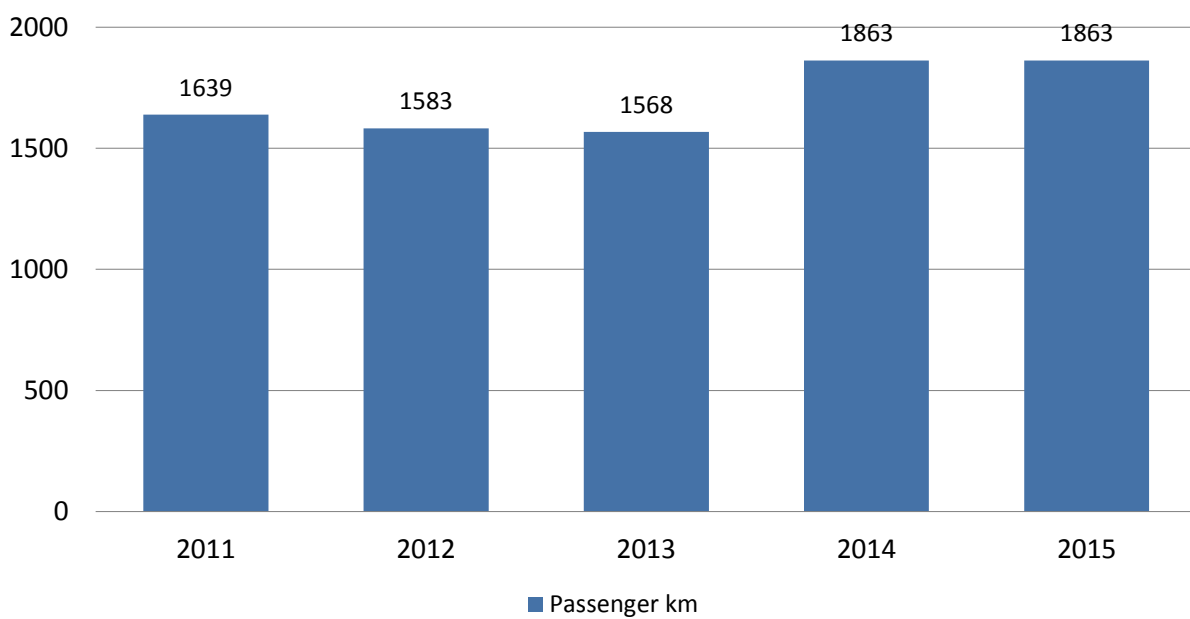




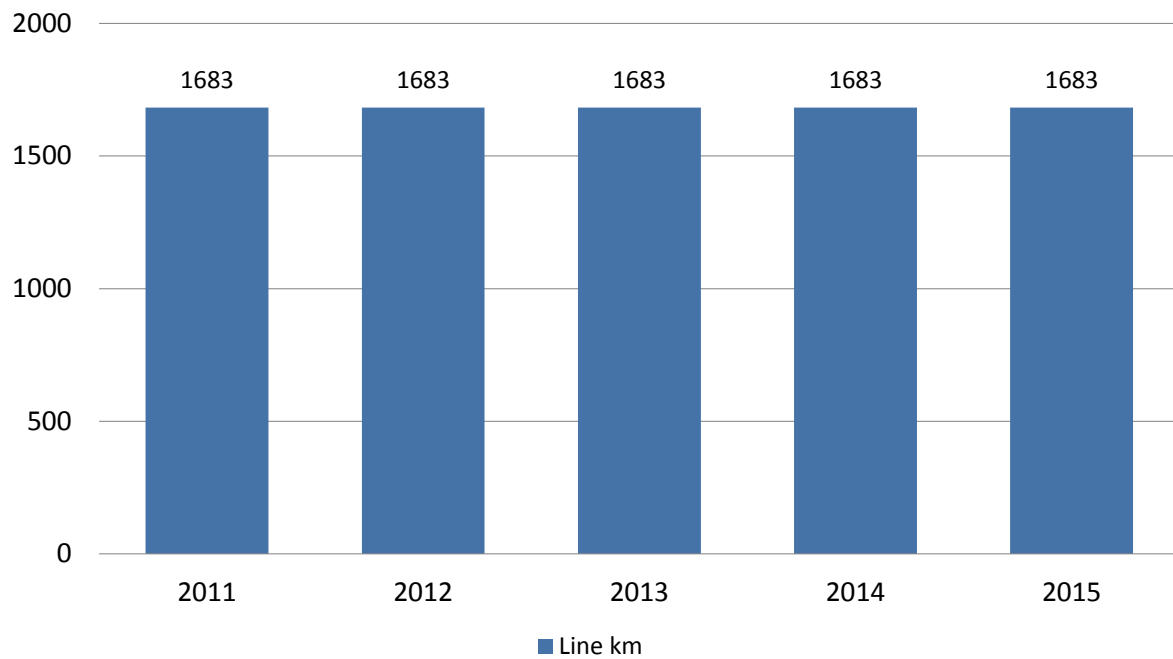
2.1 Number of train kilometers (millions)



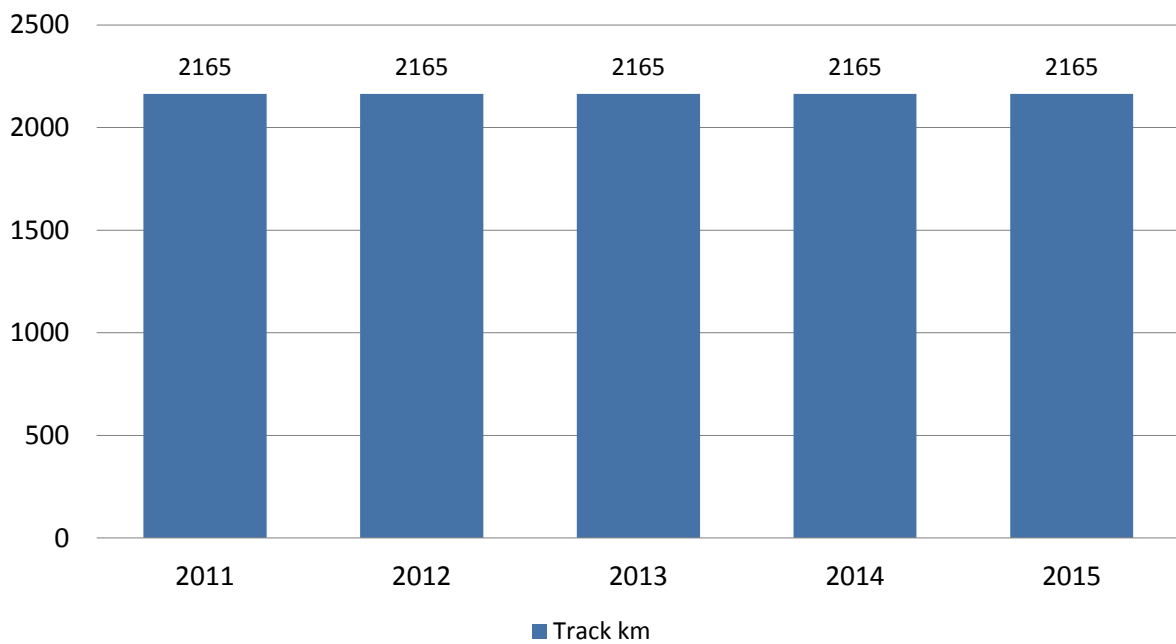
2.2 Number of passenger kilometers (millions)



2.3 Number of line kilometres



2.4 Number of track kilometres



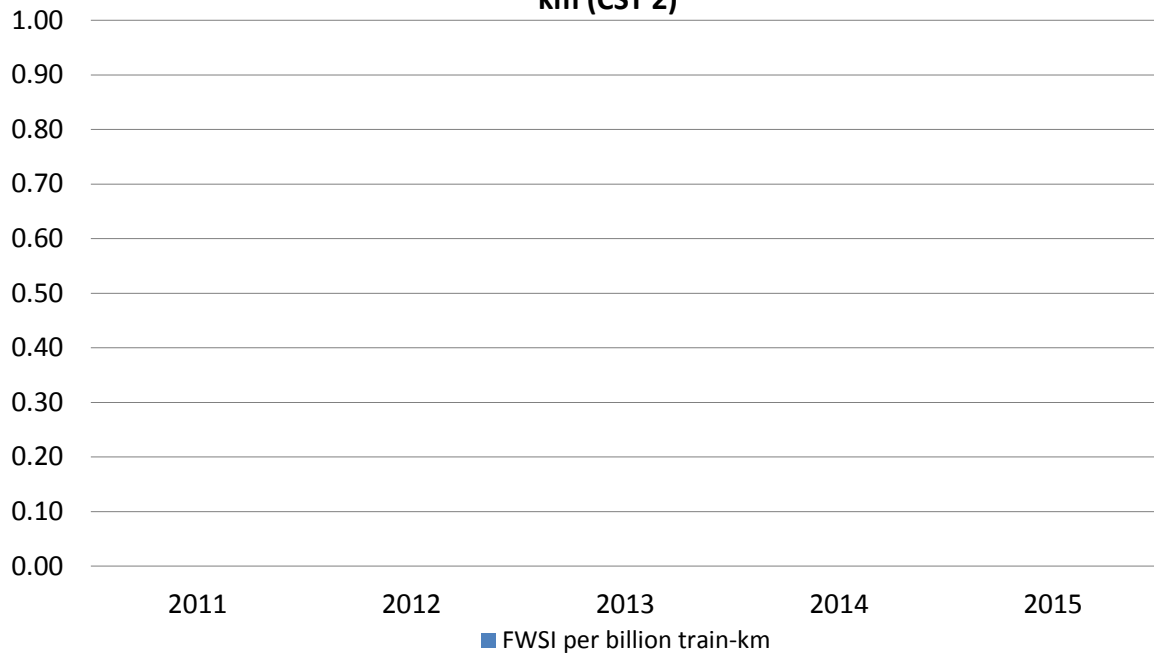
3.1 Passenger fatalities and weighted serious injuries per billion passenger train-km (CST 1.1)



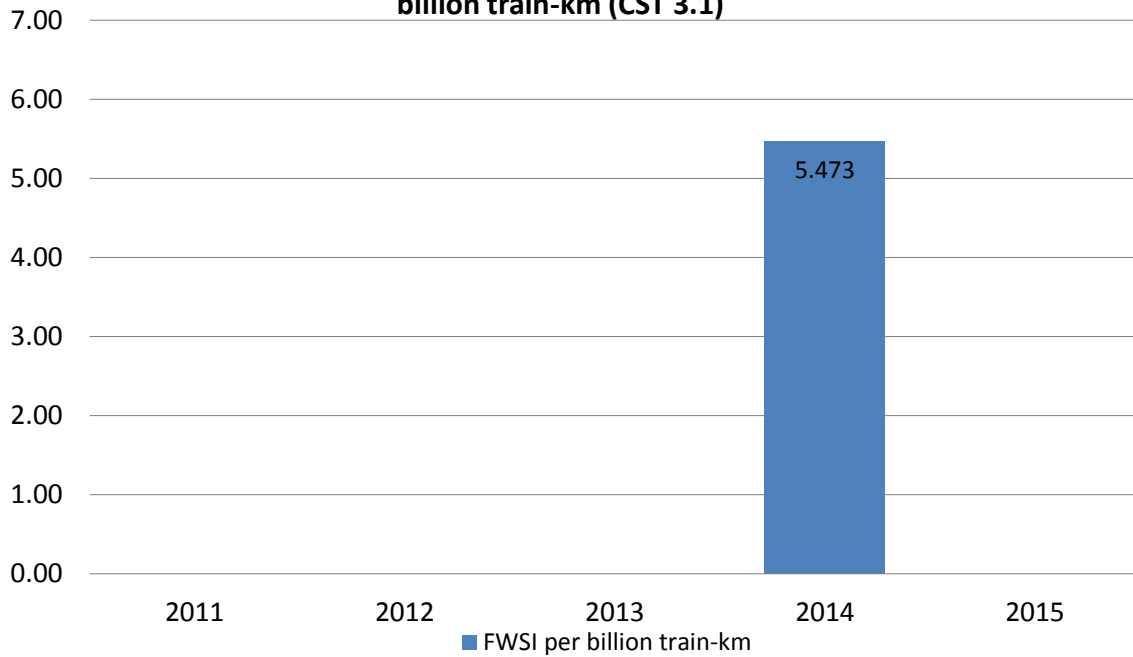
3.2 Passenger fatalities and weighted serious injuries per billion passenger-km (CST 1.2)

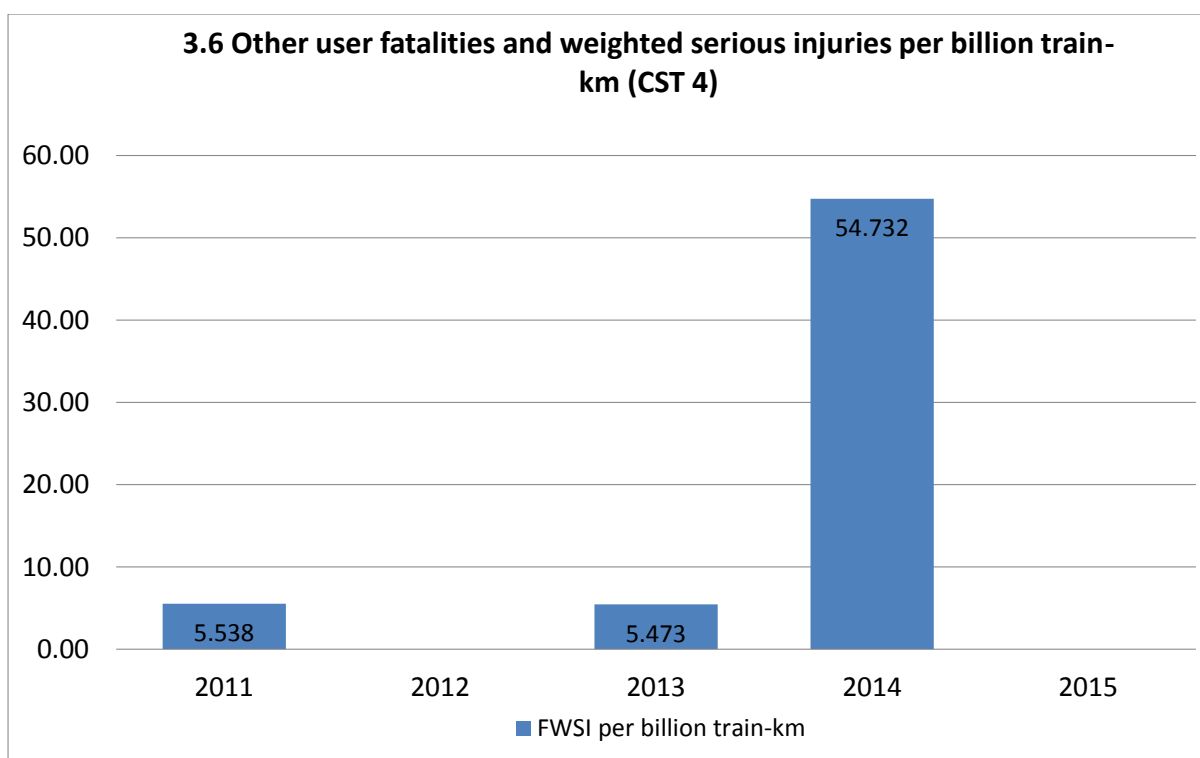
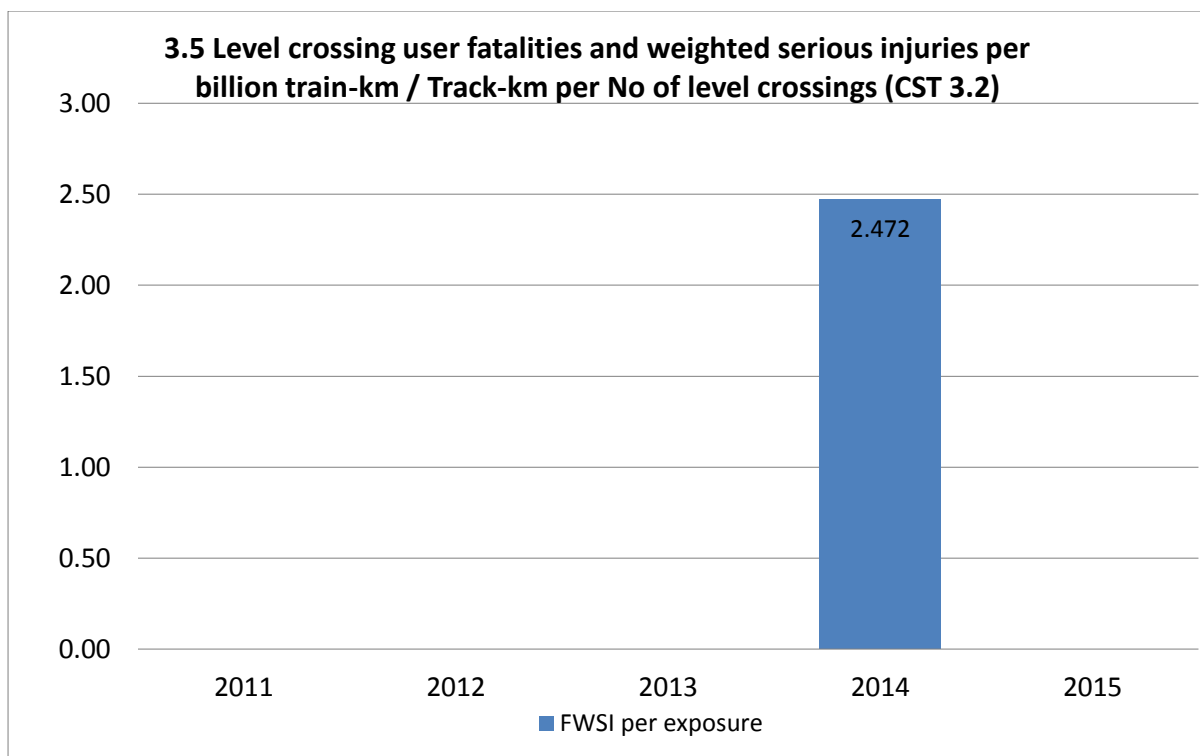


3.3 Employee fatalities and weighted serious injuries per billion train-km (CST 2)

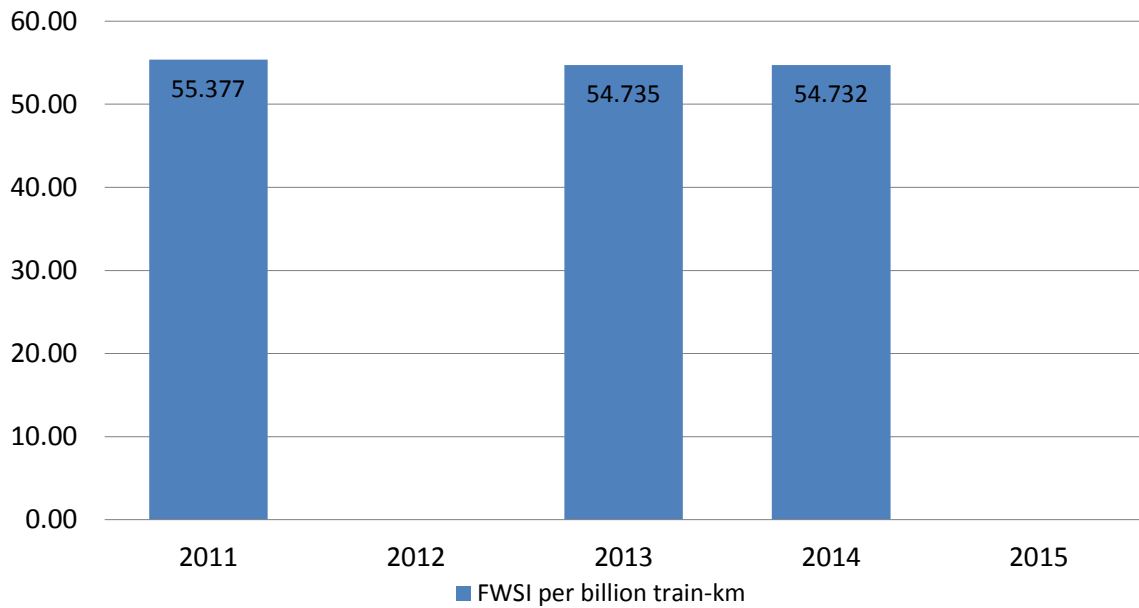


3.4 Level crossing user fatalities and weighted serious injuries per billion train-km (CST 3.1)

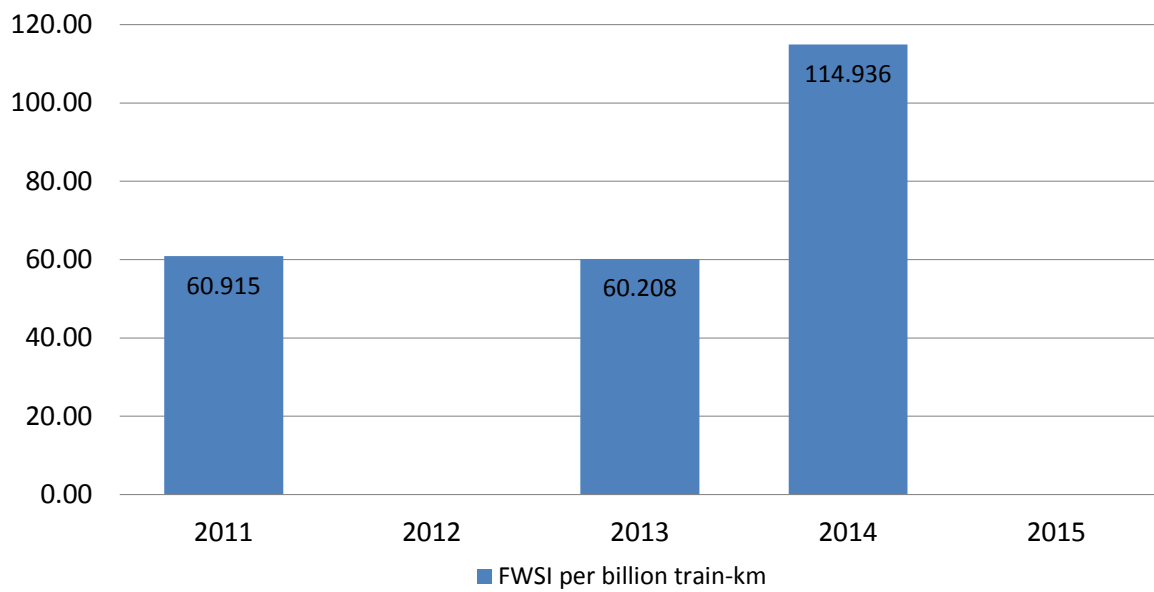




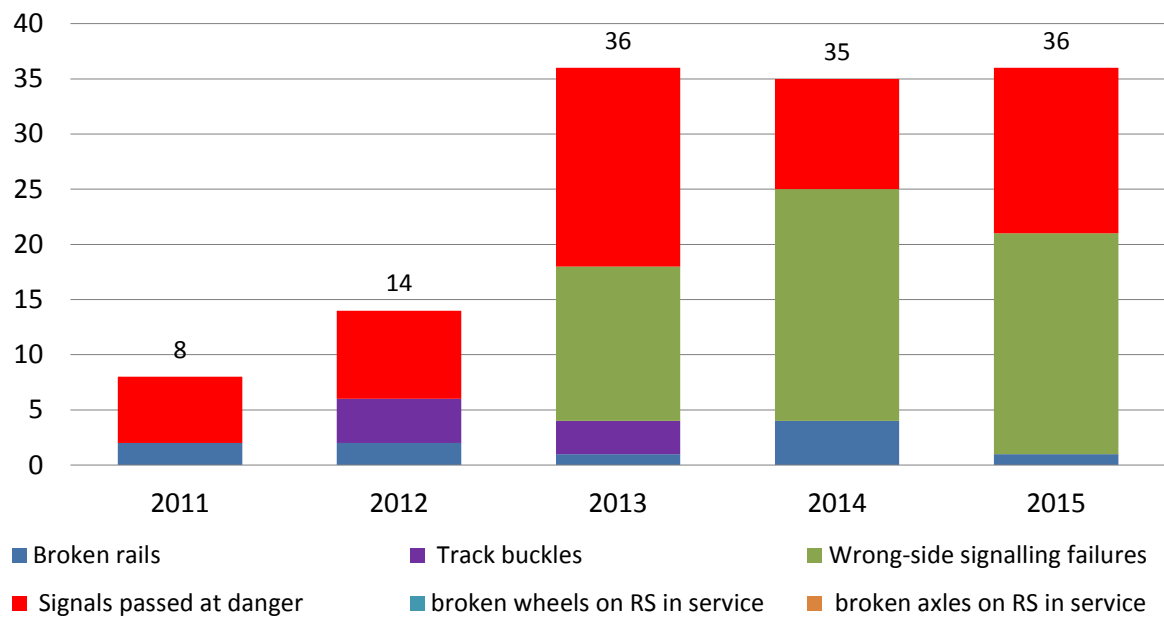
3.7 Unauthorized person fatalities and weighted serious injuries per billion train-km (CST 5)

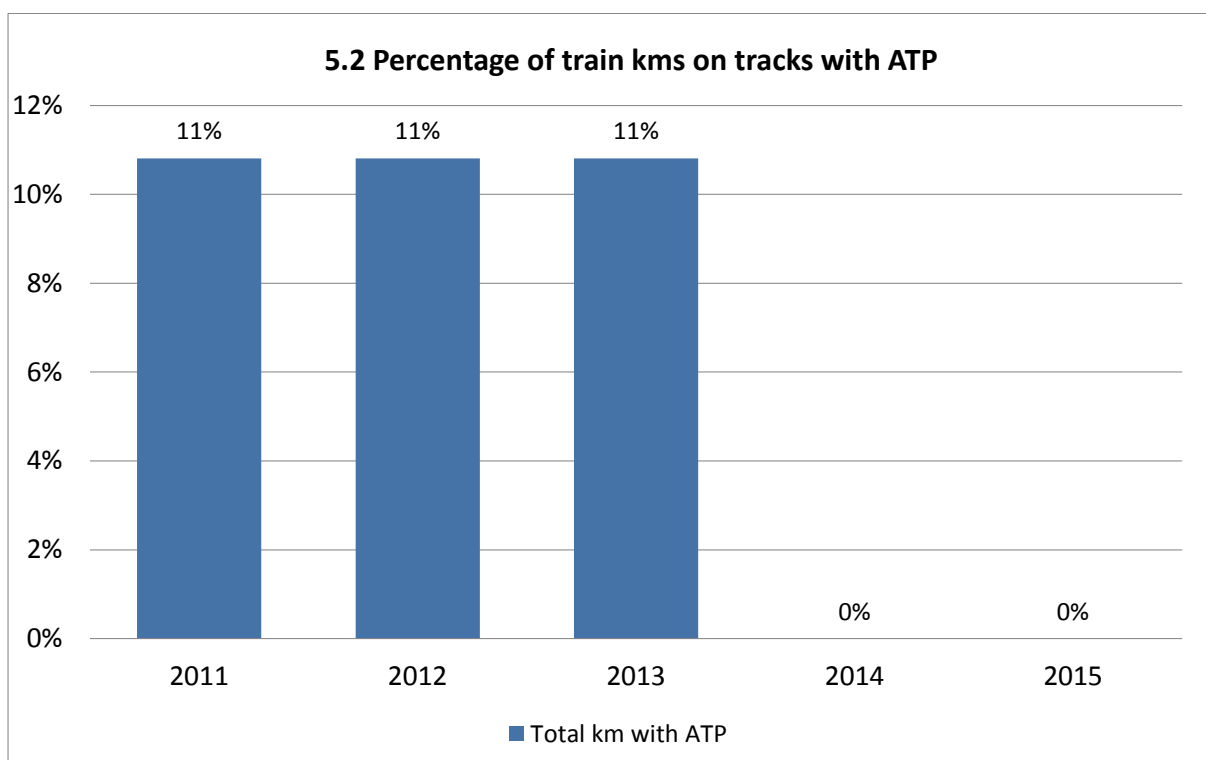
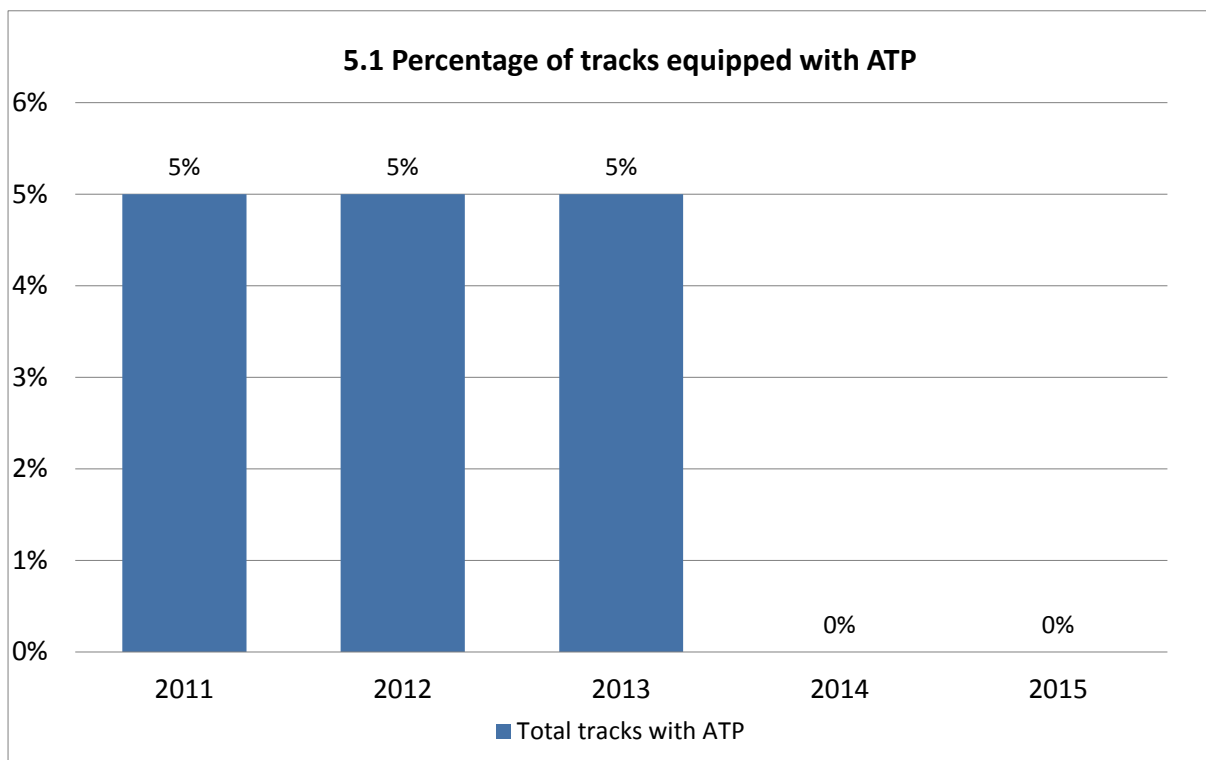


3.8 All person fatalities and weighted serious injuries per billion train-km (CST 6)



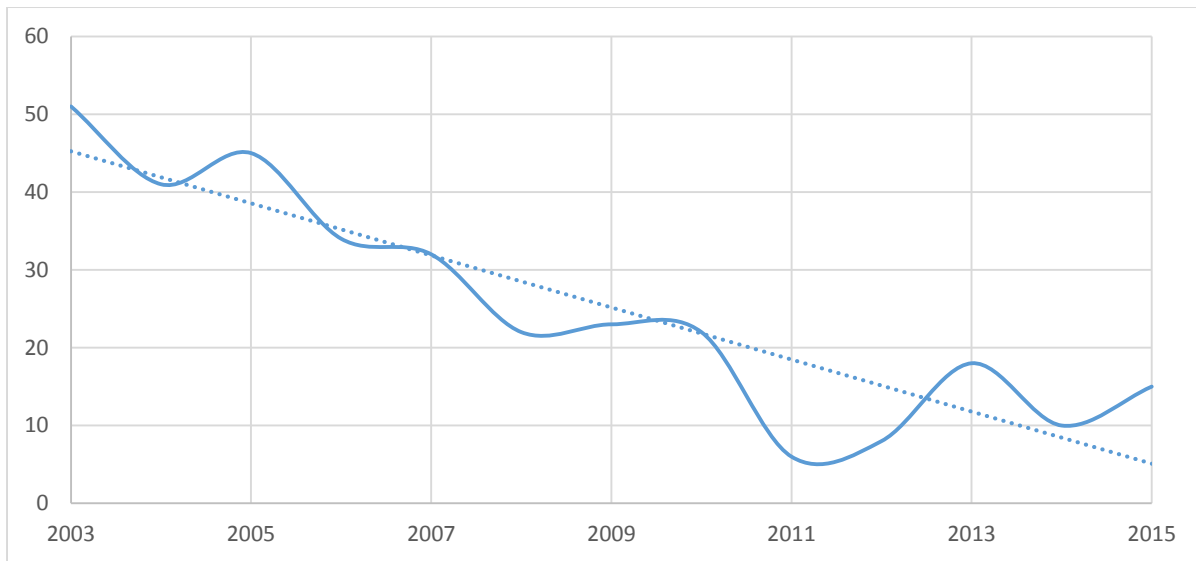
4.1 Precursors to accident by type



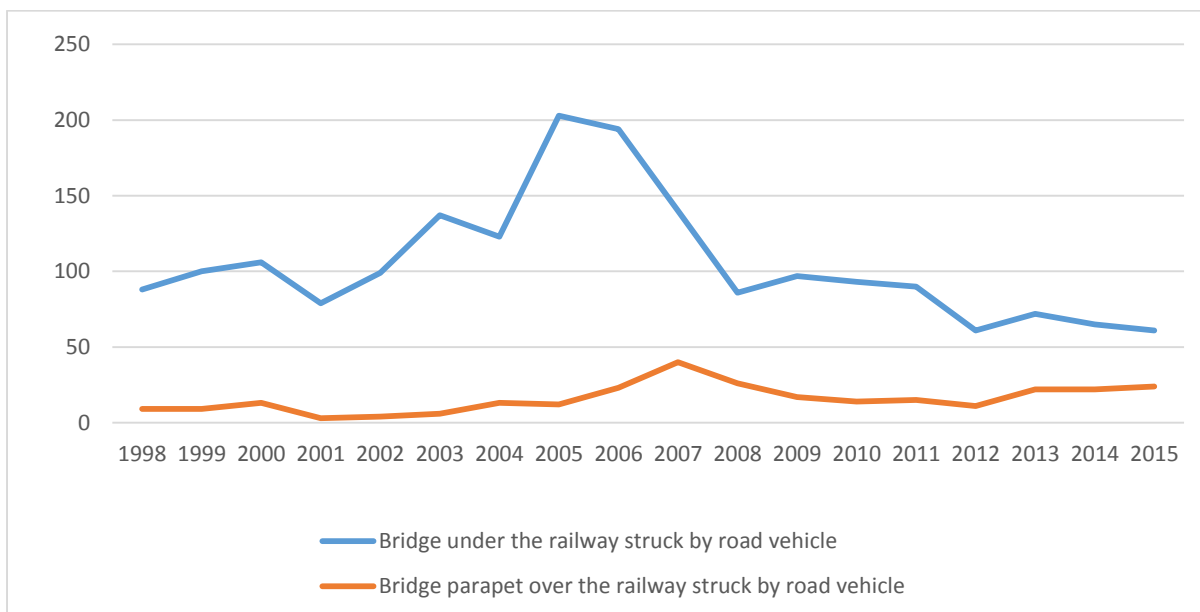


ii. NATIONAL INDICATORS

1. IÉ SPADS by year



2. Railway Bridges Struck by road vehicles



ANNEX B - CHANGES IN LEGISLATION

Table 1

RSD and its Amendments	Transposed (Y/N)	Legal Reference	Date of entry into force
Directive 2004/49/EC	(Incomplete)	SI 61 of 2008	06/03/2008
Directive 2008/57/EC	Y	SI 419 of 2011	13/08/2011
Directive 2008/110/EC	Y	SI 70 of 2011	23/02/2011
Directive 2009/149/EC	Y	SI 70 of 2011	23/02/2011
Directive 2004/49/EC	Y	SI 444 of 2013	25/11/2013
Directive 2004/49/EC	Y	SI 258 of 2014	12/06/2014
Directive 2014/88/EU	Y	SI 280 of 2015	08/07/2015

Table 2

Legislation And Regulation	Legal reference	Date of entry into force	Description of change	Reasons for the change
Concerning the NSA	S.I. No. 249/2015	13/06/2015	The role of the Railway Safety Commission was expanded to include the role of regulatory body, responsible for regulation of the railway sector in the State.	European Commission required transposition into Irish law of the Commission Directive 2012/34/EU on a Single European Railway Area.
Concerning NoBos, DeBos, ABs, third party entities for registration, examination, etc.				
Concerning RUs/IMs/ECMs	S.I. No. 249/2015	13/06/2015	The Regulations provide for the functional separation of infrastructure management from railway undertakings in regard to infrastructure	European Commission required transposition into Irish law of the Commission Directive 2012/34/EU on a Single European Railway Area.

			charging and path allocation on the national part of the single European railway network.	
Implementation of other EU requirements (if concerning railway safety)	S.I. No. 280/2015	08/07/2015	These Regulations update requirements and definitions as regards common safety indicators and common methods of calculating accident costs by replacing Annex I (Common Safety Indicators) in full.	European Commission required transposition into Irish law of Commission Directive 2014/88/EU of 9 July 2014 which amends Directive 2004/49/EC.

Annex C – NSA Ireland Audit of RUs and IM - findings of non-compliance

Audit of Iarnród Éireann – Railway Undertaking
Annex II, Criterion B - Risk Control Measures associated with the activities of suppliers to the Chief Mechanical Engineer's department
Report Issued : 17/09/2015
Review and recording of Bogie/Wheelset Risks or Rolling Stock Risks
The requirement for a formally recorded Bogie/Wheelset Risks or Rolling Stock Risks review is not being met. CME Department should review this requirement and ensure the intent and implementation of it is aligned.
Concession Recording
The requirement at Section 7.8.8 of CME-SMS-001 is not being complied with. CME Department should review the appropriate requirements for logging concessions and implement that process.

Audit of - Iarnród Éireann – Infrastructure Manager
A Location specific audit – Iarnród Éireann's Infrastructure Manager (IÉ-IM) CCE Division 5
Report Issued : 28/08/2015
Non-compliance with CCE-TMS-361 Technical Standard for Track Patrolling. The Patrol Ganger check sheet is not in strict compliance with standard CCE-TMS-361 Appendix A: Patrol Ganger Equipment Requirement, Items required for Patrolling list.
Non-compliance with CCE-QMS-009-110 clause 4.1.1. Prior to a work order being technically completed or TECO'd in SAP a job card or associated Technical document / form must be signed and dated by the person who completed the task. Records were shown of work orders not signed or dated, indicating non-compliance with standard CCE-QMS-009-110.

Audit of - Iarnród Éireann – Railway Undertaking's Safety Management System
Annex II, Criterion S.(Internal Auditing) and Commission Regulation (EU) No. 1078/2012
Report Issued : 01/06/2016
IÉ-Railway Undertaking Risk Register IÉ-RU Operations risk register is considered non-compliant with RU-SMS-006 section 4.6.2 in terms of its format and layout. Moreover its contents is considered not to represent all foreseeable risks as requires by section 4.6.1.
Checking the effectiveness of measures taken IÉ-RU did not have a procedure in place that could demonstrate compliance with Annex II, criterion S.2 (c) procedure to follow up the effectiveness of measures taken. IÉ-RU should build into its systems a process of checking effectiveness of measures taken to remedy audit outcomes and associated action plans.
Non-compliance with Commission Regulation (EU) No 1078/2012 Article 3(2)(c) Evidence was not available by IÉ-RU to demonstrate the requirement for actions plans following detection of unacceptable non-compliances is fulfilled.

Audit of - BBRI - RU
Annex II, Criterion A - Risk Control Measures associated with the activities of BBRI
Report Issued : 18/01/2016
Risk identification Procedures and Implementation do not fully comply with Commission Regulation (EU) No 1158/2010 Annex II Element A

Audit of – Northern Ireland Railway’s SMS - Annex III Criterion – B, Staff Competence
Report Issued : 01/06/16
Non Compliance with Commission Regulation (EU) 1158/2010 Annex III Criterion B Evidence was not available to demonstrate NIR had systems that ensured the competency of train crew in line with their Part B Certificate for Operation on the IÉ-IM network.
R/OP/OPR/001 Section 5.0 - Update of Task Analysis Evidence was not available to demonstrate to the satisfaction of the auditors that internal NIR Standards have been reviewed as per their SMS requirements.
Non Compliance with Commission Regulation (EU) 1158/2010 Annex III B.3 Evidence was not available to demonstrate NIR had validated and verified training material used to ensure competence of train crew operating on the IÉ-IM network.