

2015 Annual Report

Tuarascáil Bhliantúil 2015



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Foreword

In compliance with Section 28(3) of the Railway Safety Act 2005 (RSA), the Commission is required to present an annual report to the Minister for Transport, Tourism & Sport. This Report provides an overview of the activities of the Commission, including its regulatory functions, administration and governance, for the year ended 31st December 2015.

The name of the Railway Safety Commission was changed to the Commission for Railway Regulation with effect from Monday 29th February 2016 (the day appointed by Ministerial Order under SI. No.69 of 18th February 2016). The Railway Safety Commission was originally established on 1st January 2006 in accordance with the provisions of the Railway Safety Act (RSA) 2005. The change in name reflects the wider range of regulatory responsibilities for the railway sector in Ireland that were assigned to the Commission under the European Union (Regulation of Railways) Regulations, SI No.249 of 2015.

The Commission has continued to exercise its functions throughout 2015 in accordance with Statute and Regulations. The methods by which safety management systems are assessed for conformity, new or significantly altered infrastructure and railway vehicles are assessed for compliance with safety requirements prior to placing in service, and railway organisations are supervised to ensure that they apply and comply with their safety management system are prescribed in European and national legislation. Activities conducted by the Commission during 2015 in fulfilment of these safety regulation requirements are detailed in Sections 2, 3 & 4 of this report. The Commission's activities in respect of its market regulatory functions under S.I. No.249 of 2015 are described in Section 6 and matters of corporate governance and administration are addressed in Section 7.

A notable safety development during 2015 was the procurement, installation and commissioning of acoustic monitoring equipment at three sites on the Iarnród Éireann network. This equipment will provide early warnings of defects in axle bearings, which are safety-critical items in railway vehicles.

In terms of those areas outlined in the 2014 Annual Report as the focus for particular attention during 2015, the Commission has delivered on its responsibilities as follows:

- Continuing co-operation with and technical support to the Department of Transport, Tourism and Sport (DTTaS) in the amendment of legislation and development of functions for economic regulation of the railway sector in compliance with Directive 2012/34/EU
 - S.I. No.249 of 2015, European Union (Regulation of Railways) Regulations, was signed into effect by the Minister on 12th June 2015;
- Recruitment on a permanent basis of the number of competent specialists required to keep the Commission adequately resourced from 2015 onward
 - Five Inspectors were recruited to the staff of the Commission during Q1 & Q2, 2015;
- Further professional development of all RSC staff so as to ensure that adequate railway-specific technical and legal knowledge and skills are available within the organisation
 - Growth in knowledge and experience of the Inspectors and graduate trainees resulted in a further reduction in the Commission's dependence on external experts for core activities;

- Engagement with Belmond Ltd for safety authorisation of the Belmond Grand Hibernian luxury tourist train, due in service 2016
 - The Belmond tourist train project has progressed well and is expected to complete the process for safety authorisation according to schedule during 2016;
- Continued engagement with the Iarnród Éireann Railway Undertaking function for the roll-out of Entity in Charge of Maintenance (ECM) certification to all passenger and locomotive fleets
 - Assessment is well-advanced for the Class 22000 Inter-City Railcar fleet and is scheduled to complete in Q2, 2016, and progress towards the ECM attestation for all Iarnród Éireann passenger fleets will continue thereafter on a fleet-by-fleet basis;
- On-going engagement with Transport Infrastructure Ireland (TII) in the safety assessment of the new works associated with the LUAS Cross-City (LCC) extension
 - A Letter of Acceptance for Stage 1 (“Concept Stage”) of the six-stage process that will lead to Authorisation to Place in Service the LCC extension was issued to TII on 16th February 2015, and the Commission continues to meet and work with TII towards their delivery of Stages 2 & 3 during 2016;
- Establishment of Regulatory Body, Independent Monitoring Body and Licensing Authority functions and, subject to legal provisions, re-branding as the Commission for Railway Regulation
 - Regulatory functions have been established in accordance with the provision of S.I. No.249 of 2015. Provision for a change of name to **Commission for Railway Regulation** (CRR) was incorporated into the Public Transport Bill (No.62 of 2015), which was subsequently enacted as Act No.3 of 2016;
- Further development of internal processes and procedures relating to the Commission’s Quality Management System (QMS)
 - The development of the Commission’s QMS gathered pace following the recruitment of Inspectors and it is anticipated that this project will be substantially completed in 2016.

In accordance with Regulation 4(2) of S.I. No.444 of 2013, each infrastructure manager and each railway undertaking shall, not later than 30th June in each year, submit an annual safety report to the Commission concerning the preceding year. Statistical information relating to safety performance of the railway organisations, as submitted in such annual reports, will be analysed and published by the Commission in a separate report at the end of Q3, 2016. Statistical reports from previous years are available on the Commission’s website www.crr.ie

In conclusion, I would thank each member of the Commission’s team for their contribution to the delivery of our statutory duties during 2015. The Commission will continue to focus relentlessly on its commitment to advance railway safety, ensure fair access to the Iarnród Éireann infrastructure, and monitor the sustainability of rail transport in Ireland.



Gerald Beesley
Commissioner for Railway Regulation
March 2016

1 The Commission for Railway Regulation

The Commission for Railway Regulation has responsibility for oversight of the management of safety by the various railway organisations that operate within the State and for monitoring sustainability of the Iarnród Éireann network and regulating access to that network.

The Commission's safety role is regulatory - it does not have an operational role in managing day-to-day safety on the ground; that duty lies with the various railway organisations. The Commission's statutory mandate is to ensure that each railway organisation has developed, implemented, and is complying with Safety Management Systems (SMS) that conform to legislative requirements.

In the context of Directive 2004/49/EC (the Railway Safety Directive) the Commission is the National Safety Authority for the railway sector in the Republic of Ireland. As the independent regulatory agency charged with oversight of all railway activities, the Commission is required to ensure that each railway organisation operating in the State understands and effectively manages the risk to safety associated with its activities. This is achieved in three ways:

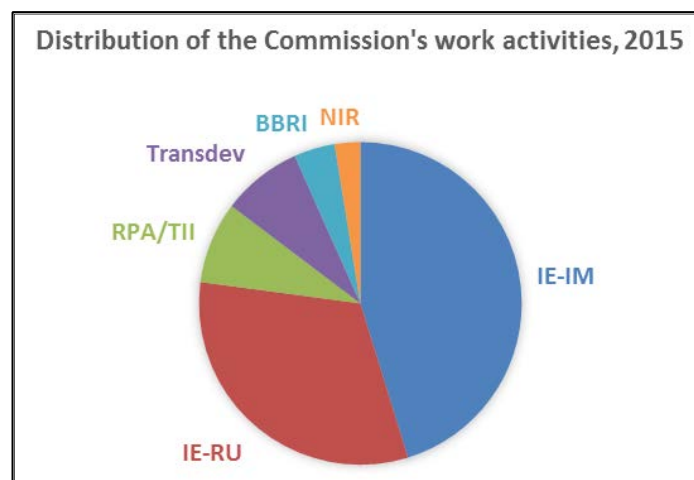
- **Conformity Assessment** - Assessing Safety Management Systems (SMS) to ensure that they conform to all requirements prior to awarding safety authorisation or safety certificates, and assessment of new or significantly altered railway infrastructure and rolling stock to ensure compliance prior to placing in service
- **Compliance Supervision & Enforcement** - Auditing compliance with the procedures and standards prescribed in each approved SMS, and inspection of railway assets to assess compliance with fitness for purpose criteria. Compliance with safety recommendations is assured through the monitoring of implementation plans and by taking enforcement proceedings where necessary
- **European & Legislative Harmonisation** - Supporting the harmonisation of national legislation with European Directives and Regulations, and ensuring that the consequent implementation of related technical and procedural measures conforms to mandatory European requirements.

In terms of European Directive 2012/34/EU, as reflected in S.I. No.249 of 2015, the Commission is the Regulatory Body, Licensing Authority and Independent Monitoring Body for the heavy rail sector in the State. Regulatory functions include:

- **Licensing of Railway Undertakings** wishing to operate on the Iarnród Éireann network
- **Independent Monitoring** of the Multi-Annual Contract between the Minister and the Iarnród Éireann Infrastructure Manager business (Access revenue alone is insufficient to meet the steady state operating and maintenance costs of the network), and
- **Adjudication on complaints** regarding access to the Iarnród Éireann network.

The railway sector in Ireland includes one Infrastructure Manager (Iarnród Éireann) responsible for an operational network of 1,700 route-km, plus approximately 135 route km of non-operational lines; and four Railway Undertakings who operate on the Iarnród Éireann network (Iarnród Éireann, Northern Ireland Railways, Railway Preservation Society of Ireland, and Balfour Beatty Rail Ireland). In addition there is a 37 route-km light railway system in Dublin (LUAS) and there are nine self-contained narrow-gauge Heritage Railways of which four are currently not operational.

In terms of network size and extent of operations Iarnród Éireann is by far the largest railway organisation that the Commission regulates. It accounted for 77% of the Commission's work activities in 2015, and this is reflected in the content of the Annual Report.



2 Safety Management Systems

Railways, along with the aviation, nuclear, oil & gas and petro-chemical sectors, are considered to be 'high hazard' industries — chance events can result in multiple fatalities and life-changing injuries. Therefore, to leave nothing to chance railway organisations must continually strive to achieve a level of management maturity that delivers the excellence in safety culture and performance which is the hallmark of high reliability organisations.

Railway safety is a public interest issue; the public must retain a high level of faith in railway safety. The collapse of the Malahide viaduct on 21st August 2009 demonstrated that, despite actions taken under the Railway Safety Programme there remained significant weaknesses in safety management arrangements then in place within Iarnród Éireann. There was a need for a 'system level' approach to management of safety, including measures to ensure compliance with the same.

The introduction of formalised Safety Management Systems to the railway sector in Canada (2001), the European Union (2004), and Australia and New Zealand (2006) has applied a proven approach that is well established in other high hazard sectors. In 2011 Iarnród Éireann introduced a SMS conforming to EU requirements (see below).

2.1 Development of SMS

2.1.1 Iarnród Éireann

Since 2010, the Commission has been working assiduously to encourage all railway organisations to implement robust SMSs. In order to comply with EU Regulations Iarnród Éireann (IÉ) was obliged, by January 2011 at latest, to replace previous arrangements for the management of safety (which had been approved in 2006 under national legislation) with SMS conforming to criteria mandated by Directive 2004/49/EC. IÉ successfully developed its SMS in line with EU guidance, and their application was assessed for conformity with European requirements prior to the Commission granting Safety Authorisation and issuing Safety Certificates in January 2011.

Although Ireland had obtained derogation from elements of the original EU Railway Package, this expired in March 2013. Renewal was not pursued and IÉ was no longer exempt from restructuring its business into separate functions for its Infrastructure Manager and Railway Undertaking (train operating) activities in order to comply with requirements of Directive 2012/34/EU so that in effect:

- The Infrastructure Manager (IM) is fully accountable and independent in its decision-making and has responsibility for establishing, managing and maintaining railway infrastructure, including traffic management, control-command and signalling;
- Railway Undertakings (RU) are fully accountable and independent in their decision making and have responsibility for the principle business of providing services for the transport of goods and/or passengers by rail.

Further adaptation of the SMS was required from IÉ to comply with Directive 2012/34/EU. Internal changes required to meet these requirements were managed in compliance with the IÉ SMS Standard for *Safety Validation of Organisational Change*, and subjected to independent review of safety validation by external experts. Conformity assessment by the Commission of the two separate SMSs demonstrated conformity with EU requirements and, on that basis, a Safety Authorisation was granted to IÉ as an IM and Safety Certificates were issued to IÉ as a RU in March 2013, each valid for a period of five years. Thereby IÉ is a Duty Holder in respect of the IM Safety Authorisation and, separately, it is a Duty Holder in respect of the RU Safety Certification.

2.1.2 Other Railway Organisations

Since 2011 considerable progress has been made in continuously improving safety management across the sector, including the application of SMS principles to both light rail and heritage railway organisations in 2013 and 2014, as well as the safety certification of other railway organisations operating on the IÉ network.

Conformity assessment of the SMS in respect of activities relating to the operation of the LUAS light rail system, which was submitted by Transdev, demonstrated conformity with the requirements of Commission guideline RSC-G-028-A. On that basis a Safety Management Certificate was issued by the Commission to Transdev Dublin Light Rail Ltd on 13th March 2015 and, subject to continuing compliance with the SMS, is valid for a period of five years.

2.2 Iarnród Éireann's SMS Compliance

Since June 2011 IÉ has been subject to the Commission's SMS audit regime, which is structured and conducted in accordance with the requirements of Regulation (EU) No. 1077/2012, the Common Safety Method (CSM) for Supervision. The purpose of an SMS audit by the Commission is to:

- Confirm the Duty Holder's application of and compliance with its approved SMS
- Determine effectiveness, suitability, and sufficiency of the SMS to demonstrate compliance with the applicable Common Safety Methods, and
- To identify matters of non-compliance and areas for improvement to the management systems, including advising on good practice

Throughout 2015 it was evident that IÉ was taking a noticeably different approach toward safety regulation. This was most evident in the stance adopted at the most senior level of IÉ management when responding to matters of safety management compliance identified by the Commission. It is of

concern that the type of sentiment expressed in correspondence with the regulator may be a reflection of a leadership attitude to safety that would be less than the Commission expects.

Despite the issues encountered, which are described in the following sections, the Commission has continued to successfully encourage key professional staff — in both the Infrastructure Manager and the Railway Undertaking business divisions of IÉ — in taking steps to implement improvements for the benefit of railway safety. Such steps include, but are not limited to ensuring that recommendations arising from audits and inspections conducted by the Commission, and safety recommendations made in reports published by the Railway Accident Investigation Unit, are satisfactorily acted upon by the relevant railway organisation. The vast majority of such key staff have been receptive to the Commission's recommendations.

2.2.1 Strategic Management of Safety in Iarnród Éireann

During the latter half of 2014 the Commission became aware (through inspection activities and from representations) that IÉ was intending to introduce significant changes across the organisational structure of both the IM and RU functions. Evidence indicated that these proposals were, at the time, being developed external to the ownership of the respective SMSs, i.e. outside the IÉ-IM and IÉ-RU SMSs (see sub-section 2.1.1). There was concern that hasty introduction of any such changes would disturb the focus of applying the EU conforming SMSs that had been introduced less than two years previously. Any disturbance to allocated safety responsibilities or the application of well-developed safety management principles for technical compliance and competency assurance would have the potential to introduce risk.

The Commission therefore considered that it would be beneficial to gain an insight about the strategic management of safety within IÉ through a SMS audit, and that evidence obtained during the audit would also be used to produce a comparison with the traits of a High Reliability Organisation (HRO). In order to bring specialist knowledge of HROs to bear, DNV-GL (a company with international repute for advice in the field of operational risk management to the rail, maritime, oil and gas, and energy industries) was engaged to assist the Commission.

A combined draft SMS audit and HRO comparison report was issued in mid-December 2014, but was met with an immediate negative reaction from IÉ. Comments on the combined draft report, which were invited as part of the document review process, were received from IÉ in February 2015, and in April a combined final report was circulated. Following this, a meeting was held with IÉ to discuss the report, at which IÉ expressed further disagreement with most audit outcomes despite having been previously afforded ample opportunity to comment during the document review process.

In order to progress matters, the Commission decided to re-issue the reports as separate documents: a report on the SMS audit, the outcomes of which would be subject to regulatory enforcement; and a report on the comparison with a HRO, which would inform IÉ in developing its future strategy for the continuous improvement of safety management. The separate final SMS audit report was issued in June 2015 and included an addendum which outlined the Commission's considered opinion on the additional matters that had been raised by IÉ at the April meeting subsequent to the formal document review process.

The comparison of IÉ with a HRO was the subject of continuing communication between IÉ and the Commission; IÉ requesting that the report should be withdrawn. The Commission proposed the establishment of a working group to identify those aspects of the HRO comparison that would be of merit to continual improvement of safety management in IÉ, and this proposal was favourably received. However, when a copy of the original draft report was leaked to the media — thus placing it in the public domain — it became incumbent on the Commission to proceed with finalisation of the report without further delay. IÉ were advised accordingly, and on 15th October 2015 the report, which took into account comments received from IÉ, was issued by the Commission.

The reports and the responses thereto raised fundamental issues of policy, culture, governance and management. It did not reveal any immediate danger to passengers, staff or contractors, but rather strategic issues of longer term concern which are being addressed by the Commission through formal enforcement procedures under Part 7 of the Railway Safety Act.

In relation to policy, a significant outcome of the audit was a finding that neither the IÉ-IM Safety Manager nor the IÉ-RU Safety Manager had reported to meetings of the IÉ Board since the internal separation of IÉ into separate IM and RU functions. This finding became the subject of a separate Inspection by the Commission (see sub-section 2.2.2).

In relation to governance, the Commission found that there are Advisory Groups currently providing advice to both IÉ management and the IÉ Board, thus creating a risk to the independence of challenge at Board level. This led to a recommendation that the IÉ Board should establish a Safety Committee to specifically consider and report to it on safety matters and provide independent challenge, leaving the Advisory Groups to provide advice to management. A Safety Committee would also facilitate an uninhibited flow of safety information between the IM and RU Safety Managers and the IÉ Board.

In relation to management, the audit found that the SMS is observed in spirit but lags behind, rather than leads, the way safety is managed in IÉ. This weakness was again to become evident in the Commission's review of a proposed change in the IÉ organisation (see sub-section 2.2.3).

The purpose of providing the HRO comparison report was to foster and encourage IÉ to benchmark itself to HRO levels of excellence in safety culture and performance. It is of concern that responses from IÉ lacked appreciation of the importance of just culture and organisational learning, which are fundamental features of good safety management. Furthermore, IÉ's statement that HRO principles are unknown in the railway sector, or in Ireland, only served to heighten the Commission's concerns.

Continuous improvement in safety management is not only good business, it is also a requirement of Directive 2004/49/EC, which states that the SMS shall show how control by management on different levels is secured, how staff and their representatives on all levels are involved, and how continuous improvement of the SMS is ensured. The SMS should be seen as an organisational value rather than a regulatory obligation. It should be 'owned' by the senior management and used as a tool by which safety can be continuously improved.

2.2.2 Action following identification of Non-compliance issues

The audit of strategic management of safety within IÉ, described above, identified a non-compliance with the IÉ-IM SMS and IÉ-RU SMS that had existed since March 2013. This was related to the lack of reporting of the IM Safety Manager and the RU Safety Manager to meetings of the IÉ Board. Consequently, in April 2015 the Commission initiated an Inspection in order to determine why this non-compliance had existed for a prolonged period of time and to identify what reporting arrangements were actually in place to ensure that the IÉ Board is informed of safety performance and SMS compliance.

The IÉ Board has responsibility for ensuring effective corporate governance and accountability in relation to the management of safety. Therefore the Board must be kept adequately informed of safety performance, including information on the compliance with, application and effectiveness of the respective SMS of IÉ-IM and IÉ-RU. An uninhibited flow of safety information to the IÉ Board is critical in order to ensure that it can take informed decisions in relation to company strategy, and effectively and positively influence safety performance of the company.

Although the Inspection had not concluded by the end of 2015, it is anticipated it will be finalised toward the end of Q1, 2016.¹

2.2.3 Iarnród Éireann's safety validation of organisational change

In March 2015 IÉ notified the Commission of a change in the Procurement, Materials and Contract Management responsibilities in the IM and RU business divisions. Until it received this notification, the Commission was unaware of this significant change in the IÉ organisational structure and to the associated safety responsibilities.

The Commission was concerned that matters fundamental to (a) independence of functions under the respective IM SMS and RU SMS, upon which the Commission had granted Safety Authorisation and issued Safety Certificates; and (b) conformity of the respective SMSs with Directive 2004/49/EC, may not have been complied with. On learning of the proposed change, the Commission took immediate steps to prevent implementation. By agreement, both IÉ-IM and IÉ-RU postponed implementing the change pending the Commission carrying out a comprehensive review.

The Commission conducted its comprehensive review pursuant to Regulations 5 and 6 of S.I. No. 444 of 2013. In doing so the Commission assessed the IÉ proposal for organisational change through the prism of railway safety legislation, including *inter alia* Directive 2004/49/EC and S.I. No. 444 of 2013. The Commission was assisted in its task by DNV-GL, whose experts were engaged in accordance with S.18 of the Railway Safety Act, 2005 and were appointed Inspectors pursuant to S.73 (1) of the Act.

Key elements of the review process included interviews with senior IÉ personnel and an assessment of IÉ's application of its SMS safety validation processes. A draft report was issued in October 2015 and IÉ were invited to comment in the context of any factual inaccuracies or where they believed that the report did not correctly reflect the position. Detailed comments were submitted by IÉ in November, and finalisation of the report was almost complete by the end of the year.²

¹ The final report was issued to IÉ in April 2016.

² The final report was issued to IÉ in February 2016.

2.3 SMS Compliance – Other Railway Organisations

2.3.1 Transdev (LUAS)

A significant milestone for the LUAS system and Transdev (the LUAS operator) was the adoption of SMS principles in 2015. Subsequent to the granting of a Safety Management Certificate in March, the Commission commenced supervision of the application and effectiveness of Transdev's SMS, and two audits were undertaken in 2015.

The first of these was a SMS audit that focused on Incident Response and Emergency Preparedness. The Commission identified a minor non-compliance relating to the briefing and availability of SMS documents. The second audit focused more on specific processes, those of vegetation management, lighting and the maintenance of driving sight-lines. The audit did not reveal any non-compliance and only a small number of areas were identified by the Commission as requiring action.

2.3.2 Northern Ireland Railways

In 2015 the Commission undertook one SMS audit of Northern Ireland Railways which focused on Competence Management of train drivers and crew. The audit, while not fully concluded in 2015, high-lighted a number of deficiencies in terms of the formal recording systems in place to internally monitor the training and ongoing competence of train drivers. The audit team also came to the conclusion that internal and external oversight of the application and effectiveness of NIR's SMS may be limited. This issue will be addressed during 2016 under the Memorandum of Understanding that the Commission has in place with the Northern Ireland Department for Regional Development.

2.3.3 Balfour Beatty Rail Ireland

Balfour Beatty Rail Ireland (BBRI) operates and maintains IÉ's fleet of On-Track Machines (OTMs). The movement of the OTMs from depot to worksite, and between worksites, requires BBRI to be in possession of a Safety Certificate confirming the conformity of their SMS with EU requirements for operation on the IÉ network.

The Commission supervises the application and effectiveness of the BBRI SMS. The team responsible for the conformity assessment of BBRI's SMS had recommended that a priority for audit was a check of BBRI's processes in relation to the management of risk. The Commission completed an audit on the management of risk and the implementation of risk control measures in Q 4, 2015. The audit found a number of areas that required action to be taken and a minor non-compliance that required more prompt action to review and address systems for identifying risks.



2.4 Iarnród Éireann Operational Incidents

The Commission monitors operational incidents that occur on the railway networks in order to encourage positive actions, or intervene where trends are negative or incidents raise concerns in regard to SMS compliance.

2.4.1 Signals Passed At Danger (SPADs)

As noted in the Commission's Annual Report for 2013, there was a significant increase in SPAD events on the IÉ network during that year. Although there was a reduction in the number of such incidents in 2014, nonetheless the total for that year was still higher than that experienced in each of the years 2011 and 2012. There was a further rise in the number of SPADs during 2015, see table below:

Year	2009	2010	2011	2012	2013	2014	2015
No of SPADs	21	22	6	8	18	10	15

Table 1: SPAD totals by year on the Iarnród Éireann network, 2009-15

Following receipt and review of an IÉ-RU Operational Occurrence Report into a SPAD incident that occurred at Mallow on 16th May 2014, when the 08:55 passenger train from Cork to Tralee passed signal MW826 at danger without authority, the Commission was sufficiently concerned about the robustness of IÉ's risk ranking of SPADs to undertake an Inspection into this event during early 2015.

By the time that the Commission's Inspection was completed it had also become apparent that the rate of SPAD occurrences during the first half of 2015 was already higher than that for 2014. This prompted the Commission to correspond with IÉ on the matter in June 2015 and request that the findings from its Inspection be given prompt attention, including a critical review of all aspects of the management of SPADs. By the end of the year the number of SPAD events had risen to 15, of which 14 were attributable to IÉ. Summary details are presented in the following table:

	Date	Signal	Type	Location
1.	15/01/2015	XX062US	Crossing	Shanclough LC
2.	18/01/2015	PE34	Main	Pearse
3.	18/01/2015	SL817	Main	Boyle
4.	30/01/2015	GL391	Shunt	Galway
5.	11/03/2015	PE18	Main	Gardiner St. bridge
6.	21/04/2015	DN201	Main	Howth
7.	28/04/2015	BR31	Shunt	Bray
8.	15/05/2015	CL102	Main	Reilly's Crossing
9.	06/06/2015	RL543	Shunt	Enniscorthy*
10.	23/06/2015	MN143	Shunt	Maynooth
11.	25/06/2015	CY69	Shunt	Fairview sidings
12.	03/07/2015	CL121	Main	Clonsilla
13.	23/10/2015	AE156	Main	Adrahan
14.	28/11/2015	XN159DS	Main	Spa LC, Castleconnell (LC gates also struck)
15.	07/12/2015	BN23	Main	Sandymount

* The SPAD on 6th June 2015 was attributable to BBRI

Table 2 SPADs on the Iarnród Éireann network, 2015

A review of the management of SPADs was carried on behalf of IÉ by independent experts, but it was not until November 2015 that a copy of their report was forwarded to the Commission following a request to IÉ to provide the same. It must be reported that, following review of the said report and of IÉ correspondence in relation to the same, the Commission remained to be satisfied that all issues identified had been adequately addressed and, therefore, matters first brought to IÉ's attention in June 2015 remained open at the end of the year.

2.4.2 Out of normal operation of RPSI train at Midleton

On 7th November 2014 the Railway Preservation Society of Ireland (RPSI) was permitted to operate a charter special on the Midleton line. The number of carriages used in the train resulted in a formation that was too long for both the platform and the signalling constraints at Midleton station.

The IM Safety Department had raised concerns due to the length of the train and recommended that the train be either shortened in length, or terminated in Cork. Subsequently, a decision was made at a higher level to permit the operation, and special arrangements had to be put in place, including staff on the ground at Midleton, to facilitate the 'out of normal' operation.

In accordance with its statutory duty to regulate railway safety the Commission is concerned with any occurrence which could, in slightly different conditions, result in harm. It is not the primary role of the Commission to determine the cause of an accident or incident — that responsibility rests with the Railway Accident Investigation Unit — but to identify whether an occurrence resulted from a duty holder's failure to comply with its approved SMS.

Because of the additional risks introduced as a consequence of the operation of the RPSI train, the Commission decided to undertake a Post Incident Inspection (PII). A draft PII Report was issued to IÉ for comment in August 2015. However, finalisation of the report was delayed by challenges from the most senior level of IÉ management (including a demand that the report be withdrawn) and correspondence with the CIÉ Group Solicitor.³

2.4.3 Other Operational Incidents

The Commission also monitors other operational incidents that occur on the railway networks. As there was a noticeable change in the nature of such incidents that were being reported by IÉ in the first half of 2015, particularly derailments and collisions, the Commission wrote to IÉ in August 2015 to convey its concern. Apart from SPADs, which were the subject of separate correspondence (see Section 2.4.1, above), a total of 12 incidents had been notified by early August, and the Commission considered it necessary to conduct preliminary Post Incident Inspections into 8 of these incidents to determine if there were issues regarding SMS compliance that needed to be addressed by IÉ.

In response to the Commission, IÉ referred to their 2007-12 safety performance as published in the European Railway Agency annual report for 2014. This performance is measured in terms of the European common safety indicators (CSIs). However, CSIs are principally indicators of significant events that result in harmful consequences, i.e. deaths and serious injuries, significant economic impact, etc. Measured against such parameters, IÉ's safety performance appears to be very good as

³ A list of written communications is included in the final report, which was issued to IÉ & RPSI in February 2016

there has not been a train accident on the IÉ network leading to a passenger fatality since that which occurred at Ballycumber in 1991.

The Commission believes that it is important not to define safety as an absence of accidents. In this context it is worth noting that in his inquiry into the fire at King's Cross underground station (18th November 1987), Desmond Fennell QC reported that a safety manager had warned management about complacency in the following terms:

“A safe environment is not one in which there is an absence of or a low number of serious injuries accidents, but is the result of active participation by management and staff in identifying hazards and then doing something about them. In other words, the absence of accidents is a negative measure largely dependent on luck, while the identification and then prompt elimination or control of hazards is a positive step and is essential to the discharge of our duties under current legislation.”

A summary of the reportable incidents (other than SPADs) that occurred on the IÉ network during 2015 is presented in the following table.

	Date	Description of Incident	Location
1.	22/01/2015	Derailment of locomotive No.207 at Saw Mill siding	Inchicore Works
2.	03/02/2015	Derailment of locomotive No.084	Tara Mines sidings
3.	09/04/2015	Derailment of locomotive No.226	North Wall
4.	27/04/2015	Staff road vehicle incursion onto Cork mainline	Sallins
5.	11/05/2015	Flank collision between ICR Unit 56 and 201 class loco	Waterford
6.	12/05/2015	Locomotive No.074 collided with Buffer Stop	IWT, North Wall
7.	01/06/2015	Locomotive No.087 collided with Buffer Stop	Westport
8.	06/06/2015	Wrong Side Failure of doors, ICR Unit 4	Dublin, Heuston
9.	09/07/2015	IWT Liner train divide	Kildare
10.	12/07/2015	Flank collision and derailment, EMU Nos. 8327 and 8316	Fairview Depot
11.	13/07/2015	Derailment of 2800 class units while coupling	Limerick Yard
12.	05/08/2015	Wrong Side Failure of doors EMU 8100 class Units 11 & 37	Killiney
13.	27/08/2015	Derailment of 29000 class unit - Incorrect operation of hand points	Drogheda Depot
14.	14/09/2016	Operating Irregularity with hand back of track possession in the Portlaoise - Ballybrophy section	Clonkeen (54 mp)
15.	19/10/2015	Collision between IWT Liner train and scrap wagons	North Wall yard
16.	23/10/2015	Derailment of EMU 8100 class unit on hand points	Fairview depot
17.	13/11/2015	Derailment of Tara Mines wagons	North Wall
18.	29/12/2015	Mallow to Tralee train ran through landslide debris	Killeen (43½ mp)

Table 3: Reportable Incidents on the Iarnród Éireann network, 2015

The incident that occurred on 14th September 2015 caused concern and is subject of both an internal IÉ / BBRI investigation and an independent investigation by the Railway Accident Investigation Unit.

2.5 Iarnród Éireann's Implementation of Safety Recommendations

Safety Recommendations directed at IÉ have been issued as a result of three key areas of activity, namely: Commission Audits, RAIU Investigation Reports, and Government-initiated Safety Reviews. Having become concerned at the slow rate of progress in implementing measures to close recommendations, the Commission wrote to IÉ in July 2015 seeking an on-going commitment to advance the process so that the backlog of open recommendations might be reduced to and maintained at manageable levels. It is the Commission's intention to endeavour to ensure that Safety Recommendations and Audit Outcomes are addressed within three years of their date of issue. Additional steps have been taken to improve the rate of closure, and the following sub-sections of the report present information on the progress made throughout 2015.

2.5.1 Recommendations arising from Commission Audits

The implementation of corrective and preventative actions is monitored by the Commission on an on-going basis through safety review meetings that are held with the railway organisations on a regular basis. A three-tier status flagging regime is applied in the following manner: an outcome from an audit, be that a non-compliance (NC) or an action required (AR), can be either

Open -	Feedback from Railway Organisation is awaited, or actions have not yet been completed.
Complete -	The Railway Organisation has advised the Commission that it has taken measures to implement the remedial action and has supplied supporting evidence for the Commission to assess if the recommendation can be closed.
Closed -	Based on evidence supplied by the Railway Organisation, the Commission is satisfied that the necessary remedial measures have been taken and that work has been completed to the extent required to close the recommendation.

The Commission began auditing railway organisations in 2009 and the numbers and status of these recommendations (Outcomes) for the period 2009 - 2015 are illustrated in the following tables. They are broken down by railway organisation and show, by year, the number of audit reports produced and the status of the outcomes from these.

By way of example, looking at Table 4, in 2013 the RSC completed 5 audits on IÉ-IM. These 5 audits generated a total of 56 outcomes: 40 'Actions Required' (AR) items and 16 'Non-compliances' (NC). Of these, 12 outcomes (6 AR's and 6 NCs) are still 'open' with 44 (34 AR's and 10 NCs) 'closed'.

Year	No. of Reports	Open		Complete		Closed		Total	
		AR's	NC's	AR's	NC's	AR's	NC's	AR's	NC's
2009	3	0	0	0	0	42	2	42	2
2010	4	0	1	0	0	40	12	40	13
2011	6	3	0	0	0	38	9	41	9
2012	5	0	2	0	0	26	9	26	11
2013	5	6	6	0	0	34	10	40	16
2014	5	24	5	0	0	14	7	38	12
2015	1	0	2	0	0	0	0	0	2
Totals	29	33	16	0	0	194	49	227	65

Table 4: RSC Audit Outcomes Summary for Iarnród Éireann - Infrastructure Manager

Year	No. of Reports	Open		Complete		Closed		Total	
		AR's	NC's	AR's	NC's	AR's	NC's	AR's	NC's
2009	0	0	0	0	0	0	0	0	0
2010	2	5	0	1	0	4	1	10	1
2011	2	3	6	0	0	8	2	11	8
2012	5	22	6	0	0	14	2	36	8
2013	2	18	9	0	0	3	1	21	10
2014	2	11	3	0	0	2	0	13	3
2015	2	12	2	0	0	0	0	12	2
Totals	15	71	26	1	0	31	6	103	32

Table 5: RSC Audit Outcomes Summary for Iarnród Éireann – Railway Undertaking

Year	No. of Reports	Open		Complete		Closed		Total	
		AR's	NC's	AR's	NC's	AR's	NC's	AR's	NC's
2014	1	2	1	0	0	0	0	2	1
2015	0	0	0	0	0	0	0	0	0
Totals	1	2	1	0	0	0	0	2	1

Table 6: RSC Audit Outcomes Summary for Northern Ireland Railway – Railway Undertaking

Year	No. of Reports	Open		Complete		Closed		Total	
		AR's	NC's	AR's	NC's	AR's	NC's	AR's	NC's
2012	1	6	2	0	0	0	1	6	3
2013	1	5	0	0	0	0	0	5	0
2014	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0
Totals	2	11	2	0	0	0	1	11	3

Table 7: RSC Audit Outcomes Summary for Railway Preservation Society of Ireland – Railway Undertaking

Year	No. of Reports	Open		Complete		Closed		Total	
		AR's	NC's	AR's	NC's	AR's	NC's	AR's	NC's
2014	1	0	0	0	3	5	1	5	4
2015	0	0	0	0	0	0	0	0	0
Totals	1	0	0	0	3	5	1	5	4

Table 8: RSC Audit Outcomes Summary for Balfour Beatty Rail Ireland – Railway Undertaking

Year	No. of Reports	Open		Complete		Closed		Total	
		AR's	NC's	AR's	NC's	AR's	NC's	AR's	NC's
2009	1	13	0	0	0	2	0	15	0
2010	1	3	1	0	0	0	0	3	1
2011	0	0	0	0	0	0	0	0	0
2012	2	7	0	0	0	6	0	13	0
2013	1	7	0	0	0	0	0	7	0
2014	2	4	2	0	0	13	3	17	5
2015	2	16	1	0	0	1	0	17	1
Totals	9	50	4	0	0	22	3	72	7

Table 9: RSC Audit Outcomes Summary for LUAS

2.5.2 Safety Recommendations arising from RAIU Investigations

Safety Recommendations made by the RAIU in accordance with Article 25 of Directive 2004/49/EC, are, although directed at the railway organisation(s) concerned, addressed in the first instance to the Commission. It is the responsibility of the Commission to ensure that Safety Recommendations are duly taken into consideration, and, where appropriate, acted upon.

In that context the Commission monitors the implementation of RAIU Safety Recommendations on an on-going basis through safety review meetings that are held with the railway organisations on a regular basis. The same three-tier status flagging regime described on page 12 applies, and they are broken down by railway organisation and show, by year, the status of the outcomes from RAIU Investigations. The table below illustrates the status as of 31st December 2015 compared with 2014.

RAIU Recommendations					
Organisation	Status at	Open	Complete	Closed	Totals
IÉ-IM	31/12/2014	23	18	48	89
	31/12/2015	12	18	62	92
IÉ-RU	31/12/2014	4	9	9	22
	31/12/2015	4	5	13	22
LUAS	31/12/2014	2	5	0	7
	31/12/2015	2	0	5	7
RSC	31/12/2014	1	0	4	5
	31/12/2015	2	0	4	6
RSC & IÉ	31/12/2014	1	1	0	2
	31/12/2015	1	1	0	2
IÉ	31/12/2014	0	0	2	2
	31/12/2015	0	0	2	2

Table 10: RAIU Safety Recommendation Status

The RAIU published two Investigation Reports in 2015, which contained 4 Safety Recommendations. These investigations were undertaken in response to level crossing accidents that occurred in 2014:

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

Year	No. of Reports	No. Of Recommendations			
		Open	Complete	Closed	Total
2006*	1	0	0	14	14
2007	0	0	0	0	0
2008	1	0	0	7	7
2009	5	0	0	13	13
2010	6	2	2	22	26
2011	6	2	10	5	17
2012	3	2	5	6	13
2013	3	4	4	2	10
2014	6	8	2	17	27
2015	2	3	1	0	4
Totals	33	21	24	86	131
<i>Total Recommendations made to date</i>					131

Table 11: Summary status of RAIU Safety Recommendations by year

(Note: the single Investigation Report published in 2006 was prepared under the auspices of the Railway Safety Commission following the collapse of the Cahir Viaduct in October 2003.)

2.6 Working relationship between Iarnród Éireann and the Commission

As indicated in section 2.2, above, it was evident that IÉ was taking a noticeably different approach toward safety regulation during 2015. It is to be expected that there will be healthy tension between the regulator and regulated entities if regulation is being carried out effectively. However, the working relationship between IÉ and the Commission was strained throughout 2015.

The change from self-regulation to public regulation in the railway sector brings with it a need for a full comprehension of the roles of the various actors designated within the European legislative framework. In particular, the respective roles of the national safety authority, railway undertaking(s), and infrastructure manager must be clearly understood by all who participate in railway activities.

Ireland operated in 'derogation mode' until March 2013, but despite this constraint considerable progress was made by IÉ between 2010 and 2013 in aligning safety management in the organisation to European requirements (see section 2.1, above).

It is of concern to the Commission that at the most senior level of management there appears to be a misapprehension in regard to the need for SMSs to conform to the Deming (Plan - Do - Check - Act) cycle, and that responses from that same quarter indicate a lack in appreciation of the importance of 'just culture' and 'organisational learning' in safety management. Indeed, the European Railway Agency human factors project, set up to promote the human-centred perspective in the implementation of SMS and management of maintenance systems, resulted in the publication by ERA, in 2013, of an additional Application Guide for SMS: *Integrating human factors in SMS*, which refers to these particular features.

The opinion or interpretation of legislation or regulations by the designated authority is final, unless overruled by a Court. The relationship between the regulated entities and the regulator is not one of equals, and the Commission's determinations in regard to SMS compliance and other safety issues are matters that should be accepted rather than continuously challenged. Recent challenges by IÉ to the authority of the regulator, and correspondence outside of the formal document review process, have become a distraction to the remit of the Commission.



3 Authorisation to Place in Service

Railway organisations and other parties wishing to introduce new or significantly altered railway infrastructure or railway rolling stock are obliged to follow a prescribed process in order to be granted Authorisation to Place in Service (APIS). The Commission has been working across the sector throughout 2015 on various APIS projects, as described in the following sub-sections.

3.1 Rolling Stock

Throughout 2015 the Commission has been active in the safety authorisation process for several rolling stock projects, including *inter alia* the refurbishment of the carriages for the cross-border *Enterprise* service, and conversion of former IÉ Mk III carriages for the *Belmond Grand Hibernian* luxury tourist train.

3.1.1 Enterprise Refurbishment Project

The project for the mid-life refurbishment of the *Enterprise* carriages was jointly managed by IÉ and Translink (Northern Ireland Railways – NIR) as this particular fleet is jointly owned and operated by both railway organisations. In January 2015 a meeting took place between the Commission and both railway organisations in which the safety authorisation process was agreed. An authorisation for Stage 3, Detailed Design, was granted by the Commission in March 2015.

A draft application for Stage 5, Interim Operation, was submitted to the Commission for discussion purposes on 23rd July 2015 and an update followed on 7th August 2015. The project team worked throughout August and September with the Commission to address technical and administrative issues. A formal application for Stage 5 was submitted to the Commission on 5th November 2015 and one week later the Commission granted an authorisation for Interim Service Operation.

The trains were initially expected to re-enter service in April 2015, but an unusual issue contributed to a delay. Assessments were carried out by an independent outside body on behalf of the project team. The reports of these assessments, which were submitted to the Commission as part of the application documentation for Authorisation to Place in Service, contained a disclaimer disclaiming any liability to third parties to rely on these assessment reports. The effect of this raised the issue of the integrity of the assessment and the Commission could not proceed. The issue was first raised by the Commission on 13th August 2015; it was eventually resolved to the Commission's satisfaction on 12th November 2015 following protracted discussions.

3.1.2 Belmond Grand Hibernian Tourist Train

The project conversion of former IÉ Mk III carriages for luxury tourist train is progressing well to its internal schedule. Three meetings were held between the project team and the Commission during 2015. The project team have demonstrated a high level of experience and professionalism, which is expected to support an efficient completion of the safety authorisation process in 2016.

3.1.3 Mk IV Intercity Carriages

The Mk IV Intercity Carriages (which had normally operated only on the Heuston-Cork route) were authorised for service operation on the entire IÉ network during 2015.

3.1.4 Entity in Charge of Maintenance

Iarnród Éireann Railway Undertaking (IÉ-RU) is the only organisation in the Republic of Ireland that holds a certificate as Entity in Charge of Maintenance (ECM) for railway freight wagons. In March 2015 a 'Year 2' surveillance audit was performed on the IÉ-RU Freight ECM during which nine non-critical non-conformities were identified. IÉ-RU submitted an acceptable improvement plan to remedy these deficiencies and all items were in the process of being closed by the end of the year.

Also, in 2015, IE-RU commenced the application process for voluntary ECM non-freight certification (referred to in Europe as attestation of conformity). In December 2015 Stage 1 of this application was successfully completed, and it is anticipated that Stage 2 will be completed in Q2, 2016.

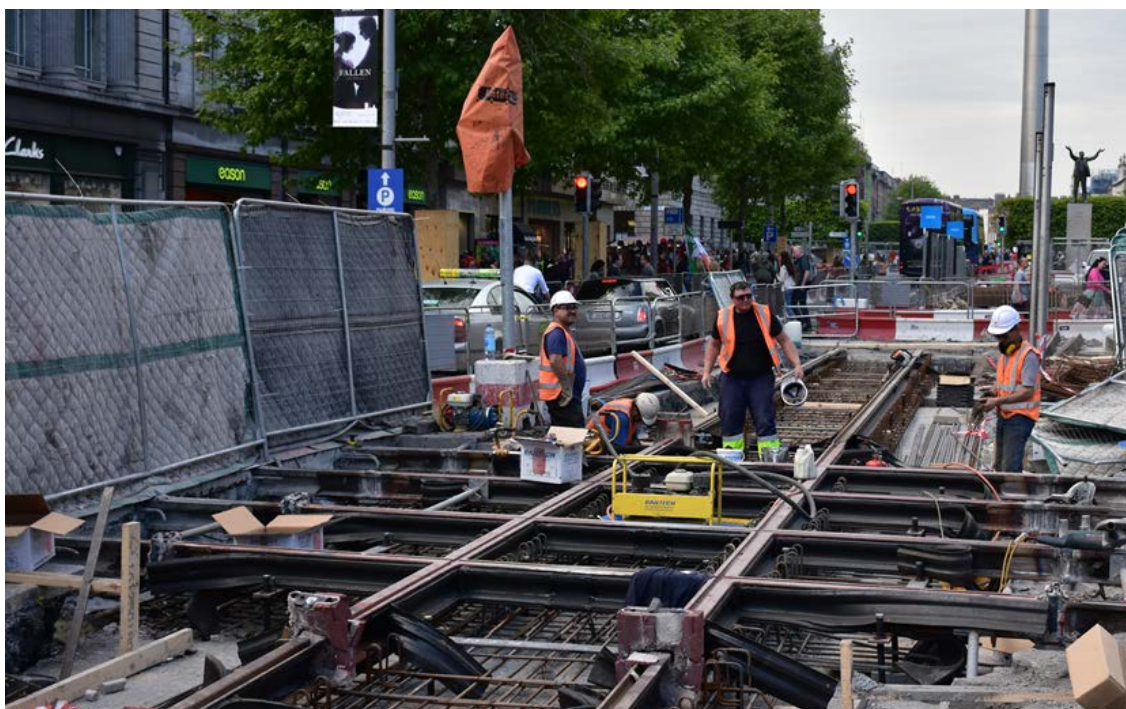
3.2 Infrastructure

The Commission has also been active during 2015 in the safety authorisation process for various infrastructure projects, as described in the following sub-sections.

3.2.1 LUAS Cross City

Throughout 2015, the Commission met with TII to discuss the APIS process for Light Rail Subsystems (RSC-G-032-A). This process describes the various steps and stages that must be followed and complied with for the LUAS Cross City (LCC) project and its facilitating works (e.g. the Green Line Enhancement Project). Meetings and workshops were held to discuss the technical and submission requirements for APIS, and the LUAS Cross City project timeline, to enable an efficient application process for the APIS Stage 2 and 3 (combined) application. It is anticipated that TII will submit this application to the Commission in 2016.

During the year the Commission carried out a number of early inspections of the alignment in order to familiarise itself with major interfaces on the LUAS Cross City network, and also met with TII and EFACEC (the traction power system sub-contractor) in November.



3.2.2 Bridges

During 2015 the Commission issued a number of Letters of Acceptance to IÉ in respect of new bridge projects; these included Letters of Acceptance for

- Service — OBG 5D at 2miles 157yards, Dublin - Sligo line;
- Detailed Design — New Pedestrian Overbridge at 2miles 635yards, Newcomen Junction, Dublin - Sligo line; and
- Detailed Design — New Road Overbridge at 133miles 180yards, Dublin - Sligo line.

3.2.3 Heritage Railways

A Letter of Acceptance for Detailed Design was issued to the Waterford and Suir Valley Railway for the construction of a Greenway adjacent to their heritage railway line.

3.2.4 Cableways

The Commission, as the designated Competent Authority for Cableways under S.I. No. 766 of 2007, has maintained its role with respect to the Dursey Island Cable Car. The Commission has continued to work throughout 2015 with Cork County Council, the duty holder responsible for this asset.

3.3 Signalling and Telecommunications

3.3.1 Personal Computer based Emergency Control Panel

Authorisation for 'Operational Trial' of the Dublin North Personal Computer-based Emergency Control Panel (PC-ECP) was granted to IÉ-IM in September 2015. Permanent commissioning is expected to take place in early 2016.

3.3.2 Dublin City Centre Re-signalling Project

Progress with Phase 3 of the DCCRP included the granting to IÉ-IM of the authorisation needed for the construction phases 3 to 7 — incremental changes to the track, signalling, telecoms and overhead line layout between Grand Canal Dock and Pearse stations.

3.3.3 Global System for Mobile communications – Railway (GSM-R)

In May 2015 a Letter of Authorisation for Detailed Design was issued to IÉ-IM enabling Phase 1 of the GSM-R project to progress the construction of the lineside infrastructure and installation of train borne equipment. In late July IÉ-IM made a submission to support testing and interim operation. However, the structure and content of this submission made it difficult for the Commission to undertake a review. Comments were provided to IÉ-IM in early September, and a meeting to address the issue was held in October. The Commission was subsequently advised that a revised submission would be made in January 2016.

3.3.4 Iarnród Éireann Hybrid System

The following table presents an overview of the key activities that have taken place during 2015 in connection with the IÉ project for the development of a train protection system, which is referred to as the Iarnród Éireann Hybrid System (IEHS).

Date	Activity
11-02-2015	High level meeting with the IÉ project team at which the Commission explained what documentation was required to progress Authorisation to Place in Service.
29-05-2015	IÉ submitted a Stage 3 Detailed Design Generic Application to the Commission.
24-07-2015	The Commission responded to the IÉ project team with high-level comments.
11-08-2015	Meeting between IÉ and the Commission.
26-08-2015	IE submitted further information to the Commission in support of their application.
24-09-2015	The Commission provided detailed comments on all submissions that formed part of the IÉ Stage 3 Detailed Design Generic Application.
22-10-2015	IÉ responded to the Commission's comments.
30-10-2015	Technical meeting between the IE project team and the Commission.
11-12-2015	IÉ submitted sample Specific Application Safety Case documents to the Commission.
23-12-2015	IÉ submitted an updated version of the Stage 3 Detailed Design Generic Application.

Table 12: IEHS Project - Key activities, 2015

This project is progressing at a slow pace. Important contents that would be expected to be contained in the application for Authorisation to Place in service, such as basic high level system requirements specifications, were still only in draft at the end of 2015.

3.3.5 Migration to ERTMS

It should be noted that the IEHS train protection system (TPS) project, currently under development, utilises largely proprietary equipment and, to a certain degree, available European Train Control System (ETCS) hardware: namely track installed Eurobalises, interface components between the balises and the trackside signalling system, and the vehicle mounted antenna system. Despite using these components the TPS will deliver only a 'Class B' system; it is not intended to be an implementation of the European Rail Traffic Management System (ERTMS) or standard interface between a 'Class B' system and an ETCS system.

Due to the technical limitations of the proprietary TPS components that are being procured for the IEHS project there would, in this scenario, be a drastically limited choice of potential suppliers for readily compatible ETCS equipment. Such limited competition would inevitably result in technical barriers and commercial penalties for any Railway Undertaking (other than the current dominant operator) requiring to access the IÉ infrastructure.

The potential ability to repurpose a limited number of the components of the IEHS installation could, in due course, facilitate a development towards a design which is similar to ETCS, but this would require further significant expenditure for re-design and testing. The appropriate stage for migration from TPS to ETCS for the IÉ network remains to be determined, but the overall solution for enhanced train protection should be designed to deliver the most beneficial, effective and efficient use of any Exchequer resources applied in this area.

3.4 Risks associated with IÉ Signalling and Telecommunications systems

Although not part of the APIS process, the comprehensive review conducted by the Commission on the inherent risks associated with the IE S&T systems forms a key input to the development of a national train protection policy that will direct future investment in train control systems.

Significant developments have taken place in passenger rail travel in Ireland since 1983; maximum speeds have increased from 75 mph (120 km/h) to 100 mph (160 km/h), frequency of services has doubled on most mainline routes (and increased by a greater amount in suburban areas); additional local routes have been opened, passenger numbers have tripled from 13.0 million p.a. to 38.5 million p.a., passenger train-km have doubled from 8 million to 17 million p.a., and Driver Only Operation (DOO) has been introduced for nearly all services.

The risk profile associated with passenger train movements has undoubtedly changed during this thirty-year period, but this change in risk has not been balanced by a proportionate increase in the level of protection offered by the signalling systems on the IÉ network. The margin between tolerable risk and intolerable risk has therefore been reducing.

In view of the foregoing, and mindful of the factors that contributed to the fatal railway accidents which occurred at Santiago de Compostela, Spain (2013), and in The Bronx, New York, USA (2013), and the fact that safe working of trains on more than 50% of the IÉ track-km is highly dependent on strict obedience to railway signals by train drivers, the Commission undertook a comprehensive review of the risks associated with the current signalling and telecommunications (S&T) systems installed throughout the IÉ network.

In regard to safe working of trains, IÉ signalling systems currently do not offer the level of protection that is nowadays expected of passenger-carrying railways in a developed economy. Although proven technology is available to reduce exposure to driver error, such technology is only applied to a small proportion of the IÉ network, and some of that equipment is now of a 30-year old vintage.

Less than 5% (99 track-km) of the IÉ network is provided with Automatic Train Protection (ATP), and this is confined to the electrified route between Greystones and Howth/Malahide. Furthermore, the DART Electric Multiple Units are the only trains equipped to operate with this system, which automatically applies brakes if a driver fails to obey a restrictive signal aspect or a speed limit.

A further 41% (900 track-km) of the IÉ network is equipped with a Continuous Automatic Warning System (CAWS), which provides train drivers with an in-cab indication of signal aspects. All IÉ trains are equipped to work with CAWS, and this requires a driver approaching a restrictive signal aspect to acknowledge a warning. However, after such acknowledgement, the CAWS does not over-ride the driver's subsequent actions if they are inappropriate, as ATP functionality is not provided. Nor does the CAWS system provide any form of speed supervision.

The remaining 54% (1,166 track-km) of the IÉ network is not equipped to operate with any form of driver warning or ATP system. Safety of train movements is therefore highly dependent on a driver's obedience to signal aspects and speed restrictions. A marked increase in the number of Signal Passed At Danger (SPAD) events on IÉ (as discussed in Section 2.4.1, above) is a reminder of the ever-present risk of a human error induced railway accident.

In addition to findings specific to various elements of the current IÉ S&T infrastructure, the Review, which was issued to IÉ and DTTaS on 22nd December 2015, points to the urgent need for a high-level policy and strategy that will deliver an increase in the level of protection for movements of trains on the IÉ network. Therefore the Commission has made three over-arching recommendations:

- IÉ Infrastructure Manager (IÉ-IM), in consultation with other relevant stakeholders, including *inter alia* the Department of Transport Tourism and Sport (DTTaS) and the Commission (CRR), should develop a national policy for train protection on the IÉ network. Such a policy must take account of (a) Interoperability requirements for all current Railway Undertakings and future entrants accessing the network, (b) the European targets for implementation of ERTMS/ETCS on the Core network and Comprehensive network, and (c) the immediate need to provide for a better level of train protection than is currently available on the IÉ network, pending the implementation of ERTMS/ETCS.
- IÉ-IM should establish an implementation strategy that can deliver the objectives of the national policy taking account of the short-term, medium-term, and long-term requirements including likely electrification of at least the Core network in the medium to long term. Such an implementation strategy to be supported by analysis of priorities and detailed costing for submission to DTTaS.
- On the basis of an agreed strategy for implementation of train protection on the IÉ network, DTTaS should determine (a) arrangements for funding the works necessary to implement an enhanced level of train protection, and (b) the best means for independent monitoring of the implementation of the works to ensure that they are delivered on-time, within budget and with technical integrity.

3.5 Train Driver Licensing

During 2015 the Commission continued to progress the implementation of train driver licences, as required by Directive 2007/59/EC, and is on track to commence issuing licences in early 2016.



4 Supervision & Enforcement

Under European and national legislation the Commission must supervise, by various methods, that railway organisations are not only applying their approved SMSs, but also that they are effective. To that end the Commission develops multi-annual and/or annual supervision plans for every railway organisation operating in the State. These plans include supervision meetings, auditing of railway organisations' compliance with their respective SMS, auditing of processes, sample inspections of assets, and reactive activities such as following up on accidents, incidents, dangerous occurrences, or public and other third party representations. The plans are developed using various sources to assist in targeting supervision activities, and these include:

- a) Legal requirements for the management of safety;
- b) Previous Commission supervision activities and outputs from the same;
- c) Commission's professional judgement;
- d) Industry safety concerns arising from railway accidents and incidents, nationally and internationally;
- e) Complaints and representations by, or on behalf of staff, passengers, or affected parties; and
- f) Reactive monitoring, including post-incident compliance inspections.

The Commission's supervision and enforcement activity is key to ensuring that railway organisations not only maintain compliance in the application of their SMS, but that they also continuously strive for improvement. The following sub-sections present an overview of the Commission's supervision activity for 2015.

4.1 Compliance Auditing (Pro-active Supervision)

During 2015 the Commission initiated the audits described in the following table:

Railway Organisation	Audit Title	Conducted
Iarnród Éireann - IM	Location specific audit – IÉ-IM Division 5	March-May 2015
Iarnród Éireann - RU	Annex II, O & P Provision of Information / Safety Information	January 2015
Iarnród Éireann - RU	Annex II, B Risk Control related to the Supply of Maintenance & Material in CME Department	June 2015
Iarnród Éireann - RU	The Management of Couplers	October 2015
Iarnród Éireann - RU	Annex II, Criterion S. Provision for recurrent auditing of the SMS and Commission Regulation 1078/2012; on a Common Safety Method for Monitoring	November/December 2015
Northern Ireland Railways	Competence Management of Train Drivers & Crew	November/December 2015
Transdev (LUAS)	Incident Response and Emergency Preparedness of the LUAS Network	July/August 2015
Transdev (LUAS)	The Management of Vegetation & Sightlines	November 2015
Balfour Beatty Rail Ireland	Risk Control Measures associated with the activities of BBRI (including Fleet Maintenance)	May 2015

Table 13: Audits undertaken by the Commission in 2015

Of the above audits, six were finalised in 2015. In addition, the Commission finalised two audits that were initiated in Q4, 2014. Each of the audits conducted produced recommendations to address outcomes that arose from the findings of the audits. The tables below provide further detail.

Title of Audit	Railway Organisation	Major Non-Compliance	Minor Non-Compliance	Action Required
Strategic Management of Safety in the IÉ-IM and IE-RU business divisions	IÉ-IM	1	1	4
Management of the LUAS Overhead Contact System	IÉ-RU	0	0	10

Table 14: Audits initiated in 2014 and finalised in 2015

Title of Audit	Railway Organisation	Major Non-Compliance	Minor Non-Compliance	Action Required
Location specific audit – IÉ-IM Division 5	IÉ-IM	0	2	0
Annex II, O & P Provision of Information - Safety Information	IÉ-RU	0	0	6
Annex II, B Risk Control related to the Supply of Maintenance & Material in CME Department	IÉ-RU	0	2	6
Incident Response and Emergency Preparedness of the LUAS Network	LUAS	0	1	7
The Management of Vegetation & Sightlines	LUAS	0	0	4
Risk Control Measures associated with the activities of BBRI (including Fleet Maintenance)	BBRI	0	1	12

Table 15: Audits initiated and finalised in 2015

Title of Audit	Railway Organisation	Major Non-Compliance	Minor Non-Compliance	Action Required
Annex II, Criterion 'S' - Provision for recurrent auditing of the SMS	IÉ-RU			
The Management of Couplers	IÉ-RU			
Competence Management of Train Drivers & Crew	NIR			

Table 16: Audits initiated but not finalised in 2015

For those audits that were finalised in 2015, and where the audit discovered non-compliances with law and/or an approved SMS, the railway organisations concerned was requested to submit an Improvement Plan, in accordance with the requirements of Section 76 of the Railway Safety Act. In the vast majority of cases the railway organisations concerned have already implemented, or are in the process of implementing the agreed corrective and preventative actions.

4.1.1 Post Incident Inspections (Reactive Supervision to Accidents or Incidents)

The Commission operates an on-call roster whereby an Inspector is available 24 hours / day, 364 days / year, to respond to an accident or incident notification. In 2015 the Commission received a total 80 notifications of incidents or accidents and mobilised to 4 of these. The majority of the notifications (49) related to the IÉ network, with 28 involving the LUAS network.

All incidents notified to the Commission, other than those incidents where deliberate self-harm was indicated, were further investigated. These typically required site inspections, interviews with railway personnel, and/or review of safety documentation. In any instance where safety was deemed to be at risk the Commission sought the necessary assurances that mitigation measures had been put in place by the relevant organisation.

Sadly, there were two fatal occurrences on the IÉ network during 2015, both as a result of apparent self-harm. There were several other incidents that under slightly different conditions could have also resulted in serious consequences, these included:

- Signal Passed at danger (SPAD) at Signal AE156, Ardrahan, 23rd October 2015 ⁴
- SPAD and collision with level crossing gates at Spa Road, Castleconnell, 28th November 2015 ⁴
- Landslide on the Mallow-Tralee Line, 29th December 2015

4.1.2 Enforcement

Section 7 of the RSA 2005 provides the Commission with wide ranging powers of enforcement. These powers range from requesting an Improvement Plan, and serving an Improvement Notice, Notice of Revocation of a Safety Authorisation or Safety Certificate, or Prohibition Notice, to applications to the High Court. In utilising its powers of enforcement the Commission, wherever possible, employs the principle of escalation where the aim is to be proportionate in reacting to any failing or apparent failing of a railway organisation. In 2015 the following enforcement measures were initiated by the Commission:

Section 76 of the RSA 2005 - Improvement Plans requested following:

- Commission Audit of BBRI's Management of Risk
- Commission Location specific audit of IÉ-IM Division 5 (Drogheda)
- Commission Audit of IÉ's Supply of Maintenance & Material in the Chief Mechanical Engineer's department
- Commission Audit of Transdev's Incident Response and Emergency Preparedness
- Commission Audit of the Management of vegetation and lighting on the LUAS system.

Section 78 of the RSA 2005 - Prohibition Notice served following:

- Proposal to introduce significant organisational change to the IÉ procurement responsibilities in the IM and RU business divisions, which was only advised to the Commission immediately prior to its proposed introduction (sub-section 2.3.3, above, describes subsequent actions by the Commission).

⁴ These two incidents are the subject of on-going investigations by the RAIU to establish cause(s).

4.1.3 Monitoring of Technical Issues

Where certain technical issues emerge, Commission Inspectors may decide to monitor the actions being taken by the relevant railway organisation to address possible safety concerns. Typically, this is through Commission attendance at meetings or risk assessment workshops, and by inspection of assets or operations. In 2015 there were a small number of issues that arose which were subject to such supervision activity, including:

- IÉ (both the IM & RU's) Management of Signals Passed at Danger (SPAD);
- A train collision with level crossing gates at Spa road, near Castleconnell;
- A dangerous occurrence involving an IÉ road vehicle fouling the railway line near Sallins;
- Derailments and collisions in depots and sidings and the lack of facing-point locks; and
- An overhead line failure at Milltown on the LUAS system.

The Commission reviewed the above accidents and incidents in more detail with the respective railway organisations to monitor the associated issues in order to obtain assurance that relevant organisations are managing risks that may arise from time to time.

In the Commission's annual report for 2013 reference was made to the monitoring of abnormal wear that had become evident in the IÉ Intercity Rail Car (ICR) axle journal bearings. Monitoring of the situation by the Commission, through regular meetings and inspections, continued throughout 2014 and 2015 due to the fact that the axle journal bearing life experienced on these vehicles was considerably lower than the design level. However, none of the distressed bearings have triggered a Hot Axle Box Detector (HABD) alarm or an axlebox-mounted temperature strip indication.

The strategy that has been adopted is to support continued safe operation by changing out bearings exceeding 600,000km in operation, i.e. at about 20% of their ultimate design life. A firm of technical consultants (procured by IÉ in 2013) produced a final report on the matter in early 2015. Findings from the report were largely inconclusive, and further analysis by IÉ indicated some issues with the approach taken by the consultants in developing calculations for the vehicle running dynamics.

Changes introduced by IÉ include the application of a different bearing grease and improved water sealing of the bearing. A significant risk mitigation measure has been the procurement, installation and commissioning of acoustic monitoring equipment at three sites on the IÉ network. This equipment will provide early warnings of defects in axle bearings.

The root cause of the problem with the bearings had still not been definitively established some 3½ years after first appearing. Consequently, in November 2015 the Commission conveyed its concern to IÉ regarding the slow rate of progress in identifying the root cause. It was decided to increase the level of supervision, and in accordance with Section 76 of the Railway Safety Act, the Commission requested IÉ to provide an Improvement Plan that would clearly demonstrate to how they planned to control risk and identify a solution to the problem.

IÉ complied with the Improvement Plan request and have engaged consultants with the relevant expertise to investigate the problem. The Improvement Plan states that a final report on root cause will be presented to the Commission in September 2016. Meanwhile, the Commission will continue to monitor the situation on an on-going basis through regular meetings and formal updates from IÉ.

4.1.4 Inspections

The Commission undertook a number of other inspections of Iarnród Éireann, Transdev (LUAS) and Balfour Beatty Rail Ireland during 2015, which focused on:

- Railway assets with particular reference to rolling stock, stations, and level crossings;
- Engineering possession management;
- Event Management (Iarnród Éireann, and the Railway Preservation Society of Ireland); and
- Light Rail infrastructure and trams.

In addition, where the occasion permitted, Commission Inspectors took the opportunity to travel in locomotive and railcar cabs to assess operations and the condition of the permanent way.

During 2015 the Commission also carried out a number of inspections on operational self-contained heritage railways. All outcomes arising from these inspections are being progressed by the railway organisation concerned, and the Commission is monitoring remediation of all safety critical issues.

4.1.5 Supervision Meetings

A key element of the Commission's supervision regime is meeting with executives from the various railway organisations to review their ongoing safety performance. This includes a thorough review of recent accidents and incidents, a review of safety performance indicators, management of change and a management commitment to continuous improvement.

In addition, frequent meetings are held with railway organisations to monitor the implementation of safety recommendations made in reports issued by the Railway Accident Investigation Unit (RAIU) following their independent 'for cause' investigations and in reports issued by the Commission (see sub-section 2.5, above). Significant progress was made in 2015 by the various railway organisations, in particular IÉ-IM, in tackling the backlog of Commission audit outcomes, which are now at a manageable number, and it is envisaged that all pre 2015 outcomes will be closed during 2016.

4.1.6 Industry Concerns

In 2015, the Commission received 9 industry safety alerts from the European Railway Agency (ERA). These ranged from defective wheelset tyres to cracks found in vehicle bogie frames. In all instances the relevant railway organisations were notified and action taken whenever necessary.

4.1.7 Representations

The Commission always gives a high degree of attention to any representation concerning railway safety made by either railway staff, railway passengers, members of the public, or others. Wherever possible, the Commission endeavours to deal with such matters directly. Where necessary, additional information is sought from the relevant railway organisation(s) in order to provide the person who made the representation with a full and comprehensive response.

In 2015, the RSC received 59 representations relating to a range of heavy and light rail infrastructure and operational matters. This represented a decrease on the number received in 2014 (73). Of the 59 representations received in 2015, 44 related to IÉ infrastructure or operations, 10 to the LUAS system, 1 to the RPSI, and 4 were of a general legislative or network nature. A small number of these representations did give cause for concern and, in these cases, the Commission acted immediately to ensure that the necessary corrective action was taken by the relevant railway organisation.

5 European and Legislative Harmonisation

The Commission has continued to positively contribute to on-going development of the regulatory framework for the European railway sector. In regard to national legislation, the Commission was instrumental in assisting the DTTaS in developing the European Union (Regulation of Railways) Regulations S.I. No. 249 of 2015. These Regulations transpose the requirements and structures for liberalisation and regulation of the railway sector, as established by Directive 2012/34/EC.

The Railway Interoperability and Safety Committee of the European Commission has responsibility for co-ordinating the implementation of the European Directives which apply to the railway sector. The Commission participated as the national representative at all three RISC meetings in 2015.

The Commission is represented on the Management Board of the European Railway Agency and on its financial committee. Commission staff actively participate in working parties and consultative meetings dealing with safety assessment and supervision, train driver licensing, national vehicle register, and safety performance. The Commission was represented at the three plenary meetings of the network of National Safety Authorities, which is co-ordinated by ERA, and at two meetings of the International Liaison Group of Governmental Railway Inspectors (ILGGRI).

5.1 International Railway Safety Council

The Commission is a member of the International Railway Safety Council (IRSC) core group and participates at the annual conferences. The 2015 conference was held in Johannesburg, South Africa in October, and was attended by the Commissioner and two Inspectors. The two Inspectors who attended jointly presented a paper entitled *Safety Management of Light Rail in Ireland – Applying the European SMS Approach*, for which they received the ‘best presenters’ award. The Commission is pleased to report that the IRSC has agreed that the 2018 conference shall be held in Dublin.

5.2 Road Rail interfaces

Road level crossings present a high-risk interface between members of the public and the railway, as responsibility for safe use rests with the road user. In particular, the risk associated with unprotected level crossings on public roads has made them an obvious target for ongoing and systematic risk mitigation and further safety investment. In response to a recommendation from the RAIU in 2015, the Commission established a Task Force with the Road Safety Authority and Iarnród Éireann to harmonise instructions for the safe use of railway level crossings published by each of the entities.

The Commission chairs the Road Rail Safety Working Group. This group facilitates the sharing of information and opinions on issues of safety at road-rail interfaces among its members, which include - railway undertakings, road authorities, an Garda Síochána, DTTaS, and road hauliers. Three meetings of the RRSWG were held during 2015.

The UNECE Group of Experts on Safety at Level Crossings was formed as a result of an initiative by the UNECE Inland Transport Committee and its Working Parties on Road Traffic Safety, Road Transport and Rail Transport. It commenced work in January 2014, and its purpose is to describe, assess and better understand the safety issues at the road/rail interface as well as to develop a multi-disciplinary strategic plan aimed at reducing the risk of death and injury at level crossings. The Commission has actively participated as the national representative at all three meetings that were held in 2015.

6 Market Regulation Functions

Directive 2012/34/EU establishes the single European railway area and prescribes the rules and procedures governing access to the railway market. This Directive was transposed into national law by S.I. No.249 of 2015 and assigned three regulatory functions to the Commission with effect from 12th June, namely Independent Monitoring Body, Licensing Authority and Regulatory Body.

It is to be noted that the structure of the heavy rail sector in Ireland is not fully aligned with that of the single European railway area. The Infrastructure Manager, which is a natural monopoly, and the dominant Railway Undertaking, are controlled by the same legal entity – Iarnród Éireann. Despite its internal restructuring into separate IM and RU business divisions in 2013 IÉ, as a single legal entity, controls both functions through its Board. To satisfy European requirements it has therefore been necessary to establish an independent Essential Functions Body (EFB) for the purpose of fair allocation of train paths and charging for access to the network. The EFB has been established within the CIÉ Group, the Iarnród Éireann parent body.

The following sub-sections of the Report describe the market regulation activities that were carried out by the Commission during 2015.

6.1 Independent Monitoring Body

While the Commission has been fulfilling the function of Independent Monitoring Body since mid-2014, under the terms of the Multi-Annual Contract between the Minister and the Infrastructure Manager, it was not until June 2015 that the role was given statutory status pursuant to Regulation 9 of S.I. No.249 of 2015. In accordance with Directive 2012/34/EC, a Multi-Annual Contract has been put in place between the Minister and the Infrastructure Manager as network access revenue is insufficient to meet the steady state operation and maintenance (O&M) costs of the network.

Through its monitoring regime the Commission measures the performance of the Iarnród Éireann Infrastructure Manager (IÉ-IM) against a number of contract criteria, including *inter alia* financial performance, asset condition, delay minutes attributable to IÉ-IM, exceedence of Temporary Speed Restriction (TSR) thresholds, and train service cancellations.

The Commission conducted a number of quarterly reviews and issued the following reports in 2015:

- 2014 Q4 Independent Monitoring Report
- 2014 Annual Independent Monitoring Report
- 2015 Q1 Independent Monitoring Report
- 2015 Q2 Independent Monitoring Report
- 2015 Q3 Independent Monitoring Report

The 2015 Q4 and 2015 Annual Independent Monitoring Reports will be issued in Q1, 2016.

6.2 Licensing Authority

In accordance with Regulation 35 of S.I. No. 249 of 2015, the Commission has been appointed the Licensing Authority responsible for issuing licenses to Railway Undertakings and for carrying out the associated obligations imposed by the Regulations and under Directive 2012/34/EU.

Pursuant to the Regulations, an applicant for a licence is required to comply with the licensing requirements. In its role as the Licensing Authority, the Commission shall not issue a licence, or extend the validity of a licence unless the Railway Undertaking (RU) concerned complies with the licensing requirements laid down in the Regulations.

The Commission received two separate operating license applications in 2015, and subsequently undertook the required assessment within the timelines set out in the table below:

Railway Undertaking	Date of Issue of Licence
Iarnród Éireann Railway Undertaking	24 th September 2015
Railway Preservation Society of Ireland	24 th September 2015

6.3 Regulatory Body

In accordance with Regulation 29(1) of S.I. No. 249 of 2015, the Commission has been designated as the Regulatory Body for the purposes of the Regulations and Directive 2012/34/EU. Pursuant to Regulation 30, an applicant who believes it has been unfairly treated, discriminated against, or is in any other way aggrieved by a decision of the EFB, the Infrastructure Manager or, where appropriate, the Railway Undertaking or the operator of a service facility may, not later than 21 days after the date the applicant was notified of the decision, appeal against that decision to the Regulatory Body.

On the 20th of October 2015 the Commission received an appeal against a decision made by IÉ-IM on 30th of September 2015. IÉ-IM's rejection of the RPSI's originally requested train length was on the basis that the IÉ-IM had no documented authority to allow an oversize train (length) to serve a shorter platform. Additionally, IÉ-IM stated that they did not wish to import the risks associated with an over-length RPSI consist onto their network.

The Commission, having assessed the information submitted, concluded its review in early January 2016. In accordance with the provisions of Regulation 30(5)[a] of S.I. 249 of 2015 the Commission issued confirmation of the decision of the IÉ-IM to restrict the train length of the RPSI train consist operating between Pearse and Greystones in November and December 2015.



7 Corporate Governance and Administration

Corporate governance comprises systems and procedures by which enterprises are directed and controlled. In this regard, the Commission has adopted and is compliant with the Code of Practice for the Governance of State bodies, as published by the Department of Finance.

7.1 Finance

Funding for the Commission is provided in part by a Safety Levy on the various railway organisations and in part by an Exchequer Grant. In 2015 the Grant amounted to €0.42m.

In 2008 the Commission invoked the provision of section 26(1) of the Railway Safety Act 2005. Regulations are made annually to impose a Safety Levy on each railway organisation, and the Regulations for 2015 are contained in Statutory Instrument No.124 of 2015. Application of funds by the Commission in the past three years is illustrated below:

		2013 (€ million)	2014 (€ million)	2015 (€ million)
Budget	RSC	1.91	1.97	1.96
	RAIU	0.60	0.40	—
	Total	2.51	2.37	1.96
Grant-in-Aid	RSC + RAIU	0.86	0.80	0.42
Levy Requirement	RSC	1.65	1.57	1.54
Levy Refund b/f		—	—	—
Levy Order amount		1.65	1.57	1.54
Operating costs	RSC	1.90	1.96	1.95*
	RAIU	0.62	0.41	—
	Total	2.52	2.37	1.95*
Grant-in-Aid application	RSC	0.25	0.40	0.42
	RAIU	0.60	0.40	—
Levy application	RSC	1.65	1.57	1.54

*Accounts for 2015 are subject to audit by the Comptroller and Auditor General
(Note: the RAIU was legally separated from the Commission in 2014.)

7.2 Statement on Internal Financial Control

The Commission acknowledges its responsibility for ensuring that an effective system of internal financial control is maintained and operated. The system can provide only reasonable and not absolute assurance that assets are safeguarded, transactions authorised and properly recorded, and that material errors or irregularities are either prevented or would be detected in a timely manner. Maintaining the system of internal financial controls is a continuous process and the system and its effectiveness are kept under ongoing review.

7.2.1 Financial Control Environment

By the end of 2015 the Commission had completed ten full years since its establishment. Processes and procedures to ensure a strong internal control environment are subject to continual review and improvement. A number of measures have been identified to assist in creating this environment, and steps have been taken to embed them in the organisation:

- Clear definition of management responsibilities;
- Establishment of formal procedures for monitoring the activities and safeguard the assets of the Commission;
- Adoption of the principles of corporate governance contained in the Code of Practice for Governance of State Bodies; and
- Compliance with Internal Audit requirements to advise the Commission on discharge of its responsibilities for the internal financial control system.

The Commission confirms that all appropriate procedures for financial reporting, internal audit, procurement, and asset disposal are being carried out.

7.2.2 Tax Compliance

The Commission is compliant with regard to its tax obligations.

7.2.3 Travel and Expenses

The Commission is compliant with all relevant Department of Finance / Department of Public Expenditure & Reform circulars on travel, subsistence and associated expenses.

7.3 Irish Language commitment

The Commission is committed to implementing the relevant parts of the Official Languages Act 2003. Commission signage and stationery are currently in both Irish and English.

7.4 Freedom of Information

The Commission was included among the organisations listed under The Freedom of Information Act 2014 and is committed to conforming to the principles of this Act. In 2015, the Commission received one request under the provision of the Act.

7.5 Customer charter

The Customer Service charter was updated in 2013 and is available on the Commission's website. This charter describes the level of service a customer can expect to receive from the Commission.

7.6 Risk Management

The Commission has a risk management system in place to review key risks to its business.

7.7 Code of Ethics and Business Conduct

A Code of Ethics and Business Conduct is in place for the Commissioner and all Commission staff, and this is being adhered to.

7.8 Statement of Strategy 2015-2017

The Commission produced its 4th Statement of Strategy during 2015. This document is the triennial Statement of Strategy of the Commission for the years 2015 to 2017. Its purpose is to present management, staff, stakeholders, and the public with a clear understanding of the strategic direction that the Commission is adopting to meet its statutory duties and achieve its business objectives.

7.9 Website

The Commission maintains an active website at www.crr.ie

8 Looking Forward

The task areas that will be the focus of particular attention for the Commission as it continues to deliver on its statutory responsibilities during 2016 are as follows:

- Execution of supervisory functions in accordance with Statute and Regulations to maintain assurance that railway organisations comply with their legal obligations in regard to application and effectiveness of their respective Safety Management Systems
- Monitoring railway organisations' implementation of Commission and RAIU recommendations aimed at the improvement of railway safety, applying enforcement measures where necessary to ensure compliance
- Continue engagement with the Iarnród Éireann Railway Undertaking business for the roll out of Entity in Charge of Maintenance (ECM) certification to all passenger and locomotive fleet
- On-going engagement with the Iarnród Éireann Infrastructure Manager business in respect of the safety authorisation of the IEHS train protection system and the GSM-R train radio system
- On-going engagement with Transport Infrastructure Ireland (TII) in the safety assessment of the new works associated with the LUAS Cross-City (LCC) extension
- Finalise with Northern Ireland Railways and Iarnród Éireann the requirements for the safety authorisation of the refurbished Enterprise fleet
- Engagement with Belmond Ltd for safety authorisation of the Belmond Grand Hibernian luxury tourist train, due in service 2016
- On-going monitoring of Iarnród Éireann's compliance with the requirements of Directive 2012/24/EU in relation to the single European Railway Area
- Substantial completion and implementation of internal processes and procedures relating to the Commission's Quality Management System (QMS)
- Continuing co-operation with, and technical support to the Department of Transport, Tourism and Sport with particular reference to the implementation of the European 4th Railway Package.

The objective of the Commission's activities during 2016 will be in accordance with its commitment to advance railway safety, ensure fair access to the Iarnród Éireann infrastructure, and monitor the sustainability of the railway infrastructure in Ireland.

