

AN COIMISIÚN UM RIALÁIL IARNRÓID
COMMISSION FOR RAILWAY REGULATION

ANNUAL REPORT 2020



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REPORT OF THE COMMISSIONER



To Minister Eamon Ryan,
Minister for Transport

Minister,

The Commission for Railway Regulation (CRR) is pleased to submit its annual report for 2020.

It was anticipated that 2020 would be a challenging year for the CRR. This was due to Brexit and the requirements of the Fourth Railway Package coming into effect with the transposition of the relevant European Directives. From March however, an additional challenge that could not have been foreseen arose with the COVID-19 pandemic. I must firstly in the context of this 2020 annual report, acknowledge the professionalism and continued dedication of the Commission's staff that ensured we could continue to fulfil our functions, while fully complying with public health information and Government restrictions, implemented to control the virus spread. This required a significant change to the work environment, and the way in which our work was done. I extend my thanks to each member of the CRR staff and acknowledge their continuing commitment, dedication, and hard work throughout a uniquely challenging year.

The CRR had a full programme planned and resourced in 2020. As indicated above two areas requiring a particular focus were anticipated in 2020. Firstly Brexit, with its potential for the UK to exit the EU without a deal, required the CRR to engage with Iarnród Éireann Railway Undertaking (IÉ-RU) and Translink Northern Ireland Railways (NIR), as the operators of the Enterprise service, between Dublin and Belfast. The intention was to ensure that post Brexit, irrespective of the nature of the UK exit, the Enterprise service could continue to operate fully in compliance with the relevant EU legislative framework. This outcome was successfully achieved.

Secondly, a significant change in the EU legislative framework governing heavy rail operation, as adopted by the Fourth Railway Package, also came into effect with the transposition of the key relevant Directives. While the transposition was led by the Department of Transport (DoT), the CRR provided extensive technical expertise and advice on the respective transpositions. This legislation will in the coming years have an impact on the way in which Conformity Assessment, Authorisation to Place in Service and Supervision roles are carried out by the CRR and will also impact on Railway Undertakings and the Iarnród Éireann Infrastructure Manager (IÉ-IM).

The full range of responsibility resting with the CRR is detailed under the Role of the Commission section of this report and now includes additional responsibilities based on the new transpositions as well as the Cableways Regulations which came into force during the year.

The CRR fulfilled all its key responsibilities in the areas of conformity assessment, authorisation to place in service, licensing of undertakings, train driver licencing, supervision, enforcement, and monitoring of the Infrastructure Managers Multi Annual Contract with the Minister. These key responsibilities are focused on ensuring the continued safe operation of the railway and tramway network in the State.

In relation to heavy rail, the CRR issued 29 letters of acceptance under its authorisation to place in service function which related to subsystems, infrastructure, signalling and rolling stock. Of note is the preliminary design stage of the new National Train Control Centre being built at Heuston Station, and also the interim operation of the Decision Support System at user worked level crossings. Also of note is the issuing of approval for full-service operation in December which brought IÉ-IM's City Centre Re-signalling Project to completion.

In the light rail area eight new LUAS 502 trams were authorised for testing, interim operation, and full-service operation.

NIR received full Part A and B safety certification for operation in the State, having previously only required Part B. This change was a requirement to enable them to operate as a railway undertaking within the State post Brexit.

The CRR continues to plan its conformity assessment timelines so that the resource implication for this activity is spread as evenly as possible year on year.

Train drivers must hold a valid train driver licence issued by the CRR and, in 2020, 44 new licences were issued to IE-RU drivers and an additional 55 were issued to NIR drivers. The NIR issued licences were a requirement in preparation for Brexit.

Central to ensuring the safe operation of both the heavy and light rail sectors is an effective and efficient supervision system. For this we have developed a balance of activities based on audits, inspection, post occurrence activity and safety performance meetings. These are directed at all the entities we regulate, and the distribution of the actions is risk based. Our overall approach has an emphasis on support, advice, encouragement and when necessary enforcement.

Three audits were completed in 2020. These focused on IÉ-IM's safety management system and its control of the new works department as well as Over Head Line Equipment (OHLE) maintenance standards and contractor management, as well as IÉ-RU's management of operational risk. No major non-compliances were observed, while 6 minor non-compliance resulted in seven areas where action was required. The nature of the audits had to take account of restrictions in place due to COVID-19 but overall, it was found that the use of virtual platforms and information technology for data exchange allowed for effective audits to be carried out, all be it in an extended time frame.

While the focus of some of the inspections had to be redirected, a total of 77 inspections were carried out during the year against a planned 66. Enforcement in the form of an Improvement Plan was requested in one instance, following a notifiable occurrence. Some of the actions that regulated entities had to undertake included revising and updating key plant/machine standards, reviewing existing safety control measures, and reviewing the method statement approval and briefing process.

We continued to monitor railway organisations' implementation of CRR required actions and the safety recommendations of the Railway Accident Investigation Unit (RAIU) to ensure that they are brought to conclusion.

The CRR received four investigation reports from the RAIU in 2020. These reports contained a total of 19 recommendations. Safety recommendations made by the RAIU are typically directed at the railway organisation(s) concerned but are addressed to the CRR as the responsible authority for the oversight of their implementation.

In 2020, the CRR received 40 representations relating to a range of heavy and light rail infrastructure and operational matters all of which received attention. The figure was down on that received in 2019 and to be expected given passenger numbers were significantly reduced in 2020 owing to COVID-19 and associated travel restrictions in place for much of the year.

Railway organisations are required to submit an annual safety report to the CRR by the 30th of June each year in relation to the preceding year. Safety related data for 2020 that is currently available is provided within this annual report. Separately the CRR publishes its complete Railway Safety Performance Report in the last quarter each year. The complete report for 2019 is published and available on our website ([2019 Safety Performance Report](#)).

The CRR is the independent monitoring body for the Infrastructure Manager Multi-Annual Contract (IMMAC) between IÉ-IM and the Minister. 2020 was the first year of the new IMMAC 2020 – 2024 and the CRR fulfilled all its reporting duties in line with the new contract requirements.

Ireland, along with several other member states, opted for the June 2020 date for the transposition of the Railway Safety Directive EU 2016/798 and Interoperability Directive EU 2016/797. This date was extended by the European Commission to October 2020 due to the impact of COVID-19. The CRR provided extensive assistance to the Department in the transposition of these key Directives. Their transpositions bring about key changes to the regulation of the European Rail Network, and requires the CRR to amend its guidance and internal processes in a range of areas including conformity assessment and vehicle authorisation.

The total funding for the functions of the CRR in 2020 was €2.223m. The CRR receives most of its funding through the annual levy that it places on the entities that are subject to regulation (€1.714m) with the balance received as Grant in Aid from the DoT (€0.509m). The levy is allocated based on the level of activity the CRR must undertake with each regulated entity to fulfil its functions. Additional fees are also charged for some activities such as train driver licencing.

The CRR continues to ensure that it meets the requirement of the revised Code of Practice for Governance of State Bodies, and the Comprehensive Report to the Minister, required by the Code of Practice, is included as a separate section in this report.

The CRR, as part of its ongoing review of resources to fulfil its mandate as the National Safety Authority and Regulator, sought and received sanction for two staff replacements. The CRR is sanctioned to have 17 staff and at the end of 2020 our staff compliment was 15. The CRR experience is that in the current economic climate there is a high demand for engineers, which make up the majority of the CRR staff, and therefore retaining and recruiting staff remains a challenge.

The current operational environment for the CRR is and will continue to be one that is challenging and facing significant change. This is driven by several factors including most recently the COVID-19 pandemic and the uncertainty and restrictions that it introduces as well as the introduction of the fourth railway package and the significant planned enhancement for public transport, particularly in the areas of heavy and light rail. These developments including those indicated in the Government's National Development Plan and the growth envisaged in Project Ireland 2040 are already impacting on the work of the CRR. We will continue to strive to meet all these challenges and ensure that the CRR as the national safety authority and railway regulator continues to work with the sector and stakeholders, to ensure safe and sustainable rail transport that meets the needs of our society.

Brian Higginson

Commissioner

ORGANISATIONAL STRUCTURE AND ROLE



Management team and organisational structure



Brian Higgisson
Commissioner



Mary Molloy
Principal Inspector
Authorisation to Place in
Service and Conformity
Assessment



Anthony Byrne
Principal Inspector
Compliance Supervision
and Enforcement



Donal Casey
Principal Inspector
European and Legislative
Harmonisation



Caitríona Keenahan
Head of Corporate
Governance and
Regulation

Inspector	Inspector	Higher Executive Officer
Inspector	Inspector	Executive Officer
Inspector	Inspector	
Inspector	Inspector	
	Inspector	
	Inspector	
	Inspector	

Role of the Commission for Railway Regulation

The Commission for Railway Regulation was established on 1st January 2006 under the provisions of the Railway Safety Act (RSA) 2005. Since it was established it has been given a range of functions based on both national and European legislation.

Under the RSA 2005 the CRR has three principal functions: (a) to foster and encourage railway safety; (b) to enforce the Act and any other legislation relating to railway safety; and (c) to investigate and report on railway incidents. These functions relate to both the heavy and light rail.

The responsibilities that the CRR has under legislation relate to three specific areas, heavy rail, light rail, and cableways. Heavy rail refers to the IÉ-IM network and the Railway Undertakings that operate on it. Heavy rail is regulated both through the 2005 Act and EU legislation. Light rail refers to the LUAS rail system in Dublin and is regulated through the 2005 Act, and cableways are regulated through EU legislation.

Heavy and light rail

Commission

The Railway Safety Act No 31 of 2005 (as amended) established the Railway Safety Commission (now the CRR). The Act gave three principal functions, as indicated above, to the CRR relating to heavy rail, light rail and metros and the powers to fulfil these functions.

In relation to the enforcement of the Act for heavy rail, it should be noted that the issuing of safety certificates and authorisation to place in service fixed installations and vehicles is now covered by European legislation (see below). For light rail, the CRR assesses the safety management systems and issues safety certificates required for operation under the 2005 Act. In addition, the assessment of and acceptance of new works and rolling stock is also undertaken under the 2005 Act.

Heavy rail

National Safety Authority

SI 476 EU (Railway Safety) Regulations 2020 gives effect to Council Directive (EU) 2016/798 (Railway Safety Directive) and under this the CRR is established as the national safety authority in the State. This is for the purpose of ensuring compliance with the Directive and these Regulations, including safety management certification and authorisation, maintenance of vehicles, supervision, and enforcement.

SI 477 EU (Interoperability of the Rail System) Regulations 2020 gives effect to Council Directive (EU) 2016/797 (Interoperability Directive) and under this the CRR is established as the national safety authority competent for the railway system in the State for the purposes of the Directive and these Regulations including correct implementation of Technical Specification for Interoperability (TSI), placing on the market interoperability constituents and mobile subsystems, authorisation for placing in service fixed installations, upkeep of the national vehicle register and enforcement.

Certification body for Entities in Charge of Maintenance (ECM)

SI 476 2020 gives effect to Council Directive (EU) 2016/798 (Railway Safety Directive) and under this the CRR is established as the ECM certification body. Certification is carried out in line with Commission Implementing Regulation (EU) 2019/779 which lays down detailed provisions on a system of certification of ECM's.

Regulatory body

SI 249 EU (Regulation of Railways) Regulations 2015 (as amended by SI 398 2020) gives effect to Council Directive EU 2012/34 as amended by EU 2016/2370 on a single European railway area, and established the CRR as the regulatory body for the purpose of appeals or complaints relating to infrastructure capacity, access charges, the network statement and monitoring competition.

Independent monitoring body

SI 249 2015 (as amended by SI 398 2020) gives effect to Council Directive EU 2012/34 as amended by EU 2016/2370 and established the CRR as the Independent Monitoring Body for the purpose of monitoring the contractual agreement between IÉ-IM and the Minister as the competent authority, including monitoring the performance of the Infrastructure Manager, arbitrate in the event of dispute, approval of the performance monitoring system, and report to the Minister on its monitoring of performance.

Licensing authority

SI 249 2015 (as amended by SI 398 2020) gives effect to Council Directive EU 2012/34 as amended by EU 2016/2370 and established the CRR as the licencing authority for the purpose of assessment of licence applications and the issuing of licences to railway undertakings.

Competent authority

SI 399 EU (Train Driver Certification) Regulations 2010 gives effect to Council Directive 2007/59/EC on the certification of train drivers operating locomotives and trains on the railway system in the Community and established the CRR as the competent authority for the purpose of assessment of licence applications and the issuing of licences to train drivers, and the recognition of training and examination centres.

SI 651 EC (Transport of Dangerous Goods By Rail) Regulations 2010 (as amended) gives effect to Council Directive 2008/68/EC (as amended) on the inland transport of dangerous goods established the CRR as the competent authority for the purposes of ensuring compliance with Regulations concerning the International Carriage of Dangerous Goods by Rail (RID).

Recognition of DeBos

SI 477 2020 gives effect to Council Directive (EU) 2016/797 (Interoperability Directive) and under this the CRR is since October 2020 established as the organisation responsible for the recognition of DeBos in the State.

Cableways**Authorising body**

SI 543 EU (Cableway Installations) Regulations 2020 gives effect to Regulation (EU) 2016/424 on cableway installations and established the CRR as the body in the State for authorising construction and entry into service of cableway installations or their modification.

Market surveillance authority

SI 543 of 2020 gives effect to Regulation (EU) 2016/424 of the European Parliament and established the CRR as the market surveillance authority for cableway subsystems and components.

Rail entities subject to regulation

The following entities were subject to regulation by the CRR in 2020:

- Iarnród Éireann – Infrastructure Manager
- Iarnród Éireann – Railway Undertaking
- Transdev (LUAS operator) – Railway Organisation
- Rhomberg Sersa Ireland Limited
- Translink, Northern Ireland Railways – Railway Undertaking
- Transport Infrastructure Ireland
- Bord na Mona
- Belmont Grand Hibernian
- Railway Preservation Society of Ireland – Railway Undertaking
- Heritage Railways.

Passenger numbers

COVID-19 restrictions introduced public transport capacity limits of 50% and 25% within the different restriction levels. 2020 figures will not therefore facilitate trend analysis on public transport use in the short to medium term.

STRATEGY OF THE COMMISSION FOR RAILWAY REGULATION



The CRR 2020 annual report coincides with the final year of its current Statement of Strategy (2019 – 2020) under the Railway Safety Act 2005. Work on the new strategy commenced in late 2020 and the new strategy is due for submission to the Minister in June 2021.

Current strategy

Mission

The CRR is committed to advancing railway safety, the maintenance and further development of high performing and sustainable railway systems and ensuring fair access to the Irish conventional railway network in Ireland through regulation, monitoring, encouragement, and promotion.

Vision

Railways that safely deliver.

Priority 1

Ensure continuous improvement in the safety performance of heavy and light railway systems.

Priority 2

Effective monitoring relating to rail infrastructure, access and licencing requirements of the single European network area.

Priority 3

To support government public transport policy initiatives directed at the needs of society and the economy through safe, sustainable, and competitive railway transport networks and services.

Priority 4

Ensure industry awareness and understanding of changing national and European railway Regulatory environments.

Priority 5

Be a high performing organisation delivering quality and value in what we do.

REPORT OF PRINCIPAL INSPECTOR AUTHORISATION TO PLACE IN SERVICE AND CONFORMITY ASSESSMENT



Authorisation to Place in Service (APIS)

The requirement for the CRR to perform Authorisation to Place in Service on railway systems is based on EU and National Legislation. The main EU legal requirements are, the Interoperability Directive (EU) 2016/797, the Railway Safety Directive (EU) 2016/798, Commission Implementing Regulation (EU) 2018/545 establishing practical arrangements for vehicle authorisation and the common safety method for risk evaluation and assessment EU/402/2013. National requirements are governed by the Railway Safety Act 2005 amended. EU and national requirements apply to the heavy rail system while only national requirements apply to the LUAS light rail system.

Meeting the essential requirements as outlined in (EU) 2016/797 Annex III is a pre-requisite for APIS. CRR requirements are underpinned by I.S. EN 50126 – railway applications – the specification and demonstration of reliability, availability, maintainability, and safety. This is managed through the system life cycle known as the V-cycle. The V-cycle contains twelve cycles: i) Concept; ii) System Definition and Application Conditions; iii) Risk Analysis; iv) Safety Requirements; v) Apportionment of System Requirements; vi) Design and Implementation; vii) Manufacture; viii) Installation; ix) System Validation; x) System Acceptance; xi) Operation and Maintenance; and xii) De-commission. The CRR guidance RSC-G-009 and RSC-G-032 are designed around the V-cycle and have six Stages. These are:

Stage 1

Concept (V-cycle i);

Stage 2

Preliminary Design (V-cycle ii and iii);

Stage 3

Detailed Design (V-cycle iv, v, vi and vii);

Stage 4

Testing (V-cycle viii and ix);

Stage 5

Interim Operation (V-cycle x, xi and xii)*;

Stage 6

Service Operation (V-cycle x, xi and xii).

*Stage 5 Interim Operation is a stage where the safety of a system has been proven for operation but not all evidence of the stipulated requirements and associated administrative paperwork is available.

APIS – Infrastructure

LUAS Cross City (LCC)

The LCC operated during 2020 under a stage 5 (interim operation) letter of acceptance. One outstanding condition on the stage 5 letter of acceptance which relates to the Midlands and Great Western Railway retaining walls at Phibsboro continues to be in place. During 2020, therefore, the CRR continued to work with Transport Infrastructure Ireland to agree permanent measures for maintenance and ongoing monitoring of these walls.

Bridges/platforms/stations/level crossings

In 2020, the CRR issued sixteen letters of acceptance to IÉ-IM in relation to new bridges, platforms and stations projects following review of their application.

These projects included:

Letters of acceptance for stage 3 (detailed design) as follows:

- Two new overbridges as part of the Dunkettle Interchange road scheme;
- New overbridge as part of the Enniscorthy Flood Defence Scheme;
- Replacement overbridge as part of the Killaloe Bypass Scheme;
- New overbridge as part of the Ongar-Barnhill Distributor Road Scheme (Clonsilla to M3 Parkway line);
- New overbridge as part of the Athy Southern Distributor Road;
- New pedestrian overbridge with lifts at Edgeworthstown station;
- An update to the letter which was issued for a new pedestrian overbridge with lifts at Carlow station following design change;
- A new overbridge over Alexandra Road at Dublin Port for the Dublin Port Company.

Letters of acceptance for stage 5 (interim operation) as follows:

- Three extensions for the letters for the new railway underbridge on the Dublin-Galway line at 77mls 1,370yds. A stage 6 application was expected during 2020 but was delayed due to additional delays in progressing due to COVID-19;
- An extension for the letter for the new platform at Limerick Junction which included a pedestrian overbridge with lifts;
- New pedestrian/cycle overbridge as part of the Royal Canal Greenway;
- New pedestrian overbridge on the Cork to Middleton line as part of the Dunkettle Interchange scheme.

Letter of acceptance for stage 6 (service) as follows:

- New underbridge on the Dublin to Cork line as part of the combined M7 Oberstown Interchange and R407 Sallins bypass scheme.

National Train Control Centre (NTCC)

The NTCC will provide a modern, modular, traffic management system and will replace the existing Central Traffic Control centre which is at full capacity. The level crossing control centre will be integrated into the NTCC, there will also be a signalling simulator and a third-party control centre. A concept letter of acceptance was issued in 2016. At the end of 2019, the IÉ-IM made a preliminary design submission to the CRR and a stage 2 letter of acceptance was issued in February.

Decision Support System at User Worked Level Crossings

The Decision Support System at User Worked Level Crossings comprises a set of indicator lights which are connected to train detectors placed on the track to detect a train approaching a level crossing. A warning is then given to the user. During 2020, the IÉ-IM installed this new decision support system at eight level crossings. They were commissioned and placed into operation after the CRR had issued a stage 5 interim operation letters of acceptance.

APIS – Signalling and telecommunications

Global System for Mobile Communications – Railway (GSM-R) Phase 1

Following full approval in 2019 of the GSM-R radio system for Phase 1, the DART fleet and DART area, the IÉ-IM made a fixed installations stage 3 application to the CRR for Phases 2 and 3 (the rest of the network) in June 2020. An updated submission was made in August. Following full review, the CRR concluded in December that a stage 3 letter of acceptance could issue in January 2021.

Iarnród Éireann Train Protection System (TPS)

The TPS (formerly called the IEHS train protection system) is a replacement for the existing continuous automatic warning system and automatic train protection system. The project will initially include the fitment of a first section of infrastructure and three vehicle types with the prototype design and associated track equipment. A later stage will be the rollout over the entire network. The CRR continued to engage with the IÉ-IM during 2020 on this project. During 2020, a panel of experts from IÉ-IM and the CRR continued the progressing of the drafting of a set of Irish Railway Standards for requirements for class B signalling systems in the State. This is an initial requirement that will enable the design of the product to be further developed. A first (limited scope) version of the set of Irish Railway Standards for class B signalling systems was published by the CRR in 2020.

City Centre Re-signalling Project (CCRP)

The CCRP provides for reduced signalling headways (the time between two trains passing the same location on a railway line at a defined speed profile) and future additional services in the City Centre area and Northern Line corridor. The areas between Malahide/Howth to Killester and Tara Street to Sandymount were fully approved in 2018. Also, in 2018 the area between Killester and East Wall Junction received a stage 2 letter of acceptance and the Connolly station area received a stage 3 letter of acceptance.

In 2020, following application from the IÉ-IM in April, a stage 3 letter of acceptance was issued for the area between Killester and East Wall Junction. In September, the IÉ-IM made a stage 4/5 application for the area between Killester and East Wall Junction and the Connolly station area. A stage 4/5 letter of acceptance was issued in October. Commissioning took place in late October/November. Following close out of issues raised during commissioning risk assessment and the ongoing monitoring post commissioning a stage 6 (full service/operation) was issued in December.

APIS – Rolling stock

Iarnród Éireann – additional class 22000 Intercity Diesel Multiple Units (ICDMU)

It is expected due to the DART expansion programme that the carrying capacity of the existing fleet of Class 22000 Intercity Diesel Multiple Units will need to be increased. IÉ-RU are in the process of purchasing 41 additional Units, known as the B2 cars.

The B2 cars will be based on the design of the existing B1 car and shall be adapted to include necessary engineering changes brought about by legal obligations concerning exhaust emissions and providing suitable alternatives for obsolete or unavailable equipment and material. There will be internal modifications to increase carrying capacity and they will be used to increase the current four and five car configurations for this fleet to five and six car configurations. Following an application from the IÉ-RU in June and an updated application in August, a stage 1 (concept) letter of acceptance was issued by the CRR in August.

In relation to this project the IÉ-RU have made a submission to the CRR for non-application of TSIs to the B2 cars under Article 7 of (EU) 2016/797 and SI 477 of 2020 in December. The CRR is in the process of comparing the non-application submission against the applicable legal requirements: Directive (EU) 2016/797, Regulation (EU) 2018/545 and Regulation (EU) 2020/424. Once this analysis is complete the CRR will then submit the request to the European Commission for its consideration in accordance with Regulation 7 (1) (4) of SI 477 of 2020.

LUAS 502 trams

TII procured eight new 502 trams during 2020 known as the variant CITADIS 502 tram. The variant CITADIS 502 tram is identical in every aspect to the New CITADIS 502 trams which have received full authorisation, with two small exceptions: i) better slip resistance floor covering; and ii) the driver's cab is fitted with a driver-trainer seat.

Following applications from the operator Transdev, stage 5 (interim operation) letters of acceptance were issued in July and August and in October a stage 6 letter of acceptance allowing full-service operation was issued.

Heritage railways

Difflin Lake Railway

The Difflin Lake Railway made a Stage 6 application for vehicle authorisation for their Locomotive No. 10 (Bishop Twysden) and were issued a letter of acceptance in March 2020.

Cavan and Leitrim Railway

The Cavan and Leitrim Railway made submissions for acceptance for two locomotives, a steam locomotive (Nancy) and a Ruston diesel locomotive (LM114). The CRR procured a steam locomotive expert to support the assessment of the steam locomotive. The Cavan and Leitrim Railway subsequently informed the CRR that they would not be open for the foreseeable future pending the Government recommendations on COVID-19. The assessment of these submissions is currently on hold.

Connemara Railway

The Connemara Railway revival is a heritage project which consists of redeveloping the old Maam Cross Railway station site. The work consists of i) relaying railway track along the approximately 400 metres of available trackbed, ii) refurbishing the platforms, iii) rebuilding the signal cabin, and iv) restoring the Goods Store. The CRR has advised the project on the need for, and in time will facilitate approvals for these works. The CRR has also advised that for operation the heritage railway will need an approved SMS and any rolling stock they wish to use will have to be authorised.

See Appendix 1 for a table of all letters of acceptance issued by the CRR in 2020.

Irish Railway Standards (IRSs)

Irish Railway Standards (IRSs) contain good industry practice and/or National Rules (NRs) on the Irish railway system specific technology, which is not otherwise contained in national or international standards or legislation. IRSs may within their scope be used as an acceptable national means of compliance. IRSs are developed and maintained with the involvement of all relevant stakeholders. IRSs are published by the CRR on its website on behalf of the Irish railway industry. Where a NR is identified within an IRS, prior to publishing, that IRS containing NRs is submitted to the European Railway Agency for their examination. Once ERA agreement of the NR/s is received it is published on the Reference Document Database (RDD) (<https://rdd.era.europa.eu/rdd/>) and/or Single Rules Database (SRD) if it is required by the operations TSI, TSI-OPE 2019/773.

In 2020, seven Irish Railway Standards (IRSs) were published by the CRR, five were the first issue of new IRSs and two were updates to existing IRSs. These IRSs are published on the CRR website (<https://www.crr.ie/publications/guidelines/>).

In October 2020, the CRR in coordination with the European Union Agency for Railways uploaded the National Rules (NRs) contained within the 7 published IRSs. This amounted to 184 new NRs. These NRs can be found in the respective IRS available on the CRR website and can also be found on the Reference Document Database (RDD) website.

Guidelines (APIS)

On the 3rd of November 2020, the 'European Union (Railway Safety) Regulations 2020' [S.I. 476] and the 'European Union (Interoperability of the Rail System) Regulations 2020' [S.I. 477] were published. These regulations give effect to Directive (EU) 2016/798 and Directive (EU) 2016/797 of the European Parliament and of the Council. In anticipation of these new regulations the CRR during 2020 undertook to update its guidance and supporting documents to reflect these changes.

During 2020, the CRR worked on drafting an update to its APIS Guideline, CRR-G-009. 'Guideline for the Process of Authorisation for Placing in Service Railway Sub Systems' (CRR-G-009) was renamed to 'Guidance on Application for Authorisation and Application for Acceptance for Heavy Rail Fixed Installations and Vehicles'. This revision brings the guidance up to date with the new legislation and in doing so provides the Irish railway industry with guidance and explanation on the European and the Irish legal requirements for authorisation and/or acceptance of heavy rail equipment. The updated version is published on the CRR website and circulated to all relevant stakeholders.

The CRR drafted a scheme for recognition of Designated Bodies (DeBos). According to the Interoperability Directive (EU) 2016/797 and S.I. 477 2020 Article 16(3), the CRR is the organisation responsible for Recognition of DeBos in the Republic of Ireland (IE-DeBo). CRR guidance CRR-G-053 as well as a number of supporting documents were well progressed during 2020. CRR-G-053 was published on the CRR website on 15th February 2021. In July 2020, the CRR updated its 'Guidance for the Drafting, Reviewing, Publishing and Updating of Irish Railway Standards' (CRR-G-031). This update added some minor improvements and clarifications.

Guidelines CRR-G-016 and CRR-G-033 identify sub-system parameters of relevance to light rail projects. These parameter listings have been generated through consideration of current legislation, good industry practice and expert knowledge and aim to cover most parameters of typical light rail systems. Both guidelines were updated during 2020 to include parameters for tunnels and underground structures in light of the Metrolink project. Guideline CRR-G-032 which is the light rail equivalent of CRR-G-009 was also updated.

Entity in Charge of Maintenance (ECM)

Entity in charge of maintenance requirements are mandated by the Railway Safety Directive. Each vehicle, before it is placed in service or used on the network, must have an entity in charge of maintenance assigned to it and in the case of freight wagons this entity must be certified. Freight wagons operating in Europe must be maintained by a certified ECM in accordance with Commission Regulation (EU) No 445/2011. In this context the CRR provide certification and annual surveillance.

The CRR was not required to undertake any ECM activity during 2020.

Cableways

The CRR is the Competent Authority for cableways. In 2020, the CRR continued their engagement with Cork County Council and their representatives on proposals for a new cableway to replace the existing cableway connecting Dursey Island to the mainland. This engagement was in the context of the CRR function relating to construction and entry into service of cableways.

Conformity assessment

Conformity Assessment of Safety Management Systems (SMS) is carried out in compliance with the Railway Safety Directive (EU) 2016/798 and the Railway Safety Act 2005 amended by SI 444 of 2013. Specific criteria for assessing conformity are detailed in EU Regulation 1158/2010 Safety Certification and EU Regulation 1169/2010 Safety Authorisation. From 31 October 2020 these latter Regulations are replaced by (EU) 2018/762.

In 2019, significant work took place in progressing the issuing of Safety Certification to Northern Ireland Railways in preparation for a no deal Brexit. This work continued in 2020 and following formal application from Northern Ireland Railways the CRR issued Safety Certificates Parts A and B in October 2020.

Transdev received Safety Certification with conditions in November 2019. Following close out of these conditions an updated Safety Certificate without conditions was issued to Transdev at the end of February 2020.

Safety Certificates issued by the CRR have a specified expiry date after which recertification is required. The certificates issued in 2020 all had the maximum 5-year validity.

National rules to operations TSI

Previously notified national rules

During 2020, the CRR engaged with ERA on the National Rules applicable in the State and previously notified to the ERA national rules database NOTIF. ERA is currently changing the database to a new single rules database (SRD) for this notification process. The requirement for member states to review and update their national rules was completed in compliance with the requirement of the Railway Safety Directive (RSD) 2018/798 Article 8.2, which involves reviewing previous rules identified under Annex II.

New national rules

Additionally, the CRR began the process of facilitating the creation of new National Rules for the Technical Specification for Interoperability relating to the operation and traffic management (TSI-OPE). TSI-OPE 2019/773 Appendix I allows for new National Rules which are not yet covered by the TSI-OPE. The RSD 2018/798 Article 8.3 has a provision for Member States to lay down new National Rules. This task began in mid-2020 and the CRR held several meetings with railway organisations to form draft National Rules for TSI-OPE Appendix I. These draft National Rules will be submitted to ERA for examination before publication on the CRR website. The process will follow CRR-G-031 C Guidance for the Drafting, Reviewing, Publishing and Updating of Irish Railway Standards and Irish National Rules, which is published on the CRR website. This work will be ongoing through 2021.

Guidelines (conformity assessment)

During 2020, the CRR made extensive progress on updating its Guideline CRR-G-030, 'Application Guide for Safety Certification/Authorisation' to take account of the new requirements brought about by SI 476 2020 giving effect to Directive (EU) 2016/798. The finalised updated guidance will be published in early 2021.

Train driver licensing

The CRR is the competent authority for the purposes of S.I. 399 of 2010 European Communities (Train Drivers Certification) Regulations. All train drivers are required under EU legislation to hold a valid licence to operate a train on the network. Licences are issued subject to the drivers meeting requirements set down in European legislation namely: minimum age, basic education, medical examination, occupational psychological fitness, and general professional competence.

Based on our review and assessment of the applications received from IÉ-RU the CRR issued 44 train driver licences in 2020.

Due to Brexit, train driver licences issued by the United Kingdom national safety authority lost their validity within the EU as and from the exit date. Consequently, and in order to ensure that NIR could continue to operate the Enterprise service with IÉ-RU, NIR made applications to the CRR for train driver licences. Based on our review and assessment 55 licences were issued to NIR drivers before the end of the year.

Train driver licences have a validity of 10 years, however, drivers are subject to continuing medical examinations by the Railway Undertaking.

Prescribed body

Under the Planning and Development Act 2001 – 2020 the CRR is a prescribed body where a development may impact on a railway. This includes railway level crossings, under and over bridges, development proximity to the railway or its potential to impact on its structural integrity or endangering or interfering with the safe operation of the railway. This applied both during and after construction. In 2020, the CRR provided observations on 38 of the planning applications it received as a prescribed body.

REPORT OF PRINCIPAL INSPECTOR COMPLIANCE SUPERVISION AND ENFORCEMENT



Supervision and enforcement

A principal function of the CRR is the supervision of railway organisations operating in the state. Every operational Railway Organisation has a certified Safety Management System (SMS) that documents how they will effectively manage the risks to safety associated with its activities. It is the CRR's role to supervise the continued application and effectiveness of these SMSs. The CRR do this through frequent interaction with the railway organisations, auditing their processes and procedures, inspecting their assets and meeting with staff.

Using our previous supervision findings, together with reviewing; the type and number of occurrences (accidents, incidents, and dangerous events) they have experienced, their own internal auditing and monitoring regimes and findings, the CRR obtain a picture of the railway organisations safety performance. With this information, together with professional judgement, supervision plans, one for each separate railway organisation, are developed for the forthcoming year.

We employ the ERA principles for supervision, including proportionality, consistency, and transparency together with our own gathered knowledge and understanding of each railway organisation to effectively supervise those we regulate.

The following present an overview of the CRR's supervision activity for 2020.

Compliance auditing (pro-active supervision)

During 2020, the CRR initiated the audits listed in the following table:

Table 1
Audits undertaken by the CRR in 2020

Railway organisation	Title of audit	Conducted
IE-RU	SMS Audit of Iarnród Éireann-RU – Management of Operational Risk	October 2020
IE-IM	Management of OHLE Maintenance Standards and Principal Contractor – Neopul	October 2020
IE-IM	Annex II Criterion A – Management of Cutting and Embankment Assets	November 2020

Two of the audits initiated in 2020 were also finalised in 2020. In addition, the CRR finalised one audit that was initiated in 2019. Each of the audits conducted produced outcomes to address findings that arose from the facts ascertained during the audits. CRR inspectors categorise these outcomes depending on the risk they present.

CRR inspectors use the following classification system for these outcomes.

Major Non-Compliance (MaNC): an area of non-compliance with an IÉ internal standard, an applicable external standard, or legislation that is evidence of a system failure.

Minor Non-Compliance (MiNC): an area of non-compliance with IÉ internal standards, an applicable external standard, or legislation that is evidence of a sporadic lapse in implementation of a system or deviation from a system.

Action Required (AR): an area where potential exists for a non-compliance to occur unless remedial action is taken, or improvement is made, an isolated error that requires correction, or some other issue where, in the opinion of the auditor action is necessary.

Scope for improvement (SFI): an area highlighted where, in the opinion of the Auditor, system or business improvement can be achieved by the company. Typically, this is phrased as a recommendation, the merits and implementation of which should be decided by the audited organisation.

Good Practice (GP): an area highlighted which, in the opinion of the Auditor, is good practice within the industry.

Audit Trail (AT): an area that the auditor believes should have further attention, either by inclusion in the programme for future audits (but not necessarily an external audit item) or by some other means.

The tables below provide further detail on the audit outcomes.

Table 2
CRR audits initiated in 2019 and finalised in 2020

Railway organisation	Title of audit	Major non-compliance	Minor non-compliance	Action required
IE-IM	Audit of the New Works Department SMS	0	2	0

Table 3
CRR audits initiated and finalised in 2020

Railway organisation	Title of audit	Major non-compliance	Minor non-compliance	Action required
IE-RU	Management of Operational Risk	0	2	2
IE-IM	OHLE Maintenance Standards and Contractor Management	0	2	5

Table 4
CRR audits initiated but not finalised in 2020

Railway organisation	Title of audit	Audit initiated
IE-IM	Annex II Criterion A – Management of Cutting and Embankment Assets	November 2020

In 2020, no major non-compliances were identified which is welcome, albeit the CRR did execute a fewer number of audits on railway organisations than planned due to the COVID-19 pandemic and associated restrictions that were imposed.

Across the railway organisations audited a small number of minor non-compliances with legislation and/or an approved SMS were identified and in every case the lead (auditor) inspector considered if there was a risk to the safety of persons. In one case it was considered necessary to request an Improvement Plan, in accordance with section 76 of the Railway Safety Act 2005, to address a perceived risk to the safety of railway staff working in engineering possessions when there are Road Rail Vehicles (RRVs) operating. IÉ-IM submitted a plan to the CRR outlining the steps it would take to address the identified non-compliances, which was accepted by the reviewing inspector. Some of the actions being taken include revising and updating key plant/machine standards, reviewing existing safety control measures, and reviewing the method statement approval and briefing process.

In the majority of cases the railway organisations concerned have already implemented or are in the process of implementing the agreed corrective and preventative actions from these audits.

The CRR see the promotion of good practice as one of its roles, therefore inspectors also report on identified areas of good practice within the industry. The CRR cited 3 such good practice items in 2020 across several railway organisations including:

- IÉ-RU's extensive use of rigorous analysis of human factors in a range of contexts to support analysing underlying causes of both actual and potential future incidents.
- The IÉ-RU Operations Department employed novel approaches to training, the most notable example of which has been their engagement of the company Theatre at Work to develop behavioural training and scenario exploration through the medium of theatre. This has helped staff to better understand how accidents may happen.
- IÉ-IM's management of OHLE infrastructure maintenance equipment was considered simple but very effective.

Post occurrence inspections (reactive supervision to accidents or incidents)

The CRR operates an on-call 24 hours/day, 364 days/year roster, to respond to occurrences, i.e., accidents, incidents, and dangerous events. In 2020, the CRR received a total of 55 formal notifications and mobilised to a number of these either immediately or in the days following the occurrence to inspect the site/rolling stock involved. A total of 32 related to the IÉ network, 20 occurred on the LUAS network, 1 involved rolling stock issues belonging to NIR and 2 involved Bord na Móna operations.

Tragically, in 2020 there were eight fatal occurrences on Ireland's railways, 7 on the national heavy rail network and 1 on the Dublin LUAS light rail system. On the IÉ-IM network the circumstances of six of these fatalities indicate potential self-harm. In the case of the remaining fatality on the IÉ-IM network this was tragically a member of Iarnród Éireann staff who was found adjacent to the railway line. There was one fatal occurrence on the LUAS network which occurred on the Green Line and involved a tram striking a member of the public.

There were also a number of additional accidents and incidents that under slightly different conditions could have also resulted in loss of life, these included:

- A member of the public at Salthill & Monkstown station jumped off a pedestrian footbridge suffering serious injury, Co. Dublin, September 2020,
- A collision between a lorry and a tram on Benburb Street on the Red Line, March 2020.

Incidents notified to the CRR, other than those incidents which are apparent acts of self-harm, were further investigated. The purpose of the CRR's investigations are to check that the railway organisation complied with its safety management system. The role of identifying the cause of the accident/incident rests with the RAIU which is a separate independent body. In any instance where safety was deemed to be at risk, the CRR sought the necessary assurances that mitigation measures had been put in place by the relevant organisation.

Inspections

The COVID-19 pandemic impacted on the CRR's work programme in 2020 insofar as it required an adjustment to some of our planned inspections. For example, CRR inspectors refocused inspection time undertaking asset inspections that could be undertaken adhering to COVID-19 restrictions, i.e., social distancing and working outdoors. Even in the context of this refocused inspection programme the CRR undertook a total of 77 Inspections which was more than planned for the year, and which focused on:

- Railway assets including rolling stock, stations, level crossings and other structures, e.g., bridges and earthwork structures.
- The management of change.
- Risk Control measures associated with COVID-19.
- Tram operations and rolling stock maintenance.
- Management of risk posed by third party works adjacent to the tramway.

Outcomes arising from all these inspections are being progressed by the railway organisation concerned, and the CRR is monitoring remediation of all safety critical issues.

Enforcement

Section 7 of the RSA 2005 provides the CRR with powers of enforcement. These powers range from requesting an Improvement Plan, typically for more minor infringements, to serving an Improvement Notice or Prohibition Notice for more serious non-compliances. The CRR has the power in extreme cases to revoke a Safety Authorisation or Safety Certificate or make an application to the high court to seek an order for restriction or prohibition of operations.

A guiding principle of the CRR's Supervision function and specifically its use of enforcement is that of proportionality. If a failure or weakness is identified, the CRR works with railway organisations, to secure voluntary compliance rather than immediately instigating enforcement action. Nonetheless, should action be considered necessary, the CRR can and does use its enforcement powers against the relevant railway organisation. This ensures that unsafe activities or operations cease or that compliance is secured.

In 2020, the following enforcement measures were initiated by the CRR:

Section 76 of the RSA 2005 – Improvement Plan issued on IÉ-IM

1 Improvement Plan was requested following a notifiable occurrence:

- Collision between two Road Rail Vehicles near Bray Tunnel No.1, Co. Wicklow.

Additionally, several documentary non-compliances were identified during CRR inspections which necessitated the relevant railway organisation to provide us with action plans.

Section 77 of the RSA 2005 – Improvement Notice (Issued on IÉ-RU)

1 extension to an existing Improvement Notice were served following:

- Extension of time granted to Improvement Notice served on IÉ-RU in 2016, relating to their Drugs and Alcohol policy.

Section 78 of the RSA 2005 – Prohibition Notice

- No Prohibition Notices were served in 2020.

Implementation of audit, inspection, and post occurrence inspection outcomes

The implementation of preventative and corrective actions in respect of certain outcomes are monitored by the CRR. In 2020, the CRR amended its status flagging system that is applied to monitor the railway organisation progress to closure, moving from a three-tier to four-tier system. Previously, the tiers were 'open', 'complete' and 'closed' but it was considered that the 'complete' status did not reflect accurately enough the true status.

For this reason, 'complete' was replaced with:

Submitted: The Railway Organisation (or other party) has made a submission to the CRR, advising that it has taken measures to affect the recommendation and the CRR is considering whether to close the recommendation, and

Further Evidence Requested (FER): The CRR has reviewed a submission (or further submission) but considers that further evidence is necessary to close the safety recommendation.

A detailed breakdown for audit outcomes, inspection outcomes and Post Occurrence Activity outcomes for each of the principal railway organisations since 2010 is provided in Appendix 3.

RAIU safety recommendations

The RAIU has the function of carrying out investigations of accidents and incidents that occur on the heavy and light railways in Ireland. The purpose of its investigations are to establish cause and not apportion blame. Its reports make safety recommendations which are intended to ensure the avoidance of similar accidents/incidents in the future.

Safety recommendations made by the RAIU are typically directed at the railway organisation or other third party who may have had a responsibility under legislation. Its recommendations are addressed to the CRR as the responsible national safety authority for the oversight of their implementation. The status of current safety recommendations issued by the RAIU is detailed in Appendix 3.

Other railway organisations

In addition to Iarnród Éireann and Transdev, the CRR also supervise the following railway organisations.

Rhomberg Sersa Ireland (RSI)

RSI completed their first full year of operation in 2020, having taken over the On-Track-Machine (OTM) fleet maintenance and operation contract on behalf of IÉ-IM in July 2019.

RSI were involved in two occurrences in 2020. The first of these was a 'points run-through' wherein an OTM being operated by an RSI driver drove through points that were not set for the movement of the train. This resulted in relatively minor infrastructure damage with no injuries sustained. The second occurrence was a SPAD occurrence in which one of their train drivers passed a signal at danger in Athlone. It was a low-risk event and there were no injuries as a result.

Railway Preservation Society of Ireland (RPSI)

RPSI is the only heritage railway to operate on the IÉ-IM network. RPSI operation was also severely affected by COVID-19 such that the CRR were advised that no public services took place in 2020.

However, a significant inspection did take place focusing on the RPSI's management of its overhaul of Steam Locomotive 131. Steam Locomotive 131 is a 'Q' class 4-4-0 express passenger locomotive built for the Great Northern Railway (Ireland) dating from 1901 which the RPSI are overhauling to be part of its fleet of historic locomotives. The intention of RPSI is that it will operate Locomotive 131 on the IÉ-IM network as one of its restored steam locomotives.

Bord na Móna (BNM)

BNM own and operate an industrial railway used for the transport of peat. The CRR supervise BNM where their railway infrastructure interfaces with public roads, i.e., at level crossings and bridges over/under the railway. BNM's operations were significantly curtailed in 2020 owing to the closure of ESB's midlands power stations, which BNM supplied with milled peat. Later in 2020 BNM announced the end to all peat harvesting on its lands. These developments will impact on the level of engagement that the CRR has with BNM in the coming years.

BNM were subject to review of their safety performance with CRR engagement with senior BNM management in 2020.

The CRR were notified of 2 occurrences involving the BNM network. The first of these involved a 5T wagon which ran away and crashed through a level crossing. This was the subject of a CRR post occurrence activity (inspection) which resulted in several recommendations being made. The second related to a road vehicle crashing through a set of closed level crossing gates (Derryhaun, 05-23), fortunately, no train was on the crossing at the time, and nobody was injured.

Heritage railways

The CRR monitors the operations of a small number of self-contained heritage railways and in 2020 the following heritage railways were subject to supervision:

- Diffin Lake railway, Oakfield, Raphoe, Co Donegal.
- Fintown & Glenties Railway, Co Donegal.
- Listowel Lartigue Monorail, Co Kerry.
- Waterford & Suir Valley Railway (W&SVR).
- Irish Steam Preservation Society, Stradbally, Co Laois.

Due to the COVID-19 pandemic and government restrictions in place most heritage railway operators advised the CRR that they were not operating in 2020. A site inspection on the Waterford & Suir Valley Railway was undertaken during the summer of 2020, in adherence with all necessary COVID-19 guidelines. A number of other heritage railways were contacted, and engagement did take place in respect of reviewing any open points previously identified during inspections.

Industry alerts

The CRR receives railway sector safety alerts from ERA and the RAIU. In 2020, eight safety alerts were received from the ERA. Five of these related to a train control system (the European Train Control System – ECTS) widely in use around Europe but not in use in Ireland. One related to cracks identified on a specific type of bogie frame used on freight wagons. This information was shared with IÉ-RU who advised the CRR that they did not have any of these type of bogie in their fleet. A further alert was received in relation to incorrectly mounted bearings on freight wagons built by a Slovakian manufacturer that resulted in a derailment in Germany. IÉ-RU Chief Mechanical Engineering department advised the CRR that they had no such wagon types in their fleet. The final safety alert received from ERA was more a safety bulletin/guidance for railway operators regarding ventilation in railway vehicles in light of COVID-19. It contained detailed non-binding recommendations to be considered, taking into account the main air distribution concepts applied in railway vehicles and drivers' cabs.

Representations

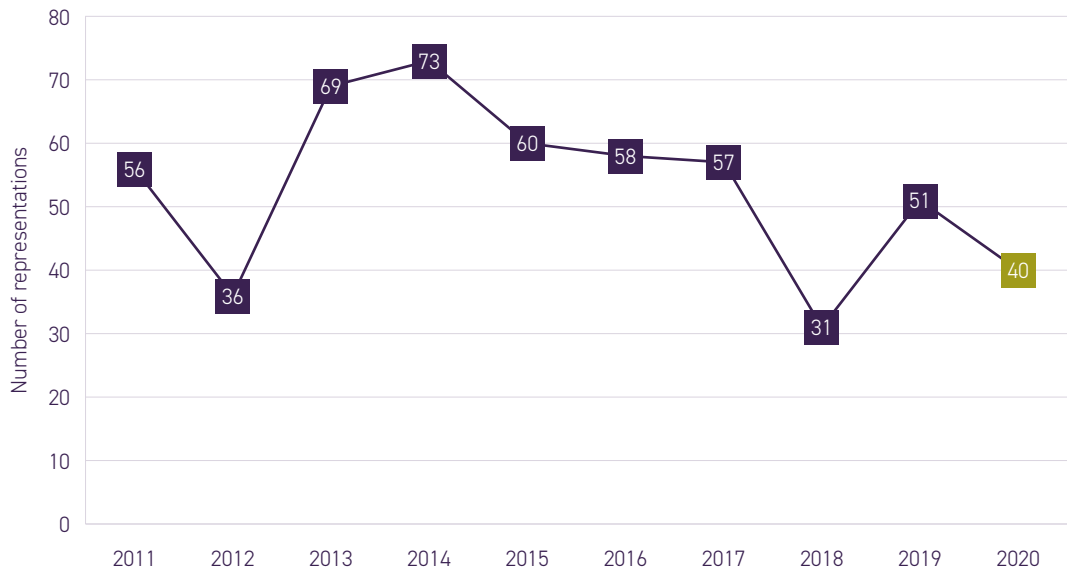
In 2020, the CRR received 40 representations relating to a range of heavy and light rail infrastructure and operational matters.

These ranged from safety concerns regarding the condition and safety of the IÉ-IM network to general tramway safety. The figure was down on that received in 2019 and not unexpected since passenger numbers were significantly down in 2020 due to COVID-19 and the associated travel restrictions in place during the year. (See the graph below for representation trend details).

Of the 40 representations received in 2020, 20 related to IÉ-IM or IÉ-RU, 9 related to the LUAS system, 1 related to the heritage railway sector with the remaining 10 being mainly of either a general legislative or network nature.

The CRR 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.

Figure 1
Representations
received by the CRR



Safety performance

The CRR engages directly with the senior management of railway organisations in its oversight of their safety performance. This is primarily achieved through regular meetings with company executives to review and discuss numerous safety performance indicators. In 2020, 4 safety performance review meetings were held with IÉ-IM, IÉ-RU, and Transdev (the LUAS Operator). Three meetings were held with RSI, one meeting was held with NIR and one with RPSI. CRR inspectors also met with Transport Infrastructure Ireland (TII) to discuss LUAS Infrastructure matters and safety initiatives being developed and implemented.

At these meetings, the railway organisations are subject to review by the CRR and are required to demonstrate how they are effectively managing safety and risk associated with their operation. Moreover, the railway organisations must provide details of its own internal audits and investigations after accidents and incidents, together with plans and actions taken to prevent reoccurrences/bring about process improvements.

Overall, the safety performance of the Irish heavy railway sector is broadly positive, both when compared against previous years and European statistics, and in the context of a continuing increase in passenger journeys and train/tram kilometres travelled up to and including 2019. Passenger journeys have obviously significantly reduced in 2020, as indicated in this report due to COVID-19. In an operational context there were also reductions in the number of occurrences within categories, e.g., signals passed at danger and derailments. The only category that saw a notable increase in the number of occurrences was in train collisions and specifically with large animals, typically cattle and large deer.

When compared with other European Member States, Ireland's safety performance is good. However, we must be cognisant of the fact that the small size of the IÉ-IM network means that this statistic must be viewed with caution as even a small number of accidents would have a significant effect on this standing.

Nevertheless, Ireland has consistently been among the member states that have the lowest fatality rates over the period 2012 – 2018. It should also be noted that there have been no passenger fatalities in Ireland during this period and the fatalities that have been reported are a result of trespass/misadventure by persons.

Separately, the CRR publishes its annual statistical report providing a detailed analysis of railway safety performance in Ireland. This report for 2020, as with the previous reports will be published later in the year to facilitate receipt of complete validated year data from all railway organisations. The Safety Performance Report of 2019 is available on the CRR website.

Some of the safety performance data for railway organisations available at the time of publication of this annual report are presented in Appendix 4.

Safety culture assessment

In 2019 the CRR reported that it participated in trialling the European Railway Safety Culture Model on behalf of ERA. Feedback was provided to the ERA by the CRR, and this model is now being promoted for use by railway organisations across Europe.

In addition, a new but related project commenced in 2020 with ERA developing a European wide Safety Climate Survey. CRR staff participated in the ERA taskforce and contributed to its development. The intention is that this survey will solicit the views and safety perception of railway organisation employees working in the European Union and European Free Trade Association (EFTA) states.

The CRR has made all railway organisations operating in Ireland aware of this safety climate survey and has promoted and encouraged all railway organisations to participate and promote internally within their own companies.

NSA monitoring

Under Regulation (EU) 2016/796 on the European Union Agency for Railways and decision 161 of the Management Board, ERA is granted the task to monitor national safety authorities and how they carry out tasks relating to railway safety and interoperability. For 2019 and 2020, the scope of the NSA Monitoring audit focused on the competences required for supervision, safety certification and vehicle authorisation, and also the supervision activity of the NSA.

The CRR were audited in 2020 as part of a three-year audit cycle of all member state NSA's. The compliance audit started on 10 December 2019 when the initial communication between ERA and the CRR began. The audit then took place in 2020 and included an initial provision by the CRR of documentary evidence on how it fulfils its regulatory functions in line with EU Directives. Subsequently, in October 2020, there was a weeklong on-line audit, due to COVID-19 travel restrictions, that included meetings and interviews with staff. However, the use of technology platforms facilitated the effective completion of the audit and the involvement of all CRR staff.

The final audit report is expected to be received from ERA in mid-2021.

REPORT OF PRINCIPAL INSPECTOR EUROPEAN AND LEGISLATIVE HARMONISATION



Railway interoperability and safety in a single EU railway area

2020 was a milestone year in the development of EU legislation governing railways, as June of this year was the date by which all Member States had to have transposed both the recast Railway Safety Directive EU 2016/798 and the recast Interoperability Directive EU 2016/797 into national legislation. Due to COVID-19 restrictions the required transposition date was deferred from June to October. Both Directives are now transposed through SI 476 2020 and SI 477 2020, respectively. The roles that these transposed Directives give to the CRR are indicated in the section of this report dealing with the role of the CRR.

The Directives introduce significant changes in the certification and authorisation processes for railway undertakings across Europe. ERA is now mandated to issue single safety certificates and vehicle (type) authorisations valid in multiple European countries and to ensure an interoperable European Rail Traffic Management System (ERTMS), in the development and implementation of the Single European Railway Area.

It should be noted that where a railway undertaking is operating within a single member state then it has the option of using the national safety authority for that state to assess and issue its safety certificate. With the UK now being a third country post Brexit, in the context of the European rail network, a railway undertaking that requires certification/recertification where it operates in a single member state, i.e., the Republic of Ireland, may request the CRR as the national safety authority to carry out the safety certification process.

There is a mandatory requirement for the National Safety Authority in each member state to finalise a co-operation agreement with ERA in relation to the operation of the single safety certificate process. The agreement establishes the conditions under which the NSA and ERA will cooperate in relation to the implementation of the Agency's tasks as specified in Article 76(1) of Regulation (EU) 2016/796, concerning single safety certificates, vehicle, and type vehicle authorisations, in accordance with applicable EU legislation, including pre-engagement. The CRR finalised this agreement with ERA in February 2020.

At the same time, the CRR also finalised a voluntary agreement relating to the NSA's providing expert assistance to ERA as part of their certification and authorisation activities where they are in a position to do so.

EU engagement

Development of, and changes to, the legal and technical framework governing the operation of the European Rail Network involves extensive engagement by the European Commission, DG MOVE and ERA with member states and other stakeholders including national safety authorities. The resource implication for the CRR to fully engage in all working, technical and expert groups is significant. We therefore must and do prioritise which of these groups we engage with. In 2020, we continued to participate in the Railway Interoperability and Safety Committee (RISC) as a member state nominee and as technical support to DoT. We also participated in the DG MOVE European network of rail Regulatory Bodies. We continued in our role as the Member State representative on the ERA Management Board.

The CRR is a member of the Network of National Safety Authorities where the core objective is to conduct an active exchange of views and experience for the purpose of harmonising decision-making criteria. The CRR participated in all plenary meetings of this forum in 2020.

The CRR also prioritised its involvement in a range of ERA topic specific working groups which are currently relevant. These included the task force on safety culture assessment, the Human and Organisational Factors task Force on Safety Climate, the Common Safety Method Safety Level and Safety Performance working party and the TSO OPE Acceptable Means of Compliance working party. It is of note that the majority of these meetings were held virtually in 2020 which facilitated a higher rate of attendance and participation by the CRR.

The CRR also engages with the national stakeholders when responding to queries or requests for observations circulated by ERA on practical matters, particularly regarding technical specifications for interoperability (TSIs). The resulting legal instruments relating to TSI's will apply directly in the Member State.

Engagement with the Department of Transport

In relation to the development of legislation, as already indicated within this report, the CRR provided extensive technical assistance to the Department of Transport regarding the transposition of the recast Railway Safety, Interoperability and Single European Railway Area SERA Directives as well as the Cableways Regulations into national law.

The Commission also made proposals in two Omnibus Regulations during 2020 which included provisions relating to the extension of timeframes that apply to elements of rail regulation in view of COVID-19 restrictions. The CRR provided advice to DoT in relation to where the proposed regulations posed any issues for the Regulator, which they did not.

Carriage of dangerous goods

The CRR continues to ensure provision of an examination and certification service for Dangerous Goods Safety Advisors (DGSA). This service is contracted to the Chartered Institute of Logistics and Transport (CILT), which is a body in the State competent to provide a scheme of approved examinations and to issue vocational training certificates or extended validity certificates. The CILT devises the syllabus, and it sets, arranges, and marks annual examinations for DGSAs in line with the individual international conventions on the inland transport of dangerous goods by road (ADR) and rail (RID). There is a common examination format for all papers, except in the case of the mode-specific papers for road and for rail.

REPORT OF HEAD OF CORPORATE GOVERNANCE



Corporate governance and administration

The CRR is compliant with the Code of Practice for the Governance of State bodies, as published by the Department of Public Expenditure and Reform.

Finance

Funding for the CRR is provided in part by a Safety Levy on the various railway organisations and in part by an Exchequer Grant.

The CRR, with the consent of the Minister and the Minister for Finance, may make regulations imposing a levy on railway organisations. The Regulations for 2020 are contained in Statutory Instrument No.143 of 2020. The application of funds by the CRR is illustrated below:

Table 5
Application of funds by the CRR

	2020 (€ million)	2019 (€ million)
Budget	2.223	2.465
Exchequer Grant	0.509	0.433
Levy Requirement	1.714	2.025
Operating costs	*	*
Surplus	*	*

*Full accounts for 2020 are subject to audit by the Comptroller and Auditor General.

The CRR annual audited accounts are published on our website separately to this report.

Total CRR staff remuneration

Employee salary breakdown.

Table 6
Employee salary breakdown

Salary pay scale range		Number of employees	
From	To	2020	2019
€60,000	€69,999	3	2
€70,000	€79,999	5	5
€80,000	€89,999	0	0
€90,000	€99,999	0	0
€100,000	€109,999	3	4
€110,000	€119,999	1	–
€120,000	€129,999	–	–
€130,000	€139,999	–	–
€140,000	€149,000	1	1

A breakdown of total employee remuneration over €60,000, in increments of €10,000 is disclosed as required by DPER circular 13/2014.

In 2020, the CEO remuneration was €147,871.

Irish language commitment

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

Freedom of information

The CRR 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 2020, there were three FOI requests received, one request was granted and the other two were part granted. Detail of information previously released by the CRR under FOI can be viewed on the FOI Disclosure Log on our website.

Customer charter

The Customer Service Charter is available on the CRR's website. This charter describes the level of service a customer can expect to receive from the CRR.

Annual energy efficiency reporting

In 2020, the CRR reported the organisations energy performance in 2019 to the Sustainable Energy Authority of Ireland as required under EU regulations. In 2019 the CRR worked towards improving public sector energy efficiency and have shown an energy saving of 58% since the baseline to 2019. The CRR will continue to report its performance and fulfil its legal obligation to report energy data.

CRR governance arrangements with DoT

The CRR has in place the required oversight agreement and performance delivery agreement in line with the Code of Practice both of which were updated in 2020. Based on these agreements the CRR and DoT met formally on a quarterly basis to keep each party advised on relevant developments in the areas of corporate governance, transport policy and legislation. The CRR provided the DoT with its quarterly and annual performance delivery report as per the oversight agreement.

Statement of Strategy 2018 – 2020

This CRR is currently in the third year of its three-year Statement of Strategy. This sets out the CRR's mandate, mission, vision, and key priorities for the period 2018 – 2020. The strategy was developed in consultation with key stakeholders and the CRR's own staff. The Statement of Strategy has been implemented through the development of the CRR's annual work programmes. The development of a new strategy will commence in the first half of 2021.

Report under the Protected Disclosures Act 2014

Under the Protected Disclosures Act 2014 every public body is required to publish a report on the number of protected disclosures made to the public body in the preceding year and the action taken (if any) in response to the protected disclosures. In 2020, the Head of Administration in the CRR, as the prescribed person under the Protected Disclosures Act 2014, did not receive any protected disclosures from parties external to or within the Commission.

Data protection

During 2020, the CRR continued to keep up to date its policies, systems, and procedures, to ensure compliance with the requirements of data protection legislation. This included the update of its DPO contact details with the Data Protection Commission. In 2020, the CRR did not receive any data protection requests.

Section 42 Irish Human Rights and Equality Commission Act 2014

In 2020, the CRR continued to ensure that our policies, procedures, and communications enable us to perform our functions as a public body with due regard for our obligations in relation to human rights and equality under section 42 of the Irish Human Rights and Equality Commission Act 2014.

Prompt payments

It is the policy of the CRR to ensure that all payments are made promptly. Every effort, consistent with proper financial procedures, is being made to ensure that all suppliers are paid within the required time frame, in accordance with best practice. The CRR publishes quarterly reports of compliance on its website.

Access to information on the environment

The European Communities (Access to Information on the Environment) Regulations 2007 (S.I. No. 133 of 2007) gives legal rights to those seeking access to information on the environment from public authorities. In 2020, the CRR received no requests under Access to Information on the Environment legislation.

REPORT OF PRINCIPAL INSPECTOR RAILWAY REGULATION



Railway regulation

SI 249 2015 (as amended by SI 398 2020) gives effect to Council Directive EU 2012/34 as amended by EU 2016/2370 establishing a single European railway area. It establishes the CRR as the Independent Monitoring Body, the Regulator and the Licencing Authority for the purpose of implementing the requirements of the Regulations. The activity of the CRR in each of these areas for 2020 is outlined below.

Licencing authority for railway undertakings

The CRR is the licensing Authority responsible for assessing applications for and granting a licence to a railway undertaking in the State. This is an authorisation which recognises the railway undertaking's ability to provide rail transport services. A railway undertaking cannot operate a rail service without a licence. For the assessment, the railway undertaking applying for a licence must demonstrate to the Licensing Authority, before the start of its activities, that it will at any time be able to meet the requirements relating to good repute, financial fitness, professional competence, and cover for its civil liability. The licence of itself does not entitle the railway undertaking access to the railway infrastructure.

The CRR received applications for the renewal of two undertaking licences which were due to expire, one for IÉ-RU and the second for the RPSI. The applications for renewed licences were reviewed, and following approval, new licences issued to both railway undertakings which are valid for five years.

Independent monitoring body

SI 249 2015 (as amended by SI 398 2020) giving effect to Council Directive EU 2012/34 as amended by EU 2016/2370 established the CRR as the Independent Monitoring Body for the purpose of monitoring the contractual agreement between IÉ-IM and the Minister as the Competent Authority.

The functions of the CRR as the Independent Monitoring Body are to monitor the performance of the IÉ-IM in respect of its obligations under the IMMAC; to arbitrate where a dispute arises between the parties as to the requirements for compliance with the contract; to approve the performance monitoring system developed by IÉ-IM and to advise the Minister of any persistent failure-to-perform trends of the IÉ-IM.

On the 2nd of April 2020, the CRR issued its IÉ IM MAC Annual Report to the Minister for 2019.

Key findings of the report included the following:

- The IÉ-IMs planned versus actual spending profile was largely in line, with an overspend in the order of €0.96m at year end. The reasoning and evidence provided to account for this overspend is satisfactory. The principal overspend is related to down payments for the on-track crane and the inspection cars at €4.56m.
- The CCE had a year-end overspend total of €2.93 however the other IM departments were under budget.
- In relation to asset condition, SET defects remain relatively high, however the inherent nature of SET equipment lends itself to a higher proportion of faults in comparison to CCE assets. Delay minutes attributable to the 880 SET defects in Q4 are in the order of 2,176 minutes.

2020 was the first year of the new IMMAC. Performance criteria within the new contract have changed and now include three separate categories, namely contract indicators, performance indicators and key performance indicators. The reports to the Minister have been amended to reflect and report on these broader range of performance indicators contained within the new contract. The first three quarterly reports were issued to the Minister in line with our statutory obligations as contained in the contract, and no issues of concern were reported. The 2020 IMMAC annual report for 2020 issued in March 2021.

The IÉ-IM provided the IMMAC annual work plan 2021 to the CRR in November for its review as required by the contract. No issues were raised following the review of the work plan by the CRR.

Regulatory body

SI 249 2015 (as amended by SI 398 2020) giving effect to Council Directive EU 2012/34 as amended by EU 2016/2370 established the CRR as the regulatory body for the purpose of appeals or complaints relating to infrastructure capacity, access charges, the network statement and monitoring competition.

The CRR received no appeals or complaints as the Regulatory Body in 2020.

COMMISSIONERS COMPREHENSIVE REPORT TO THE MINISTER



As Commissioner I acknowledge the Commission for Railway Regulation's responsibility for ensuring that an effective system of internal control is maintained and operated. This responsibility takes account of the requirements of the Code of Practice for the Governance of State Bodies (2016).

The system of internal control is designed to manage risk to a tolerable level rather than to eliminate it. The system can therefore only provide reasonable and not absolute assurance that assets are safeguarded, transactions authorised and properly recorded, and that material errors or irregularities are either prevented or detected in a timely way.

The system of internal control, which accords with guidance issued by the Department of Public Expenditure and Reform has been in place in the CRR for the year ended 31 December 2020 and up to the date of approval of the financial statements.

The CRR has a risk management policy which sets out its risk appetite, the risk management processes in place and details the roles and responsibilities of staff in relation to risk. The policy is available to all staff who may alert management on emerging risks and control weaknesses.

The CRR has implemented a risk management system which identifies and reports key risks and the management actions being taken to address and, to the extent possible, to mitigate those risks. A risk register is in place which identifies the key risks facing the CRR. These have been identified, evaluated, and graded according to their significance. The register is reviewed and updated by the Management Team on a quarterly basis. In 2020, 6 amendments were made to the risk register.

I confirm that a controlled environment containing the following elements is in place:

- Procedures for all key business processes have been documented.
- Financial responsibilities have been assigned at management level with corresponding accountability.
- There is an appropriate budgeting system with an annual budget which is kept under review by senior management.
- There are systems aimed at ensuring the security of the information and communication technology systems.
- There are systems in place to safeguard the assets.

and

I confirm that the following ongoing monitoring systems are in place:

- Key risks and related controls have been identified and processes have been put in place to monitor the operation of those key controls and report any identified deficiencies.
- Reporting arrangements have been established at all levels where responsibility for financial management has been assigned.
- There are regular reviews by senior management of periodic and annual performance and financial reports which indicate performance against budgets/forecasts.

I confirm that the CRR has the appropriate procedures in place to ensure compliance with current procurement rules and guidelines. Matters arising regarding controls over procurement are highlighted under internal control issues below.

I confirm that the CRR has procedures to monitor the effectiveness of its risk management and control procedures. The CRRs monitoring and review of the effectiveness of the system of internal control is informed by the work of our internal audit, the external audit, and the senior management within the CRR.

A Code of Conduct and Ethics is in place for employees.

Government policy on the pay of Chief Executives and all State Body employees is being complied with. Details of the salary of the Chief Executive Officer are published in the Annual Report and Financial Statements.

There have been no significant post balance sheet events.

The CRR is compliant with the Government travel policies in all respects.

The CRR is compliant with the asset disposal procedures.

The CRR is in compliance with all relevant tax laws.

The CRR is adhering to the Public Spending Code.

APPENDICES



Appendix 1

APIS stage letters of approval

Table A1.1
Authorisation to Place in Service letters issued 2020

APIS stages	Concept	Preliminary design	Detailed design	T & C	Interim operation	Service
	1	2	3	4	5	6
Infrastructure						
LUAS Cross City					■	
Overbridges Dunkettle Interchange (2)			■			
Overbridge Enniscorthy Flood Defence			■			
Overbridge Killalow Bypass Scheme			■			
Overbridge Clonsilla to M3 Parkway line			■			
Overbridge Athy Distributor Road			■			
Overbridge Edgeworthstown Station			■			
Overbridge Carlow Station			■			
Overbridge Alexandra Road			■			
Underbridge Dublin/Galway Line (3)					■	
Royal Canal Greenway					■	
Pedestrian Overbridge Cork/Midleton					■	
Overbridge Dublin/Cork						■
Decision support system at user worked level crossings (8)					■	
Limerick Junction platform					■	
NTCC		■				
CCRP				■	■	■
Rolling stock						
CITADIS 502 tram variant					■	■
22000 DMUs	■					
Diffin Lake Locomotive						■

Appendix 2

Passenger numbers on the heavy and light rail systems 2020

COVID-19 restrictions introduced public transport capacity limits of 50% and 25% within the different restriction levels. 2020 figures will not therefore facilitate trend analysis on public transport use in the short to medium term. The reported figures are provided for information.

Figure A2.1
Passenger journeys
on the Iarnród Éireann
network

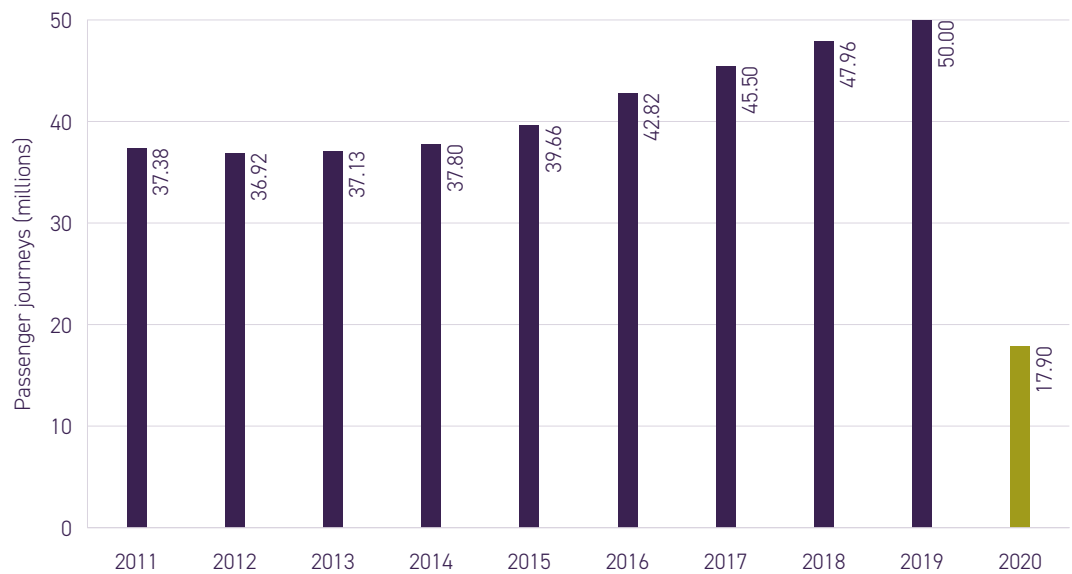


Figure A2.2
Passenger journeys on
the LUAS network



Appendix 3

CRR outcomes (recommendations) made to railway organisations

The following tables present the status of CRR outcomes (recommendations) made to railway organisations. These are typically made following audits, inspections or after conducting a post occurrence (accident/incident) inspection.

Progress was made in 2020 and while some figures appear high in the 'Open' category this does not necessarily mean no action has been taken, rather work is in progress to address the findings made by CRR Inspectors.

Table A3.1
Status of CRR outcomes

Activity	Open		Complete		Closed	
	AR's	NC's	AR's	NC's	AR's	NC's
CRR outcomes for IE-IM as of 31/12/2020						
Audit	30	12	2	6	240	67
Inspections	53	17	1	0	10	4
Post occurrence inspections	38	11	12	3	58	16
CRR outcomes for IE-RU as of 31/12/2020						
Audit	7	7	15	10	109	30
Inspections	10	3	1	1	25	7
Post occurrence inspections	4	1	5	0	19	6
CRR outcomes for Transdev as of 31/12/2020						
Audit	43	10	22	0	34	5
Inspections	6	0	0	0	2	0
Post occurrence inspections	3	0	0	1	1	0
CRR outcomes for NIR as of 31/12/2020						
Audit	5	2	0	0	3	2
Inspections	0	0	0	0	1	0
Post occurrence inspections	0	0	0	0	0	0
CRR outcomes for RPSI as of 31/12/2020						
Audit	7	0	19	2	10	1
Inspections	2	0	3	0	0	0
Post occurrence inspections	0	0	2	0	0	0

Table A3.1
Status of CRR outcomes

Activity	Open		Complete		Closed	
	AR's	NC's	AR's	NC's	AR's	NC's
CRR outcomes for RSI* as of 31/12/2020						
Audit	0	0	0	0	0	0
Inspections	0	0	0	0	0	0
Post occurrence inspections	0	0	0	0	0	0
CRR outcomes for BNM as of 31/12/2020						
Audit	5	3	0	0	0	0
Inspections	0	0	0	0	0	0
Post occurrence inspections	0	0	0	0	0	0

*Note: on 08/07/2019 Rhomberg Sersa Ireland (RSI) commenced operation as an RU Certificate holder operating and maintaining IE-IM's fleet of On Track Machines. Supervision activity was planned in 2020 but owing to the COVID-19 pandemic no audits, inspections or post occurrence inspections were undertaken. As a result, there are no supervision activity outcomes outstanding.

RAIU safety recommendations

The status categories were updated in July 2019, splitting 'Complete' into two, 'Submitted' and 'FER' (Further evidence required) to reflect where action has been taken.

The status categories are:

Open/in progress

Feedback (Evidence) from Railway Organisation (or another party) is awaited or actions have not yet been completed.

Submitted

The Railway Organisation (or other party) has made a submission to the CRR, advising that it has taken measures to effect the recommendation and the CRR is considering whether to close the recommendation.

FER (Further Evidence Requested)

The CRR has reviewed a submission (or further submission) but considers that further evidence is necessary to close the safety recommendation.

Closed

The CRR has reviewed a submission (or further submission) and is satisfied that the safety recommendation has been addressed.

Table A3.2
RAIU safety recommendations

Year	No. of reports	No. of recommendations				Total
		Open	Submitted	FER	Closed	
2010	5	1	0	0	25	26
2011	6	0	0	2	15	17
2012	3	0	0	0	13	13
2013	3	0	0	1	9	10
2014	6	0	0	5	21	26
2015	2	0	0	2	2	4
2016	3	7	0	2	11	20
2017	1	2	0	2	5	9
2018	1	4	0	2	3	9
2019	4	18	0	11	7	36
2020	4	10	0	5	4	19
Totals	45	42	0	32	149	223
Total recommendations made to date						223

Appendix 4

Safety indicator statistics

Table A4.1
Iarnród Éireann fatality and injury statistics

Category	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19	'20	Trend
Railway operations: passenger fatal injuries												
Fatal injury to passenger due to a train accident, not at level crossing	0	0	0	0	0	0	0	0	0	0	0	
Fatal injury to passenger due to a train accident at level crossing	0	0	0	0	0	0	0	0	0	0	0	
Fatal injury to passenger travelling on a train, other than in train accident	0	0	0	0	0	0	0	0	0	0	0	
Fatal injury to passenger attempting to board or alight from train	0	0	0	0	0	0	0	0	0	0	0	
Railway infrastructure: third party fatal injuries												
Fatal injury to third party at a level crossing involving a train	2	0	0	0	0	0	0	0	0	0	1	
Fatal injury to third party at a level crossing not involving a train	0	0	0	0	0	0	0	0	0	0	0	
Fatal injury to employee at a level crossing due to train in motion	0	0	0	0	0	0	0	0	0	0	0	
Fatal injury to employee due to train in motion (other than at a level crossing)	0	0	0	0	0	0	0	0	0	0	0	
Fatal injury to employee not due to train in motion	0	0	0	0	0	0	0	0	0	0	0	
Railway infrastructure: employee fatal injuries												
Fatal injury to employee at a level crossing due to train in motion	0	0	0	0	0	0	0	0	0	0	0	
Fatal injury to employee due to train in motion (other than at a level crossing)	0	0	0	0	0	0	0	0	0	0	0	
Fatal injury to employee not due to train in motion	0	0	0	0	0	0	0	0	0	0	0	

Table A4.1
Iarnród Éireann fatality and injury statistics

Category	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19	'20	Trend
Railway operations: fatal injuries to other persons												
Fatal injury due to train in motion not at level crossing	0	0	0	0	0	0	0	0	0	0	0	
Fatal injury to customer or visitor, no train involved	0	0	0	0	0	0	0	0	0	0	0	
Fatal injury involving train in motion on railway or level crossing where trespass or suspicious death was indicated	8	7	5	4	6	2	5	12	9	4	7	
Railway operations: non fatal injuries to passengers												
Injury to passenger travelling on train due to a railway accident not at level crossing	0	0	0	0	0	0	0	0	0	0	0	
Injury to passenger travelling on train due to railway accident at level crossing	0	0	0	0	0	0	0	0	0	0	0	
Injury to passenger attempting to board or alight from train	64	46	41	39	45	48	79	57	74	76	42	
Injury to passenger travelling on train, other than due to a railway accident	28	10	27	43	18	15	31	33	46	38	9	
Railway infrastructure: third party non fatal injuries												
Third party at level crossing injury involving a train	0	1	2	0	0	0	0	0	1	1	0	
Level crossing user injury not involving a train	0	2	5	1	0	0	0	0	1	1	2	
Railway infrastructure: non fatal injuries to other persons												
Injury to customer or visitor to premises	85	113	116	193	205	146	192	321	199	288	122	
Injuries to other persons including unauthorised persons	0	0	5	3	0	1	2	6	0	2	0	

Table A4.1
Iarnród Éireann fatality and injury statistics

Category	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19	'20	Trend
Railway operations: non fatal employee injuries												
Employee lost time accident involving train movement or train accident	11	7	13	5	21	3	1	15	13	7	8	
Employee lost time accident while working on railway not due to train in motion	27	22	32	39	43	32	30	30	13	35	16	
Railway infrastructure: non fatal employee injuries												
Employee lost time accident involving train movement or train accident	1	2	1	0	0	0	0	0	0	0	0	
Employee lost time accident while working on railway not due to train in motion	30	23	32	41	25	6	23	22	26	24	20	
Employee lost time accident while working at level crossing not due to train in motion	0	0	1	1	2	0	3	1	1	0	3	
Entity in charge of maintenance and maintenance workshops: non fatal employee injuries												
Employee lost time accident involving train movement or train accident	0	0	0	0	0	0	0	0	0	0	0	
Employee lost time accident while working on railway not due to train in motion	10	18	10	14	18	13	11	10	12	15	4	

Figure A4.1
Total number of train
collisions by year

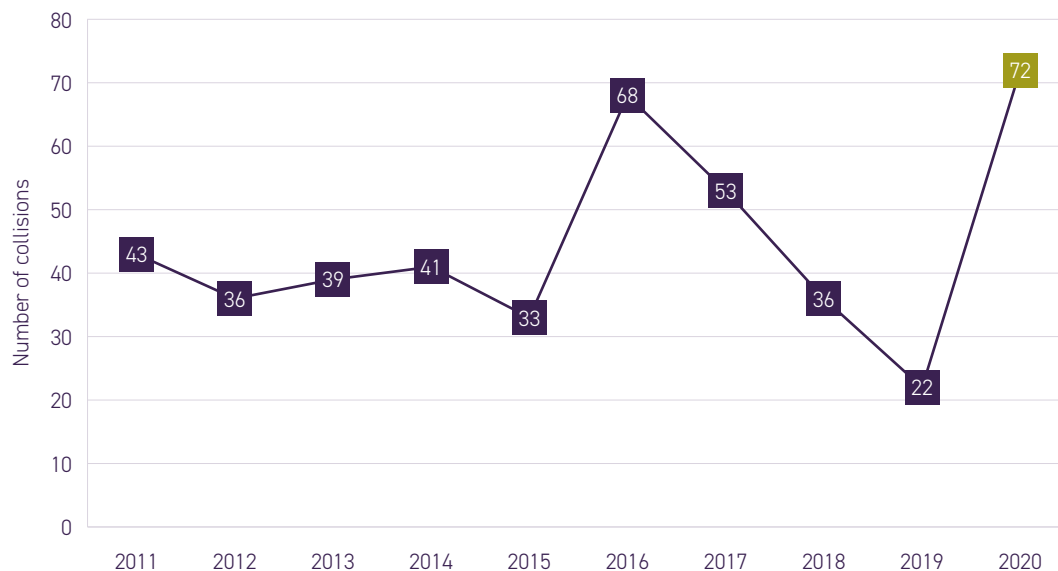


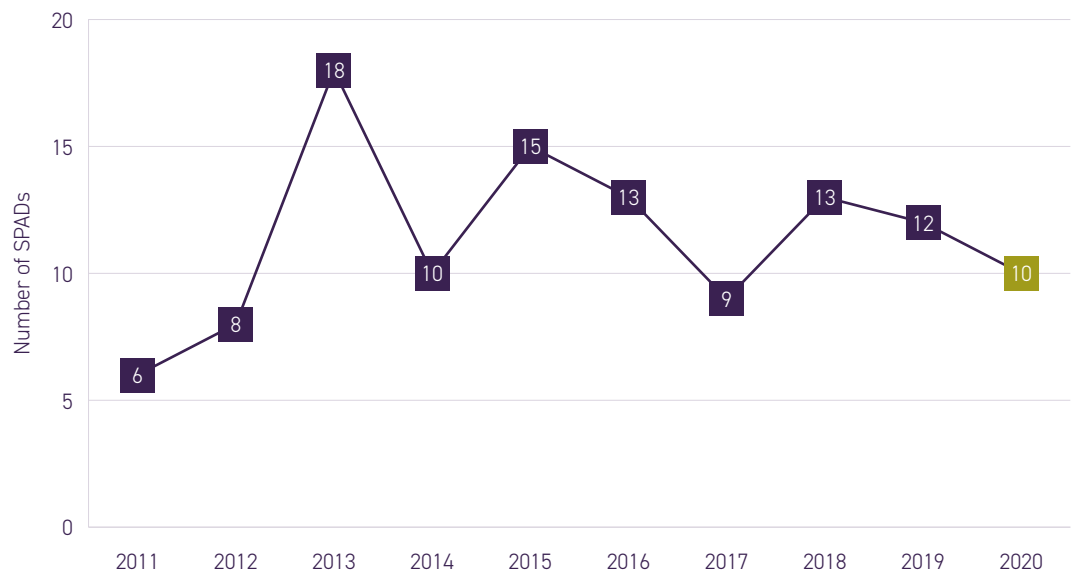
Table A4.2
Train collision statistics by year by category

Category	'11	'12	'13	'14	'15	'16	'17	'18	'19	'20	Trend
Train collision with passenger or goods train on running line	0	0	0	0	0	0	0	0	0	0	
Train/railway vehicle collision in station or possession movement	0	1	1	1	1	1	2	1	1	4	
Train collision with a motor vehicle at a level crossing	1	2	1	2	0	0	3	1	2	1	
Train collision with pedestrian at a level crossing	0	0	0	0	0	0	0	0	0	0	
Train collision with attended gates at a level crossing	0	0	0	0	1	0	0	0	0	0	
Train collision with road vehicle obstructing the line (not at a level crossing)	0	1	1	0	1	1	0	0	0	0	
Train collision with other obstacle on the line	7	6	7	29	1	31	25	23	8	29	
Train collision with large animal(s) on the line	35	26	29	9	29	35	23	11	11	38	
Total	43	36	39	41	33	68	53	36	22	72	

Signals Passed At Danger (SPADs)

A SPAD is defined as having occurred when a train passes a stop (red) signal without authority. SPADs are a particular precursor event that the CRR monitors at its supervisory meetings with IÉ. The trend in recent years has been a decline in these precursors.

Figure A4.2
Signals passed at danger



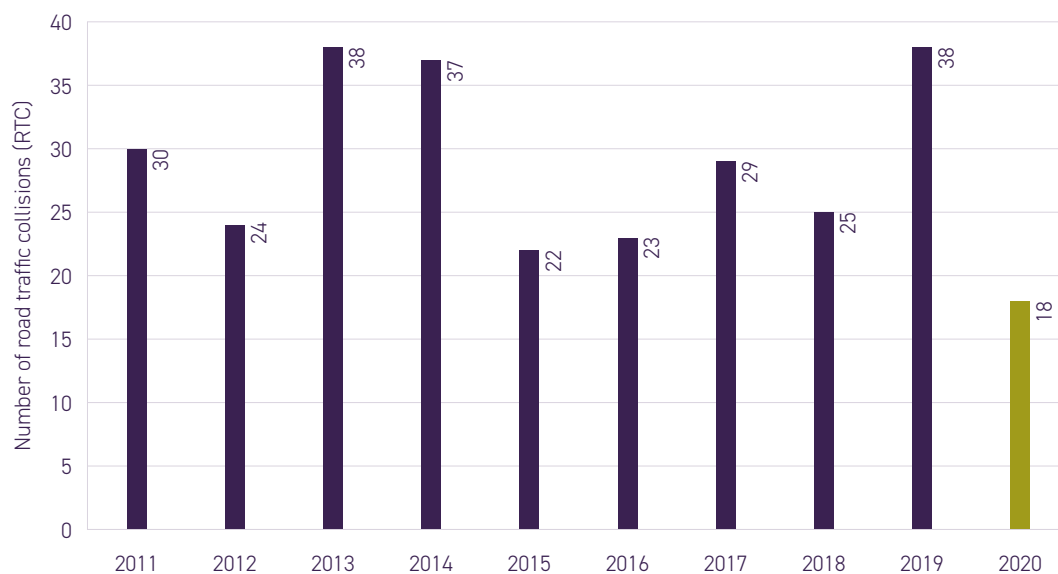
Train derailments

Train derailments remain at low levels.

Figure A4.3
Train derailments



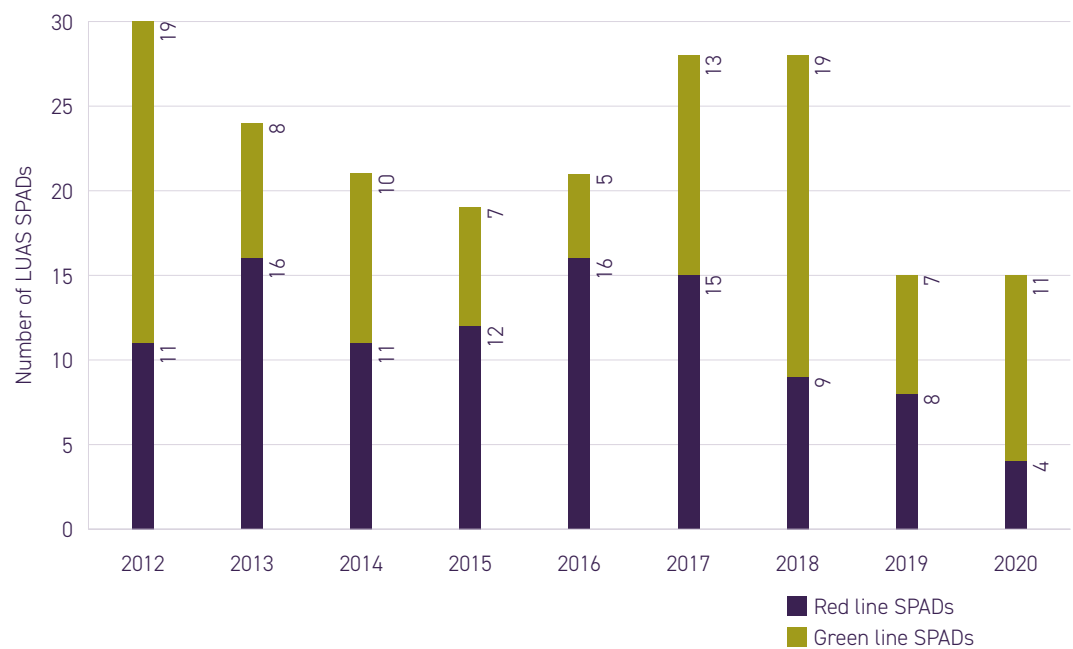
Figure A4.4
Road traffic accidents
(collisions) involving
trams by year



Signals Passed At Danger (SPADs) LUAS

SPAD events also occur on the LUAS network, albeit the signalling system doesn't automatically identify these. Rather it relies on the driver to self-report that they passed a signal at danger. Limited statistics for the previous four years are available for this indicator, given it is considered for light rail a relatively new safety performance category.

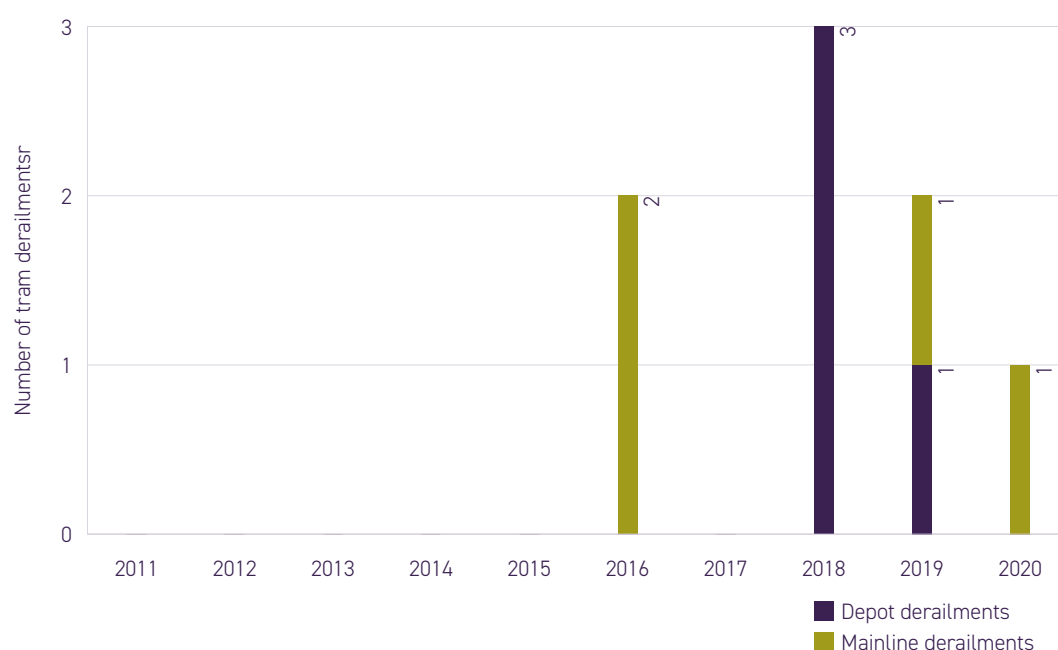
Figure A4.5
LUAS SPADs



Tram derailments

Tram derailments remain at low levels with one mainline derailment reported in 2020.

Figure A4.6
Tram derailments



Additional statistics re safety performance

In 2020, Rhomberg Sersa had just two reportable occurrences which was the same as in 2019 and broadly similar to previous years. These reportable occurrences were a slow speed derailment in an Iarnród Éireann siding and a SPAD event in which an Inspection Car travelling from Ballina to Kildare passed signal AE412 at Athlone at danger without authority.

In 2020, BNM reported two occurrences to the CRR, there were following:

- A runaway flat wagon collision with level crossing gates; and
- A road vehicle collision with level crossing gates.

There were no reported occurrences by the Railway Preservation Society of Ireland nor at any of the operational heritage railway in 2020. That said, CRR inspectors did, when restriction levels permitted visited some of these undertaking inspections of rolling stock and infrastructure assets and their respective safety management systems.

Appendix 5

Heritage railways safety certificates

Table A5.1
Heritage railways with a current safety certificate

Difflin Light Railway Oakfield Park Raphoe Co Donegal	The Difflin Light railway is a private narrow-gauge railway, 4.5km long, in the grounds of Oakfield Park Demesne, Raphoe, Co Donegal. The line runs through a variety of landscaped gardens with features which include, lawns, lakes, woods, meadows and streams.
Cumann Traenach na Gaeltacht Lair Fintown Co Donegal	Cumann Traenach na Gaeltacht Lair is a narrow-gauge railway 4.8km long. The railway runs from Fintown to a point known as a 'Head of Lake'. The railway is a community owned project funded by Government and open to the public on specified dates.
Irish Steam Preservation Society Narrow Gauge Railway Stradbally Co Laoise	The Irish Steam Preservation Society Narrow Gauge Railway marketed as the Stradbally Woodland Express is located in the woodlands of Stradbally Hall Estate through a lease agreement with the landlord. It is a narrow gauge railway 800m long. The railway is operated for heritage and leisure purposes by volunteers.
Lartigue Mono Railway John B Keane Road Listowel Co Kerry	The Lartigue Mono Railway, LMR, is located on the John B. Keane Road, Listowel, Co. Kerry. Three distinct areas make up the railway, these are, the Main site, the Museum and the Original site. Within the main site is located the railway itself. The Museum section consists of the entrance to the site, the car park and the Museum building. To the rear of the car park is to be found the original site where the Lartigue of 1886 was located the remains of which have been unearthed.
Lullymore Heritage & Discovery Park Ltd Lullymore Rathangan Co Kildare	Lullymore Heritage Railway is a 1km looped journey through rehabilitating cutaway peatlands in Lullymore Heritage & Discovery Park Ltd, Rathangan, Co Kildare.
Waterford and Suir Valley Railway Kilmeadan Station Kilmeadan Co Waterford	The Waterford and Suir Valley Railway is a narrow-gauge railway between Kilmeadan Station and Bilberry, Waterford city. It runs on a section of the abandoned Waterford to Mallow railway line. The length of the railway is 10km. The Company is overseen by a voluntary Board of Directors.
Cavan & Leitrim Railway Dromod Co Leitrim	The Cavan & Leitrim Railway is a narrow-gauge railway 0.8km long. The railway runs from Dromod station to a point approximately 90 meters from the Mohill-Dromod road on the original track of the Cavan & Leitrim Railway.

Table A5.2
Heritage railways that do not hold a current safety certificate

Tralee-Dingle Steam Railway Co Ltd Town Hall Prince's Quay Tralee Co Kerry	The Tralee-Dingle Railway is a narrow-gauge railway of 3km in length and runs from Ballyard Station at Tralee to Blennerville Station. The railway runs along the line of the closed Tralee to Dingle railway line.
West Clare Railway Co Ltd Moyasta Junction Kilrush	The West Clare Railway is a narrow-gauge railway, operating over 4km of track. The railway is centred on the former station at Moyasta, near Kilrush, Co Clare where the original station house has been restored to a museum. The line in use runs over the original track bed of the West Clare Railway.

Appendix 6

Glossary

APIS	Authorisation to Place in Service
BNM	Bord na Móna
CCRP	City Centre Re-signalling Project
CILT	Chartered Institute of Logistics and Transport
CRR	Commission for Railway Regulation
DGSA	Dangerous Goods Safety Advisor
DoT	Department of Transport
ECM	Entity in Charge of Maintenance
EFTA	European Free Trade Association
ERA	European Railway Agency
ETCS	European Train Control System
FoI	Freedom of Information
GSM-R	Global System for Mobile Communications – Railway
ICDMU	Intercity Diesel Multiple Units
IÉ-IM	Iarnród Éireann Infrastructure Manager
IÉ-RU	Iarnród Éireann Railway Undertaking
IMMAC	Infrastructure Manager Multi Annual Contract
LCC	LUAS Cross City
NIR	Translink Northern Ireland Rail
NR	National Rules
NSA	National Safety Authority
NTCC	National Train Control Centre
OHLE	Overhead Line Equipment
OTM	On Track Machine
RAIU	Railway Accident Investigation Unit
RISC	Railway Interoperability and Safety Committee
RPSI	Railway Preservation Society of Ireland
RSA	Railway Safety Act
RSI	Rhomberg Sersa Ireland
SMS	Safety Management System
TII	Transport Infrastructure Ireland
TPS	Train Protection System
TSI	Technical Specification for Interoperability

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