

# LIGHT RAIL

Safety and Standards Board



Business Plan  
2024 update

# Contents

<b>Foreword - Who are LRSSB?</b>	<b>3</b>
<b>LRSSB Strategy</b>	<b>3</b>
<b>Chief Executive Officer's Introduction</b>	<b>5</b>
<b>Organisation and Structure</b>	<b>6</b>
<b>Sustainability</b>	<b>6</b>
<b>Stakeholder Engagement</b>	<b>8</b>
<b>Key Stakeholder Analysis</b>	<b>9</b>
<b>Intergrated Risk Management Framework</b>	<b>11</b>
<b>Tram Accident Incident Reporting Database Tool - TAIR</b>	<b>12</b>
<b>Sector Risk Model</b>	<b>13</b>
<b>Bowtie Risk Assessments</b>	<b>14</b>
<b>Risk Management Maturity Model - RM3</b>	<b>15</b>
<b>Safety Verification and Hazard Management</b>	<b>15</b>
<b>Publication of new Standards &amp; Guidance</b>	<b>16</b>
<b>Leading a Proactive Approach of Safety</b>	<b>18</b>
<b>Health and Wellbeing</b>	<b>19</b>
<b>Year 3 Focus</b>	<b>20</b>
<b>Measuring the Impact of LRSSB</b>	<b>22</b>
<b>Risk Register</b>	<b>23</b>
<b>Summary</b>	<b>23</b>



# Foreward - Who are LRSSB?

## Background

The Light Rail Safety & Standards Board (LRSSB) was formed by the UK light rail sector and UKTram in 2019 under the guidance of the Department for Transport (DfT) and the Office of Rail and Road (ORR) with the overarching aim of supporting the light rail sector in preventing incidents and reducing harm. The terms of reference for LRSSB fall under seven key headings, and we have adopted these as our Strategic Aims.

Whilst LRSSB is a subsidiary of UKTram and some of our activities are carried out in partnership with our sister organisation, the majority of our activities are delivered independently by a core management team, supported by third-party organisations where more specialist expertise is required.

LRSSB is jointly funded by the DfT, membership subscriptions and any third-party revenues generated.

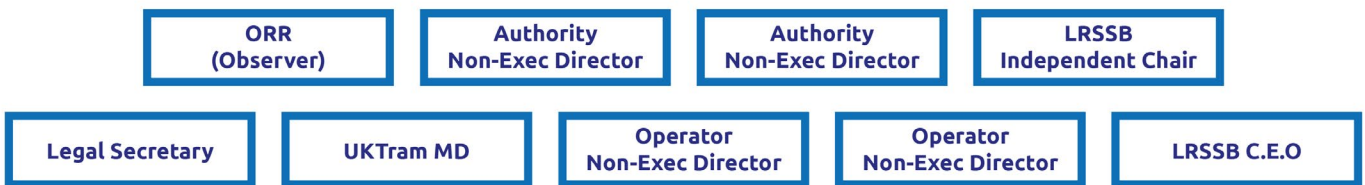
## Governance

The LRSSB is governed by our own independent Board, which is made up of representatives from throughout the sector.

# LIGHT RAIL

## Safety and Standards Board

### BOARD STRUCTURE



### FUTURE ADDITIONAL REPRESENTATIVES

## LRSSB Strategy

### Strategic Update

LRSSB has now completed its sixth full trading year. This update of the 2022 – Three-Year Strategic Plan is the final year of that planning. The plan describes the continuation of existing workstreams whose timescales and programmes ran as a backbone to that plan, as well as describing the new and emerging workstreams we have either identified or been asked to investigate and report on by stakeholders.

The Memorandum of Understanding (MoU) that is in place with the DfT for three years' funding will end in March 2025, and dialogue about future years is ongoing. This funding is welcome and necessary, and along with the sector's continued support will mean that LRSSB can now better plan and support the sector in a more sustainable, cost-effective way; LRSSB does not take for granted this commitment and will continue to attempt to deliver the best added benefit it can to the sector. LRSSB will also continue to explore other revenue opportunities to assist in the financing of its activities.

To meet the future challenges posed to it, LRSSB will look to develop the Board construct by increasing its contingent of non-executive director roles.

# LRSSB Strategy continued

Following ORR’s review, and the Findings Report in February 2022, LRSSB undertook to consult with the light rail sector as to the future structure and governance of the organisation and also its relationship with its stakeholders and partner organisations.

In doing so, it also looked to:

- Revisit the rationale for LRSSB’s existence.
- Consider how effective the operating and governance models for LRSSB are.
- Assess options for change in light of further growth in demand for tram and light rail networks.
- Make recommendations for change based upon both sound business principles and following extensive and detailed consultation with the sector – both network owners and operators.

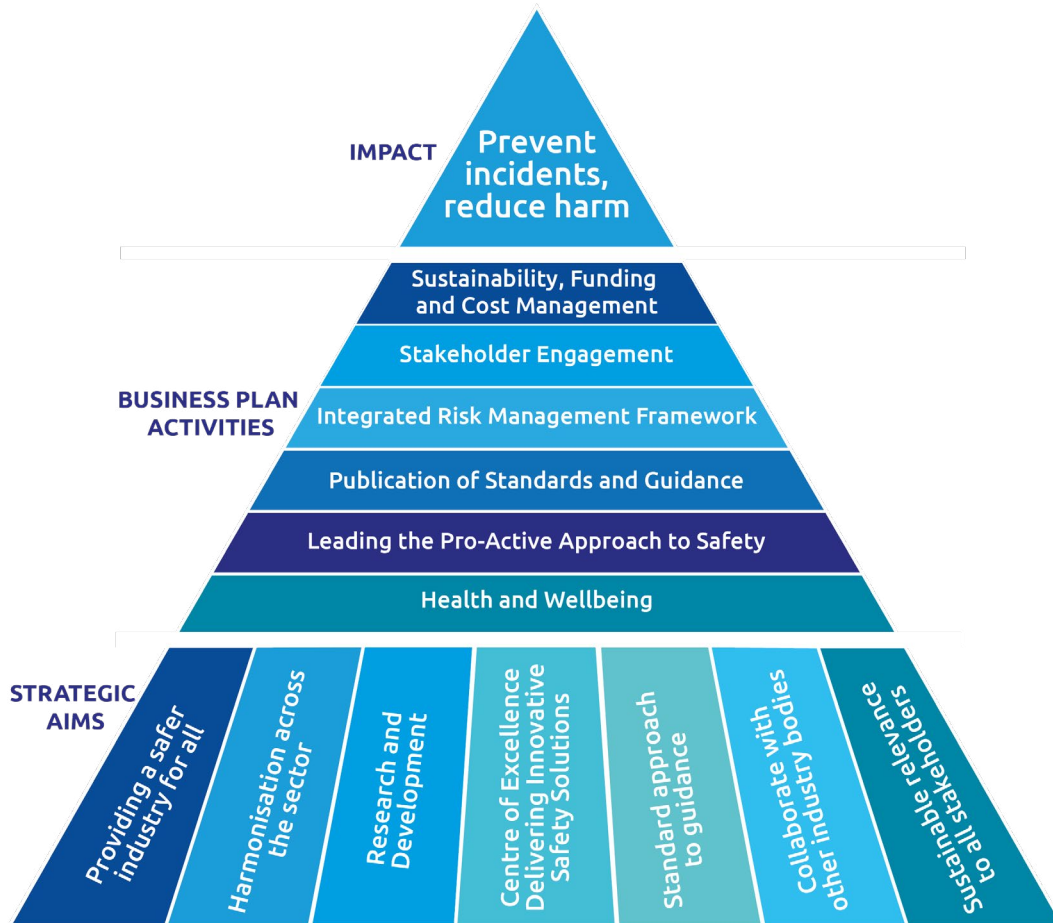
The resulting “future blueprint” document is currently under review by stakeholders. ORR remains involved in the process and monitors progress and outcomes.

LRSSB and ORR have now jointly signed an MoU. This MoU aims to ensure a strong working relationship between the two organisations with the shared common objectives of providing safe tramway and light rail networks for the benefit of the workforce, passengers and the public.

Further to the signing of the above MoU and to foster the strong collaborative ethos of LRSSB, a Memorandum of Cooperation (MoC) has also been agreed upon and signed between LRSSB and the Rail Safety and Standards Board (RSSB). This MoC details how the two organisations will work collaboratively to coordinate work on such things as common areas of technological and scientific advancement and the sharing of good practice.

A full business update on the year 2023/24 will be provided in the LRSSB Annual Report 2023/24.

The strategic three-year plan set out how we deliver our core objectives, which are “Prevent Incidents, Reduce Harm”, underpinned by our seven Strategic Aims and in line with our Values.



**Our Values: Collaboration | Integrity | Innovation | Proactive**

# Chief Executive Officer's Introduction

Since our inception in 2019, the initiatives, products and support delivered by LRSSB have been well received by all our stakeholders. The purpose of this final-year update of the three-year plan is to outline how we intend to build upon that and to provide our business with the framework within which to work.

This plan has been produced to strategically outline our direction of travel in the coming years; however, we must pay cognisance to the fact that LRSSB is still a growing organisation, learning and developing whilst also being able to respond to new opportunities and challenges. Within the plan, we have included more specific objectives and targets for delivery in the short and medium term.

In December 2022, LRSSB reported back to the Office of Rail and Roads (ORR) – Health and Safety Regulation Committee (HSRC) on progress against the recommendations within their “Findings Report” published in March 2022.

The resulting actions have manifested themselves into a strategic blueprint for the future LRSSB that is being consulted upon with our sector, DfT and ORR.

The integrated risk management framework developed by LRSSB is now embedded and adopted either in part or wholly by our members. Our Stakeholder Engagement Plan has succeeded in opening better channels of communication and feedback with our customers. LRSSB is now routinely approached for assistance by networks that are seeking to increase the use of the framework and the tools of which it comprises.

International networks have also shown interest in the advances that LRSSB has made with the Safety Risk Model and associated tools, with LRSSB now receiving monies for advisory consulting services. This is evidence that LRSSB looks for opportunities to relieve the financial commitment for the UK sector but also that the benefit delivered to date is being more widely acknowledged and potentially invested in.

We continue to make good progress in the development of our documentation library, having now produced more than 45 new documents that are available to our customers for adoption within their own SMS or CMS. We will continue to review the priority rankings applied from the initial full review of the current Tramways Principal Guidance (TPG), re-prioritising if necessary due to changing circumstances or arising issues. We have now identified a “family suite” of sibling documents that will become the support tools for our SMS and CMS documents, and these will be our primary focus in 2024/25.

For the first time in the recent “second tram generation” history, LRSSB will produce a UK Tram Requirements Specification document. A working group of UK sector rolling stock specialists has been organised, with LRSSB taking the lead to facilitate and deliver this ambitious specification, which will provide high-level guidance

for the minimum requirements of those delegated the responsibility for procurement of rolling stock vehicles in relation to UK light rail systems (rolling stock) based on ‘line-of-sight’ operations only.

In order to provide our customers with the level of leadership, support and guidance for which we strive, we are always seeking to be one step ahead in identifying arising risks and opportunities. We are focussed on finding ways in which to innovate, be this through research and development, taking a wider international view or simply through talking to our customers.

To assist in our ongoing goal of offering “ease-of-use solutions” to our customers, LRSSB has reviewed its business processes and is investing further in our website. The upgraded site will house our new Safety



Hub. Within the Hub will sit all of our products, such as TAIR, Safety Risk Model, Risk Assessments and Digital Reference Library. It is intended that the Hub will allow LRSSB to better promote and administer the delivery of our materials.

The delivery of training remains an important principle for LRSSB, and to assist in this, we have, with collaboration and assistance from partners, committed to a project to deliver a sector-wide Learning Management System (LMS) facility. LRSSB has agreed, with Edinburgh Trams, to the secondment of an expert training resource to assist in the delivery of this ambitious goal. It is the goal of LRSSB to have a functioning “live” LMS portal that can be used by the sector by the end of the business year.

Funding agreed upon by DfT enables us to make longer-term decisions, not least in terms of our staffing levels. We will continue to look to recruit resource in order to secure the delivery of this plan and provide greater support to our customers.

These actions will ensure that in LRSSB, the light rail sector retains a safety and standards body that meets the specific needs of the sector. The delivery of this plan will ensure that the sector continues to have a formal and structured approach to the continuous development of safety principles and standards.

# Organisation and Structure

The management structure of LRSSB is depicted below.

The team continues to deliver some highly significant milestones, particularly in the risk identification and assessment areas, with each network now receiving their own Safety Risk Management dashboards.

Our intention is to recruit further posts in the coming year. We will recruit support staff in the research, analytics and auditing functions as well as garnering the support of our seconded colleagues from within the sector.

The additional posts will enable us to deliver more of our activity in-house, thereby improving our cost-effectiveness, and will reduce reliance upon third-party organisations, thereby providing us with greater control over our products and outputs.

We will still, where required, continue to partner with third-party organisations with the necessary skills and expertise to support the delivery of our products.

This hybrid structure allows us to remain lean whilst providing us with the flexibility to re-prioritise our activities where necessary.

## LRSSB 202/25 Organisation

### Internal Structure

# LIGHT RAIL

## Safety and Standards Board



# Sustainability

LRSSB is currently funded through a combination of a DfT grant, member subscriptions and at present a small amount of third-party revenue, and 2024 begins year three of the current three-year funding arrangement.

To remain sustainable in the long term, LRSSB will focus upon continuing to provide excellent value for our existing customers, developing additional revenue stream opportunities and closely managing costs.

The Strategic Blueprint proposes possible future arrangements for LRSSB in terms of governance, funding and independence. The agreement and formalisation of this document is essential to both maintaining LRSSB's place and standing but also the sustainable permanent nature of the sector's safety body.

### Continue to Provide Value for Money

Our Stakeholder Engagement Plan is designed in part to ensure that our members and other customers are able to better understand what we offer and how our various products can support them in preventing incidents and reducing harm, and in turn how this provides them with value for money.

Whilst the key focus for ourselves is to support the industry in reducing the number of incidents and accidents, we would expect our members and customers to derive, in the longer term, some financial benefit as a consequence.

### Develop Additional Revenue Stream Opportunities

The core products developed and delivered by LRSSB to date are provided without charge to members; however, there may be some potential for LRSSB to provide more bespoke/tailored support and to charge for this.

We will explore opportunities to develop our non-member market with a view to increasing revenues through providing our products and services.

### Cost Management

LRSSB has adopted a hybrid structure with a core team of employees who combine direct delivery of activities with the management of third-party organisations which support the delivery of activities.

The hybrid structure provides a healthy balance between control, flexibility and cost-efficiency, enabling the permanent team to manage our core products and data but with the flexibility to buy in more specialist skills as required.

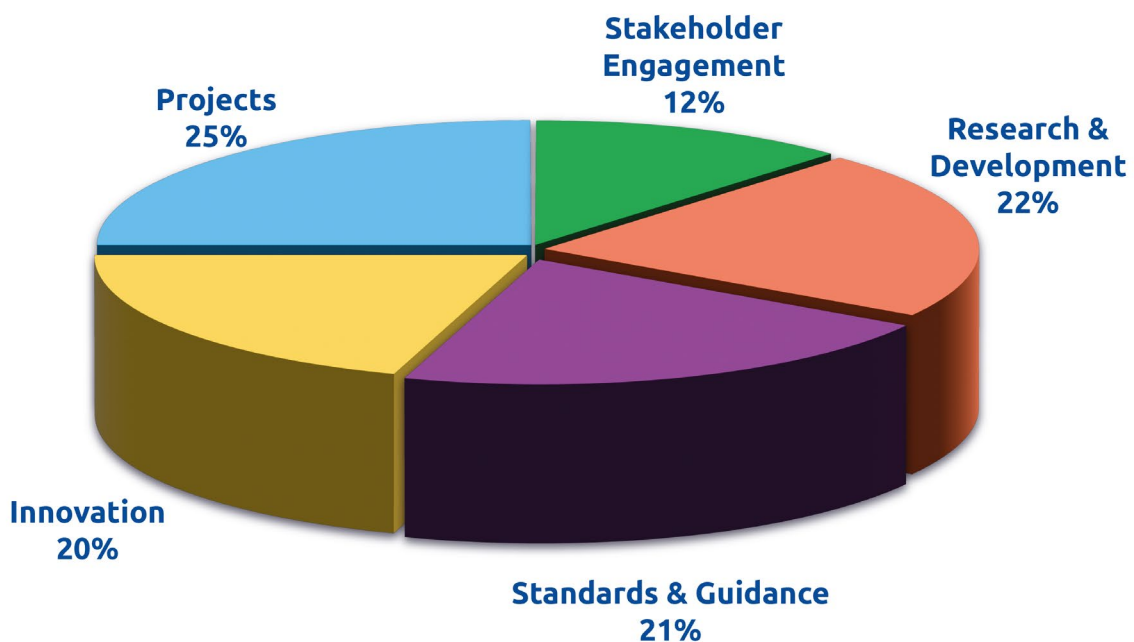
To date, through robust supplier management, the organisation has been able to ensure that we are achieving best value for money when 'buying in' services. By remaining close to the market, we will ensure that we continue to receive the right quality at the right price.

We will continue to drive for best value, in particular through collaborative working, where research and development costs can be shared between ourselves and our development partner(s).

Costs are reviewed on an ongoing basis to ensure that best value for money is delivered, and that each activity is within budget.

*The anticipated direct costs of delivering our activities in 202/25 are broken down below:*

## LRSSB Production Cost Breakdown



# Stakeholder Engagement

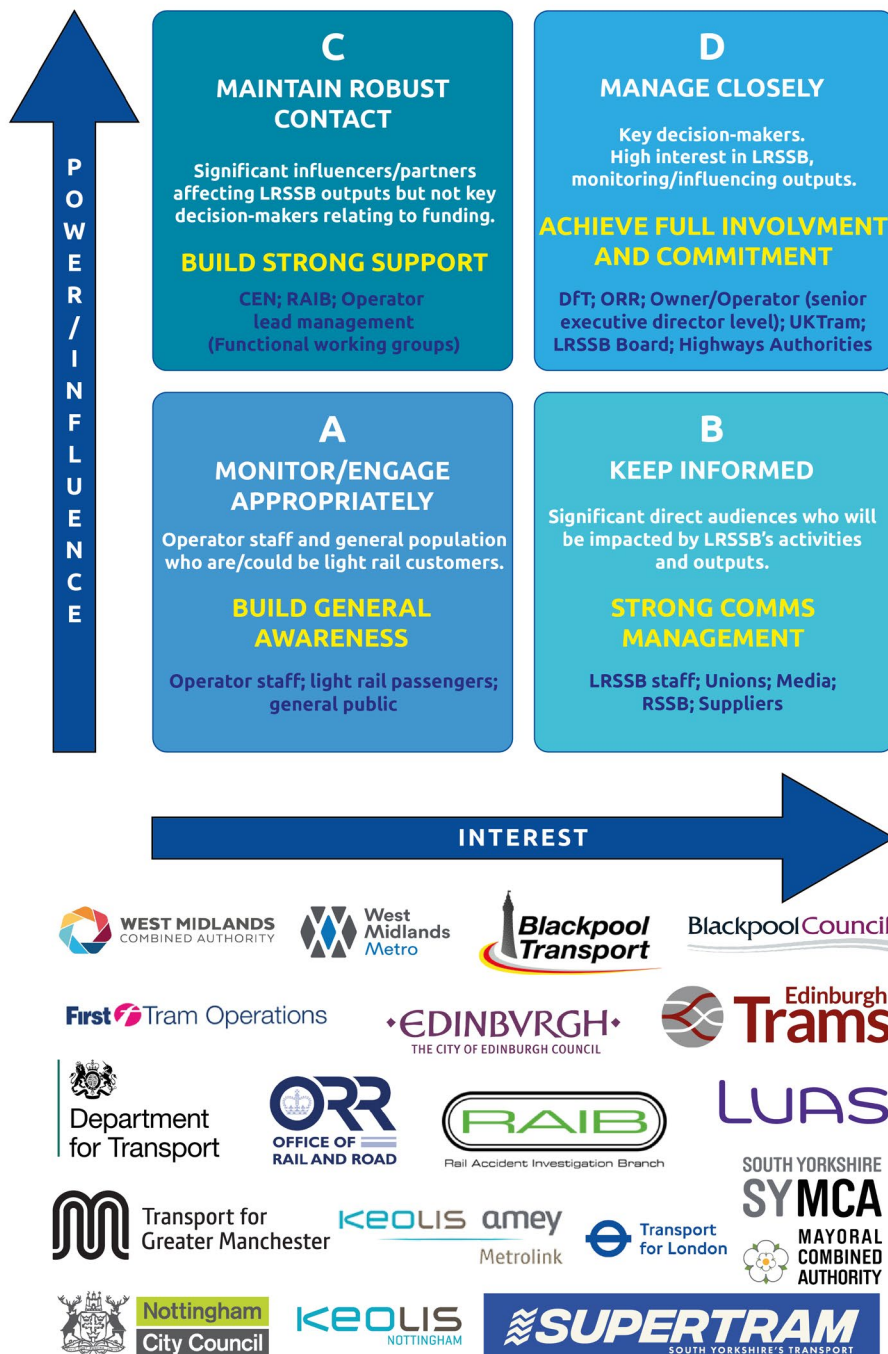
## LRSSB Power/Interest Matrix

An early project saw the analysis of LRSSB's stakeholder community, resulting in the development of the power/influence matrix below.

The matrix remains entirely relevant, but a recent review shows that, as a rapidly maturing organisation, LRSSB needs to ensure it retains clear focus on core stakeholders referenced in box D in the graphic. We are confident that we are maintaining appropriate levels of contact with other stakeholder groups, and this activity is the subject of regular report to our Board.

A resource/cost/benefit analysis points to the need to manage our key stakeholder relationships even more closely as the pace of partnership working and collaboration builds still further.

As a result, during the first quarter of the planning year, we will be completely refreshing and remodelling our contact regimes and committee structures to ensure they remain fit for purpose. This will embed more direct communication and contact into our processes, allowing even greater levels of dialogue with, and response to, key audience groups, in particular Government, ORR and the networks themselves.





# Key Stakeholder Analysis



## **DfT (Funders/Sponsors)**

Direct contact through Chief Executive and Chair at senior departmental, and occasional ministerial, level. Requires close management to maintain positive relationships and to ensure LRSSB commitments in relation to funding targets are met. Occasional requirement to lobby for safety improvements.

## **ORR (Critical audience as key influencer of DfT opinion)**

Senior management interface (principally Chief Executive) to ensure a strong relationship persists. Contact at operational level should maintain professional integrity of LRSSB and create a relationship based on mutual respect.

## **Owners/Operators (Critical audience as contributors/customers)**

Interface at senior (MD) level to ensure corporate communications channels are managed and actively maintained to positive effect. Maintain 'named individual' contact database and create an appropriate relationship regime.

## **UKTram (Important partner as 'sister company')**

Regular corporate interface via Chief Executive and LRSSB Chair to ensure alignment of objectives and a productive working relationship.

## **CEN (Congress of European Norms)/BSI/ISO (A critical audience as key standards governance organisations impact on light rail)**

Regular interface with LRSSB Head of Engineering in the first instance to ensure LRSSB maintains awareness of outputs from various committees and working groups and effectively monitors potential 'red flag' issues for the UK light rail sector.

## **Operator organisational managers (A crucial, ongoing operational audience)**

Regular continuous contact with Safety/Operations/Engineering lead managers looking after practical day-to-day safety practices to maintain relevance of LRSSB outputs and ensure consultative communications are successful.

## **RAIB (Significant partner)**

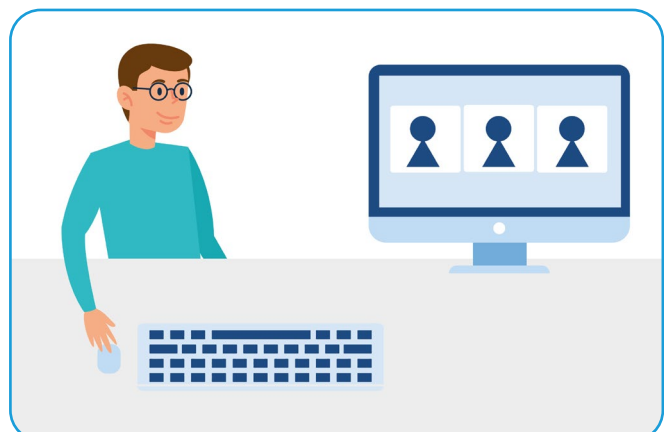
A structured dialogue needs to be maintained at Chief Executive level to address issues of mutual interest.

## **LRSSB Internal Staff (Key audience)**

Regular communications managed via the Chief Executive to ensure full awareness of organisational objectives/targets and encourage optimal performance.

## **Unions (Important influencer/partner)**

Create appropriate contact platform (managed principally through the Chief Executive) which can be maintained to ensure awareness of LRSSB activities and to monitor possible trade union safety concerns.



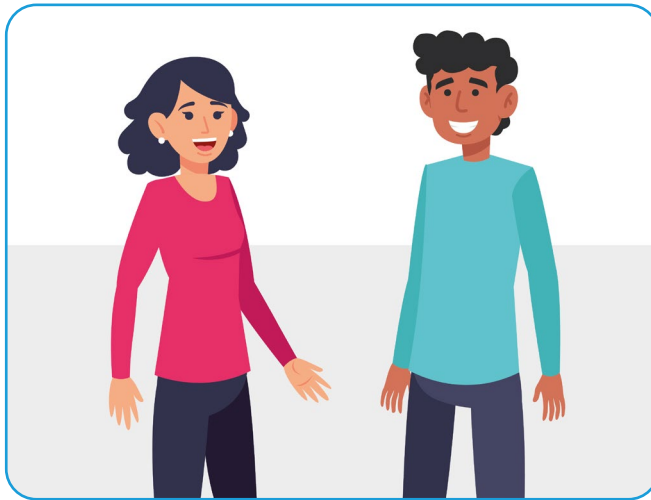
# Key Stakeholder Analysis continued

## Media (Important influencer/partner)

Maintain ongoing flow of information and create appropriate relationships, particularly with trade media outlets, to assist in message transmission.

## RSSB (Mutual interest partner)

Proactively seek areas of collaboration and benefit identified, regular task workshops being held – senior dialogue to continue. Implementation and use of the MoC.



## Operator staff (Important audience via operator management)

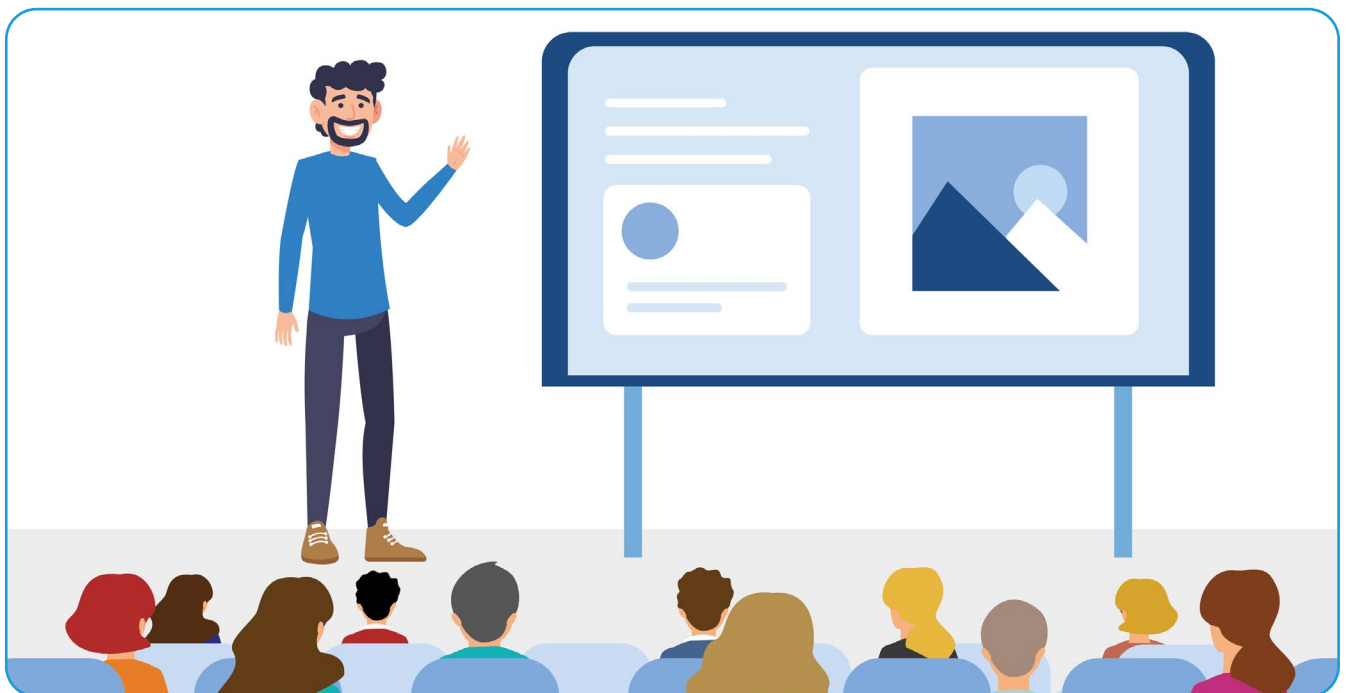
Working in partnership with network operators (and potentially trade union bodies), the delivery of helpful communications material is seen as desirable to ensure that critical safety messages and practices are explained and understood by light rail sector employees. This is to be further advanced with an “onboarding” module in the news LMS currently under development. This will explain the role and purpose of LRSSB.

## General public (Desirable audience)

An area of positive contribution to safety education which, whilst not essential, is considered desirable. Here again, communications should be managed alongside network operators and owners to create strong and relevant safety messages. Delivery of the National Safety Campaign will assist in this.

## Passengers (Desirable audience)

Whilst not essential, communications should be managed alongside operators and owners to create strong and relevant safety messages.



As part of LRSSB’s communications activity, a more detailed plan of activity is recorded and tracked as part of LRSSB’s reporting cycle.

# Integrated Risk Management Framework

The integrated risk management strategy framework developed and introduced by LRSSB is designed to provide our customers with a fully integrated, data-led toolkit of products which support them with the identification and mitigation of potential future risks.

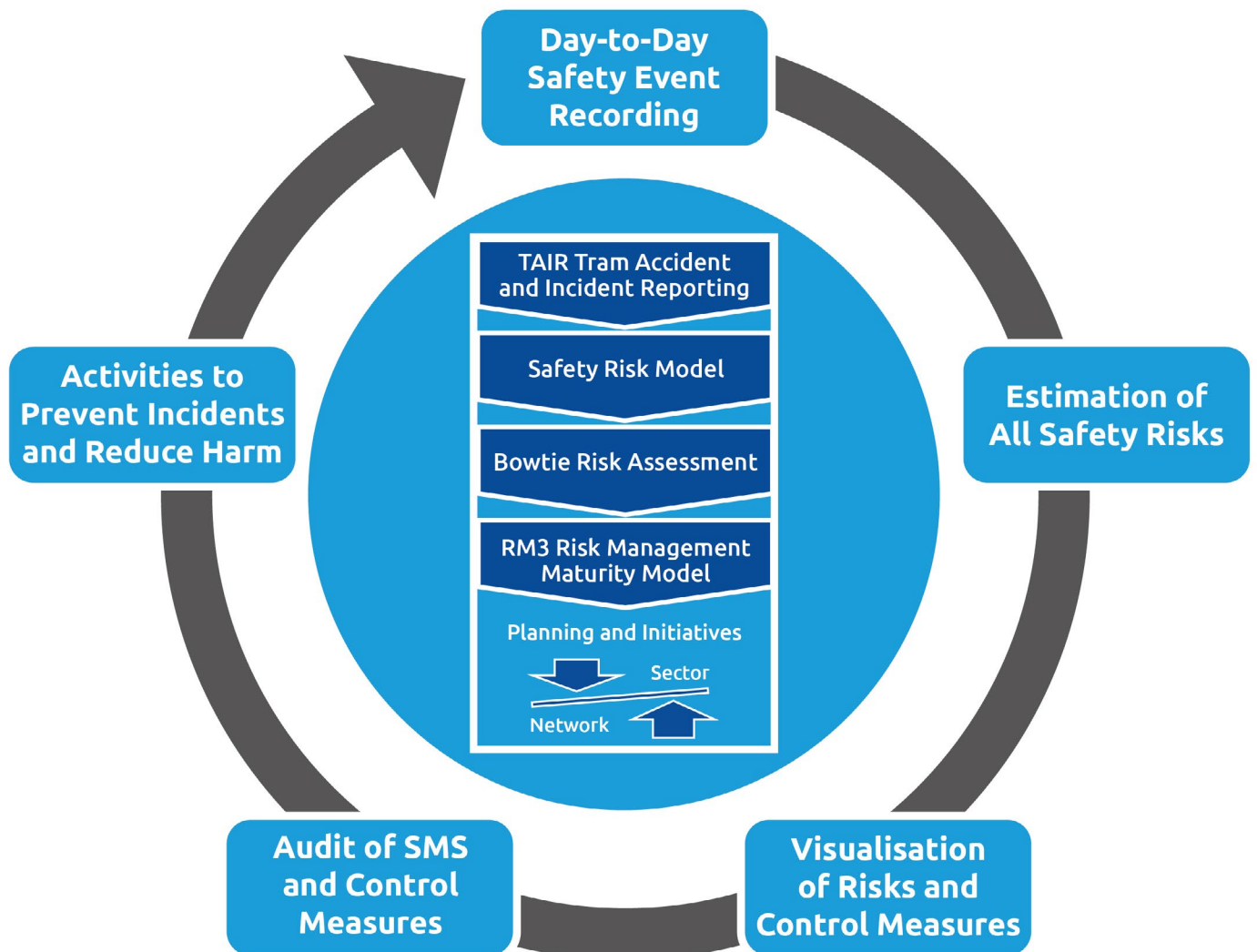
The framework incorporates the key features of good practice in health and safety in addition to providing an intuitive and robust platform to enhance safety culture, collaboration and innovation throughout the sector, enabling the continual improvement and indication of maturity for both individual networks and the light rail sector collectively.

The take-up of the framework within the sector has been good and the feedback positive. Through discussion with members, we have identified areas for improvement, particularly in terms of integration between the individual tools within the framework.

Work is ongoing to deliver some of these improvements with plans in place for the remainder.

The outputs from the framework enable us to identify and to prioritise areas of concern or emerging risks and to support the sector in introducing mitigations e.g. standards.

The basis of the risk management process is a continuous cycle of Plan, Do, Check, Act, and as such we will be continuously looking for ways in which we can improve the individual products and processes to ensure maximum benefit to our individual customers and to the sector as a whole.



# Tram Accident Incident Reporting Database Tool – TAIR

TAIR is a database developed and introduced by LRSSB to improve the gathering of data and reporting in relation to sector accidents, incidents and near misses and is the keystone of LRSSB’s Risk Management Framework.

The database is available to customers either for use as their primary database or by way of an interface with their existing system of choice.

The successful hiring of a dedicated data analyst has enabled an expanded focus on data quality of records in the TAIR. Building beyond the data needs of the sector safety risk models, TAIR records are reviewed for completeness and consistency, and the data analyst works with the networks and TAIR to provide their dashboards that will aid in delivery of continuous improvement.

Following the significant investment and the launch of the updated TAIR platform, the platform is now embedded into business as usual for the sector and all its networks.

The introduction of this platform aligned with feedback from the industry has delivered enhanced usability and dashboards. Future investment into the new platform aims to deliver these ongoing benefits:

- Improved integration with existing databases
- Enhanced user interface and navigation
- Improved reporting output
- Integrated sector dashboards
- Enhanced individual network dashboards
- Enabled ready for future integration of regulatory reports – RIDDOR, RAIB
- Sector-agreed ORR reporting.

**Status:** Operational, significant improvement project in progress.

**Uptake:** All networks

## Planned Activities:

	Management/Support	Development/Improvement
2022-2023	<ul style="list-style-type: none"> <li>• Ongoing stakeholder engagement and support for existing users</li> </ul>	<ul style="list-style-type: none"> <li>• Collate and upload existing network historic data (complete)</li> <li>• Platform update (TAIR) implementation, rollout and training</li> <li>• Improve interfaces between TAIR and its systems</li> </ul>
2023-2024	<ul style="list-style-type: none"> <li>• Ongoing stakeholder engagement and support for new TAIR platform users</li> <li>• Industry recognition as business-as-usual database</li> </ul>	<ul style="list-style-type: none"> <li>• Transfer existing network historic data to new TAIR platform</li> <li>• Roll-out of TAIR platform training</li> <li>• Data quality review and cleansing</li> <li>• RIDDOR/RAIB regulatory and ORR reporting</li> <li>• Improve interfaces between TAIR and its facing systems</li> <li>• Full adoption of TAIR</li> </ul>
2024-2025	<ul style="list-style-type: none"> <li>• Ongoing stakeholder engagement and support for existing users</li> <li>• Industry recognition as business-as-usual database</li> </ul>	<ul style="list-style-type: none"> <li>• Data analysis investigations through enhanced dashboards</li> <li>• Development and implementation of any improvement initiatives as identified through ongoing review process and horizon scanning</li> <li>• Improve interfaces between TAIR and its facing systems</li> <li>• Finalise network historic data</li> <li>• RIDDOR/RAIB regulatory and ORR reporting</li> </ul>

# TAIR

Tram Accident & Incident Reporting system

# Sector Risk Model

The risk model is a bespoke model which was developed and introduced by LRSSB in order to obtain an understanding of individual network risk profiles to provide improved information relating to emerging risks and precursors to incidents.

Following the 2023 review of both individual network and national sector safety risk models, including use of TAIR data exports, the roll-out of an updated model template with enhanced functionality and results dashboards were delivered in response to feedback from the network users. In concert with LRSSB's Integrated Risk Management Framework, the results of these model updates informed both individual networks and the national safety management planning and initiatives.

2023/24 focussed on the development of web-based dashboards for both national results and individual network benchmarking providing service users with a quick and user-friendly understanding of the model outputs. The launch of these were accompanied by online training sessions, as well as presentations to LRSSB's key stakeholders. The previous year also saw the Sector Safety Risk Model results explicitly inform horizon scanning activities for the identification of potential LRSSB initiatives to address the sector's top safety risks.

Following this recent model update, and TAIR now maturing, LRSSB is in the process of developing a strategy for the networks' update of their safety risk models alongside an agreed periodicity and approach to the publication of a sector safety risk profile. Further to this, a stepped programme will commence to also move the model template to a web-based platform with the ultimate objective to enable automated TAIR functionality.

As part of LRSSB's proactive aim for continuous improvement, a review shall be undertaken on the approach taken for estimating risk of high-consequence, low-frequency events and credible worst-case outcomes. The objective of this is to feed back collaborative learning for the networks to consider in the context of their individual models.

LRSSB continues to discuss the benefits of the Safety Risk Model, and LRSSB's other tools, with further existing and proposed new networks.

**Status:** Operational

**Uptake:** All networks

## Planned Activities

	Management/Support	Development/Improvement
2022-2023	<ul style="list-style-type: none"> <li>Ongoing stakeholder engagement and support for existing users</li> </ul>	<ul style="list-style-type: none"> <li>Review and re-analysis of Operator models</li> <li>Production of sector risk profile</li> <li>Upgrade and enhancement of Risk Model</li> </ul>
2023-2024	<ul style="list-style-type: none"> <li>Ongoing stakeholder engagement and support for existing users</li> </ul>	<ul style="list-style-type: none"> <li>Strategy for model update and maintenance</li> <li>Enhanced dashboard and benchmarking</li> <li>Focus on high-consequence, low-frequency events</li> <li>Commence move to web-based model</li> </ul>
2024-2025	<ul style="list-style-type: none"> <li>Ongoing stakeholder engagement and support for existing users</li> </ul>	<ul style="list-style-type: none"> <li>Development and implementation of any improvement initiatives as identified through ongoing review process and horizon scanning</li> <li>Finalise strategy for model update and maintenance</li> <li>Further research for high-consequence, low-frequency events</li> <li>Ongoing development of web-based model</li> <li>Development of ultra-light rail risk model</li> </ul>

# Bowtie Risk Assessments

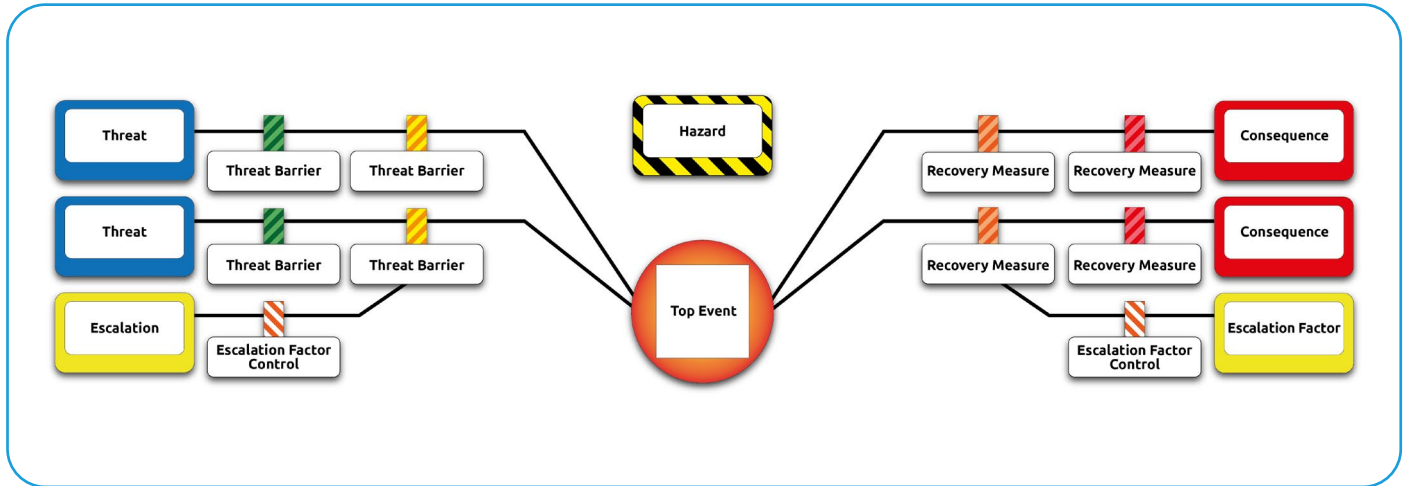
Initial global Bowtie assessments associated with the national top ten hazardous events have been developed by LRSSB and uploaded to the main Bowtie server.

Additionally, during the 2023 risk model review process, bowties were introduced for the first time to aid our customers in safety decision-making when implementing mitigation and recovery measures associated with hazardous events.

This has been further enhanced during the period with the consolidation of all sector Safety Risk Model data into the Bowtie server to facilitate the development of a full suite of global Bowties.

**Status:** Operational

**Uptake:** All networks



## Planned Activities

	Management/Support	Development/Improvement
2022-2023	<ul style="list-style-type: none"> <li>Ongoing stakeholder engagement and support for existing users</li> </ul>	<ul style="list-style-type: none"> <li>Establishment of LRSSB-led Bowtie working group (complete)</li> <li>Further development of global Bowties</li> </ul>
2023-2024	<ul style="list-style-type: none"> <li>Ongoing stakeholder engagement and support for existing users</li> </ul>	<ul style="list-style-type: none"> <li>Further development of global Bowties</li> <li>Integration of the full-sector risk model data into the Bowtie server database</li> </ul>
2024-2025	<ul style="list-style-type: none"> <li>Ongoing stakeholder engagement and support for existing users</li> </ul>	<ul style="list-style-type: none"> <li>Re-assessment of global Bowties against the revised national risk profile</li> <li>Use of Bowtie for conducting sector gap analysis</li> </ul>

# Risk Management Maturity Model - RM3

LRSSB has developed an RM3 audit tool, with an initial evaluation being undertaken by both ORR and several networks from the light rail sector.

The tool provides a standardised platform for the sector to apply RM3 in the evaluation of the maturity of their safety management systems.

As RM3 forms a key element of LRSSB's wider risk management framework, and to further cascade the adoption of RM3 across the sector, LRSSB worked closely

with ORR and other rail industry stakeholders during the 2023 period in the development of ORR's new e-learning platform, which allows users to gain a full end-to-end understanding of how RM3 works and how to apply it to an organisation.

**Status:** Operational

**Uptake:** All networks

## Planned Activities

	Management/Support	Development/Improvement
2022-2023	<ul style="list-style-type: none"> <li>Ongoing stakeholder engagement and support for existing users</li> </ul>	<ul style="list-style-type: none"> <li>Apply the RM3 maturity levels against Bowtie assessments and provide the sector with appropriate training</li> <li>Support the ORR in developing e-learning platform (Module 1)</li> <li>Establishment of LRSSB-led RM3 working group</li> </ul>
2023-2024	<ul style="list-style-type: none"> <li>Ongoing stakeholder engagement and support for existing users</li> </ul>	<ul style="list-style-type: none"> <li>Further development of global Bowties</li> <li>Integration of the full-sector risk model data into the Bowtie server database</li> </ul>
2024-2025	<ul style="list-style-type: none"> <li>Ongoing stakeholder engagement and support for existing users</li> </ul>	<ul style="list-style-type: none"> <li>Development and implementation of any improvement initiatives as identified through ongoing review process and horizon scanning</li> <li>Further collaboration with other sectors to assess best practice application of RM3</li> </ul>

# Safety Verification and Hazard Management

It is recognised that inconsistencies of approach exist in the sector for the management of safety risk during system change.

As such, LRSSB has undertaken initial steps on how they may be best placed to support the sector in this area.

Work continues to establish the best approach through discussion with relevant stakeholders.

**Status:** Pipeline

**Uptake:** All networks

## Planned Activities

	Management/Support	Development/Improvement
2022-2023	<ul style="list-style-type: none"> <li>Develop ideology with sector</li> </ul>	<ul style="list-style-type: none"> <li>Proof of concept safety verification and initial hazard log development tool</li> </ul>
2023-2025	<ul style="list-style-type: none"> <li>Ongoing stakeholder engagement</li> </ul>	<ul style="list-style-type: none"> <li>Development of generic LRSSB safety verification guidance</li> <li>Investigation into best approach for industry tooling</li> </ul>

# Publication of new Standards & Guidance

## LRSSB Guidance and Standards Committee (GSC)

An essential aspect of LRSSB's outputs is the creation, participation and publication of standards and guidance documents. To ensure LRSSB remains accountable for its decision-making, it has strengthened its own governance with the newly formed Light Rail Standards Committee, where all new document proposals must be submitted. This committee has been formulated in line with the LRSSB terms of reference, operates utilising strict governance by LRSSB and is represented by several key stakeholders from the light rail sector. Proposals can be made via multiple sources, such as UKTram functional groups, RAIB and ORR, and will be agreed on merit formally by the LRSC.

The production of light rail guidance and standards documents is delegated to the LRSC. This includes the management of derogations or deviations from existing light rail standards that are relevant to applicable documentation. The entire process for the production of light rail guidance and standards documents includes the creation, revision and withdrawal of guidance and standards documents as laid out in our internal process document: GA 01.2.

**Status:** Since its inception three years ago, LRSSB has produced over 45 light rail guidance (LRG) documents, all of which are available on the LRSSB reference library free of charge.

This total represented a substantial output and was achieved through utilisation of both internal and external resources, seeing us partner with numerous consultants and organisations systematically selected based on the area of expertise for each guidance topic.

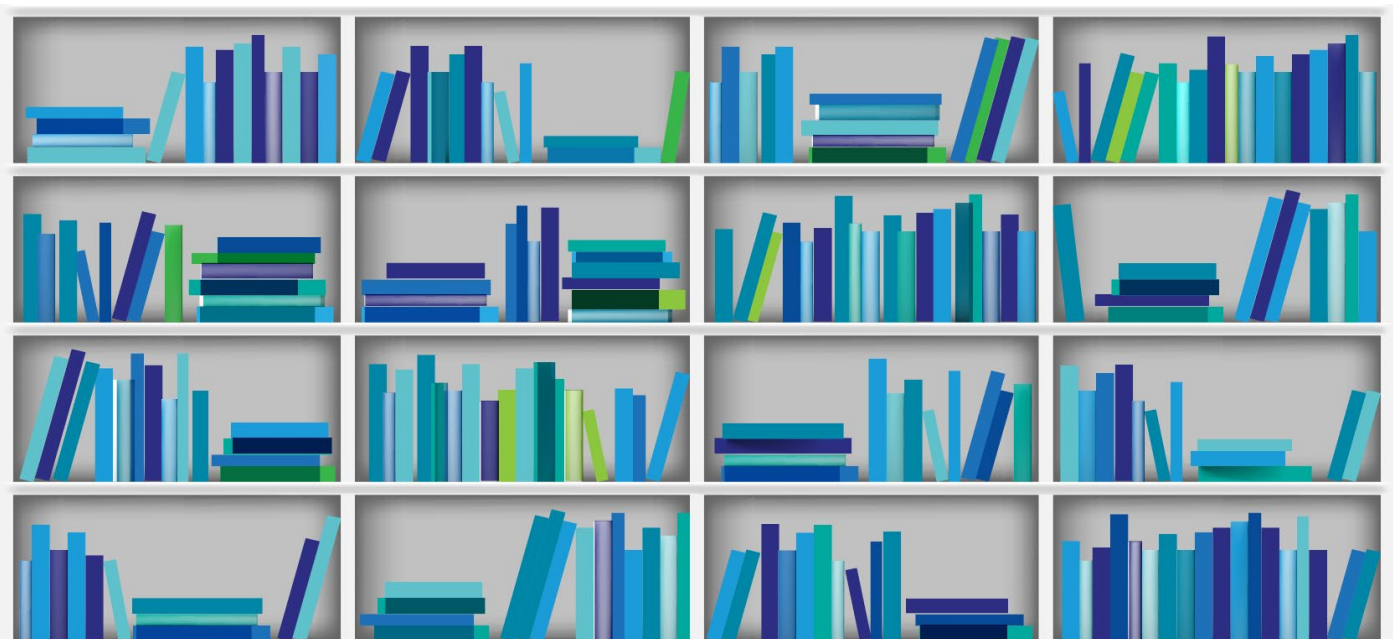
**Uptake:** There is growing evidence to support the adoption of LRG documents by the sector, and LRSSB continues to engage and support its members by assisting with the implementation of its guidance.

The ongoing review process allows feedback from the sector and, where required, revisions to existing documents as part of the continuous improvement process. Continued formal engagement with all stakeholders has resulted in feedback highlighting the positive impact of the guidance, and this area will be further strengthened going forward as LRSSB looks to understand the potential impact it will have.

## Planned Activities/Developments 2023 to 2025:

As previously mentioned, LRSSB has maintained a high level of output in the form of guidance due to the number of priority documents required. This pace is likely to reduce somewhat; however, there will continue to be a steady flow of documents as required, as well as the ongoing review of already-produced guidance. Through its analysis of the past two years, LRSSB has been able to capture "lessons learned" and has refined its process and governance in relation to the production.

The sector engagement through the consultation stage will be a key element of the selection process, which will make certain LRSSB is meeting the requirements of all stakeholders whilst not compromising on its duty to improve all aspects of safety through the uptake of its guidance.





## Tramway Principles and Guidance (TPG)

During 2023/24 there has been an ongoing review of TPG which has been implemented in the form of four workshops incorporating a full page turn of the entire document. It has been agreed by LRSSB that there will be an ongoing annual review of TPG due to the continued production of guidance to assess where it is necessary to amend aspects of TPG to ensure consistency with the aforementioned documentation.

Continuation of the production of standards to include the newly categorised, Guidance, Good Practice, Technical Notes and Tools which will enable the reference library to evolve to offer a much wider range of resources.

## CEN, CENELEC, BSI, ISO, IEC & RSSB

In line with our approach to research and development, we are always looking to work collaboratively with partner organisations. The recruitment of additional resource within LRSSB will enable us to represent ourselves more widely, thereby enabling us to improve our knowledge of best practice and hot topics, and in turn informing our decision-making in terms of what to deliver to the sector.

In addition to locally produced guidance, LRSSB, through BSI, has the responsibility of representing the light rail sector on all relevant standards in Europe and internationally. The Congress of European Norms (CEN) recently voted to consider "Urban Rail" within all new and revised standards, thereby necessitating a light rail sector presence in a number of working groups.

A key element of raising awareness of EN/ISO standards has been to highlight these documents within its own LRSSB Guidance, and due to its arrangement with BSI as a distributor, it is able to purchase any relevant BSI/ISO documents for its members at no additional charge to them.

Since 2008, BSI has been working with RSSB to manage the increasing number of national railway committees in the UK. There are now over 40 BSI committees responsible for more than 400 published standards with over 175 live projects, and with the recent announcement that all "Urban" transport must be considered within any newly proposed and revised

standards, there has been a greater call for light rail experts to become more involved in the production of EN and ISO working groups. LRSSB and UKTram personnel, along with carefully selected external experts, continue to consistently participate in these working groups to make certain that the GB light rail sector has the required input into the content of these standards. Encouragingly, the UK sector is finally being represented now, and we have a genuine input into these standards.

In response to this growing demand, LRSSB has identified that it will be necessary and, in many cases, advisable to form UK working groups in order to ensure that the UK systems and experts have input into the standards. Whilst currently only LRSSB and UKTram staff are members of BSI, it is not always feasible for individuals from other organisations to take direct part in the working group meetings. The current process is largely reliant on LRSSB to disseminate EN/ISO standards to the light rail industry and ask for comment.

As predicted in the original Business Plan, the demands on "experts" from the light rail sector have increased due in large part to a formal requirement that "All" future and revised standards will consider the inclusion of "Urban" transport.

As required, LRSSB continues to make certain that the UK networks and their experts have input into the standards.

LRSSB has continued to review the status of Urban EN/ISO standards despite its limited personnel and remains a consistent presence in these working groups. LRSSB personnel have been formally invited to attend the committees highlighted above and have nominated individuals with relevant expertise.

Additional staffing via a new researcher role and expert specialist consultants are to be engaged to assist us in this sometimes ad-hoc area, but it remains imperative that the UK sector remains alert to these outputs.

The UK remains a key driving force in the production and assessment of European and international standards, and led by LRSSB, the sector is at the forefront of making positive steps to ensure its members have an opportunity to shape the standards that are most likely to impact them.

# Leading a Proactive Approach to Safety

## Research and Development – Ideas – Horizon Scanning – Innovation

In our drive to become a Centre of Excellence, much of our activity is focussed on learning, whether this be to identify improvements in good practice, identify potential future risks and mitigations or to identify innovative solutions/mitigations for existing risks.

Much of our activity within this area is based upon developing relationships and partnerships with different bodies to learn about what is happening within the light rail sector around the world, or to identify whether there are ideas from within other sectors that could be adapted and developed for the benefit of UK light rail.

Stakeholder Engagement is a two-way process whereby we work more closely with our users and members, enabling LRSSB to provide our customers with up-to-date thinking and offering the opportunity to discuss potential solutions for risk reduction.

LRSSB has identified several initiatives where the support of our members and users will be helpful in developing and delivering solutions.

### These include:

- We recently visited the international car show to see how the automotive industry was investing in future technologies, particularly in regard to driver alertness aids.
- Produce and launch targeted safety campaigns for light rail networks.

- Further interrogation into the human factors elements surrounding potential dangerous and hazardous events. Adoption of a “human factors” anonymous reporting portal similar to that used in the aviation industry.
- Increased engagement with stakeholders and ability to inform all levels of employees using safety notifications. Ability to offer a 24/7 “live” reporting channel with option to report incidents instantaneously and monitored daily by LRSSB without reliance on external agencies.
- Assist with members’ internal investigations as well as assist ORR and RAIB where appropriate. LRSSB staff could be trained as RAIB-accredited agents, a competency currently offered to operator staff.
- Encourage a “lessons learned” culture and sharing of best practice, helping to avoid similar issues for operators and maintainers. It would also help strengthen ties with ORR and help RAIB better understand some aspects of light rail prior to compiling reports and making recommendations.
- Engage with prospective cities and authorities that are looking to deliver new light rail schemes to assist them in understanding how best to deliver a safe, efficient and affordable scheme.

Based upon previous customer feedback and in line with the original three-year plan, there are now a number of “live” initiatives in production. LRSSB has been developing a Safety Hub, which will be the new “centre” for all the products that we offer. This will enhance visibility and aid ease of access to LRSSB systems and services.

	Management/Support	Development/Improvement
2024-2025	<ul style="list-style-type: none"> <li>• Safety Hub Platform – tools and access</li> </ul>	<ul style="list-style-type: none"> <li>• New digital reference library</li> <li>• Improved administrative controls</li> <li>• Inclusion of renewed/additional modules such as:                             <ul style="list-style-type: none"> <li>• eLearning Management System</li> <li>• TAIR – RIDDOR</li> <li>• Safety Risk Model dashboards</li> <li>• Sector Bowtie</li> <li>• Safety Campaign materials</li> </ul> </li> </ul>

**Status:** Operational

**Uptake:** All networks

These products are at the heart of everything which LRSSB is looking to achieve, and as such we are committed to researching ways in which these core products can be continuously developed/improved.

One of the organisations identified as a potentially strong partner is the UK Rail Research and Innovation Network (UKRRIN), which was originally formed by a consortium of universities and heavy rail industry organisations to “provide a step-change in realising innovation and accelerating new product development in the rail industry”.

By making good on its intention to arrange this objective, it has been realised, in the form of several new R&D projects established with the Institute of Rail Research at Huddersfield University and other third-party organisations.

LRSSB’s newly developed R&D process was set up to identify key projects, and it continues to issue several thousands of pounds in grants to help fund and will continue to place a huge emphasis on this critical aspect of its workstreams.

LRSSB is an active participant in all UKTram functional groups and has a place on all agendas which will serve as a forum for updates. In addition, quarterly reports are circulated to member organisations with more detailed accounts of LRSSB activities and progress.

This has proved to be successful in LRSSB’s ability to stay up to date with current events and ensure its work remains relevant to the sector.

This is further supported by external communications using social media, e-shots and regular press releases quoting members of the LRSSB team.

Through our partnership approach and associated learning, we will continue to develop a pipeline of research start-up projects to build on and add to those that are current.

Where feasible, our preferred option would be to continue to develop projects with partner organisations, providing a continued pooling of knowledge, further/ongoing development of expertise and cost-efficiency.

Through its desire for continued improvement and to make certain that it only embarks on relevant work that will benefit the sector and its stakeholders, LRSSB has implemented a formal process for reviewing all potential R&D projects.

This process has already seen the successful application and funding of multiple projects in this space. LRSSB will continue to work with its stakeholders to identify more initiatives which have the potential to improve overall safety for light rail.

## Health and Wellbeing

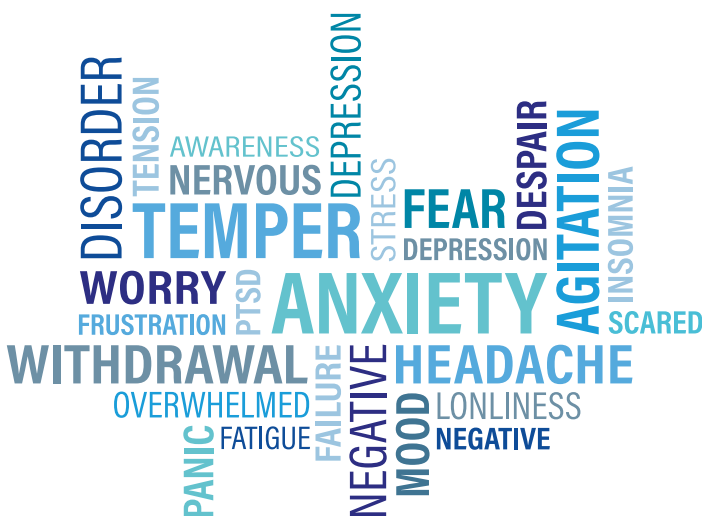
Although still a young, maturing organisation, LRSSB recognises that addressing health and wellbeing is a key area that can lead to healthier and happier employees, and safeguarding employee health and wellbeing is an important part of any organisational culture and identity.

LRSSB now has in place its own Health and Wellbeing policy for its employees, and we will offer this to the sector as an example of good practice in the area.

With the assistance of the operators, we are assessing health and wellbeing processes across the sector to identify where LRSSB can provide counsel or direction on how best to address any gaps in knowledge or provision.

LRSSB will also look to host a series of events to highlight ongoing concerns and assist in creating the right environment for employees, passengers and members of the public.

To make certain this remains a priority, LRSSB, as previously stated, has added an additional resource to its staff to drive the development of data and accessible information in this area.



# Year 3 Focus

Each of our focus deliverables will be allocated an owner who will be accountable via our own internal processes, whereby activities and sub-activities are reviewed four-weekly at local level and updates provided to LRSSB at their quarterly meeting.

Specific deliverables for the year 2024/25 are contained within this section.

Section	Activity	Deliverable	Measure	
Organisation and Structure	Recruitment	Research Co-ordinator	In Post	
		Data analytics	In Post	
		Auditor	In Post	
Stakeholder Engagement		Refresh and remodel contact regimes	Revised regimes in place	
		Refresh and re-constitute committee structures	Revised structures in place	
		Sector annual review and event	Plan and tracker in place	
Integrated Risk Management Framework	TAIR (E)	Ongoing stakeholder engagement and support for existing users	Contacts	
		Industry recognition as business-as-usual database – audit	Adoption / volume of data	
		Data analysis investigations dashboards	Audit usage of dashboards vs investigations	
		Dynamic adoption of identified improvement initiatives	No. of initiatives delivered vs identified	
		Completion of historic data capture	All data captured	
		Develop RIDDOR/RAIB regulatory and ORR reporting	Reports developed	
	Sector Risk Model (S)	Ongoing stakeholder engagement and support for existing users	Contacts	
		Dynamic adoption of identified improvement initiatives	No. of initiatives delivered vs identified	
		Finalise strategy for model update and maintenance	Strategy developed, approved, and commenced	
		Further research for high-consequence, low-frequency events	Outputs applied	
		Ongoing development of web-based model	Number of developments / improvements	
		Development of ultra-light rail risk model	Model in place	
	Bowtie Risk Model (E)	Ongoing stakeholder engagement and support for existing users	Contacts	
		Re-assessment of global Bowties against the revised national risk profile	Findings developed into change activities if applicable	
	Risk Management Maturity Model (RM3) (E)	Ongoing stakeholder engagement and support for existing users	Contacts	
		Conduct sector gap analysis Dynamic adoption of identified improvement initiatives	Audit complete No. of initiatives delivered vs identified	
	Safety Verification and Hazard Management (E)		Ongoing stakeholder engagement and support for users	Contacts
			Development of generic LRSSB safety verification guidance	Guidance developed
			Investigation into best approach for industry tooling	Findings report / Recommendations

Section	Activity	Deliverable	Measure
Publication of New Standards and Guidance	Prioritisation	Ongoing review of planned publications and re-prioritisation as deemed necessary	Changes required post reviews
	Production	Production and publication of UKTram Requirements Spec Publication of SMS "family suite" of documents	Documents published
	Engagement	Audit level of adoption Further involvement of sector in LRSSB Light Rail Standards committee processes	Usage – uptake
	Influence	Maintain a framework of sector expertise to assist in production and review at UK/BSI/EN	Understanding of risk of potential changes
Formation of UK working groups to ensure appropriate input into development of standards		Meetings schedule	
Leading a Proactive Approach to Safety	Research and Development	Development of relationships with partner organisations and institutes	Arrangements in place
		R & D led pipeline initiatives	Go / No-go into Project status
	Safety Hub (E)	Human factors reporting portal	Introduced
		24/7 live reporting channel	Introduced
		Assistance with internal investigations	Introduced
		Produce and launch targeted campaigns	Campaigns launched
		Ongoing stakeholder engagement and support for existing users	Contacts
		Integration of new Digital Reference Library	Implemented
	<ul style="list-style-type: none"> <li>• Manual handling</li> <li>• Introduction of Members' Area</li> <li>• Fire safety</li> <li>• Access to TAIR dashboards</li> <li>• Environmental</li> <li>• Access to Safety Risk Model</li> <li>• Access to Sector Bowties</li> </ul>	Introduced Dashboards available Model accessible Bowties accessible	
Health and Wellbeing	Learning Management System (LMS) (E)	LMS portal live modules <ul style="list-style-type: none"> <li>• Health &amp; Safety at Work compliance</li> </ul> <ul style="list-style-type: none"> <li>• Trackworker safety</li> <li>• Competency management</li> </ul>	Available
	Health and Wellbeing (S)	Audit sector position define plan	Audit complete plan in place
Measuring the Impact of LRSSB	Data Collection Assessment and Benefit	Data analysis	Safer sector
		New members	Lessen funding impact
	Future Strategy	Strategy produced	Agreed by all stakeholders

# Measuring the Impact of LRSSB

There are a number of key channels for reporting on formal progress both verbally and in written form.

**Planning** – The LRSSB Business Plan will outline the key deliverables for the subsequent year. Each deliverable will have an expected timescale for completion and any associated risks/dependencies.

**Internal Reporting** – On a four-weekly basis, the LRSSB SMT will review progress against the Business Plan and will update the management tracker to reflect any updates and/or changes. Any additional projects or initiatives not contemplated within the Business Plan will be added and tracked within the management tracker.

**Board Reporting** – On a quarterly basis, the Board pack will include a summary of the LRSSB tracker, R/A/G rated according to whether each initiative is on target in terms of delivery date, and will flag any deliverables which will not be delivered in line with the plan.

**Annual Reporting** – The LRSSB Annual Report will provide detail of the deliverables achieved within the year, and for any deliverables not achieved, an explanation as to why and to what extent this will impact upon the subsequent year's programme.

Successful management and delivery of the above planning and reporting cycles will aid LRSSB in achieving its goals.

The activities of LRSSB as outlined within this plan are designed to ensure the delivery and long-term sustainability of our core objective which builds upon seven Strategic Aims.

Whilst we are able to determine to some extent the impact of our activities, this is not formally established. Improved stakeholder engagement and data collection/analysis will improve our ability to understand what good looks like against each of our Strategic Aims, and we will develop processes to record and enable reporting on this.

The types of measures that will be adopted are outlined below by each of our Strategic Aims:

## **To assist the light rail sector in providing a safer industry for all, passengers, staff and public.**

Measured by: Statistical data derived from the enhanced functionality of the TAIR2 project and its dashboards. These are to be continually monitored over the coming year.

## **To provide harmonisation across the sector by maintaining a risk profile, both national and local, that alerts and informs all users.**

Measured by: Standardisation/categorisation to ensure consistency of reporting at a local level and at sector level, enabling accurate benchmarking.

## **Through Research and Development, invest in innovative technology that benefits the sector.**

Measured by: Number of potential new initiatives in development and the conversion of these into actual initiatives/products.

## **Produce, manage and maintain a codified standard approach to documentation, guidance and support to the sector.**

Measured by: Number of documents produced and level of adoption into local Safety and Quality Management Systems by members or other customers.

## **Become a centre of excellence for knowledge retention and individual development.**

Measured by: Continuous provision of data to and from members. Staff training, retention and succession/contingency planning. Development of the agreements with recognised qualifications bodies for courses or syllabus or experience-based assessment and accreditation.

## **To ensure sustainable relevance to all stakeholders.**

Measured by: Delivery of Stakeholder Engagement Plan and take-up within the sector of LRSSB products and initiatives.

## **To collaborate with other industry bodies.**

Measured by: Participation in shared initiatives.

The LRSSB maintains an active risk register that is reviewed at every Quarterly Board meeting.

## Summary

LRSSB is now entering its seventh year. This year three update to the 2022 – Three-Year Strategic Plan signals the last year in this current round of funding. LRSSB continues to grow, both in output and in size. We intend to recruit an additional two staff this year to bolster our ever-increasing capacity. This will ensure our capability to deliver on this Business Plan (not a virtue in and of itself).

LRSSB is now gaining extensive interest from overseas markets, and we continue to explore opportunities.

LRSSB has now become an integral part of the light rail sector in the UK and has forged partnerships and agreements with a number of revered and established organisations, and, whilst benefiting LRSSB and our sector, this is also testimony to how those organisations see us. We have also demonstrated our willingness to be open to learning and sharing with other sectors, such as heavy rail colleagues, with our signing of an MoC with RSSB.

Also, following the signing of the MOU with ORR, LRSSB is in discussion with ORR's road traffic accident analysts to attempt to understand how light rail analysis compares with other road users' accident statistics, to see if any lessons can be learnt from their experiences.

LRSSB understands and appreciates the benefits of gaining knowledge from a cross-sector approach to safety and standards.

Our organisation is better placed than ever before to provide support, guidance, education and detailed information to assist each network in addressing their own or collective challenges. However, once again, we have cycled around to the question of future funding. Following the ORR Findings Report, LRSSB has produced its future blueprint strategy. This strategy offers several solutions for future funding, status and governance of LRSSB.

Until the long-standing sustainable certainty of LRSSB is assured, the organisation will be constrained in its attempts to fully explore all of its potential; however, LRSSB has now firmly established itself as the credible safety and standards body for the UK light rail sector.

LRSSB will continue to work alongside the sector, DfT and ORR to resolve this as well as potential avenues of alternative revenues. With the continued support of stakeholders and members, LRSSB can deliver real benefit for the light rail sector, today and in the future.

## Contact us



[lrssb.org](http://lrssb.org)



[@LightRailssb](https://twitter.com/LightRailssb)



0121 214 7107



[@LightRailssb](https://www.linkedin.com/company/light-railssb)



[info@lrssb.org](mailto:info@lrssb.org)



# LIGHT RAIL

Safety and Standards Board

