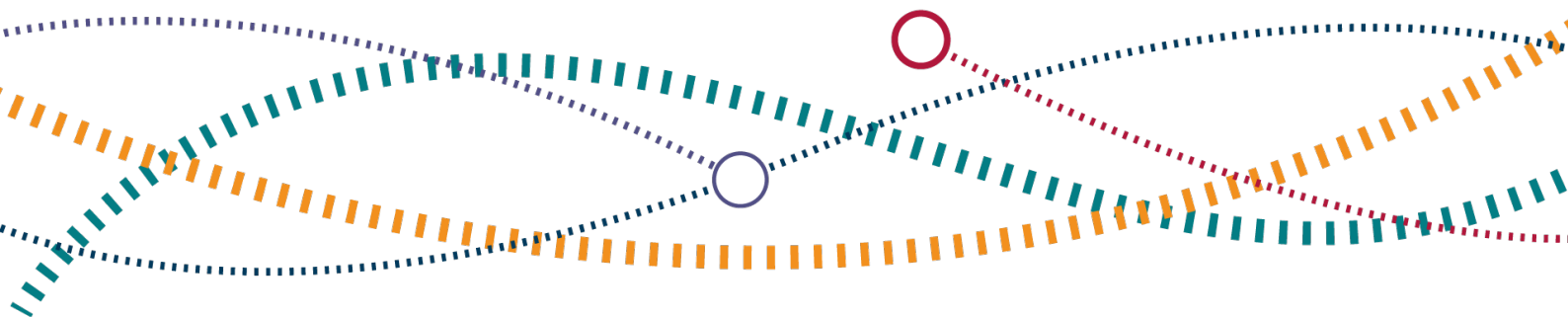




Light Rail Safety and Standards Board Review by Office of Rail and Road

Findings Report

28 March 2022



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Foreword

Importance of this review and having a safety and standards body for the light rail sector

The Light Rail Safety and Standards Board (LRSSB) was formed by the UK light rail industry and UKTram¹ in 2019 under the guidance of the Office of Rail and Road (ORR) and support of the Department for Transport (DfT).

This delivered an important recommendation set out in the Rail Accident Investigation Branch (RAIB) report into the fatal overturning of a tram at Sandilands Junction, Croydon² – to develop a new body to better manage safety standards and good practice across the tram sector.

Since 2019, ORR has monitored how LRSSB is establishing itself as a safety and standards body, which provides important support and guidance to light railway operations and the tramway sector. When LRSSB was created, we set out our intention to conduct a review to assess its progress in becoming an effective body.

LRSSB is now in its third year of operation and we conducted this “temperature check” review of LRSSB’s progress prior to a more comprehensive review at around the five-year point following its formation (exact timing to be determined).

Our review is informed by robust evidence provided through engagement with LRSSB’s stakeholders. We received numerous responses to our survey and I thank everyone who took the time to respond in detail. This feedback helped us to reach our conclusions and recommendations.

I also want to thank my team for their significant work on this review, which highlights that there is real value in continuing to have a safety and standards body that meets the specific needs of the light rail and tramway sector.

The findings of our review show that LRSSB has been effective – adding value and assisting in the delivery of the RAIB recommendations following the Sandilands accident.

¹ UKTram represents the light rail sector in the UK and Ireland, including those involved in trams, metros and personal rapid transit. It brings together all organisations with an interest in the future development of light rail in the UK, ensuring it remains a viable, cost-effective and consistently improving transport option.

² The RAIB report is available at – <https://www.gov.uk/government/news/report-182017-overturning-of-a-tram-at-sandilands-junction-croydon> and <https://www.orr.gov.uk/monitoring-regulation/rail/promoting-health-safety/investigation-enforcement-powers/overturning-tram-sandilands-junction-croydon>

We have made six recommendations, which are intended to ensure that the sector continues to have a structured and formal approach to the continuous improvement of safety standards:

- We recommend that the tramway sector continues to support the role of the safety and standards body for the light rail sector.
- We have made two recommendations for LRSSB's specific consideration to support its continued evolution as a safety and standards body.
- Complementing these recommendations, we have made two broader recommendations around how a safety and standards board could engage and collaborate further with its members, industry and other bodies and to ensure that it has the right structure and support to help it meet future opportunities and challenges. This recognises the important role light rail plays in the wider transport context and the value of a consistent cross-sector approach to safety standards.
- Finally, we have made one recommendation for ORR to review the need for memoranda of understanding (MoUs) or agreements with the light rail sector.

Our report also sets out how we would like LRSSB to report its progress against the recommendations, once accepted. Some of the recommendations will require consideration and input from others, including DfT, ORR, Rail Safety and Standards Board (RSSB) and other LRSSB stakeholders.

My team and I will continue to monitor LRSSB to ensure the recommendations are taken forward.



A handwritten signature in blue ink, which appears to read "Ian Prosser".

Ian Prosser CBE
Director of Railway Safety, ORR
HM Chief Inspector of Railways

1. Summary of recommendations

- 1.1 We have made **six recommendations** under **three broad headings**. The recommendations, a summary of our reasons for making them, and proposed owners are presented in **Table 1.1** below.
- 1.2 More detail on the relevant findings from the review that underpin these recommendations is contained in Section 3 of this report.

Table 1.1 LRSSB Review 2021 – recommendations table

Recommendation number and heading	Proposed owner
<p>1. The value of a safety and standards body for the light rail sector.</p> <p>Recommendation 1: UK Tram operators, owners, and infrastructure managers should continue to support the role of a safety and standards body for the light rail sector. This body will need to have and continue to build specialism and understanding of the sector and be able to meet the specific requirements of the whole light rail sector.</p> <p><i>Reasons for recommendation 1:</i> LRSSB is recognised by its stakeholders as adding value to the sector by bringing structure to the tram sector’s understanding of risk and associated controls, and delivering key outputs such as guidance and risk analysis tools. LRSSB has focused its early work on research and guidance to support tram duty holders to implement relevant Sandilands recommendations. This has clearly illustrated that LRSSB’s creation filled a gap, and that there is a continuing need for a safety and standards body to deliver a risk-based programme of work to support the sector’s understanding and control of safety risk.</p>	<p>Light rail sector</p>
<p>2. The importance of securing a framework to enable LRSSB to plan and evolve to meet future opportunities and challenges in the light rail sector.</p> <p>(i) The role and status of LRSSB.</p> <p>Recommendation 2: LRSSB should review and update its terms of reference to clearly define its role and purpose. The review should include considering how it ensures and demonstrates its independence from UKTram and the relevance of LRSSB’s current status.</p> <p><i>Reasons for recommendation 2:</i> There is broad understanding of LRSSB’s current role and intended purpose. Several stakeholders indicated that LRSSB’s independence was less clear, partly linked to the nature of its ongoing relationship with UKTram. There is a possible perception that LRSSB is operating as a trade association</p>	<p>LRSSB</p>

Recommendation number and heading**Proposed owner**

promoting the needs of its members rather than a safety and standards body ensuring safety.

Membership of LRSSB is voluntary, and its standards and guidance have no status or recognition; LRSSB has no power to require membership nor require members to comply with, or implement standards. Whilst there was no strong evidence to suggest this is causing difficulties at present, as LRSSB evolves it is possible that future proposals may come up against commercial realities, potentially creating tension. It is therefore important that LRSSB's work has an appropriate status and recognition that allows all stakeholders to understand, support, and have confidence in its outputs.

(ii) **LRSSB's relationship with its members and the industry and the nature of that relationship.**

Recommendation 3: ORR recommends that LRSSB reviews – in consultation with its members, DfT and ORR – the current model of voluntary membership and adoption of LRSSB outputs. In particular, LRSSB should consider how its successes to date, under that model, can be continued as LRSSB evolves. LRSSB should report back on its conclusions and any proposals for change.

LRSSB (in consultation with DfT and ORR)

Reasons for recommendation 3: Our review showed that LRSSB has effective relationships with its members and is well regarded. However, linked to recommendation 2, our review also highlighted the potential risk created by the current voluntary nature of LRSSB membership. Our evidence showed that, in practice, stakeholders were adopting standards and guidance voluntarily, but that such an approach relied on members both continuing to see value in doing so, and retaining LRSSB membership. This model is unlike that of the RSSB whereby membership and compliance with many of the standards it issues is written into licence conditions which members are obliged to adopt. Our review also exposed that there is potential for the nature of LRSSB's current status to impact the credibility of the standards, guidance and other outputs it produces.

(iii) **LRSSB's wider relationships, engagement and collaboration with other bodies e.g. trade unions, RSSB, highway authorities and vehicle/tram manufacturers.**

Recommendation 4: ORR recommends that LRSSB develops a stakeholder engagement strategy with a view to strengthening its collaboration with a broader range of stakeholders including relevant trade unions, RSSB, highway authorities and vehicle/tram manufacturers.

LRSSB

Recommendation number and heading

Proposed owner

Reasons for recommendation 4: Our review showed that there was potential for LRSSB to strengthen and broaden its relationships and collaborate with other bodies. Our evidence from RSSB highlighted the opportunities to share learning and experience and to collaborate, where there is a common aim of reducing system risk to the public and the workforce. Our review also highlighted that there were some “gaps” in LRSSB’s stakeholder/membership mapping. In particular LRSSB would benefit from relationships with local and national highway authorities and vehicle/tram manufacturers in order to develop an understanding of the system interfaces. There was also evidence that LRSSB should engage more with relevant trade unions.

(iv) A funded long term plan of work for LRSSB.

Recommendation 5: ORR recommends that LRSSB – in consultation with DfT and ORR – develops a long term strategy and plan of work. This should include the funding arrangements to deliver that plan. It should clearly define the governance arrangements to enable delivery of the plan, and set out how progress against the plan is to be monitored and reported.

LRSSB (in consultation with DfT and ORR)

Reasons for recommendation 5: It is evident that the government is committed to light rail and it has provided significant investment in recent years. Most recently, during the pandemic, the government provided significant levels of financial assistance to the light rail sector. Our review shows the importance of a safety and standards body to support the sector further, as light rail strategies and technologies evolve. In this context, that body will need to plan and programme its work to meet the challenges and opportunities of a growing sector, and ensure that it has the firm financial footing required to deliver its agenda.

3. ORR’s formal relationships with the light rail sector.

Recommendation 6: ORR should take into account the findings of this review as it considers whether there is a continuing need for any MoUs or agreements in relation to light railways. This should be done in liaison with LRSSB.

ORR

Reasons for recommendation 6: ORR’s current MoU with UKTram requires review; and as part of that review the role of UKTram and LRSSB requires consideration. We will reflect on how the recommendations from this review are being implemented in order to form a view on whether existing relevant MoU/s or agreements

remain fit for purpose and whether there is any need to agree new ones.

Implementation: timescales and governance

- 1.3 We have not set specific timescales for each recommendation. However, we would expect to see evidence of progress against all accepted recommendations within twelve months of the report being published, recognising that certain areas such as “securing a framework for the future” may take longer.
- 1.4 In order for the sector to continue building trust and confidence in the effectiveness and benefits of a sector specific safety and standards body, it will be important for the LRSSB Board to establish mechanisms for addressing and demonstrating implementation of the recommendations. We have, therefore, asked that LRSSB provide a progress report to ORR’s Health and Safety Regulation Committee (HSRC), **six months** after the publication of this findings report. The HSRC is a sub-committee to ORR’s Board, which assists the development of safety strategy through debate and discussion, and reviews the overall adequacy of arrangements to meet ORR’s statutory duties. We expect LRSSB’s report to cover the recommendations it owns and a response on behalf of the sector in relation to recommendation 1. HSRC will hold the ORR executive to account for delivering progress against recommendation 6.
- 1.5 We will also monitor progress against the LRSSB recommendations through existing channels and ORR’s observer position on the LRSSB Board.

2. Background and how we structured our review

Formation of LRSSB and context for this review

- 2.1 LRSSB was formed by the UK light rail industry and UKTram in 2019, under the guidance of ORR and support of DfT. This was as a result of specific recommendations contained within the [RAIB report 18/2017: Overturning of a tram at Sandilands Junction, Croydon](#). It is responsible for co-ordinating advances in safety and setting industry standards across the light rail sector. Although the LRSSB's initial work has focused on addressing the recommendations from the RAIB Sandilands report on tramway safety, its membership includes representatives from both tramways and other light rail systems.
- 2.2 LRSSB is governed by the LRSSB Board, which consists of:
- Chief Executive Officer (CEO).
 - Non-executive Chair (Chair).
 - Four Non-executive Directors (consisting of representation from both tram and light rail operators and owners).
 - Managing Director of UKTram.
 - ORR Observer (this replicates the arrangement with RSSB where ORR sits as an observer to the Board).
- 2.3 LRSSB appointed its first permanent Chair Sue Byrne in May 2020, and its first permanent CEO, Carl Williams in October 2020. Their appointments allowed LRSSB to develop formal governance arrangements. The current management structure of LRSSB consists of a CEO, Administration Manager, Safety and Assurance Manager, Engineering Manager and a part time consulting Project Manager. Recruitment for a Data Analyst role will come in tandem with the Tram Accident and Incident Reporting (TAIR) upgrade project commencing in 2022. LRSSB is also supported by UKTram colleagues.
- 2.4 The [key purposes of LRSSB](#) are to:
- (a) Codify and develop standards and guidance to provide both support and guidance to its members.

- (b) Support the design, delivery and ongoing operation/maintenance of light rail systems in the UK and abroad.
- (c) Manage and assist in the collation and analysis of industry safety and risk data, and to provide a platform to help lower the level of risk in the member networks by sharing best practice and benchmarking data.
- (d) Ensure data and learning points are gathered from worldwide industry partner organisations to ensure best practice is shared whenever possible.
- (e) Ensure that ORR/RAIB future recommendations are acted upon industry wide.

2.5 As light rail becomes an increasingly important solution to the UK's urban transport challenges, LRSSB has evolved into the central sector body responsible for coordinating advances in tramway safety and setting recognised industry standards.

2.6 On 28th May 2021 in a letter to Ian Skinner (Head of Non-Mainline Railway, ORR) Sue Byrne, (Non-Executive Chair, LRSSB) and Carl Williams, (Chief Executive, LRSSB) invited ORR to conduct an independent review of the LRSSB in a number of areas, two to three years into its operation. We outlined these in the [LRSSB Review terms of reference](#) which we published on 18 October 2021 and have reflected them in our review framework and this findings report.

Purpose of the review

2.7 ORR conducted its review of LRSSB in order to provide feedback and independent insight in a number of areas:

- (a) Assess whether the intent of RAIB's Sandilands recommendations 1 and 2 has been achieved.

RAIB recommendation 1: ORR should work with the UK tram industry to develop a new body to enable more effective UK-wide cooperation on matters related to safety, and the development of common standards and good practice guidance.

RAIB recommendation 2: UK tram operators, owners and infrastructure managers should jointly conduct a systematic review of operational risks and control measures associated with the design, maintenance and operation of tramways.

- (b) Consider whether LRSSB has the ability to enable sector progress on RAIB's Sandilands recommendations 2 to 6³ and whether its forward business plan adequately continues to seek to address the recommendations and make the required progress.

RAIB recommendation 3: UK tram operators, owners and infrastructure managers should work together to review, develop and install suitable measures to automatically reduce tram speeds if they approach higher risk locations at speeds which could result in derailment or overturning.

RAIB recommendation 4: UK tram operators, owners and infrastructure managers should work together to research and evaluate systems capable of reliably detecting driver attention state and initiating appropriate automatic responses if a low level of alertness is identified. Such responses might include an alarm to alert the tram driver and/or the application of the tram brakes.

RAIB recommendation 5: UK tram operators, owners and infrastructure managers, in consultation with the DfT, should work together to review signage, lighting and other visual information cues available on segregated and off-track areas based on an understanding of the information required by drivers on the approach to high-risk locations such as tight curves.

RAIB recommendation 6: UK tram operators and owners should, in consultation with appropriate tram manufactures and other European tramways, review existing research and, if necessary, undertake further research to identify means of improving the passenger containment provided by tram windows and doors.

- (c) Consider whether LRSSB's output is supporting change and adding value to the industry now and into the foreseeable future. In its letter to ORR inviting the review, LRSSB stated that it would particularly like feedback on whether any "blind spots" in planning, engagement and strategy were identified so that it could use this as a tool to shape future activity.
- (d) Look at the impact of the funding arrangements on LRSSB's activities, and how these arrangements impact (if at all) on LRSSB's ability to grow in a sustainable manner and fully commit to its [Terms of Reference](#).

³ These are the remaining recommendations that remain with the status 'implementation on-going'. Further information on recommendation status can be found [here](#).

2.8 ORR considered this review as a “temperature check”, to assess whether LRSSB is on track with the delivery of the relevant RAIB Sandilands recommendations and to help set it on firm footing as it evolves. ORR considers that there should be a more comprehensive review of LRSSB around the 5 years (since establishment) mark to allow the Board to mature.

How ORR structured the review

2.9 ORR conducted a proportionate and light-touch progress review, engaging with LRSSB and its key stakeholders. These stakeholders included DfT, Transport Scotland, Transport for Wales, RAIB, RSSB, UKTram, Luas, the seven Tram Systems duty holders, Unite, ASLEF, GMB, TSSA, Transport Focus and London TravelWatch.⁴ More details are set out on the stakeholder engagement that informed this review in Annex 1.

Scope of the review

2.10 Our approach to the review included the following key elements. ORR was to:

- (a) Draft and publish the [LRSSB Review terms of reference](#) having consulted LRSSB, DfT and ORR’s HSRC.
- (b) Review relevant LRSSB documents including its terms of reference, objectives, Annual Report and Business Plan.
- (c) Assess LRSSB’s performance and delivery against its terms of reference, objectives, Annual Report and Business Plan.
- (d) Assess LRSSB’s governance to determine whether it has a good organisation structure, with membership and Board commitment.
- (e) Identify what LRSSB should do more of, continue, and do less of.
- (f) Assess the challenges that LRSSB may be facing and how it can prepare for these, in particular securing the required funding for its continued operations and maintaining its independence.
- (g) Gather evidence by engaging with LRSSB and its stakeholders through a stakeholder survey with key stakeholders and individual meetings as necessary to expand on the survey responses.

⁴ Luas is the Dublin tram network, ASLEF is the Associated Society of Locomotive Engineers and Firemen, and TSSA is the Transport Salaried Staffs’ Association.

- (h) Assess results of the survey/engagement with LRSSB and its key stakeholders to identify key findings.
- (i) Produce and publish a findings report having shared the draft report with LRSSB and DfT.

Content and methodology

- 2.11 ORR undertook its review between October 2021 and January 2022. We gathered evidence for the review from LRSSB and its stakeholders through a web based (“Survey Monkey”) stakeholder survey, supplemented by individual meetings and individual sets of questions as necessary. We invited 26 organisations (including DfT) with 40 contacts to respond to our web based survey asking for responses in free text around four areas with thirteen questions. Details about these survey questions are provided in Annex 1 of this report. We sent individual sets of questions to LRSSB, RSSB and DfT. We had an excellent response rate to our surveys from LRSSB and its stakeholders as we consulted 28 organisations and 24 responded. We also met with the LRSSB Chair and CEO, RSSB and representatives from DfT’s light rail team. We also invited DfT to sit on the review as an observer. Details on the sources of evidence for this review are set out in Annex 1 of this report.
- 2.12 We also reviewed a range of publicly available materials – LRSSB’s terms of reference, Business Plans for the last two years and Annual Reports.
- 2.13 We also took the opportunity to review existing, relevant MoUs and agreements in relation to light railways to form a view on whether they remain fit for purpose and whether any further MOUs or agreements might be required to facilitate future working.

3. Key findings from the review

- 3.1 In this section, we have summarised our key findings. These findings are based on evidence gathered from our stakeholder engagement, plus our analysis and monitoring undertaken as the safety regulator for the light rail sector.
- 3.2 In our stakeholder surveys, we used the four areas of the review's stated purpose as overarching themes to gather feedback and have therefore used them as criteria to map out and explain the findings and, where relevant, these themes underpin our recommendations. These areas are set out in Section 2 of this report and in the review terms of reference.

Review area 1: Whether the intent of RAIB's Sandilands recommendations 1 and 2 have been achieved

Summary of evidence

- 3.3 In the stakeholder surveys, we asked a set of specific questions related to whether the intent of RAIB's Sandilands recommendations 1 and 2 had been achieved. We also asked for stakeholder feedback on whether the intent of RAIB's Sandilands recommendation 1 might be more effectively met by an alternative to LRSSB.
- 3.4 The majority of the respondents stated that LRSSB was fulfilling the role as expected for a new body as per recommendation 1 and had been effective in assisting the delivery of recommendations 1 and 2 of the RAIB Sandilands report. To support their views, respondents provided examples of how LRSSB had taken a lead initiative to facilitate the delivery of these recommendations. Some respondents said that this had been partly due to the broad spectrum of expertise of the board and its leadership. Respondents highlighted that LRSSB had brought a more formal and consistent approach to cooperation between the tram operators on safety and the delivery of the recommendations.
- 3.5 In their views on LRSSB's role, almost all of the respondents agreed that LRSSB was delivering its key purposes and highlighted some of its key deliverables to date to support their views. Examples mentioned included LRSSB codifying best practice guidance documents; issuing standards – at a satisfactory pace – following an acceptable review process; developing the TAIR database; and developing a tracker to record historical and current rail industry accidents, associated recommendations and learning points to help ensure the industry can take appropriate mitigation measures. A number of respondents said that in conjunction with ORR, LRSSB had also contributed to the development of the Risk

Management Maturity Model (RM3)⁵ in terms of how it is used and applied in the sector.

- 3.6 A duty holder in their feedback stated that both recommendation 1 and 2 had been achieved to the “letter and spirit” of the RAIB recommendations. The respondent indicated that they would suggest that in terms of next steps, to drive improvement in the sector, the focus should be on improving a systematic understanding of risk, collaboration and benchmarking of safety performance across operators.
- 3.7 LRSSB told us that to date it had primarily focused its attention on assisting the sector with implementing the RAIB Sandilands recommendations as this incident was one of the main drivers for its creation. As a result, the sector now had a national risk model for the first time, allowing for the top risks to be highlighted and assisting LRSSB and the sector to determine where focus should best be concentrated.
- 3.8 We specifically asked for stakeholder views on whether the intent of RAIB’s Sandilands recommendation 1 (to create a new sector safety and standards body and to systematically review operational risks and control measures) might be more effectively met by an alternative to LRSSB. There were no clear suggested alternatives to LRSSB, while some respondents expressed a view that RSSB, for example, would not provide a more effective alternative solution for the light rail sector. In its own response to the survey, RSSB proposed establishing a more formal relationship with its light rail counterpart.
- 3.9 On this issue, a respondent suggested that although RSSB was successful in its own right, having a heavy rail perspective to light rail issues would, in their view be the wrong choice. Another respondent highlighted that there had been discussions following Sandilands on whether RSSB might lead some of the work, but this was not pursued actively, as at that time a light rail specific body was seen as a better option. The respondent also noted the differences between tramways and heavy rail and the importance of ensuring that standards are proportionate to the risks involved. They also commented on the varied nature of the risks in light rail that are not always applicable to the heavy rail network. On a similar note, some respondents highlighted that the standards developed should remain proportionate and targeted. Almost all of the respondents said that LRSSB was the most suitable

⁵ ORR developed RM3 in collaboration with the rail industry as a tool for assessing an organisation’s ability to successfully manage health and safety risks, to help identify areas for improvement and provide a benchmark for year-on-year comparison. RM3 has provided guidance to industry on excellence in health and safety risk management. For further details, see ORR website at – <https://www.orr.gov.uk/guidance-compliance/rail/health-safety/strategy/rm3>

safety body to meet the intent of recommendation 1, that it was focused on the needs of the light rail sector and was agile to any changing requirements. One respondent suggested that LRSSB could be combined with UKTram.

- 3.10 RSSB told us that, in its view, differences between light and heavy railway systems were becoming increasingly blurred as sponsors explore the potential for tram train solutions. In its response, RSSB stated that they had extensively supported the work done by the Sheffield Tram-train project, Light Rail deployments on the network owned by Transport for Wales and other similar projects. RSSB also said that they had worked with manufacturers on various aspects of standards compliance and interpretations. RSSB considered that there were no barriers to joint standards and guidance being developed between the light rail and mainline organisations which are applicable for operations and design on the non-mainline only, or mainline only, or both. RSSB said they would welcome a more formal relationship with LRSSB to explore how the two organisations could work together and use limited resources most effectively such that common systems and rail expertise can be leveraged for both types of railway systems.
- 3.11 We have set out below some direct quotes from stakeholder responses to illustrate the above.

Views from stakeholders

“LRSSB has enabled the sector to meet recommendation 1 & 2 of the RAIB Sandilands Report...”

(Tram Systems duty holder – response #6 to Q5)

“Yes. It was established to offer support and advice to the light rail industry and is instrumental in delivering/establishing a risk model and database that results in identification and risk mitigation. This is evident in an industry wide response/approach to the Sandilands RAIB report.”

(Tram Systems duty holder – response #7 to Q2)

“LRSSB have been fundamental in support/advice and working with the industry members to establish safety standards and understand safety risk associated with light rail operations. An example being driver vigilance.”

(Tram Systems duty holder – response #7 to Q3)

Stakeholder views on an alternative to LRSSB:

“...the LRSSB model is ideal for the light rail industry as it is entirely focused on our needs, unlike RSSB which as the heavy rail body, is focused on a different set of criteria for a non-line of sight rail system... only real alternative (RSSB) would not be a more effective solution for the light rail industry.”

(Tram Systems duty holder – response #2 to Q6)

“No. There were discussions following Sandilands on whether RSSB should lead some of the work. I don’t believe that would have been good for the industry. Tramways are different to heavy rail and we need to ensure the standards are proportionate to the risks involved and the varied risks that are not applicable to the heavy rail network.”

(Combined Authority – response #11 to Q6)

“No, LRSSB was shaped by industry for the industry with input from all the relevant stakeholders. It has to date achieved its objectives and continues to grow into a role that was envisaged.”

(Trade body – response #13 to Q6)

“No, LRSSB is the logical output of recommendation 1.”

(Rail Investigation Body – response #15 to Q6)

“No, LRSSB largely meets the intention of the recommendation.”

(Tram Systems duty holder – response #17 to Q6)

“No, LRSSB did need to be produced from within the sector, the sector best understands its own needs and the support and guidance it produces are specific. Although the RSSB are successful in their own right, having a heavy rail perspective to light rail issues would be the wrong choice.”

(Tram Systems duty holder – response #21 to Q6)

Conclusion and recommendation

- 3.12 It is evident that the creation and establishment of LRSSB has satisfied the requirements of RAIB Sandilands Recommendations 1 and 2. The introduction of a light rail sector and standards body was also consistent with the general principles enshrined in [The Ladbroke Grove Rail Inquiry Part 2 Report](#) in that the function of setting sector specific standards (in that case for the mainline railway) should be assumed by a body independent of any one organisation in that sector and it would be inappropriate for the safety regulator to perform this function.
- 3.13 The evidence from our review shows that there is demonstrable value in having a sector specific safety and standards body for light rail and highlights the value added by LRSSB. Stakeholders told us about the overall positive impact LRSSB has had on the tram industry's ability to address the relevant RAIB recommendations and how it has brought structure to the tram sector's understanding of risk, controls and delivery of key outputs such as guidance and risk analysis tools. The fact that a sector specific safety and standards body exists allows the industry to communicate and collaborate and to benefit from a "guiding mind" on safety matters. This had been particularly important in enabling seven different tram systems to manage the safety issues highlighted by Sandilands in a consistent manner. There was a view that this might not happen if such a body as LRSSB was not there with the remit it has.
- 3.14 Our evidence also shows that LRSSB is continuing to establish itself. Although largely focussed so far on enabling tram duty holders to implement RAIB Sandilands recommendations, it is clear that there is a continuing wider need and programme of work for a safety and standards body. ORR has, therefore, concluded that there is a continued need for a sector specific safety and standards body. This body will need to have, and continue to build, specialism and understanding of the sector and be able to meet the specific requirements of the whole light rail sector.
- 3.15 **Recommendation 1: UK Tram operators, owners, and infrastructure managers should continue to support the role of a safety and standards body for the light rail sector. This body will need to have and continue to build specialism and understanding of the sector and be able to meet the specific requirements of the whole light rail sector.**

Review area 2: Whether LRSSB has the ability to enable sector progress on RAIB's Sandilands recommendations 2 to 6 and whether its forward business plan adequately continues to address them to make the required progress

Summary of evidence

- 3.16 Recommendations 2 to 6 of RAIB's Sandilands investigation report required UK tram operators, owners and infrastructure managers to better understand the safety risk associated with tramway operation, and to research potential technological solutions to improve safety. LRSSB led much of this research work, supplementing early work done by individual tramways, such as London Tramlink. The outputs, such as the new safety risk model and topic guidance, are helping individual tramways identify solutions to address the specific requirements of these recommendations. For example, in May 2021, LRSSB completed its research work on speed control and driver attentiveness devices, publishing guidance that is now supporting tramways' decisions in these key risk control areas.
- 3.17 We gathered evidence to understand LRSSB's role and governance through its Annual Reports, Business Plans and terms of reference. Almost all of the respondents considered that LRSSB had the right key purposes and objectives to support the sector to understand risk and manage safety. The stakeholder feedback highlighted numerous examples of LRSSB working alongside its members to establish the processes required to successfully establish safety standards and to better understand safety risk associated with tramway operation, which will provide industry wide benefits to enhance safety. Examples mentioned in this context included the development and implementation of TAIR, usability and acceptability of speed control, and driver vigilance.
- 3.18 According to one respondent, LRSSB had brought a focus on safety matters across the industry and provided research and development of standards in key areas of the RAIB's Sandilands recommendations and beyond. They said that prior to the introduction of LRSSB, much of this research and development would have been done by individual operators, leading to a potential lack of consistency in results and approach. It was stated that LRSSB ensured that there was consistency in both the research and the development of clear and consistent standards which could be applied across the industry.

- 3.19 A few of the respondents pointed out that in its first year, LRSSB focused heavily on issues and recommendations from the RAIB Sandilands report, but that in the last 12 months there had been greater focus on current and trending issues. A respondent also added that given the varied approaches across the industry it was important that the standards developed were well considered and deliverable and that the pace of such work allowed sufficient consideration by the industry. The respondent did however have concerns about the reliance on consultants to deliver many of the outputs proposed by LRSSB and thought that greater certainty in relation to funding would allow LRSSB to deliver more using its own resources. Another respondent said that LRSSB had worked within an acceptable timeframe and, as it had become more established, the pace of standards production had increased. This was noteworthy considering the impact of the COVID-19 pandemic and the limited timeframe commitment of initial funding.
- 3.20 On the effectiveness of LRSSB's governance and processes, the majority of the respondents stated that they thought LRSSB's governance arrangements supported delivery of its key purposes. One respondent highlighted that LRSSB's governance arrangements had recently been consulted on with industry and the revised documents took account of the feedback provided. A few of the respondents were not familiar with the details of LRSSB's governance – ORR had provided links to the relevant suite of documents in the stakeholder surveys – and thought this aspect could be clearer. ORR's own desktop review had revealed that the terms of reference, planning documents and reports could be more accessible and visible.
- 3.21 A number of respondents commented on the positive impact of the current CEO and Chair (as individuals) on LRSSB, in particular that they had helped to drive the work programme forward and that the general pace of delivery against it was increasing. Some respondents told us that having a permanent CEO (compared to the previous interim arrangement) and a Chair (from outside the sector) had provided impetus and fresh insight to the work of LRSSB. Another respondent stated that the CEO would benefit from some more senior full-time support. On a similar theme, another respondent considered that the group would benefit from deeper breadth of experience in safety management but that LRSSB's structure and representation were adequate.
- 3.22 We discussed with LRSSB and RSSB the potential implication of the adoption of standards, guidance and other outputs from LRSSB whilst membership remains voluntary. LRSSB told us that adoption/take up rates had been high and that they had secured good input and feedback to the development of standards and guidance, with a strong sense of ownership across the sector. They noted that this could be as a result of some regulatory pressure to deliver the Sandilands

recommendations. LRSSB stressed the importance of engagement and encouragement to share best practice in order to influence members and show how value could be added through LRSSB but recognised that they were not in a position to compel their membership to adopt LRSSB outputs nor to remain members of LRSSB. The risk model would enable informed discussions to be made.

- 3.23 RSSB also remarked on the viability of a self-funding membership-based model and the risks of this leading to an underfunded service with organisational overheads which cannot deliver extensive benefits to its customers.
- 3.24 There was also a view that a greater degree of independence (perceived and actual) from UKTram as a trade body was needed, and the interfaces with local authorities and roads authorities such as National Highways and other transport networks (including mainline railway) needed to be properly understood to assess why independent intervention via LRSSB was required.
- 3.25 In their feedback as part of this review, LRSSB also told ORR that they could not forward plan with confidence and ambition due to the uncertainty and security of long term funding. Their Business Plan only therefore looks to the next two years. In LRSSB's 2020-2021 and 2021-2022 Business Plans, they state publicly that long term planning is impossible without funding certainty.
- 3.26 LRSSB does however proactively horizon scan for new, emerging and innovative ideas from within the UK and overseas in order to assess where and how any research and development investment should best be allocated to support the sector. We also understand that LRSSB is developing some longer term, more strategic proposals.
- 3.27 As well as facilitating full implementation of the Sandilands recommendations still in progress, respondents provided a number of suggestions where LRSSB might need to focus over the next five years to support tramway and light rail safety. Some stakeholders suggested LRSSB should continue its work on codification of guidance but should start to develop more standards, with a focus on high consequence, low frequency incidents. A respondent stated that it was important to push and enhance competence in risk assessment and how it shapes the safety of tramways. Others thought that increased benchmarking and analysis of safety performance, and innovation were helpful areas to pursue.
- 3.28 A respondent highlighted that the industry needs to discuss the potential benefits of a sector wide Tram Driver licence regime. They said that each operator has

their own standards for issuing licences and suggested it would be sensible to take a standardised approach in this area.

- 3.29 We have set out below some direct quotes from stakeholder responses to illustrate the above.

Views from stakeholders

“...in the last 12 months the LRSSB has developed in to the organisation it is trying to be. More focus is placed on the delivery for supporting guidance of documentation and in a manner that is prioritised in order to best support the tramway industry...its first year of operation did not deliver on output, but since the permanent chair and CEO have been appointed this has been much more positive.”

(Tram Systems duty holder – response #21 to Q2)

“LRSSB has started to raise the safety level in the sector and has provided the tools, guidance and standards to set the foundations for this to continue going forward.”

(Trade body – response #13 to Q4)

“Very effective – their support in development of the industry risk model, system risk models and the TIAR database has been invaluable to this process.”

(Tram Systems duty holder – response #12 to Q5)

“The LRSSB’s governance arrangements, particularly the 2021/22 Business Plan, set out a comprehensive coverage of progressing it key purposes.”

(Tram System duty holder – response #5 to Q7)

“The terms of reference appear consistent with the delivery of its key purposes...”

(Rail Investigation Body – response #10 to Q7)

“Yes, I believe it does, this has recently been consulted with industry and the revised documents take account of the feedback provided.”

(Tram Systems duty holder – response #12 to Q7)

“...the pace has improved since the arrival of Carl Williams and the business plan is now clearer... the organisation could benefit from more staff but given its size and relative newness...LRSSB is currently "punching above its weight".”

(Tram Systems duty holder – response #9 to Q8)

“...the pace of delivery has been excellent bearing in mind the level and type of funding, size of the organisation and magnitude of the tasks set post Sandilands.”

(Tram System duty holder – response #12 to Q8)

“Considering the impact of Covid-19 and the limited timeframe commitment of initial funding, LRSSB has worked within an acceptable timeframe and as the company has become more established the pace of Standards production has increased.”

(Trade body – response #13 to Q8)

“Yes, though as the company develops the ability to appoint Executive Directors alongside the NED’s should be considered to ensure gaps do not appear in the Board skillset – Note the UKTram MD is a Board Observer like ORR and is not a Director of LRSSB.”

(Trade body – response #13 to Q9)

“LRSSB clearly sets out its objectives in the annual business plan. However, there is one area where the industry has not discussed in any great depth. Tram Driver licence acquisition. Each operator has their own standards for issuing licences. It would be sensible to take a standardised approach in this area.”

(Tram Systems duty holder – response #6 to Q11)

“...would like to see further progress on the improvements of technology to intervene in case of drivers losing awareness (eg improved driver vigilance systems and automatic braking at high risk locations).”

(Rail Investigation Body – response #10 to Q12)

Conclusion and recommendation

- 3.30 The sector took a significant step forward when it established LRSSB, as a means to help it improve the identification and control of risk; LRSSB plays an important role in supporting owners, infrastructure managers, and operators, as it produces significant pieces of guidance to enable them to develop improved understanding of their risk profile, control capability, and areas for improvement. LRSSB is required to maintain this important role in leading safety, and part of this will be keeping under review the possibilities that developing risk control technologies may offer the tram sector, particularly from other transport sectors. Maintaining an authoritative and respected reputation is key, to ensure that LRSSB continues to have the necessary impact.
- 3.31 Our evidence shows that LRSSB has an adequate internal governance/structure in place and despite the short period in post, the appointments of the current Chair and CEO have had a positive impact on the pace of delivery and LRSSB's ability to progress its programme of work. It appears that having a permanent CEO and a Chair from outside the sector has provided impetus and fresh insight to the work of LRSSB. However, the lack of funding security appears to have impacted LRSSB's ability to build their in-house capability and instead it has had to rely on consultants for specific tasks. The use of consultants may not be sustainable for LRSSB's future development and this should be reviewed subject to resolving future funding issues.
- 3.32 Our review revealed that LRSSB would like the ability to plan longer term and provide a clear forward programme of intended work which reflects its aspirations, and that includes timelines for the development of guidance and standards (relevant to the remaining Sandilands recommendations and more widely). LRSSB should also be able to develop a strategy that looks beyond the safety horizon.
- 3.33 To facilitate this forward programme and fully reap the intended benefits, the safety and standards body is likely to require the authority to make binding decisions and to be recognised as fully independent.
- 3.34 The stakeholder survey highlighted a number of areas where LRSSB should focus its efforts over the next five years to support tramway and light rail safety. A priority was LRSSB's continued work on codification of guidance but with a move towards a focus on high consequence, low frequency incidents.
- 3.35 **Recommendation 2: LRSSB should review and update its terms of reference to clearly define its role and purpose. The review should include considering how it ensures and demonstrates its independence from UKTram and the relevance of LRSSB's current status.**

- 3.36 **Recommendation 3: ORR recommends that LRSSB reviews – in consultation with its members, DfT and ORR – the current model of voluntary membership and adoption of LRSSB outputs. In particular, LRSSB should consider how its successes to date, under that model, can be continued as LRSSB evolves. LRSSB should report back on its conclusions and any proposals for change.**

Review area 3: Whether LRSSB’s output is supporting change and adding value to industry now and into the foreseeable future. LRSSB particularly requested feedback as to whether there were any blind spots in planning, engagement and strategy, so it could use this as a tool to shape future activity

Summary of evidence

- 3.37 As part of the stakeholder survey, we asked a number of questions to gather feedback on LRSSB’s planning, engagement and strategy to consider whether there were any gaps or blind spots for LRSSB to address in order to shape future activity. The feedback on these issues has been highlighted throughout Section 3 and used to underpin ORR’s recommendations.
- 3.38 On LRSSB’s relationship and engagement with its members and the light rail sector, some of the respondents suggested that in order to facilitate effective discussion of technical tram issues and to gain better insight into European standards, it would be useful to have representatives from the tram manufacturers. Another respondent considered that whilst LRSSB’s current structure was sufficient to deliver in the short term, a key interface was with other highway users and there may be opportunities to bring in highways experience to improve collaboration and cooperation. This collaboration could allow standards to be shared and better equip those responsible for the UK’s highway network to understand the risks associated with highway design and operation and the potential impact of their decisions on light rail. There was also increasing links with heavy rail as more Tram Train systems are considered.
- 3.39 On LRSSB’s wider relationship and engagement with other bodies, a trade union respondent said that as a key stakeholder, it had so far not been engaged by the LRSSB, and thus outputs were liable to miss significant workforce considerations. They also suggested that LRSSB must reflect the ways other bodies operate, such as RSSB, and seek and welcome the involvement of trade unions as key stakeholders with an important role to play in the review of safety and

development of adequate and appropriate guidance. This respondent emphasised the benefits of consulting and engaging with trade unions as a way of improving the management of risk, introducing effective control measures, and developing good practice.

- 3.40 On a similar theme, RSSB said that in the absence of a formal arrangement between themselves and LRSSB, collaboration between them had been limited to examples where light rail interfaced with the mainline. RSSB noted that engagement was triggered only when there were issues of relevance to the mainline sector (such as the use or design of light rail systems for mainline, or where interoperability between the two networks is required). Topics raised had been with regards to standards and safety matters. RSSB has some common members with LRSSB so its members have an interest in light rail operations. RSSB said it was keen to collaborate and cooperate to learn lessons of relevance to safety and interoperability and stated that:
- (a) increasingly health and sustainable development are areas where collaboration across light rail and mainline makes sense to enable integrated transport solutions;
 - (b) health and well-being of staff and customers could be encouraged through collaboration; and
 - (c) through collaboration, opportunities could be explored to promote rail (light or mainline) as solutions to getting the UK to meet its emissions targets as well as leverage the social value that rail adds to society at large. RSSB said they would therefore welcome a formal relationship with LRSSB and to explore how the two organisations could work together and use limited resources most effectively such that common systems and rail expertise could be leveraged for both types of railway systems. They also stated that a lot of the common ground between RSSB and LRSSB is much broader than safety. RSSB stated that there was spectrum of wider collaboration and opportunity between the two bodies in relation to operations, sustainability, and economic areas.

- 3.41 RSSB highlighted that, in its view, a key part of the continued success of any future safety and standards body was a clear understanding of the government and regulatory aspirations for the light rail sector and the sector's own perspective of those regulatory aspirations. RSSB stressed that having a collaborative health and safety strategy and sharing knowledge, tools and techniques was important. Therefore, in order to continue to add real value, LRSSB should develop a strategy which sets out its vision and objectives. This would require wider

engagement with operators, owners, interfacing bodies, local authorities and the regulator. RSSB also added that greater clarity of regulatory policy would assist with the development of such a strategy.

3.42 We have set out below some direct quotes from stakeholder responses to illustrate the above.

Views from stakeholders

“...would welcome a formal relationship with LRSSB and explore how the two organisations could work together and use limited resources most effectively such that common systems and rail expertise can be leveraged for both types of railway systems.”

(Safety and Standards Body)

“Yes. The mix of operators, owners and non executive directors ensures a balanced view that is in the interests of the industry as a whole rather than one particular sector.”

(Combined Authority – response #11 to Q7)

“...the composition provides a good mix and should allow effective governance. Although not mandated, it would be good to retain inclusion of people with experience from outside the industry to encourage best practice, for example from mature safety environments such as airlines or oil & gas.”

(Tram System duty holder – response #5 to Q9)

“It would be useful to consider a representative of tram manufacturers – this may be difficult to arrange but would enable discussion of technical issues related to the trams and an insight into European standards.”

(Rail Investigation Body – response #10 to Q9)

“Whilst I believe the above structure is sufficient to deliver in the short term one of the key interfaces is with other highway users so there may be an opportunity to bring in some highways experience, both to feed in their standards and also to help those responsible for the UKs highway network understand the risks associated with highway design and operation and the impact their decisions have

on light rail. There is also the link with heavy rail as more Tram Train systems are considered.”

(Combined Authority – response #11 to Q9)

“...it is vital that all industry stakeholders including...are fully engaged, involved, and consulted – as per recognised best practice, inline with a substantial body of research, and as regulators tend to recognise. At present the LRSSB lacks representation from light rail drivers despite ...’s efforts, and it will therefore be missing a significant breadth of experience.”

(Trade Union – response #18 to Q9)

Conclusion and recommendation

- 3.43 The stakeholder feedback we received has highlighted the importance of proactive engagement and collaboration between members and other organisations. This review has shown that there is potential for LRSSB to strengthen and broaden its relationships and collaboration with other bodies.
- 3.44 The evidence we received from RSSB highlighted the opportunities to share learning and experience and to collaborate, where there is common aim of reducing system risk to the public and the workforce. There are opportunities and benefits for both LRSSB and RSSB to provide access to their completed works, experience and involvement in relevant projects and initiatives.
- 3.45 Our review has also highlighted that there were some “gaps” in LRSSB’s stakeholder/membership mapping. Respondent’s suggestions to help to close the gap included proactive engagement and collaboration, particularly to develop relationships and understanding of the system interfaces with the local and national highways authorities and vehicle/tram manufacturers, including those overseas. Engagement with relevant trade unions could also be improved.
- 3.46 **Recommendation 4: ORR recommends that LRSSB develops a stakeholder engagement strategy with a view to strengthening its collaboration with a broader range of stakeholders including relevant trade unions, RSSB, highway authorities and vehicle/tram manufacturers.**

Review area 4: Impact of the current funding arrangements on LRSSB's activities and ability to grow in a sustainable manner and fully commit to their terms of reference

Summary of evidence

- 3.47 At the point of its creation, LRSSB developed a funding model in conjunction with DfT that recognised that the costs of establishing and operating the LRSSB in the early years should be shared between the DfT and sector. This equated roughly to a two third/one third split between DfT direct funding and sector contributions (as secured through subscriptions). DfT informed us that it has provided more than £3m funding to LRSSB since 2019/2020 and at the time of writing this report, we understand that DfT are in discussion with LRSSB on the future funding arrangements. To understand the impact of funding on LRSSB's activities and ability to grow in sustainable manner, we asked a number of specific questions in our stakeholder survey and interviews.
- 3.48 Most of the respondents highlighted the negative implications of LRSSB's current funding difficulties and some suggested that LRSSB required a higher level of government funding to enable its growth. A respondent said that in their view the government and light rail industry needed to continue to support LRSSB. This respondent said that a risk going forward was that one, or both, of these would decide to remove support. Given that there was no legislative basis to impel the industry to support LRSSB, in that scenario consideration might have to be given to a legislative model to support continued membership and operation.
- 3.49 Another respondent mentioned that the current level of resource dedicated to LRSSB was too limited and the structure was flat which, in their view, was not sustainable in the long term. A respondent also said that long-term commitment was required from DfT (government) and mandated membership from all light rail duty holders (owners and operators).
- 3.50 On the same theme, a respondent stated that for LRSSB to be viable, funding needed to be certain and sustainable. They said LRSSB's long term planning was impeded by an inability to commit over a longer period. Whilst externally generated income might be helpful and something that could be explored further, it was not sufficiently certain to enable LRSSB to make any commitments on the strength of it.

- 3.51 A duty holder told us that Transport for Greater Manchester (TfGM) was currently the biggest funder of the LRSSB aside from DfT. They said that it was difficult to see how this model would be sustainable when (i) contributions were not mandatory and organisations like TfGM were under considerable financial pressure and (ii) that light rail seemed to be “a poor relation” in terms of policies at government level. This duty holder said that they hoped to see LRSSB fully funded by DfT on a long term basis. A respondent also stated that funding needs to be on a multi-year basis to allow LRSSB to plan activities, invest in research and allow it to continue to support the industry.
- 3.52 In its 2020-21 Business Plan, LRSSB stated that their key objectives were sustainable for a period of two years with current funding in place. They also stated that it would be impossible for LRSSB to continue its work past this date without a long term funding commitment from government in a similar arrangement to the funding style of RSSB. In their 2021-22 Business Plan, LRSSB state that long term planning is impossible without funding certainty. Furthermore, in its feedback to us during this review LRSSB said that the “uncertainty and security of funding hampers the long term strategic planning of the organisation.” They said that a good level of output could be delivered with the current budgeted amounts but that a 3 to 5 year funding model would enable them to develop a more significant programme of potential outputs. They stated that the current structure however did not allow further development of LRSSB or enhance the benefits to the sector, LRSSB would therefore remain reliant on consultancy input to deliver.
- 3.53 DfT was invited as part of our review to help provide some context for future planning. They told us that safety on the tramways was of paramount importance to the Department. They confirmed that DfT had provided more than £3m funding to LRSSB since 2019/2020 and that it will continue to work with all bodies and stakeholders concerned to ensure that the safety of passengers and staff are fully integrated into the operations of trams across the country.
- 3.54 DfT stated that it continues to engage with LRSSB to ensure that it has the correct governance and resources to achieve its objectives, noting that light rail is a lifeline for many communities across the UK. During the pandemic, the government had provided significant levels of financial assistance to the light rail sector through the Light Rail Revenue Grant and the Light Rail Restart Revenue Grant, supporting 6 light rail operators and local transport authorities in England, outside of London, with over £200 million in funding since March 2020.
- 3.55 DfT also advised that through funding packages to cities, including the £2.45 billion Transforming Cities Fund and the recently announced £5.7 billion City

Regions Sustainable Transport Settlement, the government had paid for or underwritten significant investments in light rail in recent years, principally in Greater Manchester and the West Midlands. This included innovative battery powered technology to enable catenary-free running in parts of Birmingham City Centre.

3.56 Finally DfT told us that they are currently considering the next steps and future direction for light rail, in the wider context of Covid recovery.

3.57 We have set out below some direct quotes from stakeholder responses to illustrate the above.

Views from stakeholders

“Giving LRSSB security of funding for a reasonable period will allow LRSSB to recruit its own skilled workforce and allow more internal production of documentation. More important than this will be the ability to innovate for ourselves and develop and find ideas from elsewhere that will help the sector in the future.”

(LRSSB – response to Q8)

“To be sustainable, the funding needs to be certain and sustainable. Long-term plans require the ability to commit over a longer period. Whilst externally generated income is helpful and something that could be explored further, it is not sufficiently certain to make commitments against.”

(Tram System duty holder – response #5 to Q10)

“The insecurity on the availability of future funding and funding certainty both in terms of the value of future funding and duration are essential. A multi-year funding settlement is essential in order to allow LRSSB to secure resource but also to invest in research.”

(Combined Authority – response #11 to Q10)

“The LRSSB needs a higher level of Government funding to enable its growth. The current level of resource is limited and the structure is flat – this is not sustainable in the long term.”

(Tram System duty holder – response #12 to Q10)

“Consideration could be given to additional revenue generation through the provision of ICP activities and auditing services.”

(Rail Investigation Body – response #17 to Q10)

Conclusion and recommendation

- 3.58 We recognise that the uncertainty around future funding (as outlined above) and the absence of a defined government strategy for light rail have the potential to impede LRSSB in its planning.
- 3.59 It is clear that a safety and standards body for the sector will require long term, guaranteed funding. This may be funding from government, the sector (through for example mandatory membership) or a combination of the two.
- 3.60 Our review highlights that this funding certainty is critical to LRSSB’s activities, pace of delivery, and future planning. Initial funding arrangements have enabled LRSSB to deliver a relatively ambitious programme of work that has delivered a new safety risk model and supporting safety database, RM3 toolkit, research programmes, and more than fifteen new guidance documents as summarised in [LRSSB’s 2020/21 Annual Report](#). However, longer term commitments and plans are less certain and aspirational without the ongoing secure funding arrangements. It is evident that LRSSB considers that long term funding arrangements need to be in place to enable greater coherence and efficiency, through robust planning and delivery over the medium to long term.
- 3.61 **Recommendation 5: ORR recommends that LRSSB – in consultation with DfT and ORR – develops a long term strategy and plan of work. This should include the funding arrangements to deliver that plan. It should clearly define the governance arrangements to enable delivery of the plan, and set out how progress against the plan is to be monitored and reported.**

Other factors considered/evidence gathered to support the review

- 3.62 As part of our review, we considered the role that LRSSB had taken in assisting the sector to discharge recommendations beyond the Sandilands recommendations. Overall, ORR considers that LRSSB has had a positive impact on the tram industry’s ability to address RAIB recommendations.

RAIB recommendations addressed by LRSSB

- 3.63 In terms of addressing RAIB recommendations, LRSSB has had a role in three areas. These include:
- (a) RAIB recommendations addressed to LRSSB directly;
 - (b) Cross industry recommendations that predate the establishment of LRSSB; and
 - (c) Providing guidance that individual tram networks can then use to address a RAIB recommendation.

RAIB recommendations addressed to LRSSB

- 3.64 There have been two recommendations directed to LRSSB. Both of these were from the [RAIB Report 09/2019: Fatal collision between a tram and a pedestrian, near Saughton tram stop, Edinburgh, 11 September 2018](#), and related to issuing guidance, one on the audible warning provided by trams and the other on the design and layout of pedestrian crossings.

Cross industry recommendations that predate the establishment of LRSSB

- 3.65 LRSSB has also taken action to address two RAIB recommendations that had been directed to UK Tram ([Market Street recommendation 3](#)) and all tram networks ([Piccadilly Gardens recommendation 1](#)).
- 3.66 [Market Street recommendation 3](#) was addressed to UK Tram and was concerned with the provision of guidance for the management of risk in urban areas where trams share space with pedestrians and other road users. LRSSB provided some impetus and has now issued suitable guidance.
- 3.67 [Piccadilly Gardens recommendation 1](#) was addressed to all tram networks and was concerned with improving data collection from collisions involving trams. This has been done using the TAIR system that was partly developed by LRSSB and has been adopted by all tram networks.

Existing relevant MoUs or agreements

- 3.68 ORR's current MoU with UKTram is due to be reviewed, in light of the creation of LRSSB. We will reflect on how the recommendations from this review are being implemented in order to form a view on whether existing MoUs or agreements remain fit for purpose and to consider whether any further MoUs or agreements

might be required to facilitate future working. To do this, we will liaise with LRSSB and the ORR Board.

- 3.69 **Recommendation 6: ORR should take into account the findings of this review as it considers whether there is a continuing need for any MoUs or agreements in relation to light railways. This should be done in liaison with LRSSB.**

Summary of key findings

3.70 Our key findings are:

- (a) The creation of LRSSB has filled a gap and there is continued need and a programme of work for a safety and standards body (**see recommendation 1**).
- (b) LRSSB is recognised by its stakeholders as bringing structure to the tram sector's understanding of risk, controls and delivery of key outputs such as guidance and risk analysis tools, thereby adding value (**see recommendation 1**).
- (c) LRSSB's stakeholders understand its current role and intended purpose and regard its work as appropriately targeted. However, there is less clarity on how LRSSB demonstrates its independence and there is a perception from some that LRSSB operates more like a trade association (being part of UKTram). It is important for LRSSB's stakeholders to understand, support and have confidence in LRSSB as it evolves (**see recommendation 2**).
- (d) LRSSB has effective relationships with its members through the channels it has developed. However, the current voluntary nature of LRSSB's membership presents a potential risk that could impact the status and credibility of the standards, guidance and other outputs from LRSSB (**see recommendation 3**).
- (e) There is potential for LRSSB to strengthen and broaden its relationship and collaboration with other bodies (**see recommendation 4**).
- (f) There are some "gaps" in LRSSB's stakeholder/membership mapping particularly with highways authorities and vehicle/tram manufacturers and increased engagement with trade unions (**see recommendation 4**).

- (g) A safety and standards body will need to be on firm financial footing to ensure that it is able to develop a long-term strategy, plan and programme of work to deliver its agenda (**see recommendation 5**).
- (h) Some stakeholders suggested future work areas for LRSSB to take forward (**see recommendation 5**).
- (i) Existing MoUs or agreements in relation to the light railways and tramways will need to be reviewed to determine whether they remain fit for purpose and whether new ones might facilitate future working (**see recommendation 6**).

4. Annex 1: Methodology and sources of evidence for the review

4.1 Our review was conducted between October 2021 and January 2022. The review included the following sources of evidence that helped to inform the conclusions and recommendations. We are grateful to LRSSB and its stakeholders for taking the time to engage with us.

Desk research and document review

4.2 We reviewed a number of documents including LRSSB's terms of reference, Annual Reports, Business Plans, LRSSB's Board meeting packs and some of LRSSB's publications, particularly those found on its website.

Web based stakeholder survey

4.3 Overall, we consulted 28 stakeholders. These included LRSSB, DfT, Transport Scotland, Transport for Wales, RAIB, RSSB, UKTram, Luas, the seven Tram Systems duty holders, Unite, ASLEF, GMB, TSSA, Transport Focus and London TravelWatch.

4.4 We invited 26 organisations with 40 contacts to respond to our online "Survey Monkey" survey asking for responses in free text around four areas with thirteen questions. The four areas we gathered feedback included:

- (a) LRSSB's role: safety leadership and relationship with its members and sector;
- (b) LRSSB's governance;
- (c) Future challenges and how LRSSB responds to these; and
- (d) Any other comments that may help inform the review.

4.5 We asked the following questions in the online stakeholder survey:

- 1 The Respondent's details.
- 2 Do you think the LRSSB is delivering its key purposes? Please provide reasons for your answer.

- 3 Do you think the LRSSB has the right key purposes and objectives to support the light rail and tramway sector to understand risk and manage safety? Please provide reasons for your answer and some examples if possible.
- 4 Please describe what impact the LRSSB has had in your experience? Please provide some examples if possible.
- 5 How effective do you think the LRSSB is in enabling the sector to meet the RAIB Sandilands recommendations by providing leadership, and has the intent of recommendations 1 and 2 been achieved?
- 6 Do you consider that the intent of RAIB's Sandilands recommendation 1 might be more effectively met by an alternative to the LRSSB? If so, please provide reasons for your answer.
- 7 Does [the LRSSB's](#) governance arrangements – [Terms of Reference](#), objectives, business plan, and annual report – support delivery of its key purposes?
- 8 How would you describe the pace of delivery of those key purposes? Please explain and provide some examples.
- 9 *The LRSSB structure consists of a Board, made up of the CEO, Non-executive Chair, 4 Non-executive Directors (consisting of representation from both Operators and Owners), the Managing Director of UKTram and an ORR Observer.*
Do you think this gives the LRSSB the right structure, representation and breadth of experience in order for it to lead the light rail and tramway sector effectively in the future? Please explain your answer. For further details about the LRSSB structure please see above.
- 10 *Currently, the LRSSB is funded jointly by government and its members, supplemented by other generated funding sources.*
What funding or other arrangements do you think need to be in place to enable the LRSSB to continue to grow in a sustainable manner and fully commit to its [Terms of Reference](#)?
- 11 What do you think are the essential activities the LRSSB needs to focus on over the next 5 years to best support tramway and light rail safety, and why?
- 12 What outcomes and deliverables would you like to see from the LRSSB's leadership and activities in the future?

13 Please add any other comments you would like to make regarding the LRSSB to help inform ORR's review.

4.6 The stakeholders we emailed to complete the survey included DfT, Transport Scotland, Transport for Wales, RAIB, RSSB, UKTram, Luas, the seven Tram Systems duty holders, Unite, ASLEF, GMB, TSSA, Transport Focus and London TravelWatch.

4.7 We had excellent response rate of 24 organisations out of 28 we consulted. We had three incomplete responses.

Bespoke set of questions for individual stakeholders

4.8 We developed a set of questions for LRSSB, RSSB and DfT, in order to gather specific evidence. The surveys were sent to LRSSB, RSSB and DfT individually and was followed up by individual meetings to expand on the responses to the questions.

Sector and rail specific experts

4.9 We invited DfT to be observers on the Review Team. We engaged with DfT throughout the review and kept relevant DfT colleagues updated. We also used cross-office ORR expertise to inform the review. Our internal experts included our inspectors, engineers, policy specialists and legal experts.

Governance

4.10 ORR followed its internal governance procedures, informing its Board and committees, including the ORR Board Committee HSRC as appropriate.

4.11 The [LRSSB Review terms of reference](#) and the draft findings report were shared with LRSSB for comments and factual accuracy checks. For the findings report, LRSSB was provided an opportunity to respond to the findings report before publication.

4.12 ORR also shared the review Terms of Reference and presented a summary of the key findings to the wider industry through the [Railway Industry Health and Safety Advisory Committee](#) (RIHSAC).

4.13 The **ORR LRSSB Review Team** included:

- ORR Review Sponsor – Ian Skinner, Head of Non-Mainline Railways

- ORR Review Lead – Sukhninder Mahi, Manager, Policy and Strategy Projects, Railway Safety
- ORR Review Specialist input – Ian McDermott, HM Inspector of Railways
- ORR Review Team – Tracy Phillips, Head of Safety Policy and Corporate Support, Railway Safety
- ORR Review Team – Dawn Russell, Senior Manager Railway Safety Policy
- ORR Review Team – Mariah Simms, Legal Adviser
- ORR Review Support – Jane Tye, Central Support Team Administrator – Apprentice
- Review Observers – DfT (Mark Norton, Head of Railway Safety, Rail Industry Standards and Capability and Gary Wilson, Policy Advisor, Local Public Transport)



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