Sydney Trains Review

Final Report

Modernising the Railway

December 2023

12 December 2023

The Hon Jo Haylen MP
Minister For Transport
Parliament House
Macquarie Street
SYDNEY NSW 2000

Dear Minister,

In accordance with our Terms of Reference, we are pleased to submit this Final Report of the Sydney Trains Review 2023.

This is the result of detailed investigations during Phase Two of our Review. It consolidates all of the recommendations made throughout the Review and outlines a framework for reform that, in the Panel's view, has the potential to substantially improve the reliability and resilience of Sydney Trains' services, as well as provide enhanced levels of service to other passenger service operators and the rail freight sector.

The Panel would like to acknowledge the support and assistance received from all stakeholders. Their open and collaborative approach has been invaluable in allowing us to undertake this Review.

Yours sincerely,

(Carolyn Walsh)

(Peter Medlock)

(Arthur Smith)

SYDNEY TRAINS REVIEW 2023 – Final Report

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GLOSSARY OF TERMS

Meanings	
3LOD	Three Lines of Defence Model
AMP	Asset Management Plan
ASP	Asset Services Plan
ASQA	Australian Skills Quality Authority
ATSB	Australian Transport Safety Bureau
ATP	Automatic Train Protection
AWP	Annual Works Program
CAE	Chief Audit Executive
CCB	Configuration Control Board
CCO	Component Change Out
CE	Chief Executive
CFR	Corporate Functions Review, 2021
CIFR	Customer Injury Frequency Rate
CMO	Chief Medical Officer
ConOps	Concept of Operations
CRN	Country Regional Network
DS	Digital Systems
DTRS	Digital Train Radio System
EA	Enterprise Agreement
ECMF	Enterprise Competency Management Framework
EMB	Engineering Maintenance Branch
ETWS	Enterprise Track Worker Safety Program
FIAC	Finance Investment and Assurance Committee
FLOS	Freight Level of Service
FMECA	Failure Mode, Effects and Criticality Analysis
ICEMS	Inter-CAD Electronic Messaging System
IPART	NSW Independent Pricing and Regulatory Tribunal
JV	Joint Venture
L&D	Learning & Development
LTIFR	Lost Time Injury Frequency Rate
MDBF	Mean Distance Between Failures
MPM	Major Periodic Maintenance (Major Works)
MRN	Metropolitan Rail Network
NRAP	National Rail Action Plan
NTC	National Transport Commission
ONRSR	Office of the National Rail Safety Regulator
OSCar	Outer Suburban Car or H set trains
OSI	Operational Safety Index
OTSI	Office of Transport Safety Investigation
PIA	Protected Industrial Action
PMES	People Matter Employee Survey
RCSCB	Rail Corridor Safety Control Board

RCM	Reliability Centred Maintenance
RAMS	Reliability, Availability, Maintainability and Safety process
RBTNA	Risk Based Training Needs Analysis
RCM	Reliability Centred Maintenance
REM	Rail Emergency Management System
RIM	Rail Infrastructure Manager
ROA	Sydney Trains Rail Operations Agreement
ROC	Rail Operations Centre
ROG	Rail Operations Group
ROM	Regional and Outer Metropolitan
RRP	Rail Repair Plan
RSC	Rail Safety Coaches
RSNL	*Rail Safety National Law 2012*
RSO	Rolling Stock Operator
RSW	Rail Safety Worker
RTO	Registered Training Organisation
RTW	Return To Work
SAMP	Strategic Asset Management Plan
SASP	Strategic Asset and Services Plan
SCC	Safety Critical Communications
SEQR	Safety, Environment, Quality and Risk
SESSC	Safety and Environmental Sustainability Sub-Committee
SMEs	Subject Matter Experts
SOC	State Owned Corporation
SPAD	Signal Passed at Danger
TAA	*Transport Administration Act 1988*
TACP	Transport Asset Custodian Platform
TAHE	Transport Asset Holding Entity
TCAC	Train Crew Allocation Centre
TCO	Train Crew Operations
TfNSW	Transport for NSW
TMP	Technical Maintenance Plan
TMS	Train Management System
TNAC	Transport Network Assurance Committee
TOR	Terms of Reference
TRIFR	Total Recordable Injury Frequency Rate
TSRs	Temporary Speed Restrictions
VET	Vocational Education and Training
WHS	Work Health and Safety
WSPIFR	Worksite Protection Incident Frequency Rate

1. Executive Summary

1.1. Background

On 31 March 2023 the Minister for Transport, the Hon Jo Haylen MP, initiated this Review of Sydney Trains.

The Review was announced in light of continuing pressures on Sydney Trains in delivering reliable and resilient rail services. This pressure was exemplified by three significant incidents within a 17-day period in March 2023 that caused substantial disruption to the network and major inconvenience for customers.

An independent Panel comprising Carolyn Walsh (Panel Lead), Arthur Smith and Peter Medlock was tasked with undertaking the Review.

The Terms of Reference (TOR) (Appendix 1) required the Panel to provide an Initial Report by 12 May 2023 containing early findings and recommendations and specific areas for further investigation.

The TOR required the Panel to issue a Final Report, consolidating its findings and recommendations by 31 October 2023. On 17 August the Panel requested an extension to 30 November 2023. The request was based on the range of issues identified in the Initial Report which needed to be considered prior to the finalisation of the report.

The TOR also provided that the Panel should deliver interim reporting on any issues identified for immediate action. An Interim Report addressing Rail Operations and Competency Management was provided on 31 August 2023. The Panel subsequently identified issues regarding the development of the 2024 timetable and provided further advice to the Minister on 15 September 2023.

Section 4 of this Report sets out progress on the implementation of recommendations made in the Panel's previous reports. The Panel acknowledges that significant progress has been made in implementing these recommendations (Appendix 2).

A Draft Final Report was provided to TfNSW and Sydney Trains for comment on 30 November. Comments were considered by the Panel and, where agreed, incorporated into this Final Report.

1.2. Key Findings – Final Report

1.2.1 Customer Service Outcomes

Following the Panel's Initial Report, Sydney Trains established a 12 month maintenance Rail Repair Plan (RRP). Data provided by Sydney trains shows progress in removing defects from the network, particularly high priority defects, under the RRP.

Progress in undertaking outstanding inspections across the network has led to the identification of a high number of newly reported maintenance defects. This has meant that the overall number of defects on the network has reduced at a slower rate than initially expected. However, the RRP is showing good progress in removing high priority defects overall.

Progress in implementing the RRP has also led to a reduction of Temporary Speed Restrictions and is evident in initial improvements in timetable performance.

1.2.2. Emerging Challenges and Risks

Sydney Trains is facing major changes to systems, fleet and infrastructure over the next five years and beyond, with the potential to transform Sydney Trains' operational efficiency and service

delivery. Many of these change projects overlap with critical interdependencies. These challenges include:

- Introduction of the 2024 and 2025 timetables.
- Sustainable infrastructure performance.
- Fleet Heavy Maintenance Contract.
- Tangara refit – Automatic Train Protection and Train Management System.
- Introduction of the new InterCity and Regional fleets.
- Digital Train Radio System (DTRS) replacement.
- Digital Systems Program.

Successful completion of these projects has the potential to transform Sydney Trains' operational efficiency and service delivery and to underpin a more reliable and resilient rail service.

However, the projects pose significant risk and will fully test the capacity of both Sydney Trains and TfNSW to manage and deliver major projects safely and on time and budget.

All projects will require a significant investment. Realisation of the potential benefits in performance and productivity arising from this investment will require Sydney Trains and TfNSW to work closely to ensure that necessary support and resourcing are forthcoming.

1.2.3. Safety

The Panel supports the view of the Office of the National Rail Safety Regulator (ONRSR) that Sydney Trains is a "mature" organisation in terms of safety management. Sydney Trains has systems and procedures in place to manage safety across all aspects of its operations.

Safety is continuously monitored by the Executive and management at all levels. Employees and their unions are actively involved in safety management including through workplace safety committees.

Safety data indicates that safety performance has generally improved over the last five years, although more recently performance has levelled out or begun to decline in some areas. Continued improvements in safety performance will require a concerted effort and resourcing.

The Panel has identified areas of concern which should be addressed to better manage key risks and continuing improvement of safety performance. These include:

- Competency of Rail Safety Workers (RSWs).
- Uplifting the resourcing and competency of the Rail Operations' workforce.
- Breaches or misapplication of Network Rules and worksite protection provisions.
- Return of key functions from TfNSW including Human Factors and Return to Work expertise.
- More effective governance.
- A more effective safety assurance structure.

1.2.4. Workforce Capability and Competency Management

Sydney Trains has significant workforce planning challenges. Rail Operations and the Engineering and Maintenance Branch (EMB), in particular, are facing challenges in recruiting, training and retaining key skills in both professional and front line positions, including infrastructure workers, signallers, engineers and project managers.

A workforce planning strategy is required to provide a coordinated approach and resourcing to address current recruitment challenges and to ensure business requirements are supported by

workforce capability. This should include a range of strategies to address the ageing workforce and develop and retain key skills.

Management of the competence of RSWs has been a challenge for Sydney Trains over a considerable period with continuing changes in roles and responsibilities for learning and development (L&D) functions.

The current relationship between TfNSW L&D and Sydney Trains has not, however, delivered satisfactory operational outcomes for Sydney Trains. A more cooperative relationship needs to be developed, with clearly defined roles and responsibilities between L&D and Sydney Trains. L&D and Sydney Trains should work together to deliver more responsive L&D outcomes which meet business needs.

1.2.5. Reliability and Resilience

Causes of Network Disruptions

Around 50% of delays and train cancellations have been due to a failure of Sydney Trains' fixed infrastructure with lesser delays attributed to Rail Operations, Train Crewing, Customer Experience and Fleet.

This Report further considers the challenges and opportunities in delivering a reliable and resilient network for Sydney Trains' customers and third party operators.

Timetable Development and Delivery

In early 2023, TfNSW and Sydney Trains agreed that, on balance, responsibility for the development of the timetable should transfer to Sydney Trains to ensure that future timetables reflect a better balance between service levels and operability. Responsibility for detailed development of the timetable should rest with the party accountable for delivery of its performance.

Sydney Trains and TfNSW have jointly developed proposed timetable design principles to provide a consistent, 7 day, timetable baseline structure to enhance the ongoing reliability and resilience of the network.

In addition, the closure of the T3 Bankstown line between Sydenham and Bankstown in 2024, for conversion as part of the Metro City and Southwest extension, provides an opportunity to simplify the Sydney Trains' timetable, rebalance service levels and improve network resilience.

Engineering and Maintenance – Infrastructure

Performance of rail infrastructure was the single highest cause of incidents creating delays to train services over the period 2014 to 2023. 2022/23 experienced the highest rate of infrastructure incidents causing delays to services since 2015/16.

Many factors affected infrastructure performance over this period. Access to the network to deliver the capital works and maintenance necessary to ensure future asset performance was severely curtailed due to the impact of the 2017 timetable. This resulted in a decline in major works undertaken and increases in the backlog of routine inspections and correction of identified defects.

Issues in planning and competing priorities between major works and maintenance activities have led to inefficiencies in the engineering and maintenance process and use of resources.

Sydney Trains' Engineering and Maintenance Branch (EMB) has developed the Integrated Engineering Services (IES) program to facilitate more reliable delivery of the full scope of both major works and maintenance through clearer management accountability, centralisation of the planning process and maximising the productivity achieved from planned possessions. The Safety in Access

Maintenance System (SAMS) provides more reliable and safe access for maintenance works. Processes to address urgent and unforeseen defects and should be embedded in the IES process.

The current EMB rostering pattern does not support undertaking significant planned works during nights and weekends. Permanent night time and weekend rostering to facilitate more activity when trains are not running has the potential to significantly enhance the efficiency of both the major works and maintenance programs.

Sydney Trains will need to engage with its engineering workforce and unions to explore opportunities in a cooperative and comprehensive process to move to a greater level of night-time and weekend rostering.

Investment in high productivity plant and equipment should be part of this process along with a review of Network Rules to ensure that any safety or productivity benefits brought about by these changes are realised.

Engineering and Maintenance – Fleet

Whilst fleet performance has improved over the last few months, it is still below targets for reliability and availability.

There are issues affecting current fleet performance. These include maintenance capacity, repair or replacement of obsolete fleet, systems issues with the Tangara and Millennium fleet and the integration of new InterCity and Regional fleets onto the network.

These issues will need to be addressed through better planning, effective resourcing and ongoing investment.

Stations and Facilities

Sydney Trains' Customer Experience teams contribute to the delivery of reliable services and incident management through managing the train-to-platform interface, train dwell time and departure procedures, in conjunction with train crew at staffed platforms. The teams play a critical role leading the communication of service and incident status updates to customers.

Customer Service related incidents are not currently a significant contributor to disruptions to network performance.

Passenger behaviour is the highest Customer Service related incident group and initiatives are being considered to promptly retrieve items dropped into the rail corridor, facilitate improved accessibility at stations and coordinate with Emergency Services' interventions for sick and injured passengers.

Rail Operations

Rail Operations' teams are responsible for delivery of network control, service recovery, security and overall incident response coordination. The teams play a pivotal role in ensuring network safety, reliability and performance.

The complexity of the Sydney Trains' network, timetable and crew rostering arrangements, make the task of coordinating overall services and recovery of the network from degraded operations especially challenging.

The Rail Operations Service Delivery operating model underwent significant transformation with the move to the Rail Operations Centre (ROC) in 2018. Whilst there have been some improvements delivered, the realisation of benefits from changes to the operating model relied primarily on the delivery of a suite of technological improvements which were not delivered or have not been fully implemented.

In addition, high vacancy rates in critical positions and the loss of significant experience, have resulted in the business having to accelerate training and upskilling for new employees to progress into critical and highly specialised operational roles. Accelerated recruitment and training has increased the intake of new staff. However, the business is still 18 months from filling establishment requirements.

The Rail Operations Centre Improvement Program has been developed to address these issues and to improve Rail Operations' overall performance.

Incident Management

Effective incident response is essential to ensuring overall performance objectives are achieved. Network critical incidents occur, on average, 1-2 times per month.

In 2020, Sydney Trains introduced the Command and Control incident management framework. Understanding of the framework and uplift in incident response performance will be strengthened through more regular training, scenario-based exercising and competency enhancement for both core teams and a broader range of teams that contribute to incident management.

The Rail Emergency Management (REM) system provides real time incident updates, allocates actions and monitors incident response delivery. Sydney Trains has developed a roadmap to uplift capability and establish the REM as the single, integrated incident management platform.

Security and customer related incidents have a significant impact on performance and will often require Emergency Services' response support.

Sydney Trains' Security team, incident management and front line staff undertake joint exercises with Emergency Services to better co-ordinate roles and build understanding when responding to these types of incidents.

Train Crewing

Train crewing availability at the correct point of duty is rarely the cause of network incidents or service delays. However, issues with crew displacement can significantly prolong the effects of an incident and complicate recovery.

Sydney Trains has considered a number of initiatives to address these problems:

- Increased crew changeover time.
- More efficient crew changeover locations.
- Simplified rostering.
- Technology to link crew to a train (known as "crew-to-train association").

Sydney Trains will need to work in collaboration with its employees and their unions to develop and implement these opportunities to improve recovery from network disruptions.

1.2.6. Whole of Life Asset Management

Effective asset management is hindered by a complex and diffuse operating model across Transport Asset Holding Entity (TAHE), TfNSW and Sydney Trains with many parties having overlapping and unclear roles. Medium and long term planning for rail is spread across multiple divisions and entities.

As the operator and maintainer of rail assets, Sydney Trains has to engage with all of these parties for differing purposes and at different times. Some of these relationships overlap, leading to a lack of clarity as to who in TfNSW has the decision-making rights in relation to matters affecting the ultimate design, construction and delivery of assets operated by Sydney Trains.

When a new asset is delivered, it is imperative that Sydney Trains is ready to integrate it into its operations. To do this, Sydney Trains needs to ensure it has engaged with its workforce, recruited and trained new staff where necessary, revised business systems and reviewed any processes, standards or Network Rules that may be impacted by the new asset.

Early and meaningful engagement with Sydney Trains by the project delivery team in TfNSW I&P is vital to ensuring the successful integration of assets into operations. This enables Sydney Trains to influence design decisions that can minimise operational cost and complexity, and prepare for the change necessary to operationalise the new assets.

Equally, Sydney Trains must have the capacity and capability to effectively engage with the delivery team to provide operational advice and to ensure design decisions are informed by practical operational and maintenance requirements.

1.2.7. Third Party Operators

Sydney Trains' suburban train services represent the vast bulk of daily train movements on the Metropolitan Rail Network (MRN). Third party operators also run trains on the MRN, including private freight operators, NSW TrainLink, and tourist and heritage operators.

The provision of access to third party operators is governed by the NSW Rail Access Undertaking which sets out how NSW access providers negotiate third party access to their networks.

The current allocation of accountabilities and responsibilities for negotiating access to the network and for delivering agreed service levels to freight and other operators, is complex and diffuse.

The Government has announced that TAHE will be restructured and that a new operating model for transport asset ownership and management will be implemented during 2024. Under the new model, a single entity should be allocated clear accountability and authority for providing third party access to both the MRN and CRN. Given Sydney Trains' potential conflict of interest, this entity should be either the newly reformed TAHE or TfNSW.

1.2.8. Governance and Accountability

The performance obligations of Sydney Trains are set out in two key documents:

- The Rail Operations Agreement (ROA) between Greater Sydney and Sydney Trains.
- The Licence, Agency and Maintenance (LAM) Deed between TAHE and Sydney Trains. The Corporate Services Division (TfNSW) manages the LAM Deed on TAHE's behalf.

The Panel is concerned that these governance arrangements are not sufficiently connected to provide a coherent performance regime for Sydney Trains. The arrangements need to be streamlined to provide a wholistic view of Sydney Trains' obligations and performance outcomes.

The Corporate Functions Review (CFR - 2021) consolidated a number of functions within TfNSW. The Panel believes that the CFR resulted in an over-reach in this regard and recommended in the Initial Report that key Executive positions be re-established within Sydney Trains.

The Panel has identified further areas where the consolidation of functions into TfNSW has diminished Sydney Trains' ability to effectively manage their core business risks.

2. Consolidated List of Recommendations

Initial Report (May 2023)

1. That Sydney Trains prepare a detailed accelerated maintenance program ("maintenance blitz") to reduce the maintenance backlog to acceptable levels within 12 months.

   1.1 The accelerated maintenance program should minimise disruption to Sydney Trains' customers and third-party operators by targeting access for maintenance to periods of reduced patronage.

   1.2 The accelerated maintenance program should be accommodated within existing Transport budgets.

2. That TfNSW review its stakeholder engagement processes to ensure they provide effective and meaningful engagement with operators/maintainers such as Sydney Trains during the procurement of new rail assets.

3. That Sydney Trains, as the ultimate operator and maintainer of its new rail assets, work with rail unions to develop, document and agree a comprehensive process for the management of major change to ensure rail unions are fully engaged at all appropriate stages of the procurement of major rail assets. This process should also be followed for NSW TrainLink assets.

4. That TfNSW work with Sydney Trains and NSW TrainLink to ensure that the intent of such an agreement is applied across the procurement of all major rail assets.

5. That TfNSW and Sydney Trains expedite the transfer of the timetable development function back to Sydney Trains with the function reporting directly to the Chief Executive.

6. That, within three months of the delivery of this Report, Sydney Trains:

   6.1 Develop a plan for the Rail Operations Centre (ROC) to address identified shortcomings and to enhance the capability of critical roles, systems, processes and procedures, along with appropriate training and exercising, to ensure a more responsive and effective management of major incidents.

   6.2 Ensure that change management processes are embedded in any plan to address these issues.

7. That Sydney Trains allocate required resourcing to expedite technological capacity to manage train crewing responses during periods of degraded operations. Unions will need to be engaged in this process.

8. That Sydney Trains and TfNSW:

   8.1 Provide a plan and required resourcing for the roll out of short term targeted customer communications initiatives to be delivered within six months.

   8.2 Provide a plan for longer term technology improvements to facilitate more effective distribution channels and real-time service information to customers and station staff during major incidents.

9. That Sydney Trains and TfNSW immediately identify current outstanding recertifications and Risk Based Training Needs Analyses (RBTNAs) for Rail Safety Workers and put a program in place to address these as soon as possible.

10. The Chief Executive Sydney Trains should report directly to the Secretary for Transport, providing stronger focus on rail operations within the TfNSW structure. The Secretary should also consider whether a similar approach is appropriate for the CE of NSW TrainLink.

    10.1 The Chief Executive of Sydney Trains should have a dotted line of responsibility to the Minister for Transport for matters of significant importance to the Government.

    The [then] Acting Secretary for Transport should:

    10.2 Rescind the delegations to the Deputy Secretary Greater Sydney for the performance and management of Sydney Trains functions.

    10.3 Rescind the delegation to the Deputy Secretary Greater Sydney of the power to issue directions to Sydney Trains under the *Transport Administration Act 1988*.

    10.4 Appoint the Chief Executive of Sydney Trains to the TfNSW Executive Team and related executive committees.

11. That Sydney Trains:

    11.1 Create a role of Chief Legal Counsel, responsible for independent legal advice and support to the Chief Executive.

    11.2 Create a role of Executive Director People and Culture, responsible for strategy and high level decision making for people-related issues, reporting to the Chief Executive.

    11.3 Create a dedicated role of Director Employee Relations responsible for employee relations strategy and providing advice and assistance at both the Executive and operational levels.

    11.4 Have responsibility for recruitment decision making and employee life cycle within its budget without further approval from TfNSW.

    New Executive roles should come from within existing headcount. Resources supporting these executive positions could continue to be drawn from the centralised pool of specialist business partners within TfNSW.

12. That the Government consider, in consultation with TfNSW and unions, transferring accountability for the operation of the electric InterCity fleet and management of associated station staff from NSW TrainLink to Sydney Trains.

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Competency Management

13. Sydney Trains should retain clear accountability for ensuring competency of its employees.

14. Sydney Trains should appoint a Director of Learning and Development responsible for the development and delivery of an overall and consistent end-to-end framework for competency management (the ECMF) across Sydney Trains.

15. Branch Managers should remain accountable for the competency of their employees and responsible for implementing the ECMF to meet the needs of their operations.

16. Sydney Trains should establish a Sydney Trains' Learning Council responsible for bringing L&D and Sydney Trains together to drive the development and implementation of the ECMF.

    The Sydney Trains' Learning Council should:

16.1 Be chaired by the CEO Sydney Trains and meet monthly, with the proposed Executive Director People and Culture as Deputy Chair. Once the ECMF and ongoing role of L&D are firmly established the ED P&C should assume the role of Chair of the Learning Council.

16.2 Include senior representatives of L&D and Sydney Trains' operating branches.

16.3 Provide oversight of the development and implementation of the ECMF.

16.4 Drive delivery of competency data "cleansing" within 3 months.

16.5 Ensure that, within six months, Sydney Trains is able to monitor, in real time, the competency and recertification of all RSW employees.

16.6 Clearly delineate the roles and responsibilities of L&D in supporting Sydney Trains' business needs and establish revised funding arrangements which reflect these roles and responsibilities.

17. Responsibility for development and implementation of the TfNSW Value Chain review, as it affects Sydney Trains' competency management, should be brought within the scope of the Sydney Trains' Learning Council.

    The Learning Council should also:

    17.1 Consider options for the future role of the Petersham training facility. Sydney Trains is the biggest user of Petersham and consideration should be given to Sydney Trains assuming management of Petersham as a training facility, with the L&D RTO functions divorced from day-to-day operational management.

    17.2 Establish consultation arrangements with rail unions to ensure they have ongoing input into development and implementation of the competency management framework.

Apart from the recommended appointment of the Director Learning and Development, these recommendations should not lead to the need for additional headcount as each of the operating branches has already put in place a structure to deliver their competency requirements.

Rail Operations

18. The Rail Corridor Safety Control Board should oversee development and implementation of a consolidated and comprehensive improvement plan to address rail safety risks identified in recent audit and investigation reports relating to staffing shortages and competence of critical rail safety roles across Rail Operations.

    In particular, this Plan should address:

    18.1 On-going identification, analysis and implementation of follow up actions arising from safety incidents, audits and inspections.

    18.2 An expedited program of recruitment and training to critical RSW roles.

    18.3 An expedited program of safety refresher training, safety critical communications training and emergency scenario training for all RSW roles.

    18.4 Comprehensive monitoring and analysis of safety critical communications with follow up actions as required.

    18.5 Cooperation with third party operators to ensure clear communications and application of Network Rules.

    18.6 Establishment of KPIs to monitor the timely implementation and overall effectiveness of the program.

The Plan should:

18.7 Consider development of a specialist operational role, incorporating the roles and capabilities of the Rail Safety Coach, to address the specific needs of Rail Operations and which can be flexibly deployed to provide on-the-job mentoring and support for Rail Operations staff on an on-going basis. These roles would be based in the ROC and more broadly across the network.

18.8 Be prepared and endorsed by the Rail Corridor Safety Control Board within 2 months, and be fully implemented over 12 months, with ongoing reporting to the Board on a monthly basis.

Further Advice to the Minister – September 2023

19. In accordance with the *Transport Administration Act*, TFNSW should retain responsibility for developing the high level Specifications for the 2024 timetable, reflecting the Government's public transport objectives.

20. Responsibility and accountability for the design, production and implementation of the 2024 timetable to meet the Specifications should be immediately transferred to Sydney Trains.

20.1 Sydney Trains' proposed Timetable Program Director should lead the development and delivery of the 2024 timetable, reporting to the Chief Executive Sydney Trains.

20.2 The timetable development team within TfNSW should, on a project basis, be accountable to the Timetable Program Director in Sydney Trains and continue the timetable design and production process in close collaboration with the Sydney Trains' timetable team and relevant operational teams.

20.3 Other stakeholders including NSW TrainLink, freight and third party operators should be consulted and have input into the timetable development process through the Timetable Program Director.

21. A governance committee should be established to oversee the development and implementation of the 2024 timetable, comprising the Chief Executive Sydney Trains, EDs EMB, Rail Operations and Train Crewing and TfNSW representation to ensure the timetable meets specifications required for passenger and freight services.

21.1 This committee would be responsible to ensure that the views of all stakeholders are fully considered in finalising the 2024 timetable. The committee would sign off the final 2024 timetable for acceptance into operation.

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Emerging Challenges and Risks

22. The Sydney Trains' Configuration Control Board (CCB) within EMB should provide a more comprehensive governance mechanism for those infrastructure projects managed and controlled by Sydney Trains.

23. For major high risk projects, the CCB should be chaired by the Chief Executive and include the Executive Team. The CCB should continuously monitor the progress and outcomes for each project at each assurance gate, using the Reliability, Availability, Maintainability and Safety (RAMS) process. In addition, the CCB should address the Operability of each project, including integration with existing and proposed operations.

Safety

24. Sydney Trains should ensure that the outcomes of safety audits and investigations are analysed, that lessons learned are identified and disseminated widely and appropriate actions implemented and monitored to drive ongoing improvements in safety performance.

25. Sydney Trains should restore a formalised Line 2 assurance function to SEQR, with responsibility to develop and manage an ongoing and independent risk-based audit/inspection program. This should include the transfer of current business based assurance functions and resources.

26. SEQR should have responsibility across Sydney Trains to identify significant change proposals and to ensure that a structured safety change management process is built into these proposals.

    26.1 Technical and engineering assurance should remain with Professional Heads within EMB.

27. Sydney Trains should negotiate with TfNSW to secure the return of key employee safety functions providing Human Factors, health and wellbeing and Return to Work (RTW) services to directly drive improvements in employee health and safety outcomes.

28. Sydney Trains should review the provision of claims management, rehabilitation and RTW services provided by TfNSW Safety Environment Risk (SER) and Transport Shared Services (TSS) and whether the fees it pays are aligned with the services it receives. Performance guidelines should be established for the provision of these services by SER and TSS.

29. Sydney Trains should continue to provide focussed support to the development and implementation of technological solutions to enhance worksite and track worker safety.

Workforce Capability and Competency Management

30. Workforce planning should become a key responsibility for the Sydney Trains' Executive Director P&C to provide a coordinated approach and resourcing to address current recruitment challenges and to ensure business strategy is supported by workforce capability.

31. A range of strategies should be considered to address the ageing workforce and retention of key skills within Sydney Trains. These should include transition to retirement through part-time work, shared roles and formal mechanisms to capture and share knowledge and experience of the older workforce.

32. Consideration should be given to creating a specific Sydney Trains' Graduate Program to provide an increased impetus to attracting critical skills. The program will need to address current impediments such as availability of vacant positions, use of developmental positions and appointment of dedicated graduate mentors.

    32.1 The proposal should be developed in conjunction with relevant unions.

    32.2 Consideration should also be given to the role that Cadet and Traineeship programs could play in helping to advance key skill shortages.

33. Consideration should be given to having the apprentice program report to the Sydney Trains Director L&D to provide a stronger education and training focus to the program and to ensure effective governance and management.

34. The current Sub-Peak Consultative Committee should catalogue all concerns expressed about the program by rail unions and continue to address these concerns at regular monthly meetings.

Reliability and Resilience

35. TfNSW should review the *Transport Administration Act (1988)* to determine if it needs amendment to ensure accountability for the development of the detailed timetable, based on high level specifications set by TfNSW, rests with Sydney Trains.

36. Sydney Trains should engage with its workforce and unions to explore opportunities to move to a permanent or increased night time and weekend roster.

    36.1 The Major Change Agreement signed this year should be used as a basis for these discussions and an agreed set of principles addressing, at a minimum:
    - Focus on productivity and safety improvements, not on labour costs alone.
    - Constructive engagement with the workforce and unions.
    - Review of grades to ensure they are fit for purpose.
    - Fatigue management.
    - Employee work/life balance.

    36.2 Any engagement must consider a comprehensive approach to night time and weekend working addressing all issues involved in a co-operative manner.

37. Funding should be expedited to support the development of a business case for investment in high productivity plant and equipment.

38. Sydney Trains should embed a condition-based maintenance methodology, based on sound Failure Mode, Effects and Criticality / Reliability Centred Maintenance analysis, when reviewing its Technical Maintenance Plans (TMPs).

    38.1 TMP change delegation for non-safety critical maintenance tasks should be devolved to fleet engineering and network maintenance engineering through a competency framework employing a sound project management methodology.

    38.2 The process and resources required for both TMP development and revision should be reviewed and a resourcing plan developed for earlier delivery of TMP revisions.

    38.3 The Fleet Maintenance Division should prepare a comprehensive fleet support strategy that encompasses all the above issues and the integration of the new fleet, including the planned Tangara replacement fleet, into the maintenance system.

39. Sydney Trains should develop a fleet workforce plan which addresses:

    39.1 Retention of staff who may become available during the insourcing of the UGL Unipart Joint Venture.

    39.2 Filling of vacant technician positions in maintenance centres.

    39.3 Engagement of contracted staff, where necessary, to fully support the introduction of new technology or replacement of existing obsolete technology.

    39.4 Resourcing required for the major fleet projects and the longer term fleet depot strategy.

40. Current resourcing for initiatives to promote more effective in-service response to train failures, including communications systems and training for staff, should be reviewed and upgraded if required.

41. Programs to upgrade critical systems in both the Tangara and Millennium fleets should be reviewed to ensure sufficient priority and resourcing are provided to maintain these fleets effectively in service.

42. Sydney Trains should expedite rollout of the boarding assistance technology app to Train Guards to reduce the reliability impact of mobility assistance at unattended stations.

43. Sydney Trains should consult with employees and their unions to deliver a technological solution to implement a streamlined transposition procedure.

44. Sydney Trains should expedite rollout out the "gap filler" program to minimise item retrieval requirement at key locations.

45. Sydney Trains and TfNSW should prioritise delivery of the ROC Improvement Program with appropriate funding, resourcing and change management support.

    45.1 To provide effective governance, the Program should track delivery of key actions and report directly to the Chief Executive.

46. Sydney Trains should enhance the Rail Emergency Management System (REM) to provide a single and integrated platform used by all teams to manage incident workflow in real time and provide a single source of truth for the status for all incidents.

47. Sydney Trains should expedite investment in Emergency Services Inter-CAD Electronic Messaging System to enable timely and accurate information flow from emergency services. This should explore opportunities to integrate with Sydney Trains' incident management software (REM) to enable a single source of all real time incident information.

48. Sydney Trains should continue to develop options, in collaboration with the workforce and their union, to identify, negotiate, and implement opportunities to improve train crewing arrangements to increase resilience and improve recovery from network disruptions. These should include crew rostering, management and the use of appropriate technological solutions to link train crew with their train and with Train Crew Operations.

Whole of Life Asset Management

49. The TAHE Implementation Steering Committee should ensure that the new operating model for asset ownership and management for Transport be designed to reduce complexity and minimise duplication of functions.

50. Under the new operating model, there should be a single entity with clear accountability for the strategic management of rail assets across their full life-cycle.

    The Strategic Asset Manager (SAM) should be accountable for:

    50.1 The heavy rail SAMP and AMP, including Sydney Trains, CRN and NSW TrainLink components.

    50.2 Providing TfNSW (as the client representing rail customers) with options for the acquisition, maintenance and disposal of rail assets.

    50.3 Gaining assurance from those entities who are responsible for the configuration of assets over their life-cycle that the asset is safe and fit for purpose and being managed in a financially responsible manner.

50.4 Providing assurance to TfNSW and Government that the assets are being designed, delivered and maintained in accordance with the specified requirements to meet customer service outcomes.

51. Once the new model is established, TfNSW should coordinate a dedicated change management, education and awareness plan to ensure all parties understand and comply with the intent of the model.

    The Plan should include:

    51.1 Mandated induction training for all existing and new Executives and Managers involved in the planning, design, delivery, operation and maintenance of rail assets.

    51.2 Information and training in relation to safety duties of entities and individuals under both the *Work Health and Safety Act* and *Rail Safety National Law*.

    51.3 Implementation of the Asset Management Maturity Assessment process outlined in the TfNSW Strategic Asset and Services Plan.

52. Sydney Trains should be provided with sufficient Opex funding by Government to adequately maintain all existing assets and the new assets delivered to it under the current pipeline of major projects.

53. The business cases for the Digital Train Radio System (DTRS) Next Generation Upgrade and Tangara Fleet Obsolescence should be expedited and prioritised for funding by Government, on the advice of Greater Sydney and the Finance Investment and Assurance Committee (FIAC).

54. The Asset Management Branch (or future Strategic Asset Manager) should review the policies and processes supporting TNAC to ensure that:

    54.1 Asset stewards provide assurance on the full engineering domains at each investment approval gate (i.e. Reliability, Availability, Maintainability and Safety - RAMS).

    54.2 The steward for design and delivery of assets (Infrastructure and Place) provide positive assurance that Sydney Trains has been fully consulted at each investment gate and any issues that impact on the operation or maintenance of the new asset have been resolved or, if necessary, escalated to the Transport Network Assurance Committee (TNAC).

    54.3 Sydney Trains provide positive assurance at each investment gate that it has the plans, processes, capability and workforce engagement required to successfully integrate the new asset into its operations.

55. TfNSW should review the terms of reference of the Finance Investment and Assurance Committee (FIAC) to ensure it:

    55.1 Is chaired by the Secretary.

    55.2 Comprises Executives accountable for business case development and the investment program, strategic asset management, project delivery, operations and maintenance, and finance.

    55.3 Regularly reviews and approves the medium to long term transport investment program, including prioritisation and trade-offs between Capex and Opex over the whole program.

56. The FIAC should not approve funding for projects unless it has:

    56.1 Assurance from TNAC with regard to the project meeting the RAMS requirements of the assets being delivered.

    56.2 Assurance from Sydney Trains (or other Transport operators/maintainers for other modes) that it is well placed at that investment gate to integrate the asset into its business.

    56.3 Advice that the project complies with safety, environment and quality management systems.

Third Party Operators

57. TAHE Implementation Steering Committee should ensure that, under the new operating model for transport asset ownership and management, there is a single entity with clear accountability and authority for providing third party access to both the Metropolitan Rail Network (MRN) and Country Regional Network (CRN).

    57.1 Given the potential conflict of interest of Sydney Trains as the body providing network control services on the MRN, accountability for access provision should rest either with the new TAHE or TfNSW and not with Sydney Trains.

58. TfNSW, in consultation with passenger and freight rail operators, should undertake further policy work to define and document the principle of "reasonable passenger priority".

59. Subject to the Government's response to the IPART recommendations, the TAHE Access Seekers Information Pack should be updated to reflect the policy principles developed by TfNSW and, in particular, provide greater transparency around how Sydney Trains, as the network controller, allocates priority to train services when there is a disruption to services.

60. The entity accountable for access provision under the new operating model should develop performance targets for Sydney Trains to support:

    60.1 The service levels specified in freight access agreements and described in the proposed Freight Level of Service (FLOS).

    60.2 The service levels specified in access agreements with third party passenger, tourist and heritage operators.

61. The Sydney Trains Rail Operations Agreement (ROA) and Licence, Agency and Maintenance (LAM) Deed should be reviewed to:

    61.1 Reflect the accountabilities of parties resulting from the new operating model following the implementation of the TAHE transition.

    61.2 Provide clear and transparent KPIs that focus on the performance of Sydney Trains as a Rail Infrastructure Manager (RIM) and network controller in order to drive service outcomes for freight and third party passenger operators.

62. Sydney Trains should incorporate specific sections on its performance as a RIM and network controller in supporting third party operators in future corporate plans and annual reports.

63. TfNSW should develop a plan, in consultation with third party operators, to determine if, when and how their locomotives will need to connect to the in-cab signalling system being rolled out on the MRN through the Digital Systems Project.

64. Sydney Trains should develop a plan to explicitly identify and support initiatives necessary to achieve the objectives of the National Rail Action Plan (NRAP) and drive commitment to the reforms at the Executive level.

65. The Director Freight in Sydney Trains work with colleagues in EMB and the ROC to better coordinate the planning and management of possessions and daily train control operations with their counterparts in ARTC and UGL Regional Linx.

Governance and Accountability

66. The governance and contractual arrangements in place between TAHE, TfNSW and Sydney Trains that set out Sydney Trains' performance targets and KPIs should be reviewed and revised following the implementation of the new TfNSW operating model with the aim of:

    66.1 Removing any duplication of reporting lines.

    66.2 Ensuring the service levels required of Sydney Trains across all agreements are coherent, achievable and transparent.

67. Subject to the outcome of the Government's Review of Committees and Boards across the public sector, Sydney Trains should re-instate its own Chief Audit Executive (CAE) and Audit and Risk Committee to ensure it has a dedicated Line 3 assurance function.

    67.1 The CAE function could be undertaken within existing resources by the recently appointed Sydney Trains Chief Legal Counsel.

68. TfNSW and Sydney Trains should determine the number of staff that should be transferred to Sydney Trains as a result of this Review's recommendations and adjust the Enabling Services Agreement (including funding paid by Sydney Trains to TfNSW) accordingly.

69. The Transitional Steering Committee oversighting the implementation of recommendations arising from this Review should aim to integrate activities into "Business as Usual" strategies and business plans as soon as practicable.

3. Introduction

3.1. Review Terms of Reference

Sydney Trains is the operator of suburban passenger rail services across the Metropolitan Rail Network (MRN) and the maintainer of the assets of the suburban and InterCity fleet.

Sydney Trains faces continuing pressures in delivering its Mission and Priorities, particularly in maintaining the network and delivering sustained high levels of customer service. Pressures arise from, among other things, the impact of the 2017 timetable, the nature and extent of the network, an ageing asset base and continuing conflict between meeting timetable and maintenance objectives.

These pressures have been exacerbated over recent years, including through difficulties in maintaining required staffing levels, the impact of the COVID pandemic, recovering from severe weather events and industrial disruption relating to negotiations for a new Enterprise Agreement.

In April 2023, the NSW Government announced a comprehensive independent review of Sydney Trains' Rail Infrastructure and Systems – "the Sydney Trains Review".

The Review Panel (the Panel) was led by Carolyn Walsh, current Chair of the National Transport Commission, with Panel members Peter Medlock and Arthur Smith.

The Terms of Reference for the Review are set out in Appendix 1.

An Initial Report was provided to the Minister for Transport, the Hon Jo Haylen MP, on 12 May 2023. The Initial Report provided an overview of Sydney Trains' performance to that time and provided 12 recommendations (see the Consolidated List of Recommendations in Section 2) for immediate action. On 22 May 2023, the Minister announced that the Government had accepted all of those recommendations.

The Panel continued to work through Phase Two of the Review focusing on issues identified in its Initial Report. On 31 August, the Panel provided an Interim Phase Two Report with 6 further recommendations focusing on competency management and Rail Operations (Recommendations 13 – 18). Further advice was provided to the Minister on 15 September relating to the process for the development of the proposed 2024 timetable (Recommendations 19 – 21).

Progress on Phase One and in implementing the Recommendations made to date is set out in Section 4 of this Report.

3.2. Approach to the Review

During the Review, the Panel held discussions with a wide range of stakeholders, including Executives, subject matter experts (SMEs) and other representatives from Sydney Trains, Transport for NSW (TfNSW), NSW TrainLink[1], Transport Asset Holding Entity (TAHE), Transport Heritage NSW, Great Southern Rail, Sydney Metro, NSW Treasury, Office of the National Rail Safety Regulator (ONRSR), the Freight Operators Group and Network Rail Consulting. Rail unions and their members also engaged in discussions with the Panel. While the Review did not involve a formal public consultation process, unsolicited submissions received from the public were also considered.

In addition the Panel conducted a range of site visits, workshops and analytical sessions with Executives, SMEs and other representatives.

[1] NSW TrainLink is the trading name of NSW Trains which is established under the *Transport for Administration Act 1988*.

The Panel conducted regular feedback sessions with Sydney Trains and TfNSW Executives to discuss and further develop the themes identified during the Review. Feedback sessions were also held with rail unions and their members to consider their views, ideas and input.

The Panel requested and considered an extensive range of documentation and data to develop a deeper understanding of the issues and challenges facing Sydney Trains in the delivery of reliable and resilient services.

The Panel acknowledges the input and feedback from all stakeholders and the positive impact this engagement has had in the development of this Report.

4. Progress on Phase One

4.1. Recommendations from the Initial and Interim Reports

The Panel's Initial Report (May 2023) reviewed an extensive set of performance data, covering safety, punctuality, train cancellations, incidents, infrastructure and fleet maintenance, major infrastructure replacement and upgrades and workforce competency management.

Key findings from the Initial Report included that:

- The reliability and resilience of Sydney Trains' operations had been fragile since the introduction of the new 2017 timetable.
- A backlog existed in both infrastructure maintenance and major works.
- Without a significant improvement in maintenance activity, the performance of Sydney Trains' rail infrastructure was unlikely to improve. In fact, it was likely to worsen.
- Key business systems and technologies designed to support control operations had not been totally effective, impacting the performance of the Rail Operations Centre in managing disruptions to services and delivery of timely information to customers.
- There were on-going systemic issues in the management of the training and competency requirements for Rail Safety Workers (RSWs), raising concerns about skills and recertification of workers in safety critical roles.

The Panel provided recommendations to address these and a number of other identified issues.

A further Interim Report was provided to the Minister in August 2023. This report found that:

- Competency of RSWs is a major operational risk for Sydney Trains.
- The relationship between Sydney Trains and TfNSW Learning and Development (L&D) needed to be restructured to provide acceptable business outcomes.
- Rail Operations is responsible for a significant number of critical RSW roles and investigation reports have indicated that human error involving Rail Operations' roles was a contributing factor in a number of rail safety incidents.
- Recruitment and training of Signallers and other skilled operational staff has been a particular problem for Sydney Trains.
- Whilst Rail Operations had developed programs to address these issues, these programs needed to be brought under effective governance to drive timely and effective outcomes.

The Panel further identified problems in the process for developing the proposed 2024 timetable, creating considerable risks to the timetable delivery dates, to the operational effectiveness of the timetable and to the ongoing reliability and resilience of the rail network.

Additional advice was provided to the Minister on 15 September that responsibility for the development of the 2024 timetable should be transferred to Sydney Trains under the stewardship of the proposed Timetable Program Manager who would report directly to the Chief Executive of Sydney Trains.

The Panel advised that governance arrangements should be established within Sydney Trains to ensure that the overall objectives of the 2024 timetable are achieved, including the engagement of freight operators and other third party operators.

The Government has accepted the recommendations made in the reports provided by the Panel to date.

4.2. Conclusion

The Panel acknowledges that there has been progress to date in implementing these recommendations, involving positive cooperation between TfNSW, Sydney Trains and NSW TrainLink and concerted effort from both Sydney Trains' management, workforce and their unions. The impact of the work done to date can be seen in emerging improvements to both reliability and customer service over the period to November 2023 (Section 5).

Further work needs to be done to ensure these improvements can be maintained and continued. This Report examines and makes recommendations in these critical areas.

Appendix 2 sets out progress in implementing the Panel's recommendations from the Initial Report.

5. Customer Service Outcomes

5.1. Performance Targets

Sydney Trains' timetable performance standards are agreed between TfNSW and Sydney Trains and are documented in the Rail Operations Agreement (ROA).

For Sydney Trains' passenger services, these include a punctuality target of 92% of peak services arriving within 5 minutes of the timetable arrival time and 99% of scheduled services delivered. InterCity services (currently operated by NSW TrainLink) have a target of six minutes.

Service levels for third party freight and passenger services operating on the Metropolitan Rail Network (MRN) are documented in Access Agreements administered by TfNSW. Sydney Trains, as the Network Control manager, carries out the day-to-day management of the Sydney Trains' timetable and the overall control of the network including third party rail companies' timetabled services. Sydney Trains are solely responsible for the delivery of all agreed access to the MRN including infrastructure maintenance, third party train operating companies, special events and the NSW TrainLink operations.

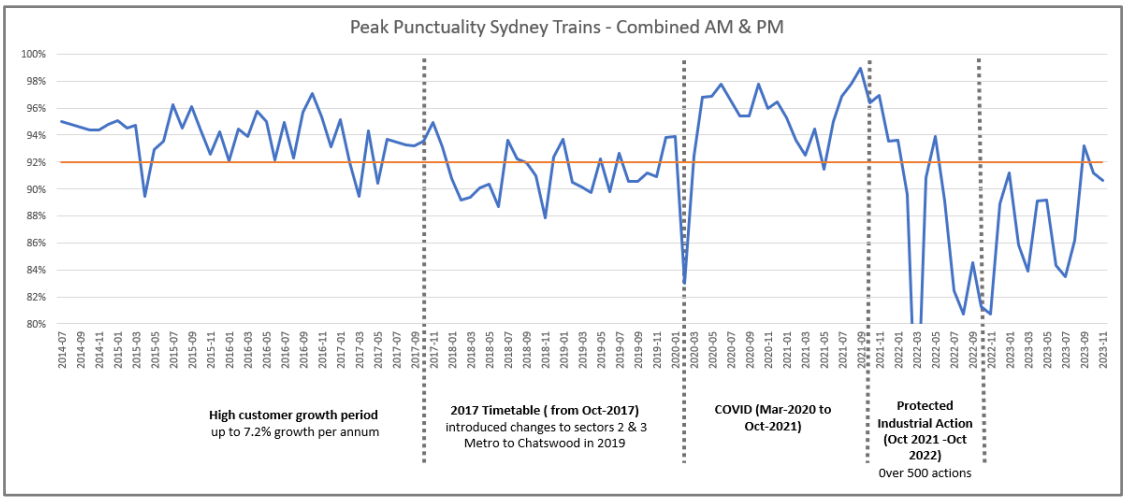
Specific issues in relation to services provided by Sydney Trains to third party access providers are discussed in Section 10.

5.2. Sydney Trains' Passenger Services

Since delivery of the Panel's Initial Report, performance of Sydney Trains' passenger timetable has improved with the rolling 3-month average at 92.1% and peak punctuality targets met in September 2023, the first time since May 2022.

As discussed in the Initial Report, the 2017 timetable has not performed to the agreed reliability targets. However, timetable performance is showing emerging improvement due to recovery from protected industrial action and implementation of a range of improvement initiatives.

Figure 5-1 Sydney Trains Timetable Punctuality Combined AP and PM Peaks



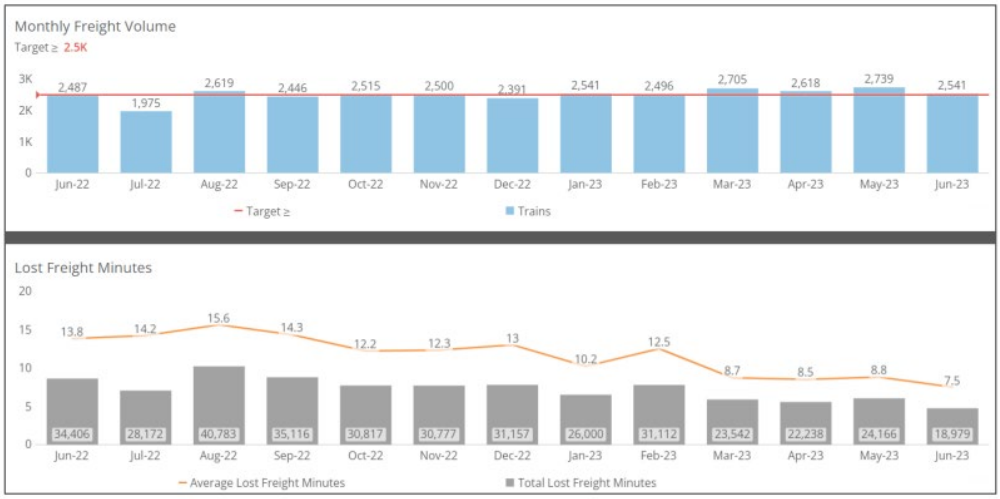
5.3. Third Party Operators

Freight customers were affected by wet-weather disruptions in 2022 and a five-week closure for repair works following 10km of track damage caused by a freight train derailment in December 2022. However, freight volumes increased steadily through the remainder of the year and have now recovered compared to pre-pandemic levels.

Delays incurred by freight operators improved over the last four months of FY2023 (Figure 5-2). It is difficult to account for the reasons for the improvement during the final four months as there is no freight delay attribution process to capture the causes. A new Freight Attribution process is being developed by Sydney Trains.

In terms of the impact that significant freight incidents have had on passenger services, FY2023 showed improvement from FY2022.

Figure 5-2 Freight volume and Total Lost Freight Minutes (LFMs) by month

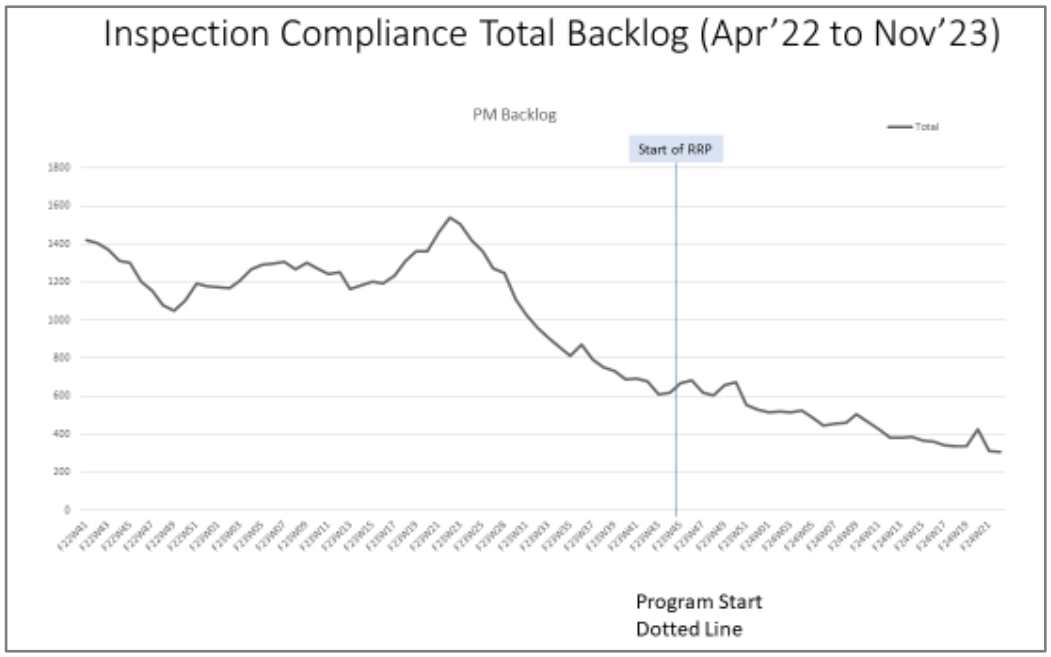


5.4. Infrastructure Performance

Following the Panel's Initial Report, Sydney Trains established a 12 month $97M maintenance Rail Repair Plan (RRP). Engineering and Maintenance Branch (EMB) is able to report good progress against key targets established for the RRP.

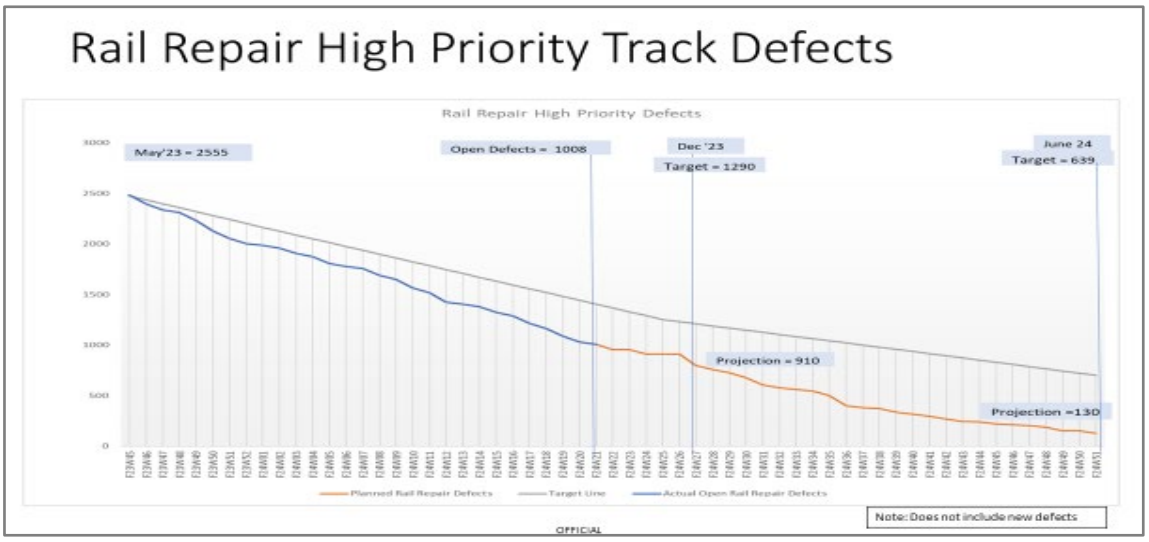
The backlog in compliance inspections across the network has more than halved since the commencement of the RRP.

Figure 5-3 Inspection compliance backlog



Over the same period, the RRP is well ahead of target in the reduction of high priority defects identified at the time of commencement of the RRP.

Figure 5-4 Rail Repair Plan High Priority Defects (initially recorded defects)

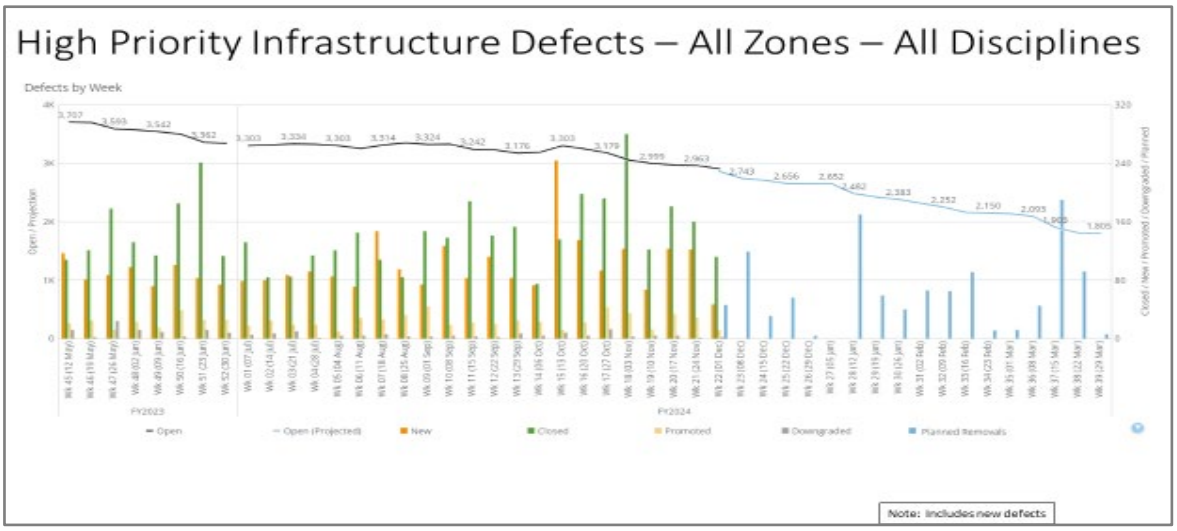


However, over the period of the RRP, more defects are being detected on the network. This is a function both of the increased number of inspections undertaken and of more time on track undertaking work when previously unreported defects emerge.

Figure 5-5 sets out:

- The initial number of identified high priority defects (3,707) at the commencement of the RRP.
- The number of new high priority defects reported.
- The ongoing closure of newly reported defects.

Figure 5-5 Total high priority defects



Overall, this is a positive development for Sydney Trains' ongoing performance. The initially identified high priority defects are being addressed at a rate faster than originally planned and, at the same time, new defects are being exposed and rectified. The RRP is closing new defects at a faster rate than they are being reported. As a result the overall number of high priority defects continues to decline.

When total defects (high priority and non-priority) are considered, the overall number of defects on the network has declined from the number identified at the commencement of the RRP, albeit at a slower rate than initially anticipated due to the emergence of a significant number of previously unreported defects.

Figure 5-6 Total defects on the network

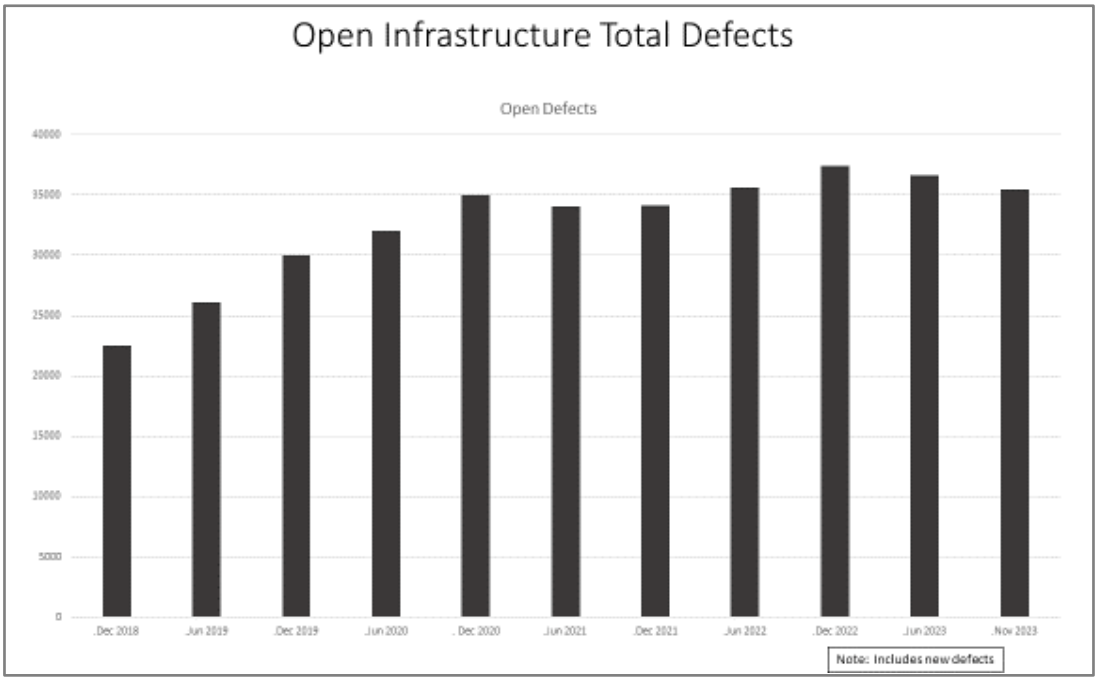
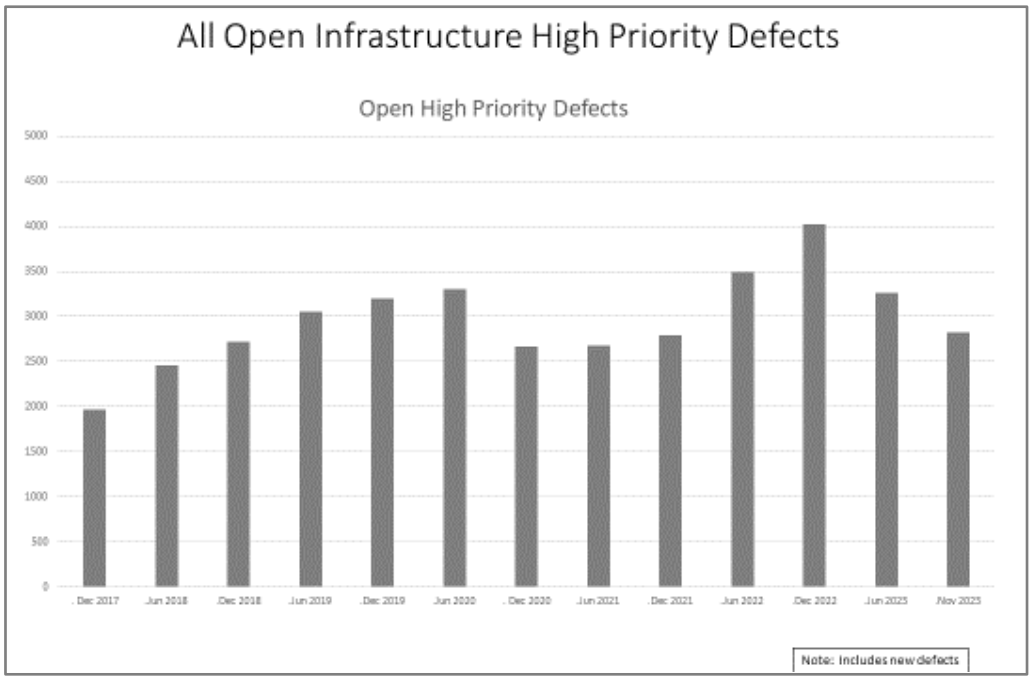
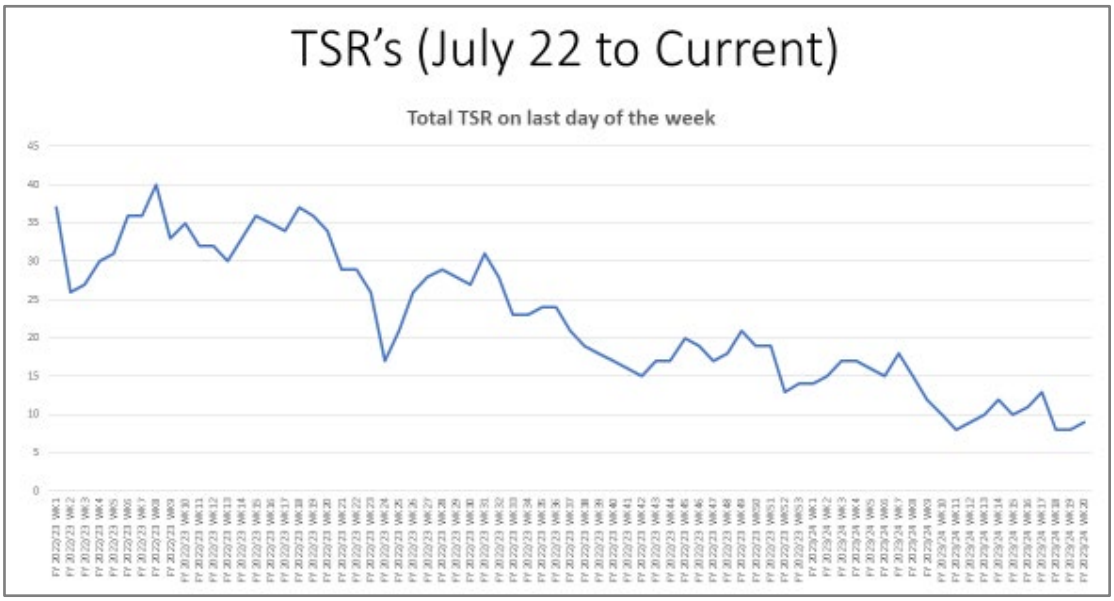


Figure 5-7 Total high priority defects on the network



As shown in Figure 5-8 there has been a commensurate reduction in Temporary Speed Restrictions (TSRs) across the network which support improved timetable performance.

Figure 5-8 Temporary Speed Restrictions

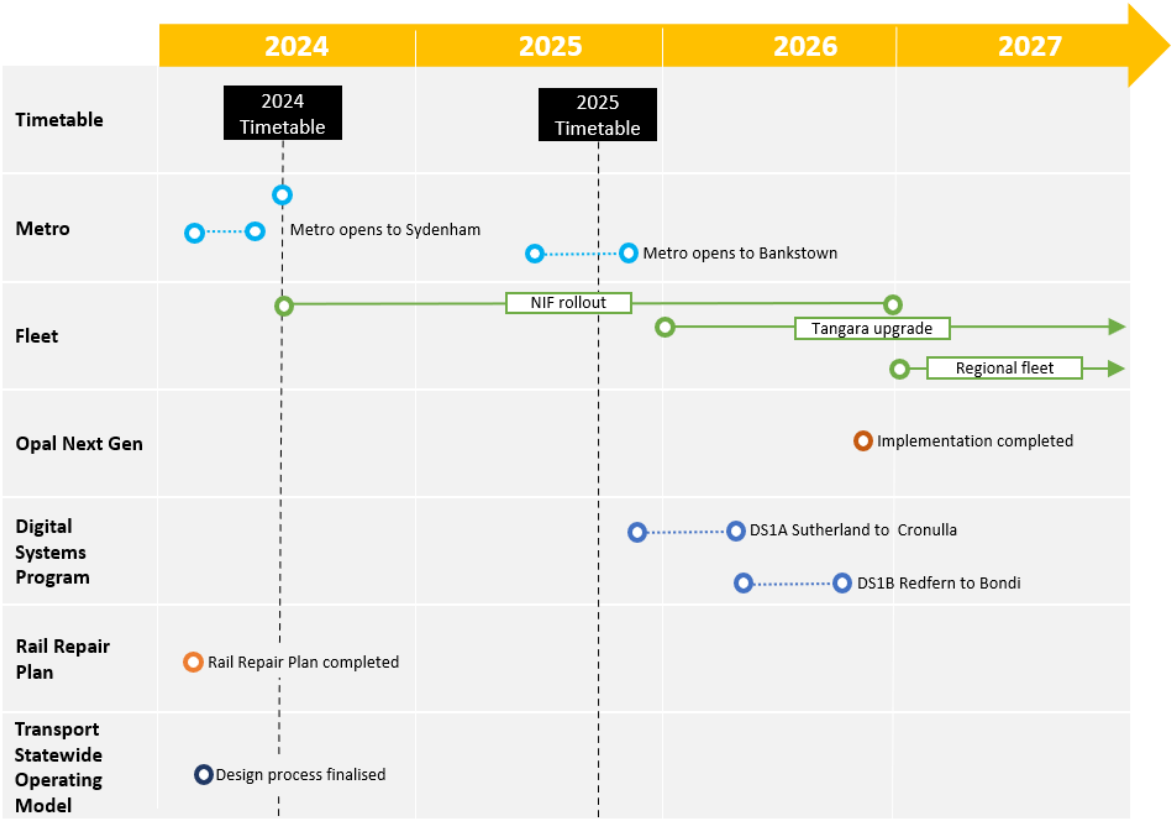


The Panel acknowledges the upward trend in performance. However, further efforts are required to ensure performance reaches and sustains consistent delivery against customer reliability targets.

6. Emerging Challenges and Risks

Sydney Trains is facing major changes to systems, fleet and infrastructure over the next five years and beyond, with the potential to transform Sydney Trains' operational efficiency and service delivery. These changes, however, provide both significant opportunity and significant risk. Many of these change projects overlap with critical interdependencies.

Figure 6-1 Emerging Challenges and Risks



Sydney Trains' project and change management capacity, including the ability to coordinate among multiple stakeholders, will be critically important in implementation of these changes to avoid degradation of current performance and potential budget and operational risk.

6.1. Introduction of 2024 Timetable

Significant changes are scheduled to take effect with the introduction of a new timetable in mid-2024.

As discussed in the Panel's Initial Report, the introduction of a new timetable in 2017 caused significant service delivery issues for Sydney Trains. Minor changes to this timetable have been made in 2023 to address some of these issues.

The proposed 2024 timetable is designed, among other things, to:

1. Allow closure of the Bankstown Line in early 2024 for conversion to a metro system.
2. Facilitate the commencement of services on the Metro City and Southwest to Sydenham.
3. Integrate the completed Metro City and Southwest with the Sydney Trains' network.

A further timetable is planned to be introduced in 2025 which will facilitate removal of the OSCar trains from service on the Eastern Suburbs line as a prerequisite for the introduction of Digital Systems on this line and to facilitate their operation on the suburban network.

These timetable changes will be critical to ensuring that the difficulties with the 2017 timetable are addressed and to successfully integrate new services, providing the basis for improving Sydney Trains' overall resilience and reliability.

Risks

There are significant interdependencies between introduction of the 2024 timetable to enable work on the Metro system to be completed and to ensure successful integration of the Metro with the Sydney heavy rail network.

The process of developing the 2024 timetable has been disrupted and recommendations have been made by the Panel to expedite the process to avoid major disruptions to service delivery and integration of the Metro services.

6.2. Sustainable Infrastructure Performance

A significant backlog in infrastructure maintenance was identified in the Panel's Initial Report as a major factor in Sydney Trains' declining performance levels. The Panel's recommendations for a Rail Repair Plan to address this backlog were accepted by Government. Sydney Trains is well advanced in implementing this program (Section 5.4).

Sydney Trains has a significant infrastructure budget over the next five years in the order of $10Bn. However, planning and delivery of both the capital works and maintenance programs has posed ongoing challenges due to lack of coordination or integrated planning across Engineering and Maintenance Branch (EMB).

Risks

Effective planning and delivery of the infrastructure budget is essential to the ongoing sustainability of the infrastructure and to underpin the ongoing reliability and resilience of Sydney Trains' service delivery.

Recommendations to address Sydney Trains' engineering and maintenance challenges are addressed in Section 9.

6.3. Fleet Heavy Maintenance Contract

The UGL Unipart Joint Venture (JV) currently employs approximately 260 staff providing heavy maintenance and supply chain services for over 1,050 passenger cars (Tangara, OSCar, K sets, V sets and all diesel trains). The contract has been in place since March 1994 at Auburn following closure of the government owned Electric Carriage Workshops and the Eveleigh Carriage works.

Insourcing of this contracted function to Sydney Trains' existing maintenance workforce is planned to take place between January to December 2024. This will involve transfer of the JV workforce to work alongside existing Sydney Trains' maintenance employees at the government owned maintenance facility at Auburn, until transfer is completed.

Risks

There are significant industrial implications with the transfer of the contracted workforce to work alongside the existing Sydney Trains' maintenance workforce.

Under the current arrangement the existing JV workforce will have a choice of employment options and may choose to not take-up the Government's employment offer. A potential loss of both wages and professional staff will put the delivery of the maintenance plan at risk.

The JV's current supply chain management contract supplies all materials required for the daily maintenance of the trains maintained by Sydney Trains. This function will also transfer to Sydney Trains.

Current shortages of parts to maintain the fleet are a significant risk to the reliable performance of the fleet.

6.4. Tangara Refit

The Tangara fleet is undergoing a technology upgrade to extend its life and align the fleet with the latest generation of trains on the Sydney network. The upgrade includes replacement of the current redundant Train Management System (TMS) and installation of Automatic Train Protection (ATP) technology. Planned completion of the project is late 2027.

The ATP trackside infrastructure rollout was completed in mid-2022 and is now operational across the majority of the Sydney Trains' metropolitan network as well as the South Coastline to Kiama line, the Blue Mountains line to Lithgow and the Central Coast / Newcastle Line.

Completion of ATP work on the Tangara fleet is required to support the introduction of the first tranche of the Digital Systems Project on the Bondi Junction to Erskineville and Sutherland to Cronulla lines in 2025.

The Tangara upgrade project has been problematic and has been delayed by an inability to deliver the proposed scope of work, lack of configuration control and lack of support for outdated IT systems. Only the ATP-related elements of the upgrade have been funded. Other upgrades are required to ensure the Tangaras can continue to operate safely and reliably.

Risks

Delays in updating the Tangara fleets' operational critical systems could threaten implementation of the first tranche of the Digital Systems Program due to the ongoing poor performance of the trains.

6.5. Introduction of the New InterCity Fleet

Integration of the new InterCity fleet of 72 Mariyung trains is scheduled to commence in late 2024 and be completed in late 2026.

Issues arising during project procurement are close to resolution but reflect a lack of effective engagement with workers and their unions during the procurement process. These include modifications to the rolling stock to support the Guards' role and infrastructure modifications to facilitate the operation of 10 carriage train sets, compared to the current 8 carriage sets.

Risks

Introduction of the new fleet to service will need to address:

- Possible timetable adjustments.
- Infrastructure modifications.
- Smooth transition of the operation of the InterCity electric fleet from NSW TrainLink to Sydney Trains.

The Mariyung trains are required in service as soon as possible to replace the aging and poorly performing V Set trains.

6.6. Introduction of New Regional fleet

A new Regional fleet will replace the existing XPT and Explorer/Endeavour fleets. The trains will operate on regional routes in NSW and with overnight and daily services to Melbourne and Brisbane. The trains will arrive in Australia commencing in March 2024 and are planned to be in service between 2025 and 2029.

Risks

Significant operational risk will arise from the need to integrate the new fleet into the Regional timetable and the interdependency of the north coast XPT and Melbourne services.

Maintenance at the Sydenham XPT maintenance centre is currently carried out by Sydney Trains' employees. This workforce will be progressively replaced by employees of the Momentum Rail Consortia who are contracted to supply and maintain the trains. The existing workforce will be working beside the contracted workforce for an extended period as the new trains are introduced into service. The existing Explorer and Endeavour maintenance centre at Eveleigh (approximately 50 staff) will be closed.

Both issues pose significant workforce planning and industrial change management risks.

6.7. Digital Train Radio System (DTRS) Replacement

Original supplier support for the current Digital Train Radio System (DTRS) is set to be withdrawn in 2025. Continued operation of Sydney Trains' services requires DTRS to remain operational and a technology upgrade is required within 10 years to support continued operations of the rail network.

Sydney Trains has submitted a proposal for funding for the preparation of the business case for this project but this remains unfunded.

Risks

Tranche 1 of the Digital System Program is dependent on the train radio system so both projects must be coordinated and delivered to support future operations.

6.8. Digital Systems Program (DSP)

The DSP represents a fundamental transformation of Sydney Trains' train control system. The system will be delivered in three initial tranches:

- Tranche 1 (2025) - services from Cronulla and Erskineville to Bondi Junction.
- Tranche 2 (2027) - North Shore line, City Circle, remaining city suburban lines travelling through Redfern and Central.
- Tranche 3 (currently unfunded) - all remaining lines in the system that are not shared with freight services - Inner West to Strathfield, Airport and East Hills Line and Richmond Branch line.

Risks

The risks involved with this project are significant and widespread and will test the capacity of both TfNSW and Sydney Trains to manage a major technological transformation. In addition to the technological risk, major challenges will include:

- Structure and resourcing.
- Change management planning.
- Staff training and associated workforce strategy.
- Project budget.
- Effect on timetable performance during design and implementation.
- Network Rules changes.
- Effect of the new technology on current worksite protection methodology and procedures.
- Delivery of the committed efficiencies that are planned to flow from the project.

A long-term risk is the interoperability of the system on the shared railway. The project team has yet to conclude the means of providing for third party access, including Freight and other above rail passenger operators, in the project scope.

6.9. Conclusions

Successful completion of each of these projects has the potential to transform Sydney Trains' operations and to underpin a more reliable and resilient rail service.

However, the projects pose significant risk and will fully test Sydney Trains' capacity to manage the delivery of major projects safely with full operational effectiveness and on time and budget.

All projects will require a significant investment. Realisation of the potential benefits in performance and productivity arising from this investment will require Sydney Trains and TfNSW to work closely to ensure that necessary support and resourcing are forthcoming.

Each project has established governance arrangements. Whilst the Sydney Trains' Executive has oversight of these projects through its normal Executive processes, the Panel believes that more focussed oversight is required by both Sydney Trains and TfNSW.

Implications for the assurance processes applied by TfNSW's Executive in delivering projects is considered further in Section 10.

6.10. Recommendations

The Sydney Trains' Configuration Control Board (CCB) within EMB should provide a more comprehensive governance mechanism for those infrastructure projects managed and controlled by Sydney Trains.

For major high risk projects, the CCB should be chaired by the Chief Executive and include the Executive Team. The CCB should continuously monitor the progress and outcomes for each project at each assurance gate, using the Reliability, Availability, Maintainability and Safety (RAMS) process. In addition, the CCB should address the Operability of each project, including integration with existing and proposed operations.

7. Safety

7.1. Background

Sydney Trains has obligations under both the *Rail Safety National Law* (RSNL) and the *Work Health and Safety Act* (WHS Act) to have systems and programs in place to identify and manage risks and to provide a safe workplace for employees, customers and others impacted by its operations.

Sydney Trains has established a comprehensive Safety Management System (SMS) which provides a framework to meet its obligations under both the RSNL and the WHS Act. This SMS, with associated documentation and procedures, is consistent with the guidelines established by the Office of the National Rail Safety Regulator (ONRSR).

Sydney Trains also has extensive programs in place to give effect to its obligations and to closely monitor on-going safety performance.

7.2. Safety Performance

Key safety performance indicators for the five years FY19 to FY23 are set out below.

Figure 7-1 Total Recordable Injury Frequency Rate (TRIFR)

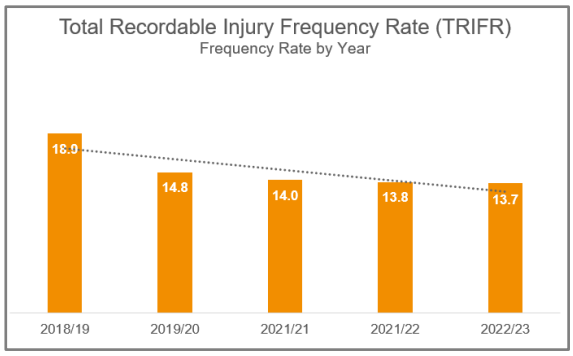
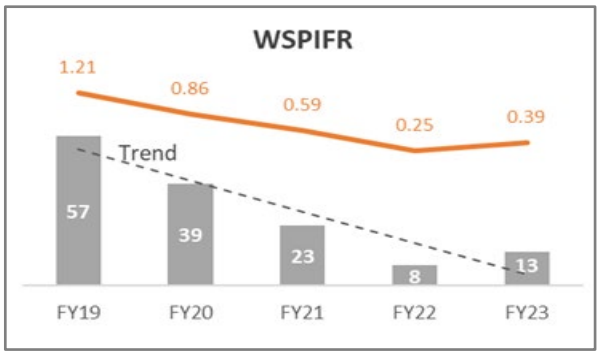


Figure 7-2 Worksite Protection Incident Frequency Rate (WSPIFR)



TRIFR was 26% above target year for FY23 and showed a result largely consistent with the previous year. The increase over the financial year was due, in particular, to a higher number of muscular body stressing injuries and slips/trips/falls related injuries.

WSPIFR was 54% below target for FY23 but showed an increase (56%) over the previous year.

Figure 7-3 Lost Time Injury Frequency Rate (LTIFR)

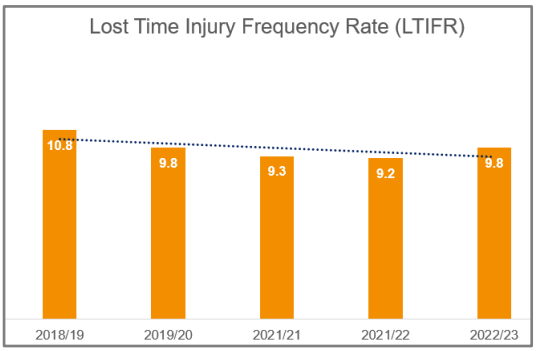
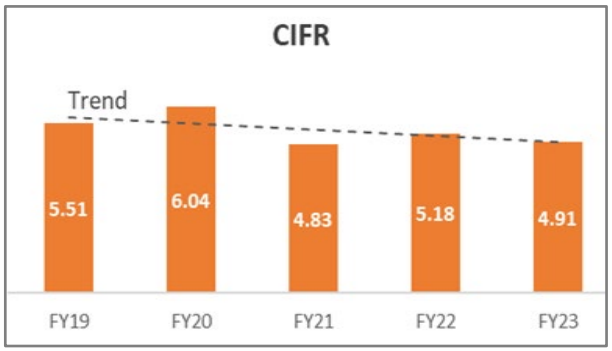


Figure 7-4 Customer Injury Frequency Rate (CIFR)



LTIFR was 46% above target for FY23 and increased slightly (4.3%) from the previous year. Train Crewing, Engineering and Maintenance (EMB), Rail Operations and Customer Experience were all above the FY23 target for people-related injuries.

CIFR was slightly below target for FY23 and improved (5.2%) over the previous year. Injuries were generally minor in nature with slips/trips/falls injuries predominant.

Figure 7-5 Operational Safety Index (OSI)

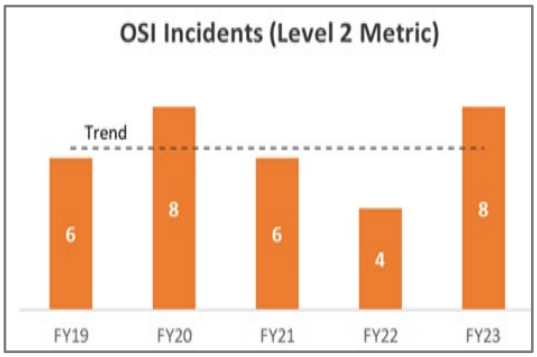


Figure 7-6 High and Low Risk SPADs Frequency Rates

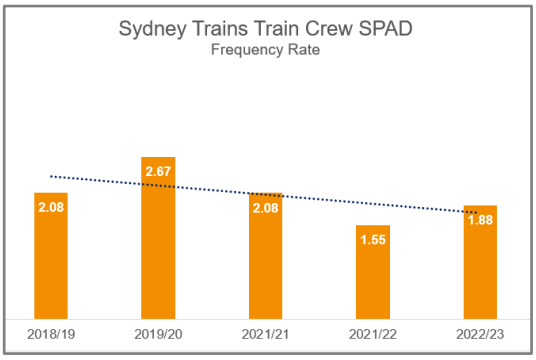
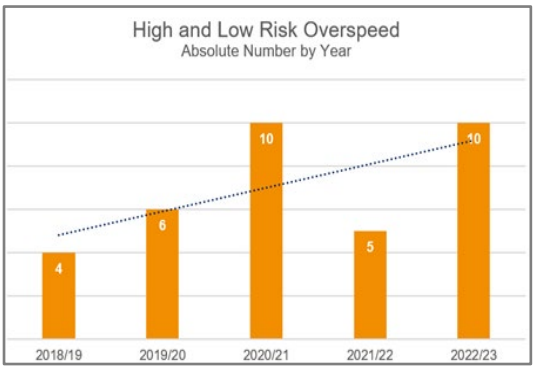


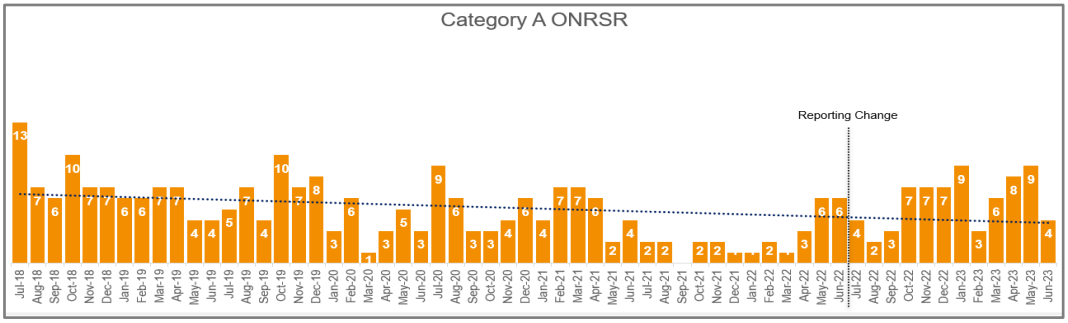
Figure 7-7 High and Low Risk Over speeds



The OSI represents Sydney Trains' major operational risks, including factors such as collisions, derailments, Signals Passed at Danger (SPADs), over speeding incidents and rolling stock/track defects. The OSI was below target for FY23, but still an increase over the previous year.

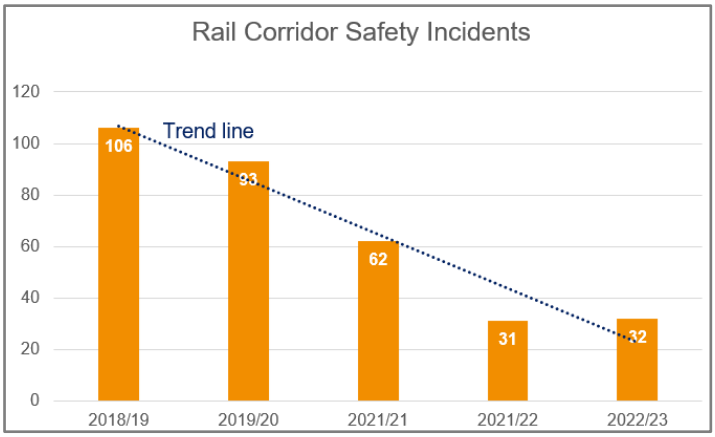
SPAD frequency rates and over speeding incidents have increased (primarily low risk over speeds) from the previous year and remain a focus for operational improvement. Incoming digitization through full roll-out of Automatic Train Protection (ATP) and Digital Systems should eventually provide an engineering solution to both SPADs and over speeds.

Figure 7-8 Category A Reportable Occurrences



The number of Category A incidents reportable to ONRSR has steadily declined over the last five years, allowing for a change in reporting requirements. Category A incidents are incidents associated with railway operations which have, or could have, caused significant property damage, serious injury or death, including collisions, near hits, derailments, runaways, fire or explosion, breaches of Network Rules and irregularities in rolling stock and rail infrastructure.

Figure 7-9 Rail Corridor Safety Incidents



Whilst the number of rail corridor safety incidents for FY23 was well below target and only slightly above the previous year, it is concerning that, of the 19 incidents where an immediate cause could be identified, 17 of these involved human error or violation of rules or procedures.

There are also a number of areas of concern which are largely out of the direct control of Sydney Trains, particularly the continuing significant number of self-harm incidents by members of the public across the network and customer to employee violence incidents.

Figure 7-10 Self-harm Incidents

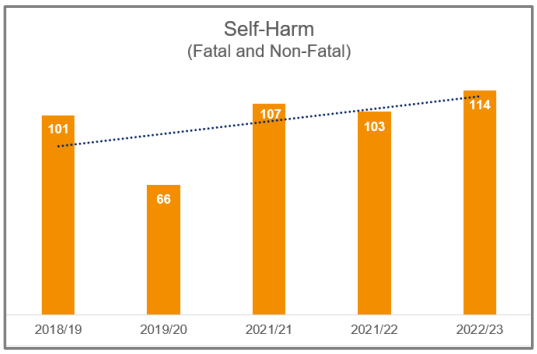
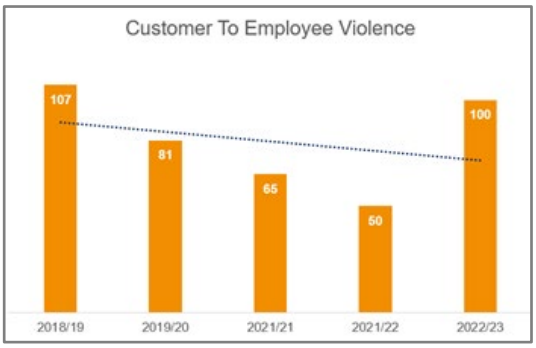


Figure 7-11 Customer to Employee Violence



These incidents create risk of both physical injury and significant trauma for Sydney Trains' employees with resulting workers compensation claims.

7.3. Annual Safety Performance Report 2022-23

Sydney Trains is required to provide an Annual Safety Performance Report to ONRSR to provide assurance that the organisation is meeting its statutory requirements under the RSNL.

The 2022-23 report highlights movements in key safety performance indicators with favourable results in some areas and other areas where performance should be improved. The report

acknowledges the programs in place to improve safety performance and provides a number of conclusions, including:

- Continued maturing in the management of operational safety risk.
- A continuing focus on controlling hazards involving workers in the rail corridor.
- The importance of the Enterprise Track Worker Safety Program (ETWS) in challenging current ways of working and driving positive safety behaviour changes that enhance track worker safety.
- Assurance through both audits and investigations has not highlighted any significant safety system deficiencies.

7.4. Safety Culture

Sydney Trains generally has a positive safety culture.

The Executive holds detailed discussions on safety issues and senior managers make regular workplace safety visits. Rail unions are engaged with their members in identifying and raising safety issues with management. Active safety committees are in place across Sydney Trains and make contributions to safety management.

Safety management performance has ranked as one of the top three topics in Sydney Trains' employee responses set out in the NSW Public Sector Employee Survey (PMES) over the last four years. The consistent top scoring question over the period has been *'I am comfortable notifying my manager if I become aware of risks at work.'*

Figure 7-12 PMES: Wellbeing, Health and Safety

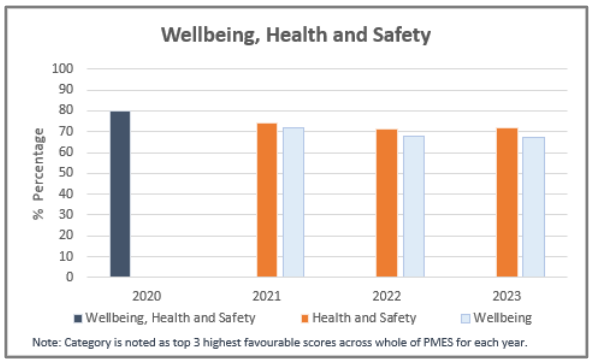


Figure 7-13 PMES: Risk Awareness

A strong safety culture is also evident through the Fair Decision Framework which Sydney Trains has developed in conjunction with the Rail Tram and Bus Union (RTBU) to ensure that incident investigations are focused on identifying causal factors and building these into system improvements and coaching and mentoring opportunities, rather than punitive actions against individuals.

7.5. Safety Audits and Investigations

7.5.1 External Audits

The Panel has considered a number of audit and investigation reports relating to Sydney Trains from ONRSR, the Office of Transport Safety Investigations (OTSI) and the Australian Transport Safety Bureau (ATSB).

Overall, ONRSR has indicated that, as the industry regulator, they have not identified any issues of major concern that would indicate that Sydney Trains does not have a positive approach to meeting its safety responsibilities. ONRSR acknowledges that Sydney Trains has a good reporting culture and has been responsive in addressing identified issues.

A range of common themes have emerged from these various audits and investigations, including:

- Breaches or misapplication of Network Rules and worksite protection provisions.
- Ensuring that Sydney Trains' audits and inspections adequately address rail safety risks.
- Management of competency of Rail Safety Workers (RSWs).
- Recruitment, training and certification of Signallers.
- Poor safety critical communications (SCC).

OTSI has determined that a systemic investigation into worksite protection across the entire NSW rail network is warranted. The scope of the investigation includes issues such as competencies, SCC, incident reporting and safety culture.

TfNSW's internal audit program over the last two years has raised concerns relating to:

- Validation of worksite protection plans before work commences in the rail corridor.
- Lack of clarity in procedures for reporting, investigating and implementing improvements following significant incidents on the rail network.

The issues identified through these audits are being addressed by Sydney Trains in response to recommendations made by the Panel in both the Initial and Interim Reports.

7.5.2 Sydney Trains' Internal Investigations

A review of all systemic investigations between 2018 and 2022 by Sydney Trains' Internal Investigations team noted that, over this period, 35 investigation reports identified human error as an immediate cause or contributing factor in incidents subject to investigations. These particularly involved Rail Operations' staff.

The report identified:

- 20 incidents where the immediate cause was attributed to an error made by either a Signaller, Train Service Delivery Manager or Network Incident Manager.
- 22 instances where there were less than adequate application of SCC.
- 10 incidents involving non-compliances to procedures.
- There was a less than adequate response to incidents on 13 occasions.

Rail Operations has responded to the outcomes of this review through a specific Rail Operations Safety Improvement Plan.

7.6. Safety Assurance

7.6.1 Safety and Environmental Sustainability Sub-Committee (SESSC)

The SESSC provides an important high level assurance role. The committee meets monthly, involving the Sydney Trains' Executive team and a range of other contributors. It is chaired by the Sydney Trains' Chief Executive and is attended by an Independent Safety Advisor on a quarterly basis.

The committee monitors safety performance, strategy and project investment, considers a significant range of issues and encourages discussion on current or emerging issues.

7.6.2 Three Lines of Defence Model (3LOD)

The 3LOD model is a recognised approach to effective risk management and assurance:

- Line 1 - business unit control activities, including line management supervision to assure operating procedures are followed.
- Line 2 - assurance by functions that support the business, either embedded or non-embedded, through more formal verification and audits.
- Line 3 – assurance independent of operating businesses, involving evaluation of the design and operating effectiveness of management, systems, processes and controls.

Whilst embedded Line 2 assurance models can be acceptable, non-embedded Line 2 assurance is preferable as it provides a more formalised degree of independence and separation from the operating business.

As part of the Corporate Functions Review (CFR, 2021), Sydney Trains' internal audit function was transferred to TfNSW Internal Audit. Sydney Trains' Safety, Environment, Quality and Risk (SEQR) team does not undertake a formal audit and assurance role.

Sydney Trains' business units currently undertake embedded Line 2 assurance through, for example, the Engineering and Systems Integrity team in EMB, the Compliance, Investigations and Assurance team in Train Crewing and the Compliance and Assurance team in Rail Operations. SEQR provides desktop control assurance and on-site compliance and may intervene if deficiencies are identified that have the potential for a safety impact.

A recent TfNSW audit of Sydney Trains' legislative and regulatory compliance management noted that the Sydney Trains approach to compliance management is "fluid" and undocumented.

The current assurance model within Sydney Trains' should be restructured to provide a more rigorous process consistent with the 3LOD model.

Line 3 assurance responsibility should be undertaken by the Audit and Risk Executive reporting to the proposed Sydney Trains' Audit and Risk Committee (Section 12).

7.7. Safety Change Management

Element 7 (System Safety) of Sydney Trains' SMS sets out a process to identify and manage safety risk arising from internally and externally delivered changes with the potential to affect the safety of Sydney Trains' operations.

The procedure aims to ensure that changes are considered in their operational context and assurance is provided that the change is acceptably safe to introduce into service. The change process requires identification and assessment of the safety impact of change and planning and integration of system safety management through the lifecycle of the change.

Sydney Trains is facing ongoing major change across operations, fleet and infrastructure which could affect safety. Introduction of new fleet and the Digital Systems Program will, in particular, have significant operational and safety impacts across most areas of Sydney Trains.

A consistent and structured approach to safety change management must be a core element of any change process and embedded in the engineering analysis across the key domains of Reliability, Availability, Maintainability and Safety (RAMS).

7.8. Overall Assessment

Sydney Trains has a comprehensive SMS in place, with associated policies and procedures, to meet its obligations under both the RSNL and the WHS Act.

Sydney Trains' safety performance and programs are subject to regular external monitoring through ONRSR, OTSI and TfNSW. Sydney Trains has systems in place to respond to and monitor outcomes from these audits and investigations.

The SEQR team provides comprehensive safety performance reporting to the Sydney Trains' Executive and safety performance is discussed at each monthly Executive meeting.

ONRSR has described Sydney Trains as a "mature" organisation in relation to its safety management and has noted that Sydney Trains is cooperative and responsive in its dealings with the Regulator.

The Panel supports ONRSR's assessment of Sydney Trains' as a "mature" organisation in terms of safety management. However, a range of issues remain to be considered which, if not addressed in a systematic manner, may undermine Sydney Trains' safety performance.

7.9. Issues for Consideration

Key safety performance indicators, while generally showing improvement over a five year period, also show that performance improvement has slowed or is showing early signs of regression, over the last two years. Sydney Trains faces a challenge both to maintain safety performance levels and to develop services or programs to drive the next step-change in performance.

Sydney Trains' has allocated approximately $25m for safety related programs in 2023/24 both Opex ($3.4m) and Capex ($21.8m). Key projects include:

- Capex: level crossing safety (Sydney Trains is responsible for the upkeep of almost 100 vehicle and pedestrian rail crossings), platform gap reductions and elevated safety access platforms.
- Opex: health and wellbeing, injury reduction (EMB), ATP, RSW competency, Fair Decision Framework and the Enterprise Track Worker Safety (ETWS) program.

There are, however, further areas where funding and support should be considered.

7.9.1 Employee safety

A major emphasis on employee health and safety drove a 14% improvement in injury rates in 2019.

Since that time, however, injury rates have remained broadly stable and Sydney Trains has lost key functions and resourcing through the CFR, including:

- Employee Health and Wellbeing team and CMO.
- Workers Compensation and Occupational Rehabilitation.
- Environment and Sustainability.
- Human Factors.

Sydney Trains pays TfNSW Safety, Environment and Risk (SER) Division approximately $9.9m annually for access to SER services.

Dissatisfaction and reduction in service delivery in some areas has led Sydney Trains to replicate specialist functions and services to ensure the needs of the Sydney Trains' workforce are met. These include occupational case management, health coaching and occupational hygienist services. The scope of these programs has been limited by resourcing and funding.

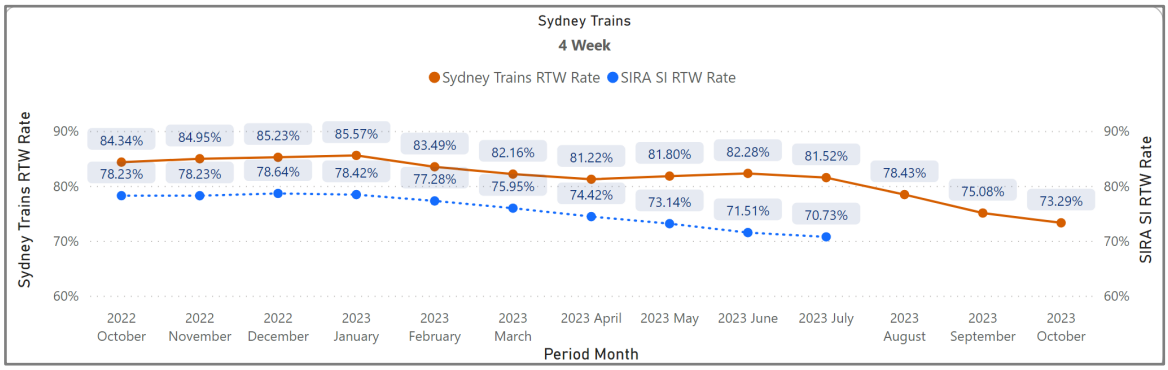
Major and ongoing organisation-wide change is likely to increase Sydney Trains' employee safety risk profile if not adequately managed. Employee safety performance is unlikely to show future significant improvement without an ongoing investment in employee health services and programs.

7.9.2. Occupational Rehabilitation and Return to Work (RTW)

In response to unfavourable findings from a 2017 audit, a dedicated team (3 positions) was created within Sydney Trains to manage claims, control costs and provide proactive services to injured workers.

In 2021, this team and functions were transferred to TfNSW and became responsible for provision of services across the Transport cluster. The team has been unable to provide the breadth of services to Sydney Trains which had previously been provided internally, leading to a decline in return to work (RTW) performance.

Figure 7-14 RTW rates



The first four-week period is critical for overall RTW outcomes with immediate contact, assessment and tailored treatment critical to longer term outcomes. Sydney Trains is getting limited support in these areas and does not have internal early intervention resources.

Sydney Trains is heavily reliant on the provision of claims management and rehabilitation/RTW from Transport Shared Services (TSS). In total, Sydney Trains spent $27.7M on workers compensation costs including cost of claims, statutory levies and TSS RTW and other charges.

With the previous loss of the rehabilitation and RTW functions, Sydney Trains does not have the internal expertise to manage and drive TSS service provision, nor a specialist point of contact for workers compensation, claims management or RTW. As such, Sydney Trains may not be realising the full economic benefits of self-insurance.

7.9.3. Operational Safety and Network Incidents

Whilst there have been recent improvements in operational and workplace protection incidents, the extent and nature of these incidents remains a source of concern. As set out above, reports have highlighted a high level of human error involving poor SCC and lack of knowledge and mistakes in implementing Network Rules and procedures.

Whilst not necessarily significant individually, the ongoing occurrence of these factors should be considered a major systemic risk for Sydney Trains.

The Review's Interim Report put forward recommendations to assist in addressing these issues across Rail Operations, including broadening the role of the existing Rail Corridor Safety Control Board (RCSCB) to oversee a comprehensive program of reform. The RCSCB meets monthly and is chaired by the ED SEQR and includes the EDs of Rail Operations and EMB and other key positions.

Rail Operations has developed the Rail Operations Improvement Plan to address these issues. The Plan outlines the key initiatives that Rail Operations and SEQR will deliver over a two-year period (2023-2025). Key initiatives will address:

- An employee health and wellbeing program.
- Improved fatigue management.
- Improved safe track access.
- Implementation of the Fair Decision Framework.
- Operational safety initiatives.
- Establishment of Operational Safety Coaches for Area Controllers/Signallers.
- Focus on improving SCC.

The Plan will be underpinned by more robust workforce planning and detailed recruitment plans to address shortages in key positions and provide rostering capacity for increased training.

The Plan will be tracked monthly within the designated Rail Operations Safety and Assurance meeting and reported to the RCSCB which will regularly monitor the program.

Further programs are also underway at a branch level to address key risks. For example, a Train Crew SPAD Working Group has been established with a focus on prevention initiatives, awareness, education and training.

The successful implementation of major longer term projects such as ATP and Digital Systems has the potential to drastically reduce the extent of network incidents.

7.9.4. Worksite safety

A significant improvement in the rate of worksite protection incidents over the last five years has been driven by a comprehensive program of initiatives, to improve safety in both the rail corridor and the operating environment more generally.

The program has since evolved into the Enterprise Track Worker Safety program (ETWS), driven and coordinated by the RCSCB. The program has contributed to improvements in performance across a range of areas and has driven three significant initiatives:

i. *Protection Officers (POs)* – changes to the training, assessment and recertification of POs with a greater focus on practical training and assessment and network familiarisation.

ii. *Technology* – a program to drive change through innovative technology that focuses on engineering-based controls, reducing the risk of human error and simplifying administrative controls.

iii. *Rail Safety Coaches (RSCs)* – RSCs focus on in-field interactions with POs and track workers to provide mentoring and support. RSCs monitor performance of SCC through random and targeted sampling. RSCs are embedded in EMB and Rail Operations.

The effectiveness of the ETWS program provides an exemplar for action in other areas.

7.9.5. Training and competency.

The competence of RSWs is a major risk factor for Sydney Trains, and is discussed further in Section 8. Recommendations were provided in the Panel's Interim Report to address these concerns (Section 2).

7.9.6. Network maintenance

The Panel's Initial Report identified the backlog of maintenance as a significant factor impeding Sydney Trains' operational performance. Whilst acknowledging that safety critical defects had been addressed promptly, the Report concluded that the maintenance backlog should be addressed to both increase the reliability and resilience of the network and to prevent future safety risks.

Sydney Trains' Rail Repair Plan, currently underway, has been designed to address this problem.

7.9.7. NSW TrainLink

The Government has accepted the Panel's recommendation (Initial Report) that accountability for the operation of the electric InterCity fleet and management of associated infrastructure and employees be transferred from NSW TrainLink to Sydney Trains.

NSW TrainLink faces significant safety challenges including an ageing workforce, staff shortages and high overtime levels, recruitment of inexperienced drivers and guards and the nature and extent of their existing track and infrastructure network. Safety performance indicators show poor performance in a number of areas. NSW TrainLink has had access to a limited pool of experienced safety staff to address these challenges.

The transfer of the InterCity fleet will raise the safety risk profile of Sydney Trains. Discussions are underway between Sydney Trains and NSW TrainLink to ensure that these risks are identified and that plans are developed to manage risks to appropriate levels.

7.10. Recommendations

Overall Sydney Trains has taken action to address high impact and high consequence incidents, particularly through addressing safety critical defects and a concerted effort to reduce workplace protection incidents.

However, ongoing network incidents and the continuing identification of human error in the application of Network Rules and procedures and in safety critical procedures (e.g. SCC) remain of concern and, if not addressed, could be possible precursors to future more serious incidents.

Recommendations to address identified safety issues have been put forward in both the Panel's Initial Report and Interim Report. This Report provides additional recommendations for consideration, as set out below.

Sydney Trains should ensure that the outcomes of safety audits and investigations are analysed, that lessons learned are identified and disseminated widely and appropriate actions implemented and monitored to drive ongoing improvements in safety performance.

Sydney Trains should restore a formalised Line 2 assurance function to SEQR, with responsibility to develop and manage an ongoing and independent risk-based audit/inspection program. This should include the transfer of current business based assurance functions and resources.

SEQR should have responsibility across Sydney Trains to identify significant change proposals and to ensure that a structured safety change management process is built into these proposals.

- Technical and engineering assurance should remain with Professional Heads within EMB.

Sydney Trains should negotiate with TfNSW to secure the return of key employee safety functions providing Human Factors, health and wellbeing and Return to Work (RTW) services to directly drive improvements in employee health and safety outcomes.

Sydney Trains should review the provision of claims management, rehabilitation and RTW services provided by TfNSW Safety Environment Risk (SER) and Transport Shared Services (TSS) and whether the fees it pays are aligned with the services it receives. Performance guidelines should be established for the provision of these services by SER and TSS.

Sydney Trains should continue to provide focussed support to the development and implementation of technological solutions to enhance worksite and track worker safety.

8. Workforce Capability and Competency Management

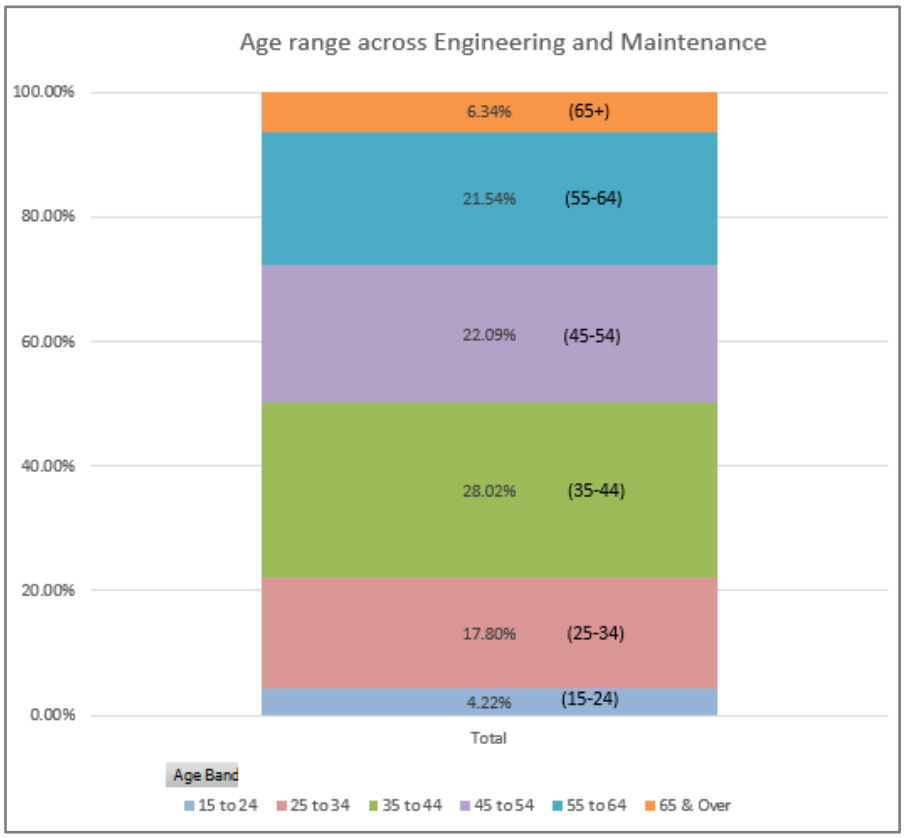
8.1. Workforce Challenges

Sydney Trains has significant workforce planning challenges, particularly with recruiting, training and retaining staff in critical positions, including infrastructure workers, signallers, engineers and project managers.

Over the last five years, Sydney Trains has seen the departure of significant skills from the organisation. Sydney Trains has continued to experience high attrition rates in key areas due, particularly, to the ageing workforce and strong demand from private sector companies.

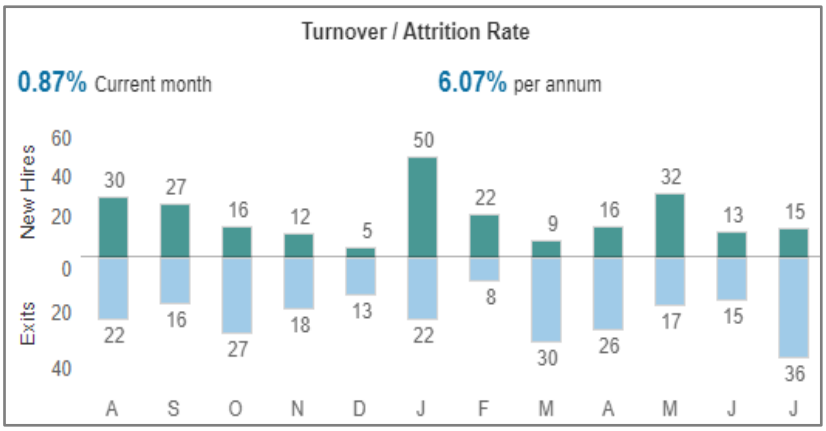
The following data from Engineering and Maintenance Branch (EMB) highlights these problems.

Figure 8-1 EMB - Age Profile



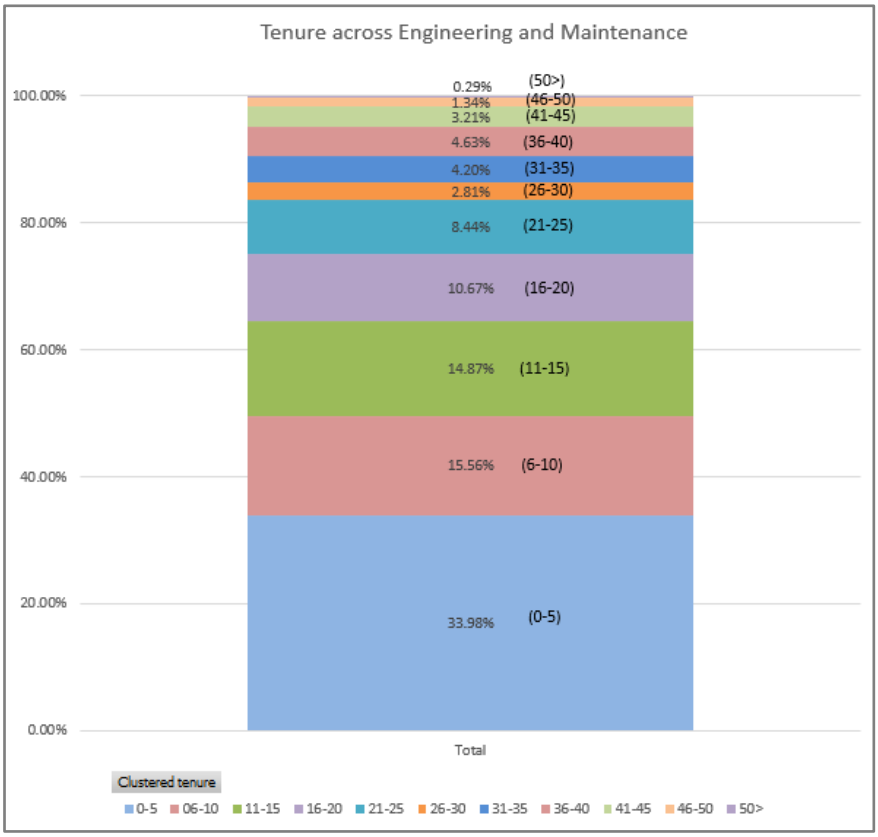
More than a quarter (27.82%) of staff employed in EMB are aged over 55.

Figure 8-2 EMB - Attrition (12 months)



While, in isolation, an attrition rate of 6.07% a year is not necessarily high, in the context of difficulties in recruitment, it represents a major challenge for retaining and developing key skills. EMB runs regular bulk recruitment rounds but at no time over the last three years, have they been able to successfully recruit the required numbers of new starters.

Figure 8-3 EMB - Staff Tenure



A consequence of the ageing workforce and difficulties in recruitment and retention is that almost half of EMB current staff have been with the branch for less than 10 years. This creates further problems in replenishing essential knowledge and experience.

The difficulties experienced in EMB have a similar impact in Rail Operations. Train Crewing and Station Operations face lesser difficulties and have a broader recruitment pool.

8.2. Workforce Planning

Workforce planning functions are dispersed across Sydney Trains' operational branches.

Both Station Operations and Train Crewing have a continuing pipeline of recruitment and training and are broadly able to maintain required staffing levels. However, the transfer of NSW TrainLink's InterCity services to Sydney Trains will pose a particular challenge with a current shortage of trained and experienced drivers across NSW TrainLink.

Rail Operations has significant issues in key areas, particularly signallers and train controllers. This has been identified as a major risk for Sydney Trains following limited recruitment over a number of years. The Panel's Interim Report recommended an expedited recruitment and training program to address this issue. Recent figures show that this program is starting to produce successful outcomes.

EMB has a ten year view of staffing requirements to meet longer term asset planning needs, but typically recruits on a two to three year forward plan. EMB is facing significant issues in meeting its workforce needs, both in professional and frontline workers.

8.3. Staffing Programs

8.3.1. Graduates

Sydney Trains does not have an internal graduate program. Sydney Trains, along with other agencies, puts forward an expression of interest to TfNSW to meet its graduate needs through a participant placement process and requests are considered alongside other proposals. Rotation of graduates across the Transport cluster is managed by TfNSW.

Sydney Trains does not necessarily receive the graduates it has requested and is generally unable to retain the numbers of graduates in the required disciplines to meet future needs. Among the factors contributing to conversion rates is the creation of permanent entry level roles.

Between 2021 and October 2023, 161 graduate placements were made within EMB, resulting in 18 conversions (11%) to ongoing roles within EMB.

8.3.2. Engineers

Sydney Trains has developed a number of initiatives to attract and retain engineers in key disciplines. In conjunction with unions, an Engineering Registration and Recognition Program has been established to support the Engineering discipline through measures such as recognition as a Professional Engineer, payment of association membership fees, ongoing professional development and payment of salary loadings.

However, recruitment and retention of engineering skills remains a problem, particularly with the significant number of major projects in the near future.

8.3.3. Apprentices

The majority of Sydney Trains' apprentices are managed through EMB with a dedicated apprentice unit managing the needs of major works, maintenance and fleet. As well as training through TAFE, apprentices are moved through relevant areas of the business and rotated to work with external organisations to facilitate broad skills development. With the next intake, it is expected that there will be around 250 apprentices managed by the unit.

Rail unions fully support a strong apprentice program but have expressed concerns about the scope and management of the apprentice program.

8.3.4. Cadets and Traineeships

TFNSW manages a cluster-wide cadet program. While EMB currently has 9 cadet placements, Sydney Trains makes limited use of cadetships or traineeships to provide alternative pathways for recruitment and training of new employees.

8.4. Workforce Competency

8.4.1. Obligations

The management of workforce capability and competence is a legislative requirement under both the *Rail Safety National Law* (RSNL) and the *Work Health and Safety Act* (WHS Act).

8.4.2. Background

Management of the competence of RSWs has been a challenge for Sydney Trains over a considerable period with continuing changes in roles and responsibilities for learning and development (L&D) functions.

L&D resourcing was centralised under TfNSW's Director People and Culture, including responsibility for the Registered Training Organisation (RTO), with outposted business partners to support Sydney Trains' operating branches to meet their competency management responsibilities.

This model has not provided a consistent or comprehensive approach to assist Sydney Trains in managing its responsibilities.

The Panel's Interim Report expressed concerns about the adequacy of Sydney Trains' management of RSW competency which remains an on-going risk.

8.4.3. TfNSW L&D

Both Sydney Trains and TfNSW L&D have significant issues to address in achieving greater effectiveness and certainty in the management of the competency of RSWs.

L&D describes their role to ensure consistent and efficient delivery of learning requirements and to provide "support to clients to deliver a capable and future ready workforce". Over the period January 2022 to mid-2023 almost 50% of the training interventions provided by L&D related to Sydney Trains. Of these, the significant majority related to RSWs.

The relationship between L&D and Sydney Trains has not, however, delivered satisfactory operational outcomes for Sydney Trains. Issues have included:

- Lack of transparency, clarity and agreement around roles and responsibilities.
- Unclear expectations on behalf of both Sydney Trains and L&D.
- Failure of L&D to recognise the business needs of Sydney Trains as a client and to factor these needs into the development and delivery of programs.
- Lack of flexibility in the scheduling and delivery of training, particularly to meet rostering requirements for staff.

While the L&D Service Catalogue and Enabling Services Agreement have been developed to set a framework for the delivery of L&D services to Sydney Trains, the documents have not been effective in ensuring business-focused L&D services.

As a result, Sydney Trains' operating branches have developed their own bespoke competency management structures and processes, with varying levels of support and input from L&D.

8.4.4. Enterprise Competency Management Framework (ECMF) – June 2023

Sydney Trains has developed the ECMF to "provide overarching direction and guidance, enabling a consistent management of worker competency, while providing sufficient flex for branches to execute relevant processes according to business need."

The framework recognises the need for Sydney Trains to have overall responsibility for the end-to-end management of learning and competency acquisition that directly impacts RSWs and other employees.

The framework sets out the roles, responsibilities and accountabilities for delivering training and competency outcomes for both L&D and Sydney Trains.

8.4.5. Transport L&D Value Chain Review - May 2023

This external review of TfNSW's L&D function noted that "there is complexity and ambiguity regarding the L&D value chain that results in duplication of effort, unclear ways of working and a lack of clarity around roles and responsibilities."

Among other things, the review recommended that TfNSW divest competency-based training and enabling resources to the business units with accountability for the workforce. Business units would be responsible for diagnosing, designing, developing and delivering (insourced or outsourced) competency-focused training. Central L&D would provide support through governance of training demand, centralised RTO services, assurance of learning outcomes and provision of design expertise, centralised vendor management, purchasing and record management.

The recommendations of this report have been accepted by the TfNSW Executive with a dedicated team established to oversee development and implementation of the recommendations.

8.4.6. Sydney Trains as an RTO

Given the ongoing tensions in the relationship between L&D and Sydney Trains, it has been suggested that Sydney Trains should consider establishing its own RTO to provide L&D services, including RSW competency programs and certification.

RTOs are approved by the Australian Skills Quality Authority (ASQA) to deliver nationally recognised training across the Vocational Education and Training (VET) sector. RTOs are authorised to:

- Deliver and assess nationally recognised training.
- Issue nationally recognised qualifications and statements of attainment.
- Apply for government funding to provide VET services.

To become an RTO, Sydney Trains would need to apply for registration with ASQA and be prepared to meet the provisions of the VET Quality Framework. Once accredited, an RTO is required to collect and report relevant data and provide an annual compliance declaration to ASQA.

While there may be benefits to becoming an RTO and having full control of the L&D process, there are also extensive administrative and compliance requirements which must be met to both achieve and maintain accreditation. This would be an unnecessary duplication of resources with TfNSW L&D and a resource and time intensive process for Sydney Trains.

It would be a more rational use of resources to develop a more cooperative relationship with clearly defined roles and responsibilities between L&D and Sydney Trains. L&D should provide the RTO systems and access to learning expertise and nationally recognised programs and qualifications while working with Sydney Trains to deliver more responsive L&D outcomes which meet business needs.

8.5. Conclusions

Management of RSW competency remains one of Sydney Train's key risks.

The Panel was of the view that the issues discussed above were of such importance that they should be addressed prior to completion of the Final Report. An Interim Report was provided to the Minister on 30 August addressing these key issues. The recommendations accompanying the Interim Report are set out in Section 2 of this Report and include the establishment of a Sydney Trains' Learning Council to guide the development of Sydney Trains' competency framework. The Learning Council should engage with rail unions in this process.

Apart from the recommended appointment of the Director of L&D, these recommendations should not lead to the need for additional headcount as each of the operating branches has already put in place a structure to deliver their competency requirements.

Further recommendations about workforce capability are set out below.

8.6. Recommendations

Workforce planning should become a key responsibility for the Sydney Trains Executive Director P&C to provide a coordinated approach and resourcing to address current recruitment challenges and to ensure business strategy is supported by workforce capability.

A range of strategies should be considered to address the ageing workforce and retention of key skills within Sydney Trains. These should include transition to retirement through part-time work, shared roles and formal mechanisms to capture and share knowledge and experience of the older workforce.

Consideration should be given to creating a specific Sydney Trains' Graduate Program to provide an increased impetus to attracting critical skills. The program will need to address current impediments such as availability of vacant positions, use of developmental positions and appointment of dedicated graduate mentors.

- The proposal should be developed in conjunction with relevant unions.
- Consideration should also be given to the role that Cadet and Traineeship programs could play in helping to advance key skill shortages.

Consideration should be given to having the apprentice program report to the Sydney Trains Director L&D to provide a stronger education and training focus to the program and to ensure effective governance and management.

The current Sub-Peak Consultative Committee should catalogue all concerns about the apprentice program expressed by rail unions and continue to address these concerns at regular monthly meetings.

9. Reliability and Resilience

The Terms of Reference for this Review include a focus on the reliability and resilience of Sydney Trains' performance. Reliability generally refers to the punctuality and availability of services in relation to the timetable. Resilience refers to the ability of the rail system to provide effective services in normal conditions, as well as to resist, absorb and recover quickly from disruptions to services.

As discussed in Section 5, network performance has struggled to meet defined service delivery targets since the introduction of the 2017 timetable.

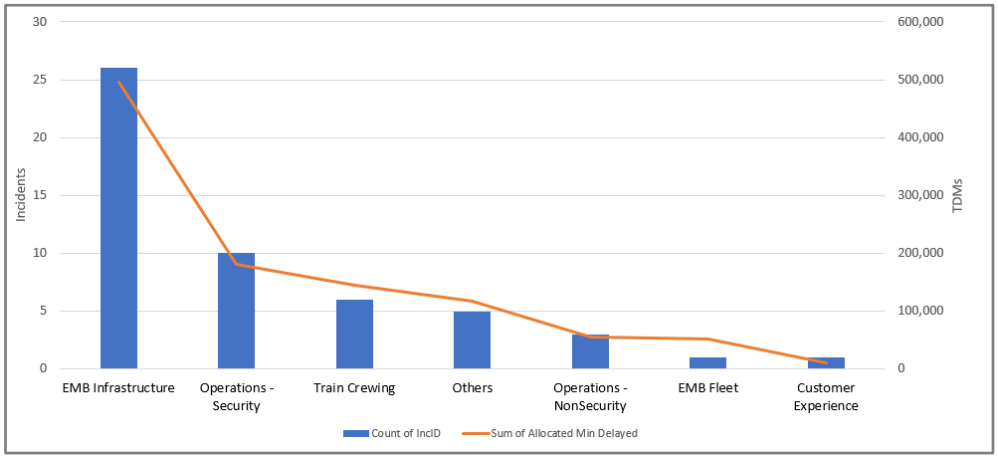
This section considers the key factors impacting on the reliability and resilience of Sydney Trains' operational performance and provides recommendations to improve this performance.

9.1. Causes of Network Disruption

Figure 9-1 shows the number of incidents allocated to each operating branch between July 2014 and March 2023.

Incidents outside Sydney Trains' control ("other") may include delays caused by other rolling stock operators, such as freight, tourist and heritage operators, trespass, self-harm by members of the public and major weather events.

Figure 9-1 Top Incident by Cause and Impact on Train Delays: 2014 – 2023



Around 50% of delays and train cancellations were due to a failure of Sydney Trains' fixed infrastructure with lesser delays attributed to Rail Operations, Train Crewing and Sydney Trains' fleet.

The Panel provided recommendations in its Initial and Interim Reports to address a significant backlog in infrastructure maintenance and to improve performance in rail operations.

Phase Two of the Review has further considered the challenges and opportunities in delivering a reliable and resilient network for Sydney Trains' customers and third party operators. This Section deals with issues largely in the control of Sydney Trains. Sections 10 to 11 deal with matters affecting the network where accountability may be shared with TfNSW.

The final section of the Report (Governance and Accountability) deals with mechanisms through which Sydney Trains is held to account for its performance, including through contractual arrangements, governance and assurance frameworks.

9.2. Timetable Development and Delivery

9.2.1. Timetable Design Responsibility

In 2013 responsibility for developing the master timetable was transferred from Sydney Trains to TfNSW with the objective to drive better services for customers, improve integration with other transport modes and better align with broader Transport strategies.

The 2017 timetable was the first developed under the new operating model. This timetable was developed in response to unprecedented passenger growth and prioritised increased services to meet this demand. This resulted in delivery of a timetable that fully utilised the reliable capacity of the system, compromising overall performance and resilience in the face of incidents.

Because of the high utilisation of the system there is reduced flexibility for degraded mode management and limited scope for access to the network to undertake major or routine maintenance tasks, especially during weekdays.

In early 2023, TfNSW and Sydney Trains agreed that responsibility for the development of the timetable should transfer back to Sydney Trains to ensure that future timetables reflect a better balance between service levels and resilience. Responsibility for detailed development of the timetable would now rest with the party accountable for delivery of its performance.

Under this model, TfNSW provides a detailed Specification, establishing target service outcomes. Sydney Trains is then responsible for building the detailed timetable and conducting necessary assurance that the timetable meets specified outcomes along with performance, resilience and customer objectives.

The Panel's Initial Report concluded that the process for transferring timetable responsibility to Sydney Trains had stalled and should be bought forward to ensure that the quality of the 2024 timetable is not put at risk by any dislocation between key timetable planning functions.

The Panel raised further concerns in a letter to the Minister on 15 September, noting that continued delays in the transfer of responsibility for timetable development would not allow sufficient time for Sydney Trains to undertake critical readiness and assurance reviews and other pre-implementation activities. These delays were creating considerable risk for the operational effectiveness of the timetable and to the ongoing reliability and resilience of the network. The delays were also putting the construction and integration of the Metro City and Southwest at risk.

The Panel proposed that responsibility for the development of the 2024 timetable be immediately transferred to Sydney Trains under the stewardship of the proposed Timetable Program Manager who would report directly to the Chief Executive. Appropriate governance arrangements should be established within Sydney Trains to ensure that the overall objectives of the 2024 timetable are achieved, including the engagement of freight operators and other third parties.

The Panel has been advised that Sydney Trains now has overall control of timetable development.

9.2.2. Future Timetable Design Principles

Sydney Trains and TfNSW have jointly developed proposed timetable design principles to provide a more resilient baseline for operations delivery in future timetable development. A consistent, 7 day, timetable baseline structure will be underpinned by:

- Reducing the number and complexity of stopping patterns.
- Ensuring robust standard run and dwell times.

- Improving crew rostering resilience, standby and relief arrangements.
- Consistent and standardised train formation rosters.
- Resilient train turnaround times.
- Allocation of high performing fleet to critical routes.
- Spreading peak service levels to ensure reliable capacity utilisation.
- Consistent fleet allocation across sectors.
- Leveraging and integrating the Metro extension to Bankstown and introduction of the new InterCity (Mariyung) fleet.
- Support for more access time for maintenance activities.

The closure of the T3 Bankstown line between Sydenham and Bankstown in 2024 for conversion as part of the Metro City and Southwest extension provides an unprecedented opportunity to simplify the Sydney Trains' timetable, rebalance service levels and improve network resilience.

Since the release of the Panel's Interim Report, Sydney Trains has initiated a timetable performance monitoring and improvement forum that is attended by all Executive Directors and chaired by the Chief Executive on a monthly basis. The meeting aims to improve timetable performance by analysing the causes of delays and developing short and long-term improvement initiatives to ensure performance targets are met.

Performance review meetings are now held daily and consolidated into the monthly performance management meeting.

9.3. Engineering and Maintenance - Infrastructure

The Panel's Initial Report provided evidence that the performance of rail infrastructure (track, structures, signalling and electrical infrastructure) was the single highest cause of incidents creating delays to train services over the period 2014 to 2023 and that 2022/23 experienced the highest rate of infrastructure incidents causing delays to services than any year since 2015/16.

The decline in the performance of infrastructure has coincided with increases in the backlog of routine inspections and of identified defects.

Further, major works to replace or upgrade existing infrastructure had declined rapidly in 2020/21 and while recovering, were still behind schedule.

To ensure the safety of rail services, Sydney Trains applies Temporary Speed Restrictions (TSRs) to those parts of the track where defects exist. The number of TSRs across the Sydney Trains' network increased significantly after the introduction of the 2017 timetable. Having declined over the period of lower passenger number during the Covid pandemic, TSRs peaked again in mid-2022. While TSRs have declined over recent quarters, they remain a constraint on the punctuality of train services.

Ongoing competing demand for access between operating trains and delivering the maintenance necessary to ensure future asset performance is a critical factor.

However, significant issues in planning and implementation and competing priorities between major works and maintenance activities have led to inefficiencies in the engineering and maintenance process and the use of resources.

The inefficient delivery of asset maintenance can broadly manifest in:

- Degradation of the condition of the asset resulting in continued poor services to customers.
- Additional avoidable capital and operating costs to provide the capacity necessary to allow maintenance to support reliable services.

Proposals to maximise the utilisation of the network by delivering efficient and safe network maintenance through more efficient planning and network access are considered below.

9.3.1. Integrated Engineering Services (IES)

The Engineering and Maintenance Branch (EMB) has developed a change management plan (IES) which has significant potential to improve infrastructure reliability.

Through clearer management accountability and centralisation of the planning process, the IES will facilitate more reliable delivery of the full scope of both major works and maintenance requirements.

The IES program is focused on seven high level themes:

1. Moving to a more maintenance-led organisation. Currently Asset Management provides the lead in key areas including asset knowledge, planning, cost control and prioritisation of work.
2. Integrated delivery planning. Creation of a dedicated team accountable for a single integrated plan of work addressing both major works and maintenance.
3. Maintenance to be more accountable for performance.
4. Asset Management becoming Strategic Asset Management. Professional Heads have a strategic role for engineering standards and alignment with TfNSW asset management.
5. Major Works becoming accountable for Design and Construct project management.
6. Major Works Division and Network Maintenance Division coordinating the planning and delivery of the annual works program.
7. Asset Engineers move to Network Maintenance and closer to front line activities, driving maintenance accountability and asset knowledge.

The IES program will provide central planning for each delivery function within EMB - Major Works, Major Periodic Maintenance and Routine Maintenance - with the objective to prioritise asset interventions and deliver outcomes that meet performance expectations.

Maintenance activities, including inspection and repair, will be planned two years in advance. It is intended that the majority of fixed infrastructure maintenance will be delivered in planned track possessions, significantly reducing the need for ad hoc access to the network which has proven to be unreliable and inefficient.

To complement these changes it is intended to undertake a review of Technical Maintenance Plans (TMPs) which provide work specifications by asset type. Current TMPs need to be updated, rationalised to improve relevance and more closely aligned to the asset condition rather than fixed time-based interventions.

Currently, a high percentage of routine maintenance inspections, general maintenance and defect rectification is delivered using short notice or unplanned access. This is achieved utilising lower

forms of protection. A recently developed Safety in Access Maintenance System (SAMS) proposes to move more of the work to regular, planned windows with higher forms of safety protection, greater certainty of access and better visibility for customers.

A percentage of work will always be delivered via ad hoc and short notice access measures. However, enhanced processes and systems should be delivered as part of the broader SAMS project to enable this. Rail Operations are critical as the voice of customers for access management processes. Central to the success of both streams is the effective engagement of rail operations in the design and implementation of new processes and systems.

The Panel agrees that SAMS has the potential to provide more reliable and safe access for maintenance works and to address urgent and unforeseen defects. SAMS should be embedded within the IES planning process.

The integrated approach to asset planning and maintenance delivery has been applied to the Rail Repair Plan, which has delivered improvements in scope and reductions in numbers of defects and temporary Train Speed Restrictions (Section 5).

The Panel strongly supports the move to the IES model and encourages EMB to lock in these reforms as business as usual as the Rail Repair Plan comes to a close in June 2024.

9.3.2. More Efficient Access

The most efficient and safest process for undertaking major works and renewals on the network is through the use of dedicated possessions without train services running. These possessions are planned through night time shut-downs (between the last train of an evening and first train in the morning) and cycles of weekend possessions when buses replace trains on identified corridors.

EMB is aiming to maximise the productivity achieved from planned possessions, in particular through more effective work scheduling and greater access for maintenance works, including both major periodic maintenance and routine works.

Other opportunities exist to maximise the productive work time available during possessions.

i. Electrical isolation
   The current process for safely isolating the overhead electrical supply to ensure the safety of track workers and then re-connecting it is very time-consuming. The process can take 3-5 hours out of a potential maintenance window.

   EMB believes that the time to undertake this process could be significantly curtailed, offering the opportunity for a significant increase in access for maintenance.

ii. Enterprise Track Worker Safety Program (ETWS)
   The ETWS Program aims to source, trial and implement technology and changes to work practices that introduce new engineering controls and which can provide safe access to rail infrastructure, replacing time consuming and process-intensive administrative controls.

   The Panel notes that this program has the potential to underpin a more innovative and less risk averse culture, encouraging productivity improvements while maintaining safe working practices.

Both initiatives should continue to be pursued in consultation with employees and their unions, utilising the processes available under the recently signed Major Change Agreement.

9.3.3. Night time and Weekend Working

The current EMB rostering pattern does not support undertaking significant planned works during nights and weekends.

Maintenance staff are rostered on a week day roster, with a limit of one night shift per week and two weekends per month on their base award. Any further work done outside these rosters is paid overtime and shifts offered can be refused.

Permanent or increased night time and weekend rostering to facilitate more activity when trains are not running has the potential to significantly enhance the efficiency of both the major works and maintenance programs.

The greatest benefit from such a move would be improvements in the reliability and resilience of the network as planned major works and maintenance activities can occur to schedule, reducing a further build up of uncompleted works and defects.

Other potential benefits include:

- Fewer weekend possessions, providing relief to customers from closures of parts of the network.
- Providing more full weekends off duty to night-time rostered staff.
- Opportunities for a more productive workforce to undertake more work currently contracted to external providers.

There will, however, be significant issues to address in any move to more night-time working, including:

- Cancelling last-train, first-train services to provide more productive longer possessions.
- Addressing long standing issues such as electrical isolation so that work time on possessions is maximised.
- Achieving an acceptable agreement for roster changes with employees and their unions.

Sydney Trains has made two attempts over recent years to negotiate a shift to night time and weekend rostered working: in 2017/18 and again in the 2022 EBA negotiations. Both offers were refused comprehensively by workers.

A key reason for the failure was the focus on restraining wages, rather than maximising the efficiency of the workforce. The application of a constrained wages policy meant that there was little incentive for workers to agree to the proposed conditions.

The Panel believes there is an opportunity to embark on new discussions based on a different set of principles.

9.3.4. Investment in Higher Productivity Plant and Equipment

Improvements to the planning and rostering of major works and maintenance should be supported through greater investment in high productivity plant and equipment.

Most of the existing heavy plant used by Sydney Trains is ageing and in poor condition. Sydney Trains has sought funding to prepare a business case to examine the costs and benefits of investing in:

- Two new ballast cleaners.
- A Rail Manipulator and Rail Trains.
- Two overhead wiring maintenance vehicles.
- One Mobile Maintenance Train.

It is not feasible that Sydney Train can achieve the efficiencies necessary to maintain the reliability and resilience of the railway with outdated and inefficient plant and equipment. Further, without such equipment, in a constrained skills market, Sydney Trains will find it difficult to attract and retain workers with the skills and competence to deliver a world class railway.

The Panel strongly supports the funding for the development of these business cases.

9.3.5. Implications for Engineering Standards and Technical Maintenance Plans (TMPs)

EMB manages the TMPs that ensure that all assets are maintained in accordance with required Technical Standards.

At present, many of the TMPs are based on a fixed time basis rather than a use and condition basis. As a result, TMPs are likely to require assets to be inspected and maintained at a higher rate than necessary to achieve a safe and reliable outcome.

This inefficiency adds to the pressure that results in backlogs of both inspections and defect rectifications.

While TMPs are currently reviewed every five years, it is not apparent that they are being revised in accordance with a more productive condition-based methodology, based on sound asset condition, failure history and engineering data, such as Failure Mode, Effects and Criticality Analysis (FMCEA) and Reliability Centred Maintenance (RCM).

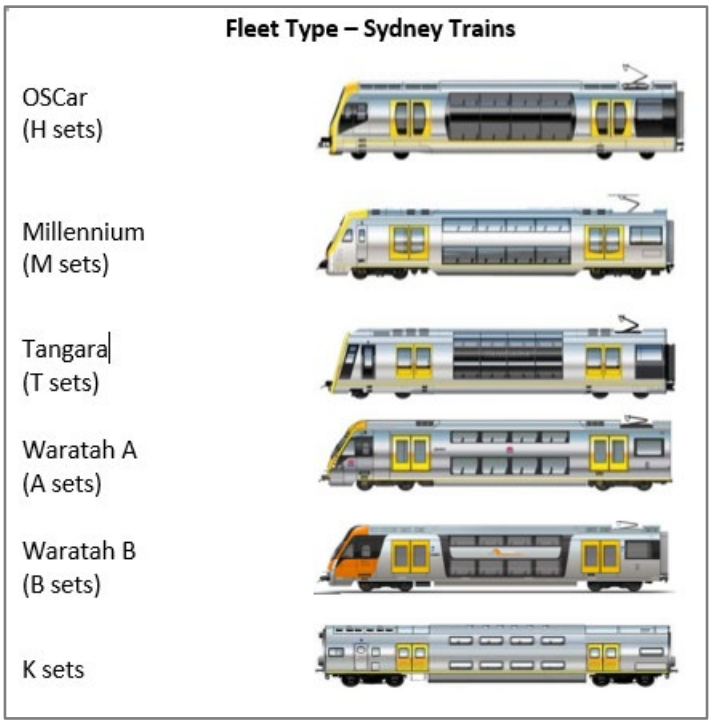
A systematic review of Sydney Trains TMPs, based on such analysis is likely to deliver significant efficiencies and improved effectiveness of current maintenance activities.

For new assets introduced to the network, it is also important that TMPs are revised to ensure that any safety or productivity benefits brought about by the investment are realised.

9.4. Engineering and Maintenance - Fleet

Sydney Trains currently operates four different train types some of which are maintained internally and others privately.

Figure 9-2 Fleet Types – Sydney Trains



i. Internally maintained trains:

- K sets - introduced between 1981 and 1985. In-service maintenance is carried out by EMB at Flemington and heavy maintenance by the UGL Unipart Joint Venture at their Auburn facility. The fleet of 19.5 eight car sets are the oldest trains in the Sydney Trains' fleet.
- Tangara - introduced between 1988 and 1995. In-service maintenance is carried out at Mortdale and heavy maintenance at Auburn. The fleet comprises 55 eight car sets.

ii. Externally maintained trains:

- Waratah (A/B sets) – procured through a public/private partnership (PPP) between 2011 and 2014. The fleet is maintained by Downer EDI at their privately owned maintenance centre at Auburn, with some maintenance work in Cardiff. The fleet comprises 119 eight car sets.
- Millennium Trains (M sets) Introduced in 2002 and maintained in the same facilities as the A/B sets. These trains were the first private design, build and maintain contract. The fleet comprises 17.5 eight car sets.

Sydney Trains also conducts in-service maintenance of NSW TrainLink diesel and electric fleet:

- XPT – maintained at Sydenham.
- Explorer and Endeavour cars – maintained at Eveleigh and Broadmeadow.
- Hunter cars – 7 two car sets maintained at Broadmeadow.
- V set InterCity Fleet – maintained at Flemington (25.5 eight car sets)
- OSCar Fleet – maintained at Eveleigh 27.5 eight car sets.

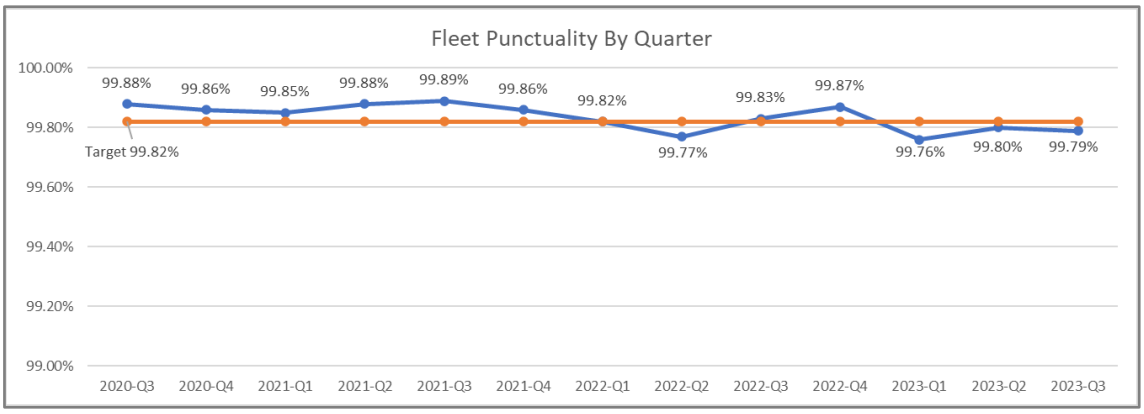
Heavy maintenance the V set fleet is at the UGL Unipart JV facility at Auburn. Heavy maintenance on diesel fleets and OSCar fleets is primarily undertaken at Maintenance Centres.

9.4.1. Current Performance

Overall Sydney Trains' performance data indicates that fleet maintenance is not a major contributor to disruptions on the network.

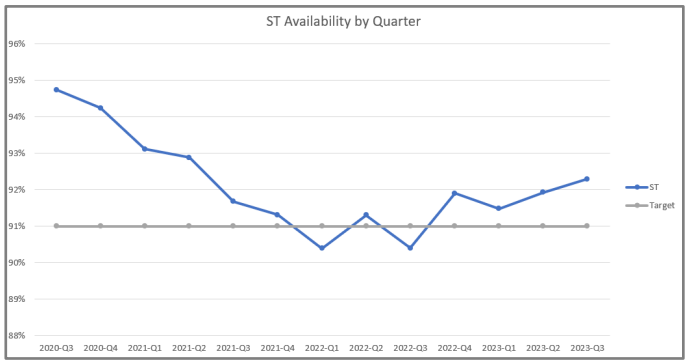
Fleet maintenance is broadly meeting performing targets for fleet punctuality and fleet availability, for both Sydney Trains and NSW TrainLink fleets.

Figure 9-3 Punctuality (ST/NSW TrainLink)



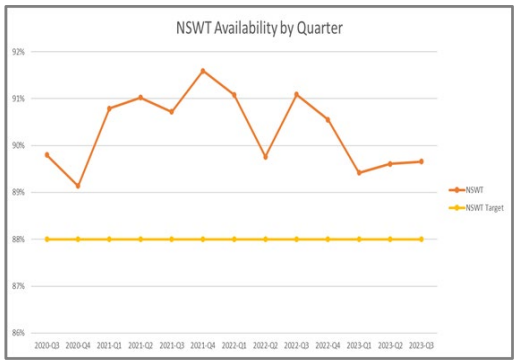
Definition: % of delivered timetable services that did not experience an in-service failure.

Figure 9-4 Availability – ST



Definition: % of fleet available to meet timetable.

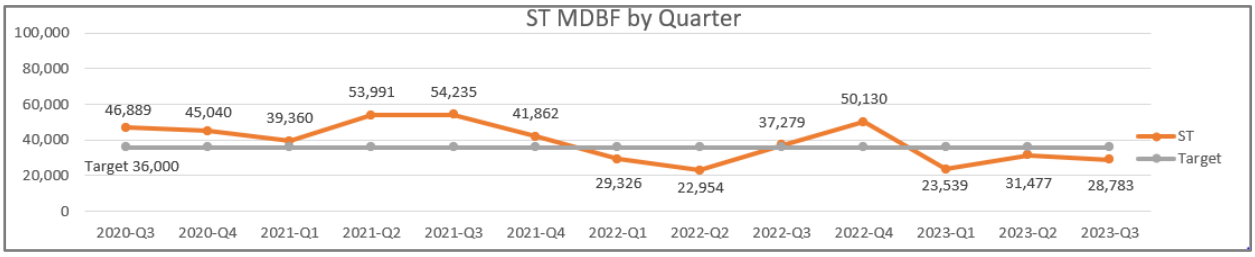
Figure 9-5 Availability – NSW TrainLink



Definition: % of fleet available to meet timetable.

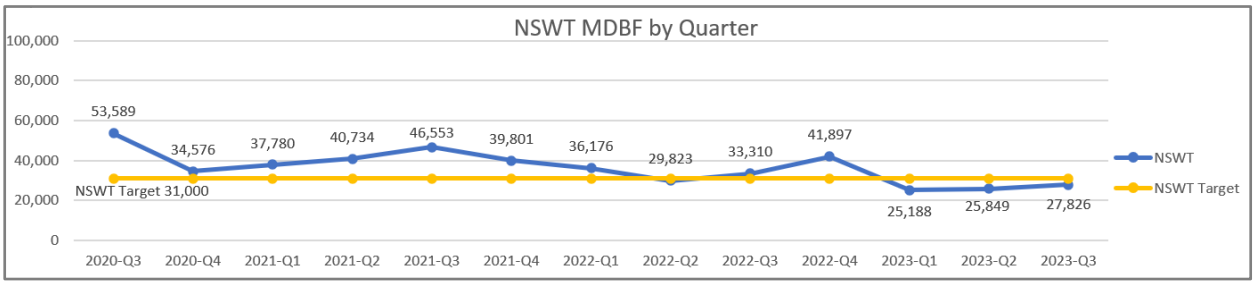
However, reliability indicators (Mean Distance Between Failures – MDBF) show that performance, while slowly improving, has been below target. Even small failures against this indicator will have the potential to disproportionately impact timetable performance and customer service.

Figure 9-6 Mean Distance Between Failures (MDBF – ST)



Definition: Average number of kilometres successfully travelled between in-service failures.

Figure 9-7 Mean Distance Between Failures (MDBF – NSW TrainLink)



Definition: Average number of kilometres successfully travelled between in-service failures.

The best performing fleet (normalised for kilometres run) was the Waratah (A set).

The worst performing fleet was the Millennium (M set) train. M set availability has negatively affected the fleet's overall ability to meet timetable requirements. M set performance has been adversely affected by end-of-life technology equipment failures on key systems – train operations, braking and communications.

The highest contributor to maintenance incidents on the network is the Tangara fleet.

9.4.2. Performance Issues

Technology Upgrades

Problems with the introduction of Automatic Train Protection (ATP) have had an impact on fleet performance.

The Waratah (A/B sets) and Millennium trains have all suffered significant ATP problems.

This impact is expected to continue as more of the existing fleet are ATP enabled, posing a risk to timetable performance. It is expected, however, that performance will improve over time.

To prevent similar issues emerging, fleet maintenance has proactively involved itself with the Digital Systems Project (DSP) to ensure lessons learnt are implemented. This should result in more rigorous reliability testing prior to asset handover of Digital Systems.

Delays in the Retirement of Legacy Fleet

The late delivery of the new InterCity Fleet and replacement of the diesel fleet has caused a downturn in fleet performance with minimum maintenance being undertaken to maintain the existing fleet which are to be replaced by the new fleet.

Major Component Change Out (CCO) maintenance has been conditionally extended for V sets and K sets as it becomes timetable critical to continue to use the existing assets.

These factors have implications for both the current efficient operation of the network and for Sydney Trains' performance when the InterCity fleet is transferred from NSW TrainLink.

It is expected that the eventual introduction of the new InterCity and Regional fleets will improve fleet performance indicators.

Supply Chain Issues

The UGL Unipart Joint Venture (JV) supplies parts and material for both heavy maintenance by the JV and in-service maintenance by Sydney Trains. Supply chain issues, exacerbated by the Covid pandemic, continue to affect the fleet due a backlog in the supply of equipment/parts and increased demand to maintain ageing fleets. The JV has been informed that their current contract will not be renewed after June 2024.

Management of fleet maintenance logistics is a significant task which will need to be managed carefully to ensure that timetable performance is not compromised.

Maintenance Planning and Resourcing

There were 4038 maintenance deferrals submitted in 2022-23, an increase of 33% on the previous year. This can be attributed to:

- Slow delivery of revised Technical Maintenance Plans (TMPs).
- Resourcing in maintenance depots.
- Delays in the delivery of the new InterCity and Regional fleets.

The focus of TMP revision/update is largely around new asset acquisition/modification. Changes to address emerging reliability or maintainability issues are considered a lower priority. However, 33% of findings from TMP audits have been related to TMP errors/inaccuracies.

TMP changes are critical to address reliability problems. However, changes (even non-critical tasks) are not within the delegation of fleet engineering, leading to significant delays in processing change requests.

The high level of current major projects directly affecting the Sydney Trains and NSW TrainLink fleets are demanding a considerable amount of engineering and management resources which have been largely sourced from existing fleet employees. This finite pool of resources, being stretched across both maintenance and projects, poses a significant risk to fleet performance and the timely delivery of projects.

In-service Response to Rollingstock Failures

Operational responses to in-service failures can have a significant impact on fleet performance. Defect rectification and fault finding on legacy fleets are impacted by delayed and often inaccurate information entered into the fault management system by the train crew.

Improved collaboration between fleet engineering, operations and train crewing is facilitating processes and governance to improve response to in-service failures and ensure that, in the first instance, corrective action can be taken by others.

A range of strategies are in place to provide training and instruction to crew and station staff to facilitate more effective in-service responses.

Fleet Upgrades and Major Equipment Replacement

Major fleet upgrades and replacement of outdated or unreliable systems have been delayed or have experienced other problems.

The current program to replace the Tangara Train Management System (TMS) and resolve systems obsolescence issues has been deferred and priority given to the Digital Systems Project. Performance of the Tangara fleet is unlikely to improve until this work can be undertaken.

Redundancy of the Millennium fleet train operating, security and customer information systems has affected the performance of this fleet. Resolution of these systems problems will be dependent on reaching agreement with the current maintenance contractor.

The OSCar fleet (currently operated by NSW TrainLink but to be transferred to Sydney Trains) obsolescence and reliability program has delivered a technical solution for the ailing door control units and communications and surveillance equipment, and a new train operating system solution is being tested. These trains will be integrated into the suburban timetable.

Delivery of these programs will have a critical impact on fleet availability and timetable delivery.

9.5. Stations and Facilities

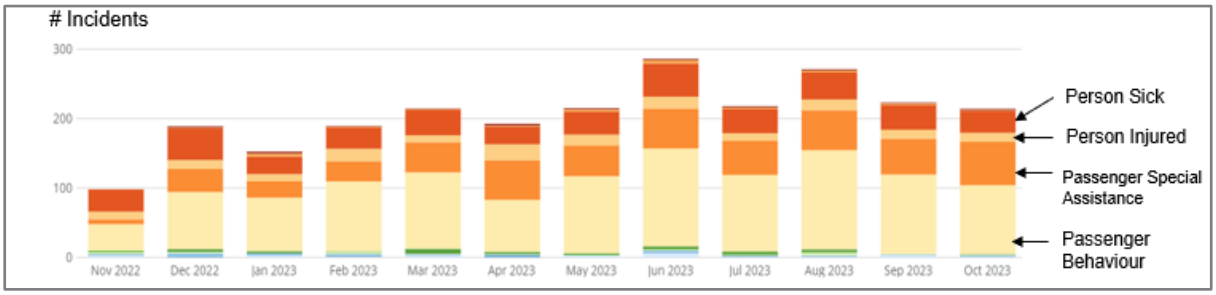
Sydney Trains Customer Experience teams contribute to delivery of reliable services and incident management through managing the train-to-platform interface, train dwell time and departure procedures, in conjunction with train crew at staffed platforms. Other functions include:

- Advice to crew of service change transpositions.
- Monitoring and communicating train and station crowding information to the Rail Operations Centre.
- Customer incident management including sick and injured passengers and retrieval of lost items from the rail corridor.
- Boarding and alighting assistance for mobility impaired customers.
- Incident response support including safeworking duties (for suitably qualified staff).

The Customer Experience team also plays a critical role leading the communication of service and incident status updates to customers. The Panel's Initial Report provided a number of recommendations to address concerns with the current customer communications and the Panel notes that Sydney Trains has since made considerable progress in addressing these recommendations.

Customer Service related incidents are not currently a significant contributor to poor overall network performance in terms of total lost customer minutes.

Figure 9-8 Network Incidents.



Passenger behaviour is the highest Customer Service related incident group. The highest individual cause is item retrieval which is usually the result of station staff having to request trains to be stopped to allow safe retrieval of items customers have dropped onto the rail corridor.

A number of initiatives are in progress to reduce this impact, including:

- Introduction of long "tongs" with magnetic technology to promptly retrieve items safely.
- Installation of platform to train "gap filler" technology at key locations to reduce the size of the gap.

With ongoing investment in improving accessibility at stations, more customers requiring mobility assistance are using the network. A boarding assistance App has been developed along with a training program to support staff in safely delivering boarding and alighting support services in a prompt manner.

Recent analysis of incident data identified a high number of incidents at times or stations where platforms are not staffed. Under these circumstances, Train Guards are responsible for managing boarding and alighting activities. There is an opportunity to roll out the Boarding Assistance App to

Train Guards to support reducing the reliability impact of assistance requirements at unstaffed locations.

Sick or injured passengers can also have a significant reliability impact. In addition to ongoing training and awareness campaigns, the investment in the ICEMS emergency management radio system (Section 9.7.4) will support provision of accurate real time information to inform decision making.

When major incidents occur, station staff with appropriate safeworking qualifications can play a key role in incident response by being first on-site and delivering duties that enable trains to continue to operate such as manually changing the points to change train routes. Training staff and providing regular scenario and exercise days is crucial to ensure staff at the right locations are qualified, competent and confident in performing these duties. The ROC Improvement Program (Section 9.6.1.) addresses these issues.

Station teams also play a critical role in communicating real time timetable changes to Train Crew via a manual, paper based transposition process. When major incidents occur, this manual process can cause further delays as information is changing rapidly and the manual processes can compound delays.

9.6. Rail Operations

Rail Operations teams are responsible for delivery of network control, service recovery, security and overall incident response coordination. The teams play a pivotal role in ensuring network safety, reliability and performance.

The complexity of the Sydney Trains' network, timetable and crew rostering arrangements, makes the task of coordinating overall services and recovery of the network especially challenging.

Rail Operations roles are highly specialised and require deep operational knowledge and experience to make effective real time decisions. A simple error on the sequencing of a single late running train or crew relief in the peak period can lead to a cascade of consequential delays that prevent performance recovery.

When incidents occur, Rail Operations' teams develop, communicate and oversee implementation of service recovery plans.

These plans are highly dependent on the capacity of Train Crewing to adjust rosters and redirect resources in real time. Train Crewing often struggles to support recovery plans for major incidents and a number of actions as outlined below to address this issue.

The Rail Operations Service Delivery team operating model underwent significant transformation with the move to the Rail Operations Centre (ROC) in 2018. While there has been some improvements delivered, the realisation of benefits from changes to the operating model relied primarily on the delivery of a suite of technological improvements which were not delivered or have not been fully implemented.

In addition, high vacancy rates in critical positions and the loss of significant experience, have resulted in the business having to accelerate training and upskilling for new employees to progress into critical and highly specialised operational roles. Accelerated recruitment and training has increased the intake of new staff (60 trainee signallers a year). However, the business is still 18 months from filling establishment requirements.

While this approach is necessary to ensure business continuity, it presents an underlying performance risk as there is a high volume of new employees operating in highly complex operational roles without operational experience and with limited ongoing development support.

The Rail Operations Centre Improvement Program includes a number of actions to address these issues to improve Rail Operations' performance.

9.6.1. The Rail Operations Control Centre (ROC) Improvement Program

The Panel's Interim Report highlighted significant concerns with the operation of the ROC.

Whilst the ROC deals successfully with incidents on a daily basis, the Panel expressed concern that the ROC is not meeting its original objectives and providing an effective response to major incidents. These concerns were set out in the Interim Report.

In response to the issues raised in the Interim Report, Sydney Trains has developed the ROC Improvement Program with input from frontline teams. The program focusses on improving incident response, service recovery, customer information and network control capabilities by investing in training, frontline resourcing, team work, processes and systems.

The Program is currently being scoped out in detail, with a number of actions already in progress. Key actions in the program include:

- Establishing a single point of accountability for management of train service regulation and recovery.
- Co-location of Service Delivery teams to improve communication, service recovery and knowledge continuity.
- Uplifting the Duty Control Manager role to become the strategic control floor lead for all disciplines.
- Creating a single point of accountability for communicating customer information to provide Service Delivery teams with more time to focus on recovery.
- Improving timetable design and crew rostering to better support service recovery.
- Embedding the Command and Control incident management framework through regular scenario training and exercising.
- Improving incident response and incident management technology to provide a single source of real time information.
- More training for Rail Operations' teams with dedicated trainers and a new ROC training facility.
- Increasing frontline operations resourcing to support training and development.
- Improving Rail Operations' competency development, assurance and compliance activities.

These actions are intended to support improved Rail Operations' performance, incident response and network performance.

Success of this program will depend on Executive support, strong governance, employee engagement and a continuous improvement focus.

9.7. Incident Management

There are over 70,000 incidents on the Sydney Trains' network each year. While most of these do not result in substantial disruption to services, effective incident response and management is

essential to ensuring overall performance objectives can be achieved. Network critical incidents occur on average 1-2 times per month.

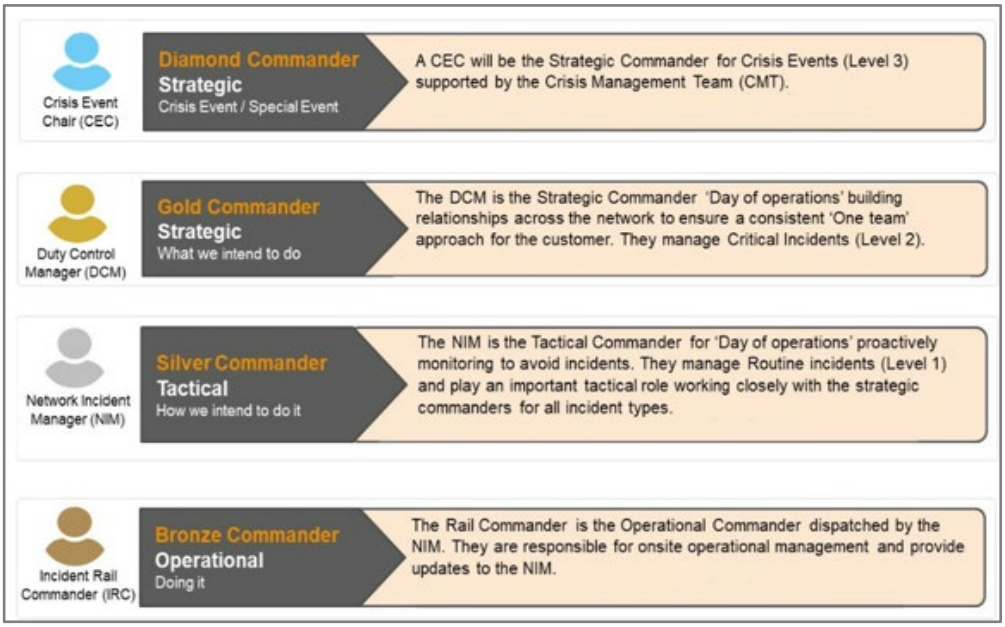
As outlined in the Panel's Initial Report, the current nature of the timetable, network operational complexity and crew rostering challenges make recovery from major incidents particularly challenging.

Effective incident response and management requires strong coordination, timely communication, role clarity and understanding and operational expertise across both internal and external teams.

9.7.1. Command and control

In 2020, Sydney Trains introduced a change to its Incident Management Framework and transitioned to the Command and Control model that is in place today.

Figure 9-9 Command and Control.



Under this framework and the existing Network Incident Management Procedure, incidents are classified into one of three categories with the response managed by Commanders ranging from Bronze to Diamond, depending on the incident classification.

Employees in roles that are core to incident management have been initially trained in the new model. However, the framework needs to be further embedded across all relevant functions.

Understanding of the framework and uplift in incident response performance will be strengthened through more regular training, exercising and competency enhancement for both core teams and a broader range of teams that contribute to incident management.

The ROC Improvement Program addresses these issues.

Further initiatives are considered below.

9.7.2. Incident Response Teams

Incident response responsibilities, teams and capabilities vary across different branches and disciplines. The ROC Improvement Program includes an improvement in incident response and restoration times through:

- Rapid infrastructure response teams to achieve faster site arrival and infrastructure restoration times.
- Reviewing deployment technology to enable fastest deployment.
- Network Rules which allow safe but faster network access.

In addition, Command and Control scenario-based training will provide a platform for teams from different disciplines to understand responsibilities and build cooperation to improve integrated incident responses.

9.7.3. Incident Management System

The Rail Emergency Management System (REM) was implemented in 2018 as the single incident management workflow system. The system should be used by all teams to provide real time incident updates, allocate actions, monitor incident response delivery and provide a single source of truth on the status of incidents for all stakeholders.

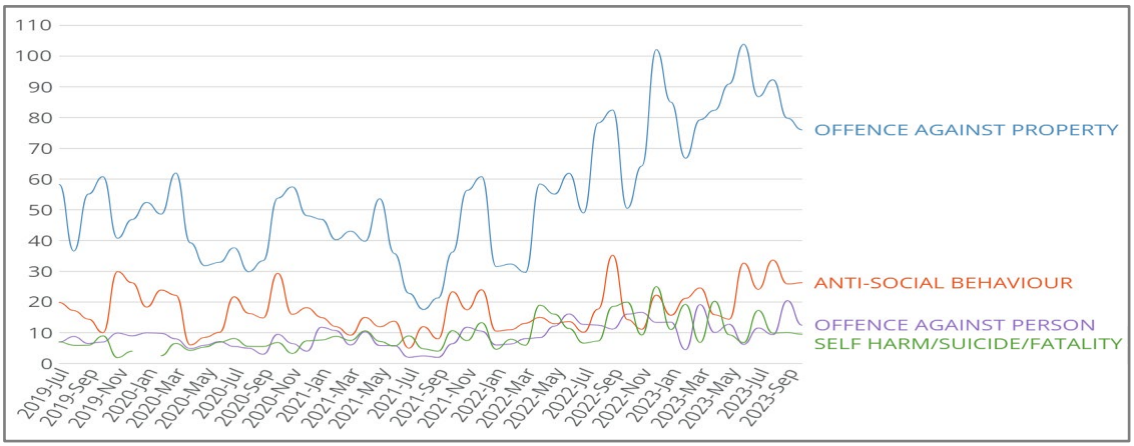
However, a number of teams are still using internal parallel or alternative systems to manage incident information and monitor incident related activities. Sydney Trains has developed a roadmap for the REM with input from the various disciplines to uplift capability and establish REM as the single, integrated incident management platform.

Delivery of this objective is essential to support improved incident response capability and communications.

9.7.4 Operations Security

Security and customer related incidents have a significant impact on performance and will often require Emergency Services response support.

Figure 9-10 Train Delay Minutes from network security incidents.



Operations security incidents are the second highest cause of train delay minutes. There has been an increasing trend in security incidents, in particular, Offence against Property incidents.

Rail Operations have developed a number of initiatives to drive improvements in security performance and work more closely with external agencies to reduce the performance impacts of incidents requiring emergency response.

Sydney Trains' Security team, incident management and front line staff undertake joint exercises with Emergency Services to better co-ordinate roles and build understanding when responding to these types of incidents.

There is an opportunity to improve the timely flow of communications and improved joint responses through investment in the ICEMS Emergency Management broadcast system and exploring opportunities to integrate Emergency Services information with the REM system to provide a single source of timely and accurate information and improve incident response and service recovery times.

9.8. Train Crewing

As outlined in the Panel's Interim Report, train crewing has emerged as a concern, contributing to Sydney Trains' challenges in restoring services promptly during degraded operations.

Train crewing is rarely the cause of network incidents or service delays. Train crew availability at the correct point of duty is a relatively infrequent initial cause of customer delay. However, issues with crew displacement can significantly prolong the effects of an incident and complicate recovery.

Analysis indicates that the contribution of crew displacement to overall customer delay increases significantly with the initial incident severity, number of services affected and delays in restoring services.

The primary crewing issues which contribute to incident delays on the network are:

- Delayed crew – the assigned crew did not have sufficient time after their previous activity to be in the correct location for their next activity.
- Operational error – the assigned crew positioned themselves at, or were directed to, an incorrect location for the next activity.
- Lack of qualification – the assigned crew were not qualified to perform their next activity, usually as a result of lack of route knowledge or, to a lesser extent, traction knowledge.
- Resourcing – insufficient appropriately qualified crew on duty to operate or recover timetabled services.

The introduction of service uplifts in the 2017 timetable (train running kilometres were increased by 12%) was not supported by sufficient train crew resourcing, resulting in the tightening of crew rosters and a reduction in the available operational buffer, at the expense of network operational performance.

Train crew resourcing has improved since 2017, allowing enhancements to rosters which have incorporated additional recovery allowances and robustness. This has included:

- Increased operational standby coverage across the network to provide spare crew for disruption management and service recovery.
- Consolidation of crew relief locations to reduce operational complexity.
- Increases in the minimum time allowed for crew to go directly from one train to another.

To further reduce the impact of displaced crew during incident delays and improve operational performance, additional initiatives have been proposed by Train Crewing.

9.8.1. Crew Changeover Time

An increased minimum time allowance for crew to transfer between trains. This would create an operational buffer to minimise the flow-on impact of incident delays.

9.8.2. Crew Changeover Locations

Improved consistency in crew changeovers to reduce complexity and improve crew management during incident delays and disruptions.

It is expected that these changes will enhance reliability and reduce customer delays resulting from network disruption. Both proposals may involve additional crewing resources.

9.8.3. Crew to Train Association

Train Crew Operations (TCO) are not always able to identify which crew are on which train during daily operations. This becomes a particular problem when services are disrupted. Critical time may be lost during disruptions in locating and deploying crew in the correct locations and with appropriate route knowledge. There are also issue with security (unauthorised crew operating a train) and payroll accuracy.

Train Crewing are currently investigating technological solutions which will seamlessly link train crew with their train and continuously link this information to TCO systems. This will have a significant impact in improving crew deployment during degraded operations.

However, there will be crew privacy considerations which must be factored into development of such systems.

9.9. Recommendations

TfNSW should review the *Transport Administration Act (1988)* to determine if it needs amendment to ensure accountability for the development of the detailed timetable, based on high level specifications set by TfNSW, rests with Sydney Trains.

Sydney Trains should engage with its workforce and unions to explore opportunities to move to a permanent or increased night time and weekend roster.

The Major Change Agreement signed this year should be used as a basis for these discussions and an agreed set of principles addressing, at a minimum:

- Focus on productivity and safety improvements, not on labour costs alone.
- Constructive engagement with the workforce and unions.
- Review of grades to ensure they are fit for purpose.
- Fatigue management.
- Employee work/life balance.

- Any engagement must consider a comprehensive approach to night time and weekend working addressing all issues involved in a co-operative manner.

Funding should be expedited to support the development of a business case for investment in high productivity plant and equipment.

Sydney Trains should adopt a condition-based methodology, based on sound Failure Mode, Effects and Criticality / Reliability Centred Maintenance analysis, when reviewing its Technical Maintenance Plans (TMPs).

- TMP change delegation for non-safety critical maintenance tasks should be devolved to fleet engineering and network maintenance engineering through a competency framework employing a sound project management methodology.
- The process and resources required for both TMP development and revision should be reviewed and a resourcing plan and budget developed for earlier delivery of TMP revisions.
- The Fleet Maintenance Division should prepare a comprehensive fleet support strategy that encompasses all the above issues and the integration of the new fleet, including the planned Tangara replacement fleet, into the maintenance system.

Sydney Trains should develop a fleet workforce plan which addresses:

- Retention of staff who may become available during the insourcing of the UGL Unipart Joint Venture.
- Filling of vacant technician positions in maintenance centres.
- Engagement of contracted staff, where necessary, to fully support the introduction of new technology or replacement of existing obsolete technology.
- Resourcing required for the major fleet projects and the longer term fleet depot strategy.

Current resourcing for initiatives to promote more effective in-service response to train failures, including communications systems and training for staff, should be reviewed and upgraded if required.

Programs to upgrade critical systems in both the Tangara and Millennium fleets should be reviewed to ensure sufficient priority and resourcing are provided to maintain these fleets effectively in service.

Sydney Trains should expedite rollout of the boarding assistance technology app to Train Guards to reduce the reliability impact of mobility assistance at unattended stations.

Sydney Trains should consult with employees and their unions to deliver a technological solution to implement a streamlined transposition procedure.

Sydney Trains should expedite rollout out the “gap filler” program to minimise item retrieval requirement at key locations.

Sydney Trains and TfNSW should prioritise delivery of the ROC Improvement Program with appropriate funding, resourcing and change management support.

- To provide effective governance, the Program should track delivery of key actions and report directly to the Chief Executive.

Sydney Trains should enhance the Rail Emergency Management System (REM) to provide a single and integrated platform used by all teams to manage incident workflow in real time and provide a single source of truth for the status for all incidents.

Sydney Trains should expedite investment in Emergency Services Inter-CAD Electronic Messaging System to enable timely and accurate information flow from emergency services. This should explore opportunities to integrate with Sydney Trains’ incident management software (REM) to enable a single source of all real time incident information.

Sydney Trains should continue to develop options, in collaboration with the workforce and their union, to identify, negotiate, and implement opportunities to improve train crewing arrangements to increase resilience and improve recovery from network disruptions. These should include crew rostering, management and the use of appropriate technological solutions to link train crew with their train and with Train Crew Operations.

10. Whole of Life Asset Management

10.1. Asset Ownership and Management

The Transport Asset Holding Entity (TAHE) is the owner of NSW Government-held rail assets:

- Rail infrastructure operated and maintained by Sydney Trains in the Metropolitan Rail Network (MRN).
- Fleet operated and maintained by Sydney Trains for the delivery of suburban passenger services.
- The Country Regional Network (CRN) operated and maintained under contract to UGL Regional Linx.
- Fleet operated by NSW TrainLink for its InterCity and regional rail services.
- The track, signals and associated infrastructure operated by the Australian Rail Track Corporation (ARTC) under a long-term lease.

TfNSW is accountable for transport planning, determining service levels to be delivered to customers and designing and delivering new transport assets. TfNSW, through the Asset Management Branch (AMB), is accountable for the technical standards, technical assurance, and the approach to asset management, including the Asset Management Framework (AMF), Strategic Asset Management Plan (SAMP) and Asset Management Plans.

TfNSW acts as TAHE's agent for entering into access agreements with rail operators and as asset custodian managing their assets.

Sydney Trains is the operator and maintainer of rail assets required for the operation of the MRN and for the Sydney Trains' suburban passenger services.

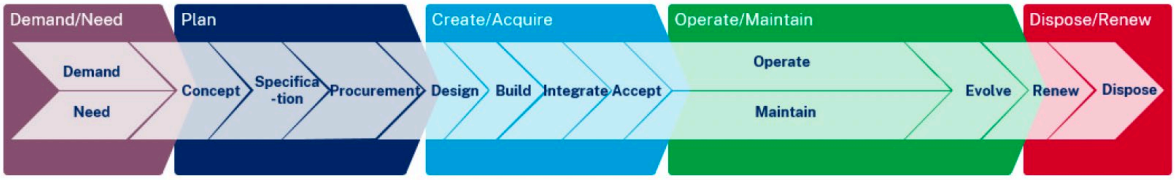
10.2. TfNSW Asset Management Framework

The TfNSW Asset Management Framework (AMF) sets out, among other things:

- A structured and systematic approach to asset management for the long-term sustainable management of assets and delivery of services to its customers.
- Asset management systems, governance, processes and planned improvements.
- Technical Standards that are to be complied with by all parties.
- Technical Assurance Framework and Technical Assured Organisation (TAO) Scheme.
- How asset management is coordinated across Transport.

Figure 10-1 describes the asset life-cycle model for all transport assets. Under the AMF, each TfNSW Division is required to set out asset management objectives in Divisional Strategic Asset and Services Plans (SASPs). Divisional SASPs are consolidated into the TfNSW SASP.

Figure 10-1 Asset life-cycle model and asset life cycle accountabilities



The AMF is overseen by the Asset Management Steering Committee which includes representatives across TfNSW.

The AMF is conceptually sound. However, the efficient application of the framework is hindered by a complex and diffuse operating model across Transport, involving a range of duplicated responsibilities across TAHE, TfNSW's Asset Management Branch (AMB), Customer Strategy and Technology Branch (CST), Greater Sydney (GS), Regional and Outer Metropolitan (ROM), Infrastructure and Place (I&P), Sydney Trains and UGL Regional Linx.

Medium and long term planning for rail, which impacts on asset planning and management, is spread across multiple divisions and entities. Preparation of business cases are handed in a linear way between divisions of TfNSW as the project moves through different stages, with no single area having apparent accountability and control over whether the final product is meeting its intended outcome.

As the operator and maintainer of rail assets, Sydney Trains has to engage with all of these parties for differing purposes and at different times. Some of these relationships overlap, leading to a lack of clarity as to who in TfNSW has the ultimate decision-making rights in relation to matters affecting the ultimate design, construction and delivery of assets operated by Sydney Trains.

Both the IPART[2] and the Auditor General[3] have observed that the current operating model is complex and there is no clear accountability for decision-making between entities and across TfNSW.

The Panel agrees that the current asset management operating model is unnecessarily complex and diffuses accountability for decision-making. From the perspective of Sydney Trains' operations, this adds cost and complexity to an already challenging environment in delivering reliable and resilient services for passenger and freight customers.

There is a need for a single, accountable function within Transport to undertake Strategic Asset Management. For Sydney Trains and the Strategic Asset Manager (SAM) relationship to work there needs to be much more transparency and sharing of information without the need for undue delay.

All managers with a role in asset management in TfNSW and Sydney Trains should be fully informed of the asset management delivery model, and trained in the implications for their safety and other accountabilities. Once the training is completed there would be a greater understanding of each other's accountabilities and the collaboration needed to be successful.

The Transport Asset Custodian Platform (TACP) currently under development by AMB will be an important tool to support the developing maturity of the asset management function across Transport. The new asset register, condition information and failure data will be populated in TACP and used by both TfNSW and Sydney Trains to discharge their own accountabilities. This will provide an efficient and cost-effective way for Sydney Trains to provide relevant data and information to the Strategic Asset Manager in TfNSW as this information will be automatically uploaded to TACP from the Sydney Trains' EAM system on a regular basis.

[2] NSW Independent Pricing and Regulatory Tribunal (IPART): Review of third party access to rail infrastructure in NSW, May 2023.
[3] NSW Auditor General: Performance Audit, Rail Freight and Greater Sydney, October 2021.

10.3. Whole of Life Costing (Totex)

The TfNSW AMF notes that Life-Cycle Costing (LCC) is most effectively applied in a project's early design phase to optimise the total development, operational, maintenance and disposal costs over the design life of an asset. This balances the capital expense (Capex) with operating expense (Opex), maintenance and asset renewal/disposal to derive the total expense (Totex) across the asset's life.

Under the current SASP, Sydney Trains has not been provided the Totex required to operate and maintain all of the assets that have been delivered to it.

Some of these unfunded risks must be addressed as they involve obsolescence in assets that underpin service delivery. These include:

- The obsolescence of the Digital Train Radio System (DTRS) due to the need to upgrade to next generation communications technology (from 2G to 4/5G technology).
- Tangara fleet upgrades.

Over recent years, new assets have been delivered to Sydney Trains without the commensurate Opex to maintain them. These include:

- Station assets, including five multi-story carparks and 49 Transport Access Projects.
- Trackside, on-board and other equipment for Automatic Train Protection (ATP).

Other unfunded Opex requirements will ultimately impact the reliability and resilience of the network. These include:

- Deteriorating embankments and cuttings, exacerbated by recent severe weather events.
- Ballast cleaning backlog.

With these unfunded risks, and the transformational projects currently in the pipeline, Sydney Trains will not have the capacity to effectively manage its existing and future operations. To mitigate this risk:

- All new capital assets introduced into the Sydney Trains' network must be accompanied with sufficient Opex funding to adequately operate and maintain them.
- AMB should develop further guidance material to support TfNSW to generate LCC models in a scalable manner. The current standard is high level and limited to pilot application only.

10.4. Project Delivery and Business Integration

When a new asset is delivered, it is imperative that Sydney Trains is ready to integrate it into its operations. To do this, Sydney Trains needs to ensure it has engaged with its workforce, recruited and trained new staff where necessary, revised business systems and reviewed any processes, standards or Network Rules that may be impacted by the new asset.

Early and meaningful engagement with Sydney Trains by the project delivery team in I&P is vital to ensuring the successful integration of assets into operations. This enables Sydney Trains to influence design decisions that can minimise operational cost and complexity, and prepare for the change necessary to operationalise the new assets.

Equally, Sydney Trains must have the capacity and capability to effectively engage with the delivery team to provide operational advice and to ensure design decisions are informed by practical operational and maintenance requirements.

As noted in Section 6, there are a number of complex and transformational projects currently underway that will place immense pressure on Sydney Trains to be operationally ready for such significant change. The Digital Systems project adopted a new "Digital Systems Business Integration" model to support collaboration between the project delivery team and Sydney Trains. Lessons learned from this approach should help to inform future approaches to the delivery of major projects.

10.5. Assurance Governance, Reporting and Benefits Realisation

The AMF provides for a life-cycle model for the development, delivery, operation, maintenance and disposal of transport assets. At prescribed stages of this cycle, TfNSW seeks assurance from those managing the asset that it is being managed in accordance with specified requirements and standards.

At key stages during this life-cycle, there are TfNSW approval gates where:

- The Transport Network Assurance Committee (TNAC) receives technical and engineering assurance in relation to the safety of the asset.
- The Finance Investment and Assurance Committee (FIAC) approves the Business Case for moving to the next stage.

Following approval by TNAC, the business case for moving to the next stage is considered by the FIAC for funding approval.

The link between technical assurance by TNAC and the approval of business cases for funding has dissipated over recent years. While TNAC may receive technical assurance that the asset has been designed and delivered as intended, there is limited attention paid to assuring that Sydney Trains is ready to integrate the asset into its business.

The Panel is advised that the FIAC is largely a financial (funding) mechanism and does not seek to gain assurance that projects are delivering on their intended outcomes or that the overall program for projects is optimised for both customer service outcomes and sound asset management practices.

As a result, there is a risk that opportunities to optimise the operation and maintenance of the asset are not being sufficiently considered and managed during design and construction.

Further, once a new asset has been integrated into Sydney Trains' operations, there is little discipline in determining whether the project delivered the benefits expected in the approved business case.

The Panel is concerned that the TfNSW Executive does not have sufficient sight of either the technical assurance or financial assurance process.

From a technical assurance perspective, the deliverer of projects (I&P) is required to provide assurance that:

- All engineering domains involving Reliability, Availability, Maintainability and Safety (RAMS) of the asset have been adequately assured.
- Stakeholder comments/issues (including those of Sydney Trains) have been sought and resolved. Any risks identified by Sydney Trains must be made explicit and escalated so that the Transport Secretary (as the person with ultimate accountability for transport outcomes) is aware of, and accepts, the residual risk.

From an investment perspective, the Terms of Reference of the FIAC should be reviewed to ensure it is effectively oversighting and approving the investment program as well as individual projects within the program. The FIAC should not approve funding at any investment gate without positive assurance from relevant parties that the asset is technically assured, will meet its intended objectives in relation to customer service and that Sydney Trains is, or will be, ready to integrate the asset into its operations when delivered.

10.6. Recommendations

The TAHE Implementation Steering Committee should ensure that the new operating model for asset ownership and management for Transport be designed to reduce complexity and minimise duplication of functions.

Under the new operating model, there should be a single entity with clear accountability for the strategic management of rail assets across their full life-cycle.

The Strategic Asset Manager (SAM) should be accountable for:

- The heavy rail SAMP and AMP, including Sydney Trains, CRN and NSW TrainLink components.
- Providing TfNSW (as the client representing rail customers) with options for the acquisition, maintenance, and disposal of rail assets.
- Gaining assurance from those entities who are responsible for the configuration of assets over their life-cycle that the asset is safe and fit for purpose and being managed in a financially responsible manner.
- Providing assurance to TfNSW and Government that the assets are being designed, delivered and maintained in accordance with the specified requirements to meet customer service outcomes.

Once the new model is established, TfNSW should coordinate a dedicated change management, education and awareness plan to ensure all parties understand and comply with the intent of the model. The Plan should include:

- Mandated induction training for all existing and new Executives and Managers involved in the planning, design, delivery, operation and maintenance of rail assets.
- Information and training in relation to safety duties of entities and individuals under both the *Work Health and Safety Act* and *Rail Safety National Law*.
- Implementation of the Asset Management Maturity Assessment process outlined in the TfNSW Strategic Asset and Services Plan.

Sydney Trains should be provided with sufficient Opex funding by Government to adequately maintain all existing assets and the new assets delivered to it under the current pipeline of major projects.

The business cases for the Digital Train Radio System (DTRS) Next Generation Upgrade and Tangara Fleet Obsolescence should be expedited as soon as possible and prioritised for funding by Government, on the advice of Greater Sydney and the Finance Investment and Assurance Committee (FIAC).

The Asset Management Branch (or future Strategic Asset Manager) should review the policies and processes supporting the Transport Assurance Network Committee (TNAC) to ensure that:

- Asset stewards provide assurance on the full engineering domains at each investment approval gate (i.e. Reliability, Availability, Maintainability and Safety - RAMS).
- The steward for design and delivery of assets (Infrastructure and Place) provide positive assurance that Sydney Trains has been fully consulted at each investment gate and that any issues that impact on the operation or maintenance of the new asset have been resolved or, if necessary, escalated to the Transport Network Assurance Committee (TNAC).
- Sydney Trains provide positive assurance at each investment gate that it has the plans, processes, capability and workforce engagement required to successfully integrate the new asset into its operations.

TfNSW should review the terms of reference of the FIAC to ensure it:

- Is chaired by the Secretary.
- Comprises Executives accountable for business case development and the investment program, strategic asset management, project delivery, operations and maintenance, and finance.
- Regularly reviews and approves the transport investment program, including prioritisation and trade-offs between Capex and Opex over the whole program.

The FIAC should not approve funding for projects unless it has:

- Assurance from TNAC with regard to the project meeting the RAMS requirements of the assets being delivered.
- Assurance from Sydney Trains (or other Transport operators/maintainers for other modes) that it is well placed at that investment gate to integrate the asset into its business.
- Advice that the project complies with safety, environment and quality management systems.

11. Third Party Operators

11.1. Third Party Access

Sydney Trains operates the suburban train services which represent the vast bulk of daily train movements on the Metropolitan Rail Network (MRN). In addition to Sydney Trains, there are other rail operators who run trains on the MRN. These third party operators include:

- Private freight rail operators.
- NSW TrainLink, which operates InterCity and Regional trains.
- Great Southern Rail, which operates the Indian Pacific from Sydney to Perth.
- Heritage rail operators.

Other trains also run on the network to undertake construction and maintenance, such as track patrol and other track machinery vehicles.

The Panel met with representatives of third party operators to seek their views in relation to the level of service provided to them in accessing the MRN.

11.2. Rail Access Regime

The provision of access to third party operators is governed by the NSW Rail Access Undertaking which was put in place over 20 years ago. The Undertaking sets out how NSW access providers negotiate access to their networks with access seekers.

NSW currently has two rail access providers.

i)The Transport Asset Holding Entity (TAHE) is a NSW State Owned Corporation (SOC) which owns:

- The MRN, including track that shares both passenger and freight services.
- A small portion of the Hunter Valley Coal Network.
- The Country Regional Network (CRN).

ii)The Australian Rail Track Corporation (ARTC) is a Commonwealth agency which operates:

- The Metropolitan Freight Network (MFN) which are dedicated freight tracks.
- Interstate lines joining the MRN to Brisbane, Perth, Adelaide and Melbourne.
- Inland Rail Northwest Link.

TAHE licenses Sydney Trains and UGL Regional Linx as the accredited Rail Infrastructure Managers (RIMs) for the MRN and CRN respectively. ARTC is the accredited RIM for its networks.

Sydney Trains provides critical support to third party operators seeking to deliver rail services through Sydney. Sydney Trains maintains the track, signals, stations and other fixed infrastructure required to operate the MRN. It also manages the Rail Operations Centre (ROC) which controls the movement of trains through the network.

In May 2023, the NSW Independent Pricing and Regulatory Tribunal (IPART) released its Review of the NSW Rail Access Undertaking (the IPART Review). IPART concluded that the NSW Undertaking is no longer meeting the needs of third party access seekers and, in particular, the freight industry. IPART made 33 detailed recommendations for future reform. The Panel notes that the Government is currently considering its response to IPART's report.

The Panel has not sought to duplicate the work of IPART in reviewing the detail of the access and pricing arrangements in NSW. Further, the key focus of IPART's review - the economic regulation of rail in NSW - is beyond the scope of our review.

However, the Panel has examined issues with respect to Sydney Trains' delivery of services to support the efficient, safe and sustainable movement of freight across the MRN as well as passenger services by third party operators. Some of these relate to matters also considered by IPART.

No significant issues with respect to the safety regulatory regime administered by the Office of Rail Safety Regulator (ONRSR) were raised with the Panel by third party operators. However, third party operators were concerned that the lack of harmonised train control systems and operating procedures across multiple RIMs were not only impeding the efficient delivery of rail freight services across Australia but increasing safety risk. The issue of interoperability across rail networks and national harmonisation of standards and operating procedures is discussed in Section 11.7.

11.3. Freight

11.3.1. Current Operations and Projected Growth

Road and rail freight contribute $66 billion to the NSW economy each year[4]. TfNSW estimates that road and rail freight movements are likely to increase by 50% from 2016 levels in metropolitan NSW by 2036[5]. With the exception of the transport of coal, the majority of freight in NSW is moved by road.

In Greater Sydney, about 80% of the freight task is undertaken by road.

Approximately 5% of train paths on the MRN are allocated to freight, with a further 4% made available on an ad hoc basis[6].

TfNSW estimates that every 1,200 metre freight train takes around 100 trucks off NSW's roads. While the heavy trucking industry is moving toward green energy alternatives and is investing in increasingly safe vehicles, rail remains a safer and more energy efficient form of transport.

To achieve the projected growth in freight demand, meet net zero carbon targets, and reduce safety risk, it is imperative that rail capacity grow and that there are incentives in place to encourage rail freight operators to invest in new generation and energy efficient locomotives and wagons.

11.3.2. Accountability for Providing Access

A key concern raised by freight operators during the IPART Review was that there is no single party accountable for providing access to third party operators on the TAHE networks in NSW.

While Sydney Trains provides the day-to-day services to support third party operators, the negotiation of access to the MRN, including the allocation of train paths, is the accountability of TAHE.

[4] TfNSW: "NSW Freight and Ports Plan 2018-23", September 2018, p6.
[5] TfNSW, "Future Transport Strategy: Our Vision for transport in NSW", p89.
[6] TfNSW: "NSW Freight and Ports Plan 2018-23", September 2018, p34.

TAHE has the right to negotiate access agreements and set access prices. However, under its Operating License, TAHE does not deliver transport services, carry out railway operations or manage the performance agreement setting out the obligations of Sydney Trains as the RIM providing services to third party operators.

TfNSW, through the Regional and Outer Metropolitan (ROM) Division, is TAHE's agent for the negotiation of access agreements.

The Greater Sydney (GS) Division of TfNSW manages the Rail Operations Agreement (ROA) setting out Sydney Trains' obligations as the operator and maintainer of the MRN and the operator of Sydney Trains' passenger services. The Licence, Agency and Operating (LAM) Deed setting out Sydney Trains obligations with respect to third parties is managed by the Corporate Services Division of TfNSW.

Freight operators submitted to IPART, and to our Panel, that under this operating model Sydney Trains is not a party to TAHE's undertaking and has no clear obligation to support or enable rail freight operations.

Given these arrangements, IPART recognised that TAHE faces difficulties delivering on the terms of its access agreements as it does not have authority over the terms of service. IPART recommended that:

- A single entity be held accountable for providing third party access to the TAHE networks.
- That the accountable entity have the authority to hold its service providers to account (when outsourcing) for delivering on the terms of the access agreements.

IPART noted that the single entity accountable for providing third part access could be the rail owner (i.e. TAHE), the RIM (i.e. Sydney Trains /UGL Regional Linx) or TfNSW. It also noted that, under the current model, TAHE has limited responsibility for access-related functions and may not be the most appropriate body to be the access provider. It noted that holding TfNSW or Sydney Trains accountable may require legislative change[7].

The Panel agrees that the current allocation of accountabilities and responsibilities for negotiating access to the NSW rail network, and for delivering agreed service levels to freight operators, is complex and diffuse. The Panel supports IPART's recommendation in this regard.

In September 2023, the NSW Government announced that TAHE will be converted into a non-commercial public non-financial corporation (PNFC) to allow TAHE to focus on maximising the benefits of its transport assets, especially surplus land that could be re-purposed to help address the State's housing shortage, while continuing to invest in transport infrastructure for passenger and freight services.

A TAHE Transition Steering Committee has been established to clearly define the future operating model for TAHE and the implications for the accountabilities and functions of TAHE, TfNSW and public transport operators.

This transition provides the opportunity to streamline the complex arrangements in place under the current operating model, including to identify which party should be accountable for access agreements.

[7] IPART, p43.

The Panel is of the view that Sydney Trains should not be the entity with accountability for negotiating access agreements with access seekers. However, the entity that provides access to the MRN must have the ability to set performance targets for Sydney Trains in order to deliver the service levels agreed with third party operators.

11.3.3. Rail Capacity and Development Planning

Freight operators do not invest directly in the infrastructure required to operate their trains. Rather, they contribute to the cost of infrastructure and network services provided by RIMs through the payment of access fees.

Planning for the future capacity of the rail network is undertaken by TfNSW. Both passenger and freight demand will necessitate increased capacity of the rail network over coming decades.

Freight operators advised the Panel that the lack of transparency in planning for the future of the rail network, particularly on the shared corridors in Sydney, was a significant impediment to their willingness to invest in new rail freight rolling stock.

IPART also found that this was an impediment to investment in rail freight operations and recommended greater transparency (and certainty) for access seekers in relation to the network's development plans and future capacity.

In 2021, the NSW Auditor General released a performance audit report on "Rail Freight and Greater Sydney"[8]. The Auditor General also concluded that transport agencies do not have clear strategies or targets in place to improve freight efficiency or capacity of the shared MRN, or make best use of the rail network to achieve the efficient use of its rail freight capacity.

11.3.4. Capacity Allocation and Passenger Priority

The MRN is a heavily utilised rail network. The constrained capacity of the existing network needs to be allocated for competing uses:

- Sydney Trains' own suburban passenger services.
- Other third party passenger and freight services.
- Major projects, managed by TfNSW, for the construction of new assets within existing corridors.
- Maintenance teams, managed by Sydney Trains, for Major Periodic Maintenance and routine inspections and maintenance.

Under the *Transport Administration Act 1988* (TAA), public transport agencies (which include TfNSW and Sydney Trains) are required to exercise their functions in accordance with prescribed common objectives, which include "to support the economic development of the State (with a focus on freight transport systems)"[9].

However, the TAA also provides that the "principal objective of Sydney Trains is to deliver safe and reliable railway passenger services …". The Section of the TAA setting out Sydney Trains' objectives makes no reference to freight, or to Sydney Trains' functions as a RIM providing network control services to freight[10].

[8] NSW Auditor General, "Performance Audit, Rail Freight and Greater Sydney", October 2021.
[9] Transport Administration Act, Section 2B(1)(b).
[10] TAA, Section 36A.

Further, in allocating access to the network, the TAA provides that those responsible for network control (i.e. both service planning and real time control) must give reasonable priority to rail passenger services. Subject to giving reasonable priority to passenger services, the network controller must promote and facilitate access to the network in accordance with the NSW access undertaking[11].

In discussions with the Panel during this Review, freight operators acknowledged that the principle of "reasonable passenger priority" is warranted. However, they argued that the principle is not defined or explained in the Access Undertaking or any other guidance provided by TAHE. In the absence of any policies or protocols setting out what "reasonable passenger priority" means in practice, the freight sector is of the view that access is unreasonably skewed towards passenger services.

As a result, freight operators claim they incur significant cost from the unvetted interpretation of passenger priority.

The Auditor General has noted that transport agencies do not have a consistent understanding of what "reasonable priority" means in practice and application of this term is subjective, raising the risk that this legislative requirement will be inconsistently applied.

IPART also concluded that, for the MRN, "Sydney Trains highest priority is the success of its vertically integrated commuter passenger services, which attract a high level of Government funding support. Sydney Trains achieves its objectives by minimising any potential impact of freight services on passenger trains. As a result, Sydney Trains has low incentives to facilitate additional freight access, and has a very low risk tolerance for any potential network disruption that may be caused by freight trains"[12].

IPART acknowledged that TAHE provides access seekers a copy of its Operations Protocol. However, the Protocol does not attempt to define "reasonable passenger priority". The Protocol does provide detailed "Train Decision Factors" that explain how trains will be managed during periods of disruption in accordance with the priority of the "service type" and the "health" of trains[13].

In the Panel's view, this decision-making framework is transparent and clear. The question is whether it is aligned to the principle of "reasonable passenger priority" and whether it is complied with in practice.

In the absence of any clear policy guidance, the Panel is not in a position to determine if the Protocol is appropriate. The Panel is of the view that further policy work is needed, in consultation with both passenger and freight operators, to elaborate on the principles and criteria underpinning "reasonable passenger priority".

The Panel sought data to determine whether the protocol is complied with in practice. The Panel was advised anecdotally that Train Controllers and Signallers are trained in the protocol and aim to comply with it as much as possible. However, data to support this is not available and therefore compliance is not transparent.

[11] TAA, Section 88L (3) refers to ARTC's obligations with respect to passenger priority. Section 99D refers to the obligations of anybody responsible for network control.
[12] IPART, p77
[13] Operations Protocol Final – version 4 – December 2017, Section 6.

Timetable Development

In its Initial Report, the Panel supported a decision by TfNSW and Sydney Trains to transfer responsibility for the development of the timetable to Sydney Trains and recommended that the transfer be expedited as soon as possible.

The Panel acknowledges that stakeholders have concerns about a perceived conflict of interest in Sydney Trains being accountable for the development of the timetable and being a passenger service operator competing with freight and other passenger service providers on the MRN.

However, the Panel is of the view that there are greater efficiencies and synergies in the network control entity (Sydney Trains) developing the timetable than TfNSW as the procuring department.

To manage a perceived conflict with Sydney Trains' passenger service obligations, the Panel recommended that the function report directly to the Chief Executive, and not to the Operations Branch of Sydney Trains.

11.4.5. Sydney Trains Performance as a Rail Infrastructure Manager (RIM)

As noted above, freight operators are concerned that there is a potential conflict of interest in Sydney Trains being the RIM for the MRN and also a passenger services operator competing for access on a constrained network.

The separation of above-rail and below-rail operations in Sydney was attempted in the late 1990s. However, following the Glenbrook and Waterfall accidents, the decision was taken in 2003 to return to a vertically integrated railway for the high-volume suburban commuter services in Sydney.

The Panel is of the view that the safe and efficient delivery of commuter services in Sydney is best served through a vertically integrated operator and maintainer.

However, the Panel is also of the view that there must be transparency and rigour in the performance required of Sydney Trains as a RIM providing services to third parties who operate on its network.

Freight operators reported that the focus on the needs of the freight industry has waned in both TfNSW and Sydney Trains over recent years. The Panel also notes the relative lack of representation of the freight sector in both TfNSW and Sydney Trains' Strategic Plans and Annual Reports.

Sydney Trains performance obligations are set out in the Rail Operations Agreement (ROA) with Greater Sydney in TfNSW and the LAM Deed managed by Corporate Services. Amongst other things, Sydney Trains is required to:

- Do all things reasonably necessary to minimise the impact of any incidents or disruptions on customers, including freight customers.
- Manage incidents, including communications, in accordance with protocols established with various parties, including freight operators.
- Consult with third party operators with respect to planned track work and service disruptions.
- Be the network controller of the MRN in accordance with the TAHE Operations Protocol and facilitate access by freight and third party operators.

Despite these obligations, a 2021 performance audit by the Auditor General found:

- Agencies do not have sufficient information to achieve the most efficient freight outcomes.
- Agencies are not working strategically together to reduce the number of avoidable delays, nor do they have a definition of avoidable delays. Sydney Trains is not collecting data reporting on avoidable freight delays.

Of the nine Sydney Trains' KPIs reported under the ROA, only one relates to freight:

- The percentage of freight trains exiting the TAHE Metropolitan Network within 15 minutes of timetable versus the number of freight trains entering the network on time – with a target of 95%.

Sydney Trains' internal performance reports monitor the performance of freight on the network, including monthly freight volumes and lost freight minutes. However, the single KPI in the ROA is insufficient to monitor service levels provided to freight or drive focused service improvement for freight by Sydney Trains as the network controller.

Sydney Trains and TfNSW have introduced recent initiatives to improve the transparency and focus on network services provided to the freight sector, including:

- The re-establishment of a senior Director for freight within Sydney Trains.
- The proposal by TfNSW to develop a Freight Level of Service (FLOS) Agreement in consultation with the freight Rail Operators Group (ROG) to ensure greater consideration of their requirements.
- The development by Sydney Trains of a "freight delay attribution process" to capture the causes of freight delays and identify opportunities to improve future freight reliability.

The Panel expects that the proposed Director Freight would be actively involved in these initiatives and in policy work to better define "reasonable passenger priority", as recommended in this Review.

11.4. NSW TrainLink

NSW TrainLink is a Government entity providing InterCity, regional rail and coach services across NSW and into Queensland, South Australia, Victoria and the ACT.

NSW TrainLink delivers each week, on average, 2,641 InterCity services, 127 regional train services and 605 coach services. It operates over five rail networks: Sydney Trains' MRN, ARTC's interstate network, UGL Regional Linx's CRN, V/Line's link into Melbourne and Queensland Rail's link into Brisbane.

In its Initial Report in May, the Panel recommended that the InterCity services be transferred to Sydney Trains. This process is now underway.

NSW TrainLink services have been impacted by the incidents caused by the backlog of infrastructure maintenance that had impacted the reliability and resilience of the MRN. Sydney Train's Rail Repair Plan (Section 5) is ahead of schedule and should improve the reliability of the network, and therefore of NSW TrainLink's punctuality.

However, with the transfer of InterCity services to Sydney Trains, there is concern that the attention of the Rail Operation Centre (ROC) in supporting NSW TrainLink regional services may dissipate.

The Rail Operations Agreement (ROA) between TfNSW and Sydney Trains, does not contain KPIs relevant to the provision of network services for NSW TrainLink. As identified in the IPART Review, this means there are few performance requirements of Sydney Trains in facilitating the service levels agreed between TAHE and third party access seekers, such as NSW TrainLink.

11.5. Tourist and Heritage

A number of tourist and heritage operators run train services across the MRN. These include:

- Great Southern Rail.
- Transport Heritage NSW, which manages heritage collections, museums, heritage events and heritage sector development.
- Other community based organisations providing heritage experiences, such as East Coast Heritage Rail which operates the 3801 service.

Representatives of these operators reported a very good working relationship with Sydney Trains and acknowledged the commitment of Sydney Trains' staff in supporting their operations.

Heritage representatives emphasised the need for strong policy direction from TfNSW and support from Sydney Trains in relation to:

- What assets should be preserved in the future for heritage purposes.
- Where the assets can be stored and maintained.
- Long term funding for the preservation of heritage assets.
- Capacity and capability of the heritage sector in meeting increasingly onerous technical and engineering assurance processes for the maintenance of rolling stock.

The Panel notes that the TAHE Implementation Steering Committee is currently considering the future operating model for the ownership and management of transport assets. It is important that this takes account of the needs of the heritage sector, and how these issues will be managed.

11.6. Future Train Control - Digital Systems

A concern of all third party operators was the uncertainty around TfNSW's longer term plans for gaining access to the Sydney network once the new Digital Systems train control project has been delivered.

At present, there has been no plan conveyed by TfNSW to third party operators advising when and if operators will need to fit in-cab signalling in their locomotives to connect to the future signalling system. Heritage operators are particularly concerned about whether it would be technically feasible to retrofit tourist and heritage locomotives, how much it would cost and how it could be funded. The Panel notes that the business case for Digital Systems proposes that heritage operators would be able to operate with portable handheld devices to connect to the signalling system. However, heritage representatives did not appear to be aware of this.

11.7. National Interoperability and Harmonisation

As noted above, the rail network in NSW is operated by three different RIMs. Across Australia there are five other RIMs that also connect to the standard gauge network.

At present, there is no standardisation of signalling, communication systems or operating rules across these networks. For instance, freight drivers operating a train from Sydney to Perth will traverse networks operated by four different RIMS, using different signalling and train order working systems.

Further, train operators who traverse these networks must engage separately with each RIM (or owner of the infrastructure) for access, including pricing, service levels and type approvals for the introduction of new rolling stock.

The historic legacy of Australia's railways means that each RIM has developed (and continues to develop) their own standards and rules. This adds to the cost for rail operators (both freight and passenger) and creates uncertainty, providing impediments to investment in rail.

Transport Ministers have recognised the impact this is having on the productivity and safety of rail services across Australia. The Infrastructure and Transport Ministers Meeting (ITMM) has tasked the National Transport Commission (NTC) with developing a nationally consistent approach, through the National Rail Action Plan (NRAP), to:

- Codify critical standards and complementary rules to make rail more competitive.
- Align train control and signalling technology.
- Reduce the interoperability burden from a driver, crew and maintenance perspective.
- Streamline rolling stock approvals.
- Meet the rail skills demand of the future with a focus on digital skills.

ITMM must report regularly to National Cabinet on progress in achieving interoperability on the national rail network.

The NRAP reforms have the potential to remove barriers to investment in rail and unlock rail's potential to address critical issues such as traffic congestion in our cities, the decarbonisation of the economy, and security of the supply chain. The Panel encourages Sydney Trains to work collaboratively with the NTC, TfNSW and other RIMs across Australia in supporting the reforms.

In addition to these reforms, the freight sector is calling for greater coordination between the RIMs operating the NSW rail network in:

- Coordinating maintenance possessions to minimise disruption to freight services.
- Improving communication between network control centres to better plan for and manage the movement of trains into and out of each network on a daily basis.

11.8. Recommendations

TAHE Implementation Steering Committee should ensure that, under the new operating model for transport asset ownership and management, there is a single entity with clear accountability and authority for providing third party access to both the Metropolitan Rail Network (MRN) and Country Regional Network (CRN).

- Given the potential conflict of interest of Sydney Trains as the body providing network control services on the MRN, accountability for access provision should rest either with the new TAHE or TfNSW and not with Sydney Trains.

TfNSW, in consultation with passenger and freight rail operators, should undertake further policy work to define and document the principle of "reasonable passenger priority".

Subject to the Government's response to the IPART recommendations, the TAHE Access Seekers Information Pack should be updated to reflect the policy principles developed by TfNSW and, in particular, provide greater transparency around how Sydney Trains, as the network controller, allocates priority to train services when there is a disruption to services.

The entity accountable for access provision under the new operating model should develop performance targets for Sydney Trains to support:

- The service levels specified in freight access agreements and described in the proposed Freight Level of Service (FLOS).
- The service levels specified in access agreements with third party passenger, tourist and heritage operators.

The Sydney Trains Rail Operations Agreement (ROA) and Licence, Agency and Maintenance (LAM) Deed should be reviewed to:

- Reflect the accountabilities of parties resulting from the new operating model following the implementation of the TAHE transition.
- Provide clear and transparent KPIs that focus on the performance of Sydney Trains as a RIM and network controller in order to drive service outcomes for freight and third party passenger operators.

Sydney Trains should incorporate specific sections on its performance as a Rail Infrastructure Manager (RIM) and network controller in supporting third party operators in future corporate plans and annual reports.

TfNSW should develop a plan, in consultation with third party operators, to determine if, when and how their locomotives will need to connect to the in-cab signalling system being rolled out on the MRN through the Digital Systems Project.

Sydney Trains should develop a plan to explicitly identify and support initiatives necessary to achieve the objectives of the National Rail Action Plan (NRAP) and drive commitment to the reforms at the Executive level.

The Director Freight in Sydney Trains should work with colleagues in EMB and the ROC to better coordinate the planning and management of possessions and daily train control operations with their counterparts in ARTC and UGL Regional Linx.

12. Governance and Accountability

12.1. Performance Monitoring and Management

The performance obligations of Sydney Trains are set out in two key documents:

- The Rail Operations Agreement (ROA) between Greater Sydney and Sydney Trains.
- The Licence, Agency and Maintenance (LAM) Deed between TAHE and Sydney Trains. The Corporate Services Division of TfNSW manages the LAM Deed on TAHE's behalf.

The ROA focuses on Sydney Trains' performance with respect to its own passenger services. The ROA is governed through two Committees:

- A contract management group (CMG) comprising contract managers and senior Executives accountable for freight matters. The CMG is responsible for making recommendations in relation to key performance and accountability issues arising out of the Agreement.
- A Performance Review Group comprising the Deputy Secretary, Greater Sydney (TfNSW) and the Sydney Trains' Chief Executive. The PRG is responsible for conducting performance reviews. The PRG has met rarely in recent years.

The LAM Deed licences Sydney Trains to operate and maintain TAHE's assets[14]. The Deed canvases issues such as:

- The requirement for Sydney Trains to make assets available to TfNSW for the purposes of delivering a major project.
- The payment of fees by Sydney Trains to TAHE in consideration of its use of TAHE's assets.
- Appointing Sydney Trains as TAHE's agent in providing access to the network in accordance with TAHE's access agreements with third party operators.
- The requirement for Sydney Trains to comply with environmental, rail safety and WHS laws.
- The right of TAHE to conduct audits, inspections and surveys in relation to Sydney Trains' compliance with the Deed.

The LAM deed is governed by a LAM Governance Committee which comprises each parties' designated contract manager.

The Panel is concerned that these governance arrangements are not sufficiently connected to provide a coherent performance regime for Sydney Trains across all its functions.

While the Freight Unit within the Regional and Outer Metropolitan (ROM) Division offers access to third parties, the ROA is managed by Greater Sydney and the LAM deed is managed by Corporate Services. Greater Sydney also prepares the Division strategic asset and services plans that determine how Sydney Trains operates and maintains the network.

These governance and contractual arrangements need to be streamlined to provide a wholistic view of Sydney Trains' obligations and performance outcomes.

[14] Assets licensed to Sydney Trains to maintain include real property assets, heavy rail infrastructure and rolling stock and certain heritage assets.

12.2. Corporate Functions Review and Shared Services Arrangements

The provision of Corporate Services by TfNSW to Sydney Trains is managed under an Enterprise Services Agreement. Under this Agreement, Sydney Trains pays TfNSW for the delivery of defined services. A proportion of this funding is for the provision of subject matter experts (SMEs) who are embedded into Sydney Trains to provide support services.

In our Initial Report, the Panel recommended the re-establishment of some key Executive positions within Sydney Trains, including a Legal Counsel and Executive Director for People and Culture. These positions had been removed following the Corporate Functions Review (2021 - CFR), which consolidated a number of functions within TfNSW.

The Panel fully supports the objective of achieving efficiencies through outsourcing functions and/or entering into shared services arrangements. This is appropriate and potentially effective where the functions involve services that are of a transactional nature and not core business of the entity.

However, the Panel believes that the CFR resulted in an over-reach in this regard. The Panel has identified further areas where the consolidation of functions into TfNSW has diminished Sydney Trains' ability to effectively manage their core business risks.

These include:

- Learning and Development (L&D) and competency management (Section 8).
- Human Factors expertise to support safety risk management (Section 7).
- Workers compensation and return to work management (Section 7).

In considering these recommendations, it would be prudent to review whether some of the SMEs embedded into Sydney Trains should be transferred to Sydney Trains. This need not involve all SMEs that may be flexibly deployed across Transport agencies to support work during peaks and troughs of activity and demand. However, it should be sufficient to ensure that Sydney Trains can effectively meet its accountabilities for delivering core business functions.

Once the optimal head count of in-house and shared resources is determined, the contract of services provided to Sydney Trains by TfNSW should be reviewed and the cost adjusted to reflect the revised level of service.

12.3. Audit and Risk Management

Treasury's Internal Audit and Risk Management Policy (TPP20-08) adopts the Three Lines of Defence model for controlling risks in an organisation:

- Line 1: front-line teams delivering outcomes (products or services).
- Line 2: the risk management framework, coordinated by a Chief Risk Officer (CRO), who monitors compliance and performance with regard to risk issues.
- Line 3: the independent assurance function coordinated by a Chief Audit Executive (CAE) and oversighted by an Audit and Risk Committee whose membership is independent of management. This includes activities, such as audits and performance reviews, which are critical in giving the Chief Executive confidence in the effective management of risk across the business.

Following the CFR, TfNSW consolidated the Line 3 functions across TfNSW, Sydney Trains and other Transport entities within TfNSW under a single CAE. Consequently, Sydney Trains no longer has a dedicated CAE or Audit and Risk Committee advising on the management of risk.

Further, Sydney Trains also embedded its Line 2 assurance functions into its operational branches.

The Panel recommended in Section 7 that Line 2 assurance resources be transferred back under the direction of Sydney Trains' Chief Risk Officer (Executive Director SEQR) to re-establish an effective Line 2 assurance function.

In terms of Line 3 assurance, the Panel acknowledges that the TfNSW Audit Plan includes audits specifically relating to Sydney Trains' operations. However, the number and scope of audits and reviews relating to Sydney Trains has significantly reduced as a result of the consolidated function. Further, the Panel is concerned that a single Audit and Risk Committee will not have the bandwidth to oversee the risks associated with a broad range of transport entities and functions.

The Panel is of the view that the Chief Executive of Sydney Trains does not have sufficient control and oversight of the Line 3 assurance services to attest that there is effective management of risk within the organisation.

The Panel notes that the Government has initiated a sector wide review of Boards and Committees across the NSW public sector. This review will encompass the establishment and operation of audit and risk committees.

Subject to the outcome of that Review, the Panel proposes that TfNSW review the current structure of the audit and risk functions and re-instate a dedicated Line 3 assurance function for Sydney Trains. In the interests of efficiency, it may be practicable for the Line 3 function to be shared between Sydney Trains and NSW TrainLink.

12.4. Recommendations

The governance and contractual arrangements in place between TAHE, TfNSW and Sydney Trains that set out Sydney Trains' performance targets and KPIs should be reviewed and revised following the implementation of the new TfNSW operating model with the aim of:

- Removing any duplication of reporting lines.
- Ensuring the service levels required of Sydney Trains across all agreements are coherent, achievable and transparent.

Subject to the outcome of the Government's Review of Committees and Boards across the public sector, Sydney Trains should re-instate its own Chief Audit Executive (CAE) and Audit and Risk Committee to ensure it has a dedicated Line 3 assurance function.

- The CAE function could be undertaken within existing resources by the recently appointed Sydney Trains Chief Legal Counsel.

TfNSW and Sydney Trains should determine the number of staff that should be transferred to Sydney Trains as a result of this Review's recommendations and adjust the Corporate Services Agreement (including funding paid by Sydney Trains to TfNSW) accordingly.

The Transitional Steering Committee oversighting the implementation of recommendations arising from this Review should aim to integrate activities into "Business as Usual" strategies and business plans as soon as practicable.

Appendix 1: Sydney Trains Review Terms of Reference

Transport for NSW

Sydney Trains Review

NSW GOVERNMENT

April 2023

1. Background

Sydney Trains is the operator of the Sydney suburban passenger rail network. The network services urban and suburban areas with 369 km of route length and 170 stations on eight lines.

Sydney Trains operates 3200 timetabled services and delivers over 750,000 passenger journeys each weekday. Sydney Trains is responsible for the management of over $42 billion in assets, including the maintenance of 2,000km of track, 2263 electric and diesel cars and over 1536km of electric wiring.

Sydney Trains' Mission is to "keep Sydney moving by delivering safe, clean, reliable, customer-focused and efficient rail services". In delivering its Mission, Sydney Trains' Priorities are:

- Operational excellence every day
- Customer at the centre
- Sustainability as the future

Sydney Trains faces continuing pressure in delivering its Mission and Priorities, particularly in maintaining the network and delivering sustained high levels of customer services. Pressures arise from, among other things, the nature and extent of the network, an ageing asset base and continuing conflict between meeting operating timetable and maintenance objectives. These pressures have been exacerbated in recent times, including through difficulties in maintaining required staffing levels (including the impact of the Covid pandemic) and recovering from severe weather events.

The Government supports Sydney Trains' Mission and Priorities but recognises the continuing challenges which must be addressed. However, recent incidents relating to failure of infrastructure and systems have caused major disruptions to the network and considerable inconvenience to customers.

To properly identify and clarify these challenges and to provide guidance and assistance in identifying and implementing appropriate responses, the Government has established this Review.

2. Membership

Review Lead: Carolyn Walsh
Panel Members: Arthur Smith, Peter Medlock

The panel will be supported by resourcing with necessary expertise as required.

3. Scope of the Review – Reliability and Resilience

The initial focus of the Review will be Sydney Trains' Reliability and Resilience performance, whether that performance is meeting appropriate standards and the performance of the network in recovering from significant incidents and events which impact standards of service delivery.

The Review will have the capacity to consider any functions and issues which it believes impact on Sydney Trains' Reliability and Resilience performance and to identify, consider and recommend areas where performance can and should be improved.

4. Initial fields of review

The initial focus of the Review will be the following:

i) *Governance and accountability* - within the current legislative framework, including the Transport Administration Act and the Rail Safety Act.
This will include:

- reporting and accountability requirements to the Minister and TfNSW
- relationships between key stakeholders, including TAHE and Metro
- internal governance, accountabilities and delegations
- performance reporting
- organisational culture

ii) *Asset management and planning* – the process of developing, implementing and monitoring Sydney Trains' Asset Management Plan (AMP). This will include:

- development, validity and adequacy of the AMP
- identification and management of safety critical assets
- the asset management process, including consistency between the AMP, Technical Maintenance Planning and Work Instructions carried out in the field
- barriers to effective asset management, including aligning operational and maintenance objectives
- capital expenditure planning and budgeting, both operational CAPEX and medium/longer term CAPEX
- establishment, management and adequacy of maintenance budgets
- systems engineering and standards
- Regional and Intercity fleets and networks
- the interaction of the Sydney Trains operation across the whole network as the rail infrastructure manager and the working relationship with NSW Trains and Rail Access Agreement Holders
- the impact of external access to the Sydney Trains' network
- implementation, monitoring and reporting

iii) *Reliability* – how Sydney Trains develops and meets Reliability responsibilities and objectives. This will include:

- Reliability objectives, standards and responsibilities
- Reliability barriers and performance
- Reliability targets, monitoring and reporting

iv) *Resilience* – the ability of Sydney Trains to respond to incidents and events which interrupt, or have the potential to interrupt, the delivery of services to the public.
This will include:

- how Resilience is built into operational and asset planning
- responsibilities and accountabilities
- contingency planning, including for incidents and recovery
- process improvement and technology advancement
- customer engagement
- security, incident and emergency management
- effectiveness of internal alignments

Reliability and Resilience are interconnected with Safety and the Review will examine:

- Rail Safety Accreditation (RIM/RSO accreditation)
- Safety Management System – development, adequacy and implementation
- Systems safety standards
- Safety objectives and priorities
- implementation, monitoring and reporting

As the Review considers these issues, key relationships and interdependencies will be identified which may need to be considered and addressed. These will include with:

- Engineering and maintenance
- Timetable development and implementation
- Network operations
- Workforce resourcing and planning
- Business systems

5. Key Stakeholders

The Review will engage with key stakeholders, seeking their views and input, including:

- Sydney Trains (Executive, management and workforce)
- TfNSW
- Rail Unions
- DPC, Treasury
- TAHE
- Infrastructure NSW
- Metro
- NSW TrainLink
- Rolling Stock Operators accessing Sydney Trains Network
- ONRSR
- ATSB/OTSI

6. Reporting

The Review will prepare its reports (interim and final) to the Minister for Transport to take forward for consideration by Cabinet.

12 May - Initial Report and Way Forward

- An initial report will be provided which contains initial findings and specific areas for detailed investigation and recommendations

Ongoing - Interim reporting

- Ongoing reporting will be provided on progress in meeting the Review's scope and issues identified for immediate action

31 October - Final report consolidating the findings of the Review and recommendations.

- If considered necessary to fully address the proposed Scope, the Review may request additional time to finalise its Report.

Appendix 2: Implementation of Previous Recommendations

Progress in implementing Recommendations from the Initial Report as at 28 November 2023.

Key

Complete	proscribed outcome has been achieved.
Ahead of Schedule	where there is a published end date, which will be bettered at the current run rate.
On Track	where there is a published end date, which will be achieved.
Delayed	where there is a published date, which will not be met.

#	Recommendation	Progress
1.	Accelerated Maintenance Program (Rail Repair Plan)	Ahead of Schedule Sydney Trains initiated a 12-month $97 million maintenance repair plan, five months in, as of 24 November: • December 2023 target of 1,265 high priority defects removed, was achieved in October two months early. • Now at 1,483 (77%) of 1,916 high priority defects removed from the network. • The target of 75% of high priority electrical inspections, has been achieved. • Now at 158 high priority electrical inspections completed. • 488 (44%) of 1,100 train stops have been replaced.
2.	Review TfNSW's stakeholder engagement processes with operators/maintainers such as Sydney Trains	Complete Workshops have been held with internal stakeholders, unions and other railways and industries. Lessons learnt have been collated. Operator/Maintainer Stakeholder Engagement Framework completed.
3.	Sydney Trains agree a process for managing major change to ensure the full engagement of unions	Complete A Major Change Agreement was signed between Sydney Trains and combined rail unions on 8 August 2023.
4.	That TfNSW work with Sydney Trains and NSW TrainLink to ensure that the intent of such an agreement is applied across the procurement of all major rail assets.	Complete Operator/Maintainer Stakeholder Engagement Framework, incorporating Major Change Agreement processes completed.
5.	That TfNSW and Sydney Trains expedite the transfer of the detailed timetable development function back to Sydney Trains with the function reporting directly to the Chief Executive.	On track • Function reporting to Chief Executive Sydney Trains. • Program Director of Timetable Development appointed. • Governance in place. • Options for transfer of staff under review by Sydney Trains.
6.	Develop a plan for the Rail Operations Centre (ROC) to address identified shortcomings and to enhance the capability of critical roles, systems, processes and procedures, along with appropriate training and exercising, to ensure a more responsive and effective management of major incidents.	Complete • Briefing note and plan approved September. • Project team established November.

	Ensure that change management processes are embedded in any plan to address these issues.	
7.	That Sydney Trains allocate required resourcing to expedite technological capacity to manage train crewing responses during periods of degraded operations. Unions will need to be engaged in this process.	Delayed – *forecast to complete TBC* • Independent review underway.
8.	8.1 That Sydney Trains and TfNSW: Provide a plan and required resourcing for the roll out of short-term targeted customer communications initiatives to be delivered within six months; and 8.2 Provide a plan for longer term technology improvements to facilitate more effective distribution channels and real-time service information to customers and station staff during major incidents.	8.1 Complete • Agreement to deploy Transport Officers to provide customer assistance during disruption. • 13 mobile smart screens installed at 7 locations. • NextThere app deployed to train guards streamlining information flow. • geo-targeted SMS during significant incidents 8.2 On track • 21 smart screens to be installed at 20 locations (20 fixed, one mobile). • An awareness campaign to help passengers understand journey planning tools available on the Opal Travel App.
9.	That Sydney Trains and TfNSW immediately identify current outstanding recertifications and Risk Based Training Needs Analyses (RBTNAs) for Rail Safety Workers and put a program in place to address these as soon as possible.	Complete • Outstanding recertifications and Risk Based Training Needs Analyses identified. • Program in place to address these. • Executive reporting tracking progress.
10.	The Chief Executive Sydney Trains should report directly to the Secretary for Transport, providing stronger focus on rail operations within the TfNSW structure. The Secretary should also consider whether a similar approach is appropriate for the CE of NSW TrainLink. Minister for Transport for matters of significant importance to the Government.	Complete • Effected 22 May 2023 for the Chief Executive Sydney Trains. • Effected 15 November 2023 for the CE of NSW TrainLink.
11.	That Sydney Trains create new roles of: Chief Legal Counsel Executive Director People and Culture, and Director Employee Relations	Complete • All positions have been set up and advertised. • Chief Legal Counsel and Director Employee Relations have been filled
12.	That the Government consider, in consultation with TfNSW and unions, transferring accountability for the operation of the electric InterCity fleet and management of associated station staff from NSW TrainLink to Sydney Trains.	Complete Government announced 21 August that the operation of the Mariyung trains and the majority of intercity passenger services, crew and stations would transfer from NSW TrainLink to Sydney Trains.