National Rail Safety Data Strategy

Consultation sessions | Oct – Nov 2020

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AUSTRALASIAN RAILWAY ASSOCIATION

OFFICE OF THE national rail safety regulator

Why now?

- Is the right data being reported for the right purpose by the right organisation?
- Is duplication of reporting happening?
- Are there issues with data quality?
- What are the issues with sharing and accessing data ?
- What are the legal constraints for collection and sharing of data between stakeholders?

Opportunity to review now ONRSR regulates across the country

National Rail Safety Data Strategy

- Developed in partnership with the ARA and industry representatives
- Implementation overseen by Steering Committee co-chaired by ARA and ONRSR
- Three overarching themes
  1. Better focused national data
  2. Better data quality
  3. Better consistency and comparability

Strategic Objectives

- Meets the identified needs of governments, industry and other primary stakeholders
- Supports the data needs of secondary stakeholders
- Supports good decision-making about rail safety
- Guides actions to improve rail safety
- Provides timely, accurate and relevant information about rail safety performance
- Reduced regulatory burden on industry

What data is needed?

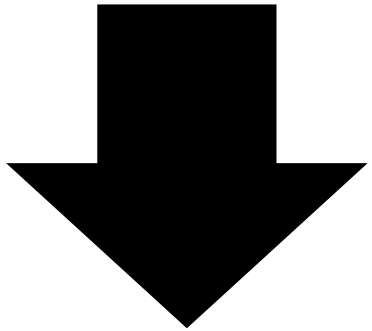
- Current reporting classifications were inherited by ONRSR from State Regulators
  - Is it the right data?
  - Is it useful data?
  - Is it provided at the right time?
  - Does ONRSR need to know?
  - Is there data currently not reported that would be beneficial?
  - Who should collect it?
  - Who and how should data be accessed?
- If we start from scratch what data would be collected?
- What data do other stakeholders need?

The benefits

- A single source of reliable national rail safety data
- Consolidated reporting requirements
- Improved industry information
- Technology to improve reporting practices
- Ability to share data

	ONRSR	Industry	ATSB	RISSB	ALCAM	ATHRA	CTH
Collision							
Derailment							
Runaway							
Proceed Authority Exceeded (incl. Signal Passed at Danger)							
Passenger door occurrence							
Wrongside failure							
Fire or explosion							
Significant failure of the management system							
Public safety or concerns - generation of immediate or intense public scrutiny							
Fatality							
Serious Injury							
Safeworking - Network rule or procedure breach							
Rolling Stock Irregularity							
Load irregularity							
Level crossing occurrence							
Track irregularity							
Civil infrastructure irregularity							
Electrical traction infrastructure irregularity							
Slip, Trip or Fall association with rail operations							
Near Hit							
Alcohol or drugs irregularity							
Work scheduling practice irregularity							
Communications system failure							
Rail Network Security Occurrence							
Suplementary monitoring systems							
Occurrences - Location Information							
Road incidents involving RSWs travelling to and from work							
Identify generic and valuable leading indicator for Industry							
Total Recordable Injury Frequency Rate (TRIFR)							
Lost Time Injury Frequency Rate (LTIFR) (split by preventable or non-preventable incidents)							
Lost Time Injury Severity Rate (LTISR)							

Report once



Utilise many times

What data needs to be reported?

Types of data

- Occurrences
- Ontology (Operator profile)
- Monthly

Who collects?
Who has access?
What are the current barriers to sharing?
How will data be stored?

Reporting Requirements for Notifiable Occurrences

safe railways for Australia

Occurrences

- Reporting inherited from previous regulators
  - 21 categories
  - 127 sub-categories
- Reporting timeframes
  - Immediately
  - Within 72 hours

Potential Removal

- Collision with animals
- Slip, trip or fall
  - On platform/concourse
  - On/from escalator/lift
  - On/from stairs/ramp
  - From structure
  - Other
- Work scheduling practice / procedure breach
- “Other” categories
- Railway network security
  - Alleged Assault
  - Vandalism
  - Graffiti
  - Trespass

Potential Reporting

21 categories

- Different to current
- Codified by circumstance, consequence (severity), likely cause
- No subcategories
- Limited free text

Reporting timeframes

Occurrences

- Immediate *
- Within 7 days *
- Annual

* Open for 14 days

Safety Performance Report

- Annual

Example discussed later

Category A Reporting – Proceed Authority Exceeded

Current process

Prescribed Occurrence (except WA, NSW) – A train has exceeded a limit of a proceed authority and there was sufficient time for the driver to comply with the authority. *Note: Incorrectly given authorities (safe working errors) and runaways resulting in an authority exceedance are also reportable immediately.*

Prescribed Occurrence (NSW) - A breach of the rail infrastructure manager's network rules.

Immediate Report

Interim Report (Basic Info)

72 hours Written Report

Electronically submitted report that includes :

- Involved operator details
- Date, Time and Location details
- Train type information
- **Free text description of the occurrence**
- **Determination of SPAD classification type (A1-A4, B1-B4)**
- **Determination of SPAD vulnerability data item (A-K)**

DATA

No formal process for updating data following new information or investigation

Proposed new process

CATEGORY A – A train has exceeded a limit of a proceed authority on or onto a running line due to:

- Driver completely missed the end of authority (error); or
- Driver misjudged the stopping of train and it has entered into an occupied section or is in conflict with another train movement.

Immediate Report

Interim Report (Basic Info)

14 days Data Submission

Provision of additional information to build on the interim report in the form of codified data that describes:

- Train type information
- Safe working system
- Exceed authority distance
- Distance to next conflict point; type of conflict point
- Likely cause e.g. missed; misjudged

Investigation

DATA

✓ Capture of measurable characteristics of the occurrence (as above) will enable the analytical determination of SPAD classification and vulnerability.

Category B Reporting – Proceed Authority Exceeded

Current process

CATEGORY B – A train has exceeded a limit of a proceed authority, including due to:

- Limit of authority missed by train crew; or
- Signal irregularity at the end of the authority; or
- Proceed authority incorrectly given; or
- Sub-optimal train or track conditions; or
- Signal restored and passed at danger (fault, error or emergency); or
- Uncontrolled movement.

72 hours Written Report

Electronically submitted report that includes :

- Involved operator details
- Date, Time and Location details
- Train type information
- **Free text description of the occurrence**
- **Determination of SPAD classification type (A1-A4, B1-B4)**
- **Determination of SPAD vulnerability data item (A-K)**

DATA

No formal process for updating data following new information or investigation

Proposed new process

CATEGORY B – A train has exceeded a limit of a proceed authority on or onto a running line due to:

- Driver misjudged the stopping of train with no impact to safety (has not entered or created a conflict point); or
- Signal being restored due to infrastructure or network control failure/error; or
- Signal being restored due to an emergency response.

7 days Interim Report

Initial Story (Basic Info)

14 days Data Submission

Provision of additional information to build on the interim report in the form of codified data that describes:

- Train type information
- Safe working system
- Exceed authority distance
- Distance to next conflict point; type of conflict point
- Likely cause e.g. misjudged; braking irregularity; signal restored (technical); signal restored (emergency)

Investigation

DATA

✓ Capture of measurable characteristics of the occurrence (as above) will enable the analytical determination of SPAD classification and vulnerability.

Category C Reporting – Proceed Authority Exceeded

Current process

CATEGORY B – A train has exceeded a limit of a proceed authority, including due to:

- Limit of authority missed by train crew; or
- Signal irregularity at the end of the authority; or
- Proceed authority incorrectly given; or
- Sub-optimal train or track conditions; or
- Signal restored and passed at danger (fault, error or emergency); or
- Uncontrolled movement.

72 hours — Written Report

Electronically submitted report that includes:

- Involved operator details
- Date, Time and Location details
- Train type information
- **Free text description of the occurrence**
- **Determination of SPAD classification type (A1-A4, B1-B4)**
- **Determination of SPAD vulnerability data item (A-K)**

DATA

No formal process for updating data following new information or investigation

Proposed new process

CATEGORY C – A train has exceeded a limit of a proceed authority:

- Within a yard or siding; or
- Associated with road traffic lights (for light rail/trams).

As details are known — Data Submission

OR

Periodic data uploads

OR

By annual submission date

Provision of information, being codified data that describes:

- Operator involvement
- Time, Date and Location
- Train type information
- Safe working system
- Exceed authority distance
- Distance to next conflict point; type of conflict point
- Likely cause e.g. missed; misjudged; signal restored (technical)

DATA

✓ Capture of measurable characteristics of the occurrence (as above) will enable the analytical determination of SPAD classification and vulnerability.

Safety Performance Report (SPR)

- **Your opportunity to tell the Regulator how well you have done**

- To be submitted annually
- Opportunity to describe:
  - the safety performance achieved during the last 12 months
  - what is being done to maintain or improve safety in your organisation
  - the trends identified in your Category C notifiable occurrences and how these have been addressed

Systems changes will be required – for ONRSR and industry

Discussion on occurrence reporting

Ontology (operator profile)

Already collected

- Total track managed
- Jurisdictions operate in
- Track type
- Maximum speed
- Safeworking system
- Traction supply
- Track gauge

Additional data to be collected

- Additional information on each level crossing
- Crossing Name
- Line section
- Rail Kms
- Primary Control
- Local Council area
- *No. of networks connected to railway*
- *No. of station/stops used for passenger service*

Ontology (operator profile)

For Future Consideration

- Key location descriptions
  - Line Section
  - Segment
- Network Description
  - Traction Supply
  - Safe working Systems
- Train Operations Profile
  - Train Type
  - Dangerous Goods
  - Traction Type

Discussion on ontology reporting

Monthly

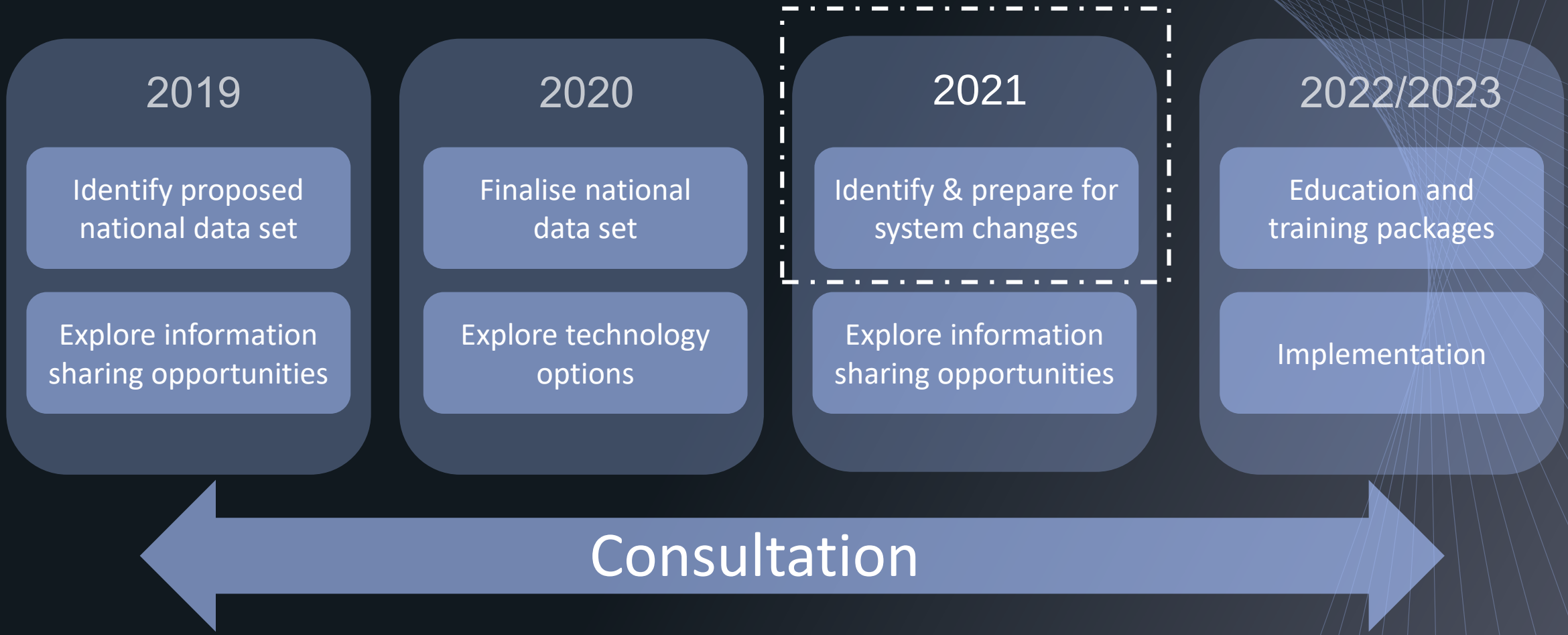
Drug and alcohol testing

Number of rail safety workers

Train kms (including maintenance train kms)

Passenger Journeys

Project timelines



Next steps

- October & November 2020 - Consultation workshops
- November 2020 -On-line sessions
- November/December 2020 - Consultation paper
- February 2021 Refine model after feedback
- 2020 - Technical solutions identified
- 2021 - Ministerial approval for required RSNL changes
- 2022 - Education and training
- July 2022 - Implement
- ***July 2021 – potential to cease reporting some categories***

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Questions?

Copy of Strategy and Action Plan available on ONRSR and ARA websites

www.onrsr.com.au

www.ara.net.au