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RISSB
Annual Product Survey Report

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Contents

1. Summary

The Rail Industry Safety Standards Board (RISSB) is responsible for the development and management of national rail industry standards, rules, codes of practice and guidelines. To ensure its products remain relevant and applicable to members and others within the industry, RISSB need to understand the level of uptake of products and any barriers that exist for their application.

In November/December 2015, RISSB undertook its annual survey of its products and standards. RISSB members and other key stakeholders were invited to complete the survey. The RISSB Annual Product Survey asked respondents to identify the extent to which their organisation has implemented each of RISSB's 60 products and standards surveyed. There are six key product and standard areas:

- Wheel-Rail Interface Products
- Operations Products
- Train Control Products
- Safety and Risk Products
- Rolling Stock Products
- Infrastructure Products

The survey also sought input from stakeholder on challenges and barriers that exist for uptake of the products, and how RISSB can help organisations further. Open-text questions asked:

- If your organisation has taken up RISSB products, what challenges have you had in implementing them?
- How could RISSB best support your organisations' take-up and implementation of its products?
- What barriers, if any, exist that prevent your organisation from utilising RISSB products?

A total of 55 organisation representatives were invited to complete the survey. A link to the survey was also published on RISSB's website to invite stakeholders to participate. A total of 49 organisations responded to the survey to some level. Not all respondents completed the survey in full. Table 1 details the breakdown of responses by stakeholder group.

Table 1: Breakdown of responses by stakeholder groups

Stakeholder group	Number of responses	Proportion of responses
Contractors/Suppliers	14	29%
Passenger Operator and Network Manager	5	10%
Heavy Haul (freight) Operator	4	8%
Passenger Operator	3	6%
Freight Operator	3	6%
Heritage Operator	2	2%
Network Manager	2	2%
Unknown*	16	33%
Total	**49**	**100%**

* Stakeholder group was a pre-populated field based on information provided by RISSB. Stakeholder group is 'Unknown', when the completion of the survey was via the link on the RISSB website, and therefore not associated to a stakeholder email address

This report provides a summary of the indicated uptake of each product/standard by the targeted stakeholder group. Reasoning for not implementing a product/standard is also indicated (see Appendix 1). Importantly, on average all product areas are relevant to the majority of stakeholders (67%). However, the level of applicability varies by product category (ranging from 55% to 79%). Safety and Risk Products are most relevant for stakeholders, with only 21% indicating these products are not applicable. Operations Products are least applicable across the industry, with 45% indicating these products are not applicable.

On average, RISSB products have been implemented in full by 17% of stakeholders, implemented in part by 40% and not implemented by 32%. Full implementation is highest for the Operations Products (20%), Rolling Stock Products (18%) and Infrastructure Products (17%). Non-implementation (with no plan to implement in the next year) is highest within Operations Products (38%) and Safety & Risk Products (39%). The most positive profile of implementation is within Infrastructure Products, where full implementation is 17%, partial implementation is 47%, plan to implement is 11% and non-implementation is the lowest of all categories at 25%.

The main challenges and barriers members face with the full implementation of RISSB products and standards is the lack of mandate to use the standards and products, the ability to fully align the products and standards with their specific operations (due to specialist focus, differences between states and other standard bodies and misalignment with customer standards) and cost and resourcing constraints.

Key ways members feel RISSB could support their organisation to take-up and implement their products and standards included aligning the industry with a consistent, mandated approach, ensuring standards are developed in-line with industry/end-user requirements (including specialty requirements), better communication of the standards and their purpose and better product tools/documents.

Analysis on the take-up of RISSB products by year of introduction does not indicate any clear trend. It does not appear that the recency of introduction has a strong impact, with varied levels of uptake for older and newer products. There may be a slight skew towards the older products having a greater level of implementation, due to their greater level of maturity.

2. Product take-up summary

Figure 1 summarises the level of applicability of all RISSB products overall and across the different product categories. Importantly, on average all product areas are relevant to the majority of stakeholders (67%). However, the level of applicability varies by product category (ranging from 55% to 79%). Safety and Risk Products are most relevant for stakeholders, with only 21% indicating these products are not applicable. Operations Products are least applicable across the industry, with 45% indicating these products are not applicable.

On average, RISSB products have been implemented in full by 17% of stakeholders, implemented in part by 40% and not implemented by 32%. Full implementation is highest for the Operations Products (20%), Rolling Stock Products (18%) and Infrastructure Products (17%). Non-implementation (with no plan to implement in the next year) is highest within Operations Products (38%) and Safety & Risk Products (39%). The most positive profile of implementation is within Infrastructure Products, where full implementation is 17%, partial implementation is 47%, plan to implement is 11% and non-implementation is the lowest of all categories at 25%.

Figure 1: Applicability of RISSB Products

	Product	Not applicable	Applicable
	RISSB Products Overall	33%	67%
1	Wheel-Rail Interface Products	38%	62%
2	Operations Products	45%	55%
3	Train Control Products	27%	73%
4	Safety and Risk Products	21%	79%
5	Rolling Stock Products	30%	70%
6	Infrastructure Products	38%	62%

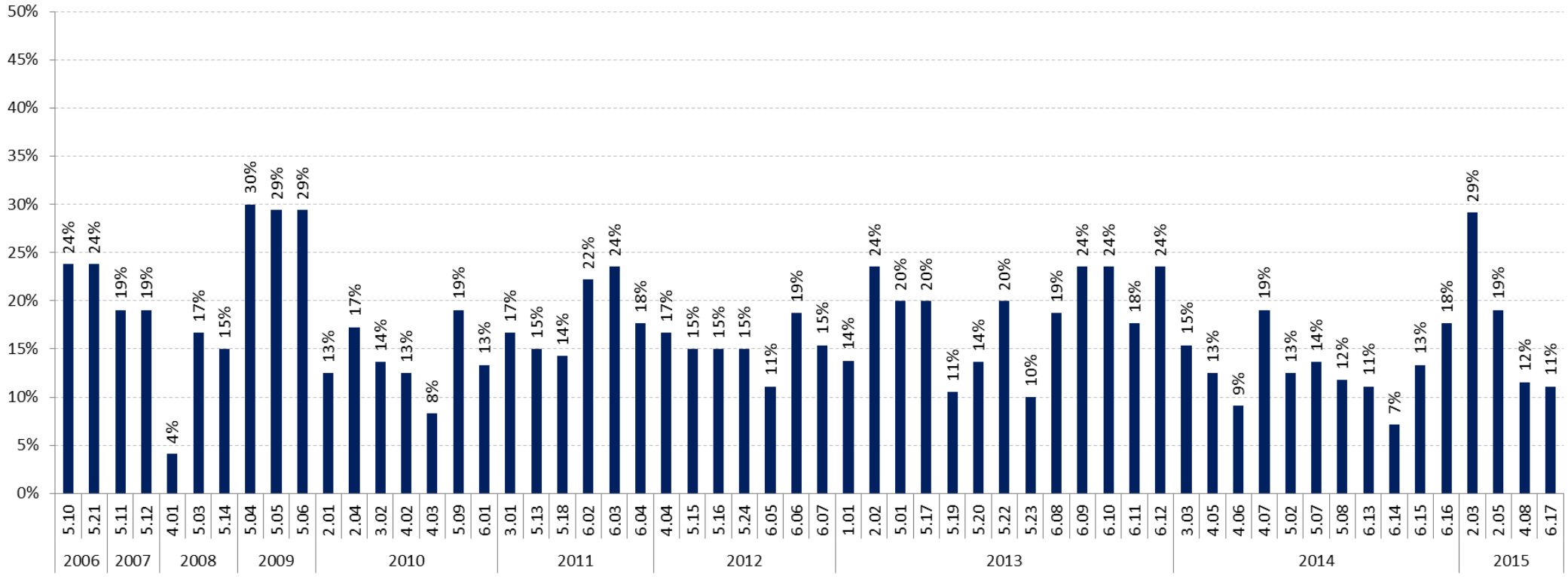
Figure 2: Implementation of RISSB Products (when applicable)

	Product	Fully implemented	Implemented in part	Plan to implement	Not implemented
	RISSB Products Overall	17%	40%	12%	32%
1	Wheel-Rail Interface Products	14%	41%	14%	31%
2	Operations Products	20%	32%	9%	38%
3	Train Control Products	15%	31%	20%	33%
4	Safety and Risk Products	12%	33%	16%	39%
5	Rolling Stock Products	18%	40%	10%	32%
6	Infrastructure Products	17%	47%	11%	25%

3. Take-up of RISSB products by year of introduction

Figure 3 shows the level of ake up of RISSB products by year of introduction. The proportions displayed in the graph are the proportion of stakeholders indicating they have fully implemented the product. It does not appear that recency of introduction has a strong impact, with varied levels of uptake for older and newer products. There may be a slight skew towards the older products having a greater level of uptake, most likely due to their level of maturity. See Appendix 2 for a full list of product names.

Figure 3: Take up of RISSB products by year of introduction



4. Wheel-Rail Interface Products

Figure 4 and Figure 5 summarise the level of uptake of Wheel-Rail Interface Products. The Wheel/Rail Profile Development Guideline is applicable for the majority of responding organisations. Where applicable, the guideline has only been implemented in 14% of organisations, and implemented in part by 41%. Thirty-one percent of organisations have not implemented this guideline.

Figure 4: Applicability of Wheel-Rail Interface Products

Product		n.	Not applicable / Applicable
1.01	Wheel/Rail Profile Development Guideline	47	38% / 62%

Figure 5: Implementation of Wheel-Rail Interface Products (when applicable)

Product		n.	Fully implemented / Implemented in part / Plan to implement / Not implemented
1.01	Wheel/Rail Profile Development Guideline	29	14% / 41% / 14% / 31%

When the product has not been implemented, comments indicate this is due to lack of awareness of what it is, not being directly responsible for this type of profile or just simply have not accessed the guideline before.

5. Operations Products

Figure 6 and Figure 7 summarise the level of uptake of Operations Products. The COP for Loading of Rail Freight (78%) and Accessible Rail COP (51%) are not applicable for the majority of stakeholders. The Glossary of Australian Railway Terminology is applicable to the majority of stakeholders (81%). However, the glossary has only been fully implemented by 17% of organisations. Full implementation is highest for the Australian Network Rules and Procedures (ANRP) at 29%.

Figure 6: Applicability of Operations Products

Product		n.	Not applicable / Applicable
2.01	COP for Loading of Rail Freight	37	78% / 22%
2.02	AS 7450 Rail Systems Interoperability	35	51% / 49%
2.03	Australian Network Rules and Procedures (ANRP)	38	37% / 63%
2.04	Glossary of Australian Railway Terminology	36	19% / 81%
2.05	Interoperability Guideline	35	40% / 60%

Figure 7: Implementation of Operations Products (when applicable)

Product		n.	Fully implemented / Implemented in part / Plan to implement / Not implemented
2.01	COP for Loading of Rail Freight	8	13% / 38% / 50%
2.02	AS 7450 Rail Systems Interoperability	17	24% / 29% / 18% / 29%
2.03	Australian Network Rules and Procedures (ANRP)	24	29% / 25% / 8% / 38%
2.04	Glossary of Australian Railway Terminology	29	17% / 41% / 7% / 34%
2.05	Interoperability Guideline	21	19% / 29% / 14% / 38%

When stakeholders indicate that Operations Products have not been implemented, comments indicate this is due to lack of awareness, having site specific requirements or have not had the need. One stakeholder indicated they feel the Glossary of Australian Railway Terminology is not very good.

6. Train Control Products

Figure 8 and Figure 9 summarise the level of uptake of Train Control Products. All three products and standards are highly applicable to the industry. AS7660 Communications Standard is the most implemented Train Control Product; 64% of stakeholders who indicate the standard is applicable say they have implemented it fully (14%) or to some extent (50%). Approximately one-third of stakeholders have not implemented each of the Train Control Products. Many stakeholders (31%) plan to implement the AS7702 Type Approval in the next 12 months.

Figure 8: Applicability of Train Control Products

Product		n.	Not applicable / Applicable
3.01	Guideline - General introduction to Australian Rail Practices	33	27% / 73%
3.02	AS7660 Communications Standard	33	33% / 67%
3.03	AS7702 Type Approval	33	21% / 79%

Figure 9: Implementation of Train Control Products (when applicable)

Product		n.	Fully implemented / Implemented in part / Plan to implement / Not implemented
3.01	Guideline - General introduction to Australian Rail Practices	24	17% / 25% / 21% / 38%
3.02	AS7660 Communications Standard	22	14% / 50% / 9% / 27%
3.03	AS7702 Type Approval	26	15% / 19% / 31% / 35%

When stakeholders indicate that Train Control Products have not been implemented, comments indicate this is due to lack of awareness, don't feel them necessary, they feel they're covered by or are complying with other standards.

7. Safety and Risk Products

Figure 10 and Figure 11 summarises the level of uptake of the Safety and Risk Products. Except for the SPAD Guideline, all Safety and Risk Products are highly applicable to industry. However, when this guideline is applicable, it is one of the most frequently implemented (57% indicate this guideline has been implemented in full or to some extent). The Investigation COP Review is the most utilised Safety and Risk product; 19% have implemented in full and 38% have implemented it to some extent.

Figure 10: Applicability of Safety and Risk Products

Product		n.	Not applicable	Applicable
4.01	Human Performance Guideline	29	17%	83%
4.02	Emergency Management Guideline	29	17%	83%
4.03	RISSB Safety Strategy	29	17%	83%
4.04	Fatigue Management Guideline	29	17%	83%
4.05	SPAD Guideline	29	45%	55%
4.06	Rail Safety data2 Guideline	28	21%	79%
4.07	Investigation COP	28	25%	75%
4.08	Hazard Register Guideline	29	10%	90%

Figure 11: Implementation of Safety and Risk Products (when applicable)

Product		n.	Fully implemented	Implemented in part	Plan to implement	Not implemented
4.01	Human Performance Guideline	24	4%	25%	25%	46%
4.02	Emergency Management Guideline	24	13%	25%	17%	46%
4.03	RISSB Safety Strategy	24	8%	33%	17%	42%
4.04	Fatigue Management Guideline	24	17%	29%	17%	38%
4.05	SPAD Guideline	16	13%	44%	13%	31%
4.06	Rail Safety data2 Guideline	22	9%	41%	9%	41%
4.07	Investigation COP	21	19%	38%	19%	24%
4.08	Hazard Register Guideline	26	12%	31%	12%	46%

When stakeholders indicate that Safety and Risk Products have not been implemented, comments indicate this is due to lack of awareness, don't feel it's necessary or already have/don't feel it would complement other safety management systems in place. One comment indicated they don't feel RISSB Safety Strategy is in-line with best practice.

8. Rolling Stock Products

Figure 12 and Figure 13 summarise the level of take up of Rolling Stock Products. In general, these products are applicable to industry. Only one product (Locomotive Boilers Code of Practice) is relevant to less than 50% of responding stakeholders. The spread of level of implementation is relatively consistent across all products in this category. Full implementation rages from 10%-29%. Non-implementation rages from 24%-50%. AS 7508 Track forces & Stresses and AS 7509 Dynamic Behaviour are the most implemented Rolling Stock Products (65% implemented in full or partially).

Figure 12: Applicability of Rolling Stock Products

Product		n.	Not applicable / Applicable
5.01	AS7501 Rolling Stock Certification	27	26% / 74%
5.02	AS7503 Train Identification and Integrity	27	41% / 59%
5.03	AS 7505 Signalling Detection I/face	28	36% / 64%
5.04	AS 7507 Rolling Stock Outlines	28	29% / 71%
5.05	AS 7508 Track forces & Stresses	28	39% / 61%
5.06	AS 7509 Dynamic Behaviour	28	39% / 61%
5.07	AS7510 Braking Systems	28	21% / 79%
5.08	AS 7513 Interior Environment	28	39% / 61%
5.09	AS 7514 Wheels	28	25% / 75%
5.10	AS 7515 Axles	28	25% / 75%
5.11	AS 7516 Axle Bearings	28	25% / 75%
5.12	AS 7517 Wheelsets	28	25% / 75%
5.13	AS 7518 Suspension	28	29% / 71%
5.14	AS 7519 Bogie Structural Requirements	28	29% / 71%
5.15	AS 7520 Body Structural Requirements	28	29% / 71%
5.16	AS 7522 Access & Egress	27	26% / 74%
5.17	AS 7523 Emergency Equipment	27	26% / 74%
5.18	AS7524 Draw gear	28	25% / 75%
5.19	AS7527 Event Recorders	28	32% / 68%
5.20	AS7529 Fire Safety	27	19% / 81%
5.21	AS 7531 Lighting & Visibility	27	22% / 78%
5.22	AS 7533 Driving Cabs	28	29% / 71%
5.23	Locomotive Boilers Code of Practice	28	64% / 36%
5.24	Wheel Defects Code	28	29% / 71%

Figure 13: Implementation of Rolling Stock Products (when applicable)

Product		n.	Fully implemented	Implemented in part	Plan to implement	Not implemented
5.01	AS7501 Rolling Stock Certification	20	20%	40%	10%	30%
5.02	AS7503 Train Identification and Integrity	16	13%	50%	6%	31%
5.03	AS 7505 Signalling Detection I/face	18	17%	44%	6%	33%
5.04	AS 7507 Rolling Stock Outlines	20	30%	30%	10%	30%
5.05	AS 7508 Track forces & Stresses	17	29%	35%	12%	24%
5.06	AS 7509 Dynamic Behaviour	17	29%	35%	12%	24%
5.07	AS7510 Braking Systems	22	14%	41%	14%	32%
5.08	AS 7513 Interior Environment	17	12%	47%	18%	24%
5.09	AS 7514 Wheels	21	19%	43%	5%	33%
5.10	AS 7515 Axles	21	24%	38%	5%	33%
5.11	AS 7516 Axle Bearings	21	19%	38%	10%	33%
5.12	AS 7517 Wheelsets	21	19%	43%	5%	33%
5.13	AS 7518 Suspension	20	15%	40%	10%	35%
5.14	AS 7519 Bogie Structural Requirements	20	15%	40%	10%	35%
5.15	AS 7520 Body Structural Requirements	20	15%	40%	10%	35%
5.16	AS 7522 Access & Egress	20	15%	35%	15%	35%
5.17	AS 7523 Emergency Equipment	20	20%	30%	15%	35%
5.18	AS7524 Draw gear	21	14%	43%	10%	33%
5.19	AS7527 Event Recorders	19	11%	42%	16%	32%
5.20	AS7529 Fire Safety	22	14%	32%	18%	36%
5.21	AS 7531 Lighting & Visibility	21	24%	38%	14%	24%
5.22	AS 7533 Driving Cabs	20	20%	40%	10%	30%
5.23	Locomotive Boilers Code of Practice	10	10%	40%		50%
5.24	Wheel Defects Code	20	15%	45%	5%	35%

There were limited comments provided to indicate why Rolling Stock Products have not been implemented. The couple of stakeholders that did provide comments indicate these products are not necessary or they have limited resources to implement.

9. Infrastructure Products

Figure 14 and Figure 15 summarise the level of uptake of Infrastructure Products. All Infrastructure Products are applicable to the majority of responding stakeholders. Derailment Investigation and Analysis Guideline is the most applicable Infrastructure Product (50%) while AS 77664 Cable Routes is the least applicable (50%). Uptake is highest for AS7635 Track Geometry (75% implemented fully or implemented to some extent). AS7643 Track Stability, AS7636 Structures, AS 7638 Earthworks, AS7639 x 4 Rail Support Systems, AS7642 Points and Crossings also have a high level of implementation (71% implemented fully or implemented to some extent). Implementation is lowest for AS7658 x 3 Railway level Crossings (53% implemented fully or implemented to some extent).

Figure 14: Applicability of Infrastructure Products

Product		n.	Not applicable	Applicable
6.01	AS7630-Track Classification	26	42%	58%
6.02	AS7633 Clearances	26	31%	69%
6.03	AS7643 Track Stability	26	35%	65%
6.04	AS7658 x 3 Railway level Crossings	27	37%	63%
6.05	AS7640 x 3 Rail Management	27	33%	67%
6.06	AS7663 Signal Cables	27	41%	59%
6.07	AS7664 Cable Routes	26	50%	50%
6.08	AS7635 Track Geometry	26	38%	62%
6.09	AS7636 Structures	27	37%	63%
6.10	AS 7638 Earthworks	27	37%	63%
6.11	AS7639 x 4 Rail Support Systems	27	37%	63%
6.12	AS7642 Points and Crossings	26	35%	65%
6.13	Derailment Investigation and Analysis Guideline	26	31%	69%
6.14	Hydrology & Hydraulics Sub-Grade Maintenance Guideline	26	46%	54%
6.15	AS7637 Hydrology and Hydraulics	27	44%	56%
6.16	AS7645 Rail Corridor Management	27	37%	63%
6.17	AS 7644 Railway Corridor Access	26	31%	69%

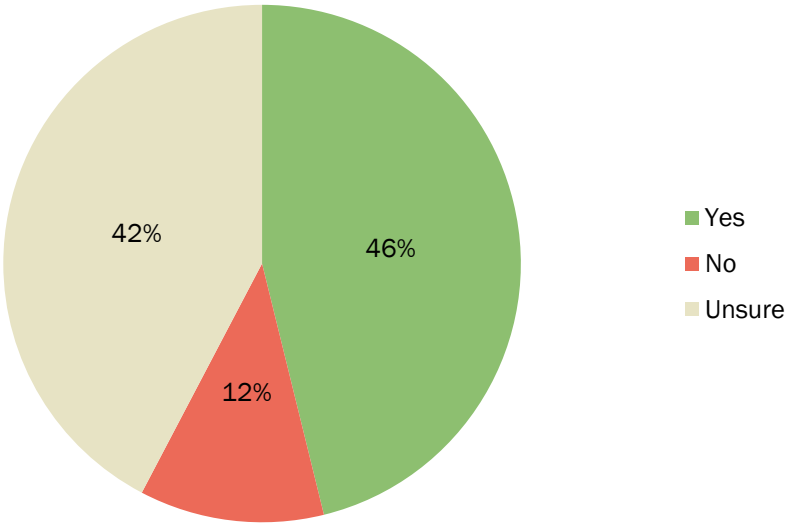
Figure 15: Implementation of Infrastructure Products

Product		n.	Fully implemented / Implemented in part / Plan to implement / Not implemented
6.01	AS7630-Track Classification	15	13% / 53% / 13% / 20%
6.02	AS7633 Clearances	18	22% / 44% / 11% / 22%
6.03	AS7643 Track Stability	17	24% / 47% / 12% / 18%
6.04	AS7658 x 3 Railway level Crossings	17	18% / 35% / 18% / 29%
6.05	AS7640 x 3 Rail Management	18	11% / 44% / 11% / 33%
6.06	AS7663 Signal Cables	16	19% / 38% / 13% / 31%
6.07	AS7664 Cable Routes	13	15% / 46% / 8% / 31%
6.08	AS7635 Track Geometry	16	19% / 56% / 6% / 19%
6.09	AS7636 Structures	17	24% / 47% / 6% / 24%
6.10	AS 7638 Earthworks	17	24% / 47% / 6% / 24%
6.11	AS7639 x 4 Rail Support Systems	17	18% / 53% / 6% / 24%
6.12	AS7642 Points and Crossings	17	24% / 47% / 12% / 18%
6.13	Derailment Investigation and Analysis Guideline	18	11% / 44% / 11% / 33%
6.14	Hydrology & Hydraulics Sub-Grade Maintenance Guideline	14	7% / 57% / 7% / 29%
6.15	AS7637 Hydrology and Hydraulics	15	13% / 53% / 7% / 27%
6.16	AS7645 Rail Corridor Management	17	18% / 41% / 18% / 24%
6.17	AS 7644 Railway Corridor Access	18	11% / 44% / 17% / 28%

10. Use of justification section

Stakeholders were asked to indicate if they find the 'justification section' helpful when considering the use of a standard. Figure 16 shows the breakdown of responses. Of those who responded (n=25), most indicate they do find the justification section helpful (46%) or they are unsure (42%). Only 12% indicate they do not find this section helpful in deciding whether or whether not to implement.

Figure 16: Use of the 'justification section'



11. Challenges faced in implementation

Stakeholders were asked 'If your organisation has taken up RISSB products, what challenges have you had in implementing them?' and 'What barriers, if any, exist that prevent your organisation from utilising RISSB products?' The main challenges and barriers members face with the full implementation of RISSB products and standards is the lack of mandate to use the standards and products, the ability to fully align the products and standards with their specific operations (due to specialist focus, differences between states and other standard bodies and misalignment with customer standards) and cost and resourcing constraints. A full list of verbatim comments is provided in Appendix 1.

Lack of mandate

NO mandate or agreement with industry to mandate.

We would like to implement a RISSB product so that the product offering is reduced, but with all customers continuing with their own individual specifications rationalisation and standardisation of products is not possible.

The problem lies with State's still using their own standards, such as the Asset Standards Authority (NSW). This means the chance of interoperability between states is more difficult to roll out.

Ability to fully align products and standards with operations

RISSB products are more aligned to freight railways and this can make application to urban rail problematic

Fitting them to a light rail environment

State requirements Vs RISSB Australian requirements

Cost and resourcing

We have time and personnel constraints. We will be reviewing the RISSB products early next year.

Cost of membership vs day to day benefits

Previously the cost was unjustifiable for the number of times per year that I needed to reference a standard.

12. Required support from RISSB

Stakeholders were asked 'How could RISSB best support your organisation's take-up and implementation of its products?' Key ways members feel RISSB could support their organisation to take-up and implement their products and standards included aligning the industry with a consistent, mandated approach, ensuring standards are developed in-line with industry/end-user requirements (including specialty requirements), better communication of the standards and their purpose and better product tools/documents. A full list of verbatim comments is provided in Appendix 1.

Align industry with consistent approach

Helping to align the industry on a common approach to implementation.

By considering establishing urban rail sub committees or development groups that can provide better alignment to urban systems

Develop standards with end-users in mind (including specialities)

Work on a critical few that industry have asked for and that will make a difference.

Understand and acknowledge organisations such as Terrace Rail have an important role and function in the Australian rail industry.

Better communication of standards and their purpose

A clear explanation of the purpose and applicability of products

More direct support and engagement with the understanding and application opportunities of each standard

Better product tools/documents

Perhaps an 'on-line' read-only version i.e. can't be printed or saved?

Move away from the Excel style documents to Word docs as the Excel versions unfriendly to use and don't look as professional"

Appendix 1: Verbatim comments

If your organisation has taken up RISSB products, what challenges have you had in implementing them?

Historically we have had to get approval from a number of state regulators, however with single regulator (but QLD) process has improved and is continuing to approve.

Competencies need to be updated to match the updated standards

Some of the Clauses are impractical to comply with.

Existing organisational standards are yet to be reviewed since release of the RISSB standard.

Not sure what products have been taken up.

The challenges and risks can be different when comparing to a Metro system against an interstate system requirement.

Bringing change about to the organization when it is knowingly not going to be implemented by other organisations. Because it is not enforceable there is no national consistency in its application."

A small organisation such as the one I work has limited access to standards, based on what the company is prepared to pay. Many of the tasks are contracted to external providers, although the accreditation lies within.

Aligning them to the specific types of track machines and RRV's used in the construction and maintenance of railways

Alignment with customers - inconsistent implementation across our customer base.

Fitting them to a light rail environment

Matching the standard with legacy systems (which is 'owned' by another party). As such, many (most) of the standards noted as adopted in this survey are done so for future systems, and we work towards they standard for legacy systems as best as possible.

NO mandate or agreement with industry to mandate.

None

Not accessible to heritage groups providing heritage equipment to railway operators.

Probably a bit too broad in their requirements

Product not covering the full range of operations eg. Sidings

RISSB products are more aligned to freight railways and this can make application to urban rail problematic

The organisation has tried to utilise the hazard register but it is unclear as to its applicability to new rail projects. It is not clear as to how, where, and when it should be used and by who.

The problem lies with State's still using their own standards, such as the Asset Standards Authority (NSW). This means the chance of interoperability between states is more difficult to roll out.

Trying to get RISSB to understand the Australian rail industry does not only consist of the RISSB Board members. There are of course many other non-RISSB Board member organisations in Australia who are entitled to the same level of recognition and support from RISSB - access to safety and related products should not be selective.

We are a private railway network operating at high axle load. We broadly comply with most of the standards but have several additional requirements due to the *nature* of our operation. *Therefore we have continued with our own standards but are active participants in the development of RISSB products.*

We have time and personnel constraints. We will be reviewing the RISSB products early next year.

We would like to implement a RISSB product so that the product offering is reduced, but with all customers continuing with their own individual specifications rationalisation and standardisation of products is not possible.

What barriers, if any, exist that prevent your organisation from utilising RISSB products?

We avoid the barrier by being involved in the preparation of standards.

- Limited resources to enable transition to new standards.

- Many people don't know what exists.

- It is unclear which RISSB standards are to be used.

- There can be conflicting requirements between standards e.g. ARTC standards vs Standards Australia vs RISSB

- There is really no reason. There is no drive or push by anyone to use them. When we do use a RISSB product there is no recognition.

A lack of acknowledgement and understanding by RISSB of the role and relevance of small consulting companies have in the Australian rail industry.

RISSB needs to understand the Australian rail industry does not only comprise of the major rail organisations making up the composition of their Board.

As a sole trader - cost. This is why I left ARA membership and to date I have not had the opportunity to explore personal membership for myself as an individual.

Previously the cost was unjustifiable for the number of times per year that I needed to reference a standard."

As above sometimes the translation from freight oriented standards to urban rail can make it difficult to utilise

Cost

Cost of membership vs day to day benefits

Heavy rail bias.

I would be concerned if this utilisation of RISSB products led to a reduction in international suppliers being able to meet our requirements

Industry wide adoption and acceptance by the relevant authorities of the new product. Unless ARTC, ASA, PTA, QR etc agree to adopt the new standard there is no point in having it.

Legacy systems do not meet standards, thus adoption of a standard is seen by some to be an automatic admission that current / legacy systems are deficient or do not manage risks SFAIRP (which is not true - this needs to be considered case by case). To compound this, the number of different parties who are influencing assets in Victoria, often non-RTOs, do not necessarily understand the role of these standards.

Nil.

No access.

None. We are in a personnel and time constraint period until next year.

State requirements Vs RISSB Australian requirements

The RISSB portal

They are often found to be hand me downs from trains and passenger cars and not specifically dealing with the subject matter of track machines or RRV's

Unsure

We are generally more specific in our specifications and standards as we do not have interoperability issues to deal with.

Within NSW rail, the standards are provided by the Asset Standards Authority which in turn will reference the higher level publications, so generally as an operator maintainer will be adhering to the NSW implementation of a particular RISSB standard

How could RISSB best support your organisation's take-up and implementation of its products?

The support is consideration of practicality issues during the preparation of a standard, it is up to the organisation to implement.

- Cause by cause in the standards should be linked to the risks being mitigated.

- The promotion of the products. Tell the industry what the benefits are. Encourage national consistency. This needs to be driven by the Board to all operators.

- How does RISSB sell the product to the many operators who are not RISSB members; how can you drive national consistency?

Ensure Standards are practical.

- Provide resources/support in re-writing organisational standards.

- Move away from the Excel style documents to Word docs as the Excel versions unfriendly to use and don't look as professional"

A clear explanation of the purpose and applicability of products

By considering establishing urban rail sub committees or development groups that can provide better alignment to urban systems

Developing a suite more appropriate for light rail

Driving the uptake and implementation of the product by the end-user. We can implement the standard but if no customers are willing to accept product in accordance with the standard there is no point.

Helping to align the industry on a common approach to implementation.

Improved communication of standards (is there a 'products brochure' that could go to CEO's or similar?) Greater support from ONRSR regarding standards quality. Greater efficiency at developing or amending standards.

Make RISSB standards mandatory

More direct support and engagement with the understanding and application opportunities of each standard

More involvement in the review of draft products

Not sure of this at the moment. Will know more once we begin to implement RISSB products.

Not sure, given heritage operator lack of funding and inability to increase funding to manage state assets

Review the documents intended for track machines and RRV's and make them specific to those vehicles

See below. Perhaps an 'on-line' read-only version i.e. can't be printed or saved?

Understand and acknowledge organisations such as Terrace Rail have an important role and function in the Australian rail industry.

Work on a critical few that industry have asked for and that will make a difference.

Appendix 2: Survey framework order

1. Wheel-Rail Interface Products

- 1.01 – Wheel/Rail Profile Development Guideline

2. Operations Products

- 2.01 – COP for Loading of Rail Freight
- 2.02 – AS 7450 Rail Systems Interoperability
- 2.03 – Australian Network Rules and Procedures (ANRP)
- 2.04 – Glossary of Australian Railway Terminology
- 2.05 – Interoperability Guideline

3. Train Control Products

- 3.01 – Guideline - General introduction to Australian Rail Practices
- 3.02 – AS7660 Communications Standard
- 3.03 – AS7702 Type Approval

4. Safety and Risk Products

- 4.01 – Human Performance Guideline
- 4.02 – Emergency Management Guideline
- 4.03 – RISSB Safety Strategy
- 4.04 – Fatigue Management Guideline
- 4.05 – SPAD Guideline
- 4.06 – Rail Safety data2 Guideline
- 4.07 – Investigation COP
- 4.08 – Hazard Register Guideline

5. Rolling Stock Products

- 5.01 – AS7501 Rolling Stock Certification
- 5.02 – AS7503 Train Identification and Integrity
- 5.03 – AS 7505 Signalling Detection I/face
- 5.04 – AS 7507 Rolling Stock Outlines
- 5.05 – AS 7508 Track forces & Stresses
- 5.06 – AS 7509 Dynamic Behaviour
- 5.07 – AS7510 Braking Systems
- 5.08 – AS 7513 Interior Environment
- 5.09 – AS 7514 Wheels
- 5.10 – AS 7515 Axles
- 5.11 – AS 7516 Axle Bearings
- 5.12 – AS 7517 Wheelsets
- 5.13 – AS 7518 Suspension
- 5.14 – AS 7519 Bogie Structural Requirements
- 5.15 – AS 7520 Body Structural Requirements

- 5.16 – AS 7522 Access & Egress
- 5.17 – AS 7523 Emergency Equipment
- 5.18 – AS7524 Draw gear
- 5.19 – AS7527 Event Recorders
- 5.20 – AS7529 Fire Safety
- 5.21 – AS 7531 Lighting & Visibility
- 5.22 – AS 7533 Driving Cabs
- 5.23 – Locomotive Boilers Code of Practice
- 5.24 – Wheel Defects Code

6. Infrastructure Products

- 6.01 – AS7630-Track Classification
- 6.02 – AS7633 Clearances
- 6.03 – AS7643 Track Stability
- 6.04 – AS7658 x 3 Railway level Crossings
- 6.05 – AS7640 x 3 Rail Management
- 6.06 – AS7663 Signal Cables
- 6.07 – AS7664 Cable Routes
- 6.08 – AS7635 Track Geometry
- 6.09 – AS7636 Structures
- 6.10 – AS 7638 Earthworks
- 6.11 – AS7639 x 4 Rail Support Systems
- 6.12 – AS7642 Points and Crossings
- 6.13 – Derailment Investigation and Analysis Guideline
- 6.14 – Hydrology & Hydraulics Sub-Grade Maintenance Guideline
- 6.15 – AS7637 Hydrology and Hydraulics
- 6.16 – AS7645 Rail Corridor Management
- 6.17 – AS 7644 Railway Corridor Access