ARiSO

AUSTRALIAN RAIL INDUSTRY
STANDARDS ORGANISATION

THE 5 NEXT YEARS

Unlocking a safer, more productive and competitive railway for Australia

ariso.org.au

Advancing safety, productivity and interoperability

Australia is investing in a new national approach to rail standards, with ARISO taking a definitive role to lead industry through generational change.

By removing unnecessary technical and operational differences, ARISO will support lower operating costs, reduced supply chain friction, improved asset utilisation and a more integrated national rail network. Harmonisation will focus on enabling efficiency gains for operators and delivering economic benefits for the nation. This will strengthen rail's capacity to capture a greater share of the growth in the national freight task.

This Plan sets out how we will deliver for our members – with our members – over the next five years:

- Be the one authoritative source of system-wide advice on standards and their implementation while supporting a more harmonised approach to addressing local risks.
- Faster, targeted harmonisation of standards and rules where it yields the highest national return, tested through a transparent prioritisation framework.
- Have a cost-effective engine room producing an estimated 16–18 quality standards/rules a year.
- Practical implementation plans that reflect industry needs for adoption support — 1:1 engagement, practice notes, guidance, e-learning and training — because our job no longer finishes when a standard is published.

The Plan is for all sectors of the rail industry and supporting industries; freight, passenger, heavy haul, light rail, suppliers, manufacturers and consultancies. Understanding sector pain points becomes a priority.

What is changing

Australia is moving from a fragmented standards environment, where technical requirements differ by network, jurisdiction or project, toward a more nationally consistent system that enables interoperability, reduces duplication and supports digital technology.

In a landmark five-year agreement, Australian Governments have significantly scaled up their investment in ARISO to achieve 'one system' national technical coordination.

The outcome will be a rail system with robust, high-quality standards backed by an effective and strong assurance and accreditation process. This will remove unnecessary duplication to reduce cost and complexity to operators and investors.

This is a step-change in purpose and capability for ARISO: from primarily coordinating voluntary standards to becoming a technically-led national standards body with strong governance, clear priorities, deep expertise and a focus on measurable safety and productivity outcomes.

This enables ARISO to provide expert technical support for the implementation of the first mandatory standards for digital signalling, leading harmonised national standards and helping industry where local standards remain necessary.

Harmonisation is essential to realising the national benefits from the $150 billion of rail projects in the rail infrastructure pipeline over the next decade.



	Today	By 2031
Role	A facilitator in a voluntary standards environment	National technical authority with systems-engineering capability and end-to-end assurance with a strong partnership in the regulatory eco-system
Products	More maintenance than new development, on an unsustainable seven-year cycle as required by Standards Australia requirements	Producing an estimated 16–18 quality standards and rules a year, on a maintenance cadence set by national priorities with implementation support
	50+ legacy rules and multiple network rule books	One consolidated National Network Rule Book A consolidated existing library – to make sure every rule, standard and guidance note is of the quality that industry and the regulator can rely upon (~20% of legacy products retired)
Adoption	No national implementation pathway; ad hoc adoption support	Implementation plans for complex mandatory and harmonised standards, plus bespoke support where needed
Evidence	No economic analysis capability	Benefits measured and reported back to industry and governments

There will be a major uplift in ARISO technical expertise and greater connection with the international rail community and global standards organisations as the basis for building authoritative standards and rules on which industry and the regulator can rely.



Four streams of the 5-year work program

Stream A – National standards development and assurance

A recast end-to-end process that will include an expert-led first draft, iterative engagement, tiered technical assurance, and adoption planning will be implemented. The national prioritisation framework will be applied to the entire catalogue, consolidating products by at least 20% while lifting the focus on products that will yield the highest return for the industry. A new Independent Standards Assurance Committee will provide industry-led technical oversight, staged, gate reviews and a workable derogation process.

"The digitalisation of rail will take 30 years or more – and trains have to work across digital and analogue parts of the network."

– Alan Fedda, CEO

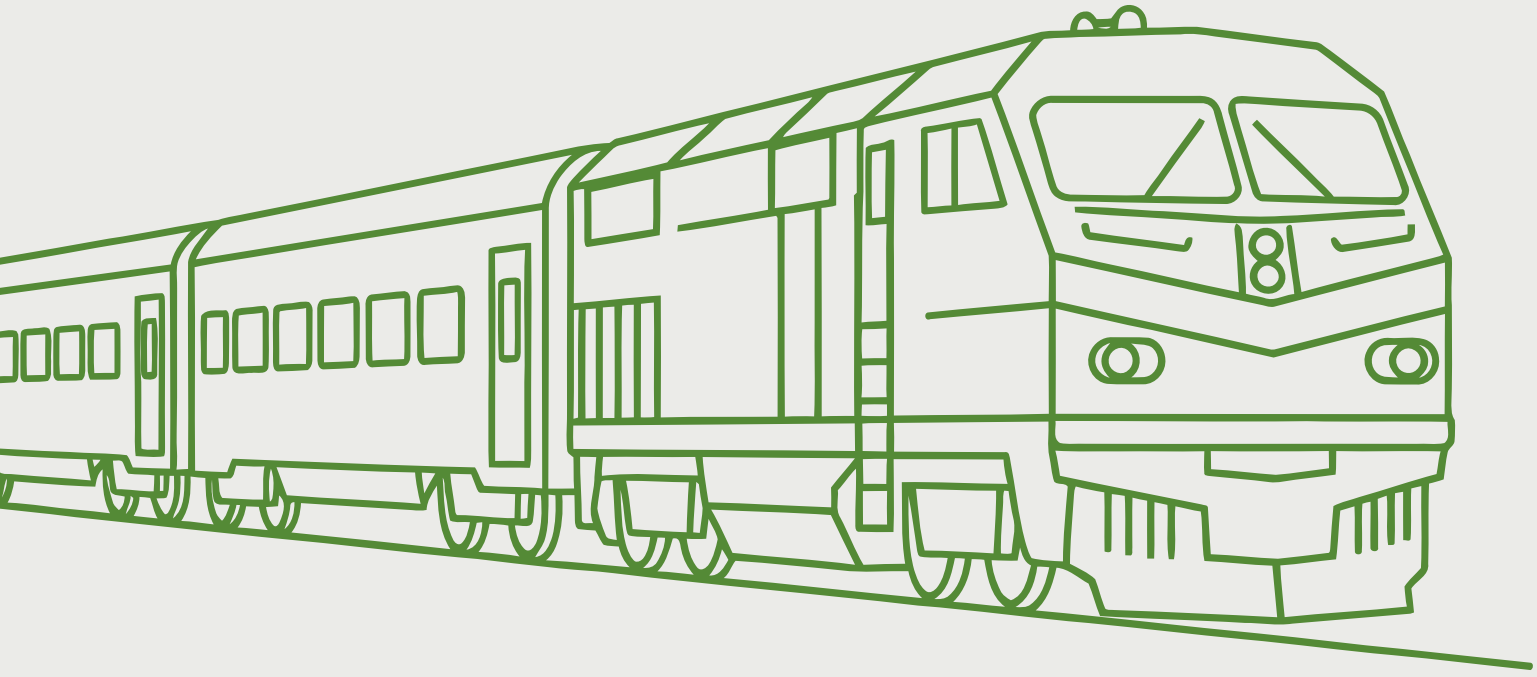
Stream B – ETCS and digital railway enablement

The national decision to align on ETCS requires a suite of standards and a common set of operating rules that work across the whole system.

Around 40 standards, reviews and guidelines will be completed over the 5-year work program. The most complex suites will be prioritised including rail cybersecurity, signalling principles, interface standards, configuration management, radio interfaces, train performance and operations.

Developing national standards in the digital age has not been done before in Australia, so we are not starting from scratch – our strategy is to make full use of Europe's Technical Specifications for Interoperability and contextualise them for Australian operations, eliminating unnecessary local customisation.

We are joining the European users' groups and standards organisations, including EULYNX, on behalf of Australia. That makes ARISO the country's connection point into the international ETCS experience. This means that if you are delivering a new project, you should not have to search the world individually for lessons relevant to your operating environment.



Stream C – Delivering national harmonisation

We have a target to deliver three network rules a year for the National Network Rule Book and four to six harmonised standards a year, chosen for the highest productivity and adoption potential.

The pursuit of cost-base reform through national harmonised standards and network rules will reduce duplicated engineering, approvals, training and fleet configuration delivering benefits to manufacturers, suppliers and advisors to support efficiencies and lift safety, capacity and productivity for industry.

We are building on what already exists – the National Transport Commission's first tranche of work and ARTC's alignment of its three freight rule books — rather than duplicating it. The Australian National Rules and Procedures model set remains available as a reference, and we will review its currency and issue Technical Notes as a practical transition.

Stream D – Industry adoption and engagement

This is the biggest change in our strategic mission. This includes building implementation pathways to support industry adoption and developing an economic insights capability to articulate benefits realisation.

New functions are dedicated to understanding industry perspectives and implementation experience to be able to test what is and is not working. We will provide implementation pathways for highly technical mandatory standards including technical and practice notes, podcasts, e-learning, and management of change support.

We recognise the importance to members and governments of articulating the benefits of adoption and for the first time, we are building an economic insights capability function.



Building the capability to do it

This ambitious work program will be delivered with a new organisational structure. It will be led by senior executive directors across the technical divisions, deepening engineering expertise in systems engineering, operational technology, rolling stock, signalling and train control, alongside industry engagement and economics capability. This has been enabled by the agreement and funding from all Australian governments.

Through an intensive recruitment program, we aim to have an engine room at full output within two years.

This expanded capability will not only be through recruitment but also be leveraged through expert technical consultancies, secondments and international partnerships supported by modern software tooling and a standards repository.

The software platforms are essential to support collaborative standards development and industry adoption, requirements management tooling, e-learning platforms and benefits-tracking data.

The five-year path

ARISO's five-year work program on a page



Year 1 Mobilise

- Establish technical assurance and derogation processes
- Expand capability – recruit systems-engineering capability and expanded engagement team
- Implement standards management repository
- Formalise international linkages (EU/RSSB/EULYNX)
- Commence harmonisation of the one rule book with first 3 rules
- Commence ETCS support suites
- Develop adoption guidance templates and e-learning foundations.

The rules in the 2026 work plan are:

- Walking in the danger zone
- Communication
- Conditions affecting the network (CAN rule) and associated forms
- Hand signals and verbal commands
- Planning works in the rail corridor



Year 2 Ramping up

- Deliver complex ETCS-support suites
- Start to deliver harmonised standards and further harmonised network rules
- Apply Prioritisation Framework to full catalogue
- Reduce maintenance cycle trajectory
- Embedding foundational systems to support robust, implementable and defensible standards, rules and products.



Year 3 Consolidate

- Increasing number of standards/rules with adoption support per year
- Visible uptake metrics
- National guidance library
- Catalogue consolidation
- Knowledge management system a key enabler for robust, implementable and defensible standards, rules and products.



Year 4 Scale and integrate

- Extend harmonisation into rollingstock approvals as policy decisions mature
- Steady number of standards/rules with adoption support per year
- Strengthen data-driven assurance and benefits tracking and reporting to industry.



Year 5 Optimise

- Mature rule book governance
- Optimise maintenance cadence
- ARISO multi-year work plan informed by Prioritisation Framework to deliver to National Rule Book program and Standards
- Institutionalise feedback loops with operators and regulator
- Demonstrated value to members under a new model
- Prepare next five-year plan.

Membership and influence to shape this

Industry expertise remains essential to improving how quality standards are developed, assured and adopted. Your involvement is what makes standards and rules implementable rather than merely published. Confidence in ARISO will come from how members and governments experience working with us — and our success will be measured by whether our standards, rules and guidance are adopted.

Help us shape the standards and rules we produce to reduce duplicated engineering, approvals, training and fleet configuration and deliver benefits to support efficiencies for your organisation and the industry.

Three ways members can actively influence the work program over the coming years:

1. Bring your priorities to the forward work plan. Everything goes through the prioritisation framework, and we will be transparent about the outcomes we are targeting and where benefits outweigh costs.
2. Tell us where adoption is working and where there is room for improvement. The new engagement function exists to listen to, understand and address barriers to adoption — including 1:1 conversations about your experiences and emerging needs.
3. Be part of our communities of practice and share your knowledge and expertise.

Growing our value to members and the rail industry remains front of mind – when you can see the value to your organisation to adopt ARISO standards and rules and we can all see the outcomes of this to achieve an interoperable and harmonised national system.

What we will hold ourselves to

This is a new standards era for Australia and ARISO will be held to account for delivering high-quality standards and rules, providing national technical coordination and practical support to adopt them.

Outcome	How we will know	By when
Standards delivery	16–18 quality standards and rules a year, assurance gates met on time	Steady state from 2028–29
Adoption	Implementation plans issued for every priority standard; reduced local variation	Building from 2026–27
Harmonisation	~20% of legacy standards/ rules retired; National Network Rule Book progressed	Across five years
Digital readiness	First tranche of ETCS Tier 2 standards delivered; Australia represented in EU forums	First two years
Value	Demonstrated savings, less rework, fewer bespoke project standards	Reported annually

"Join and strengthen ARISO's ability to lead national harmonisation, support digital rail implementation and provide the authoritative standards and technical coordination needed for a safer, more interoperable and productive rail industry."

– Alan Fedda, CEO



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