TyreStewardship AUSTRALIA

Tyre Supply Chain Analysis:

Opportunities to grow Australia's circular economy for tyres

January 2026

Published January 2026

Tyre Stewardship Australia acknowledges the Traditional Custodians of the land and waterways on which we live, work, and depend. We acknowledge the unique spiritual and cultural connection, and continuing aspiration that the Traditional Owners have for Country, and we pay respect to Elders, past, present, and emerging.

Disclaimer

This report **(Report)** is made available by Tyre Stewardship Australia Ltd (ACN 164 971 939) (TSA).
By viewing, reading or otherwise using this Report you understand, acknowledge and agree that:

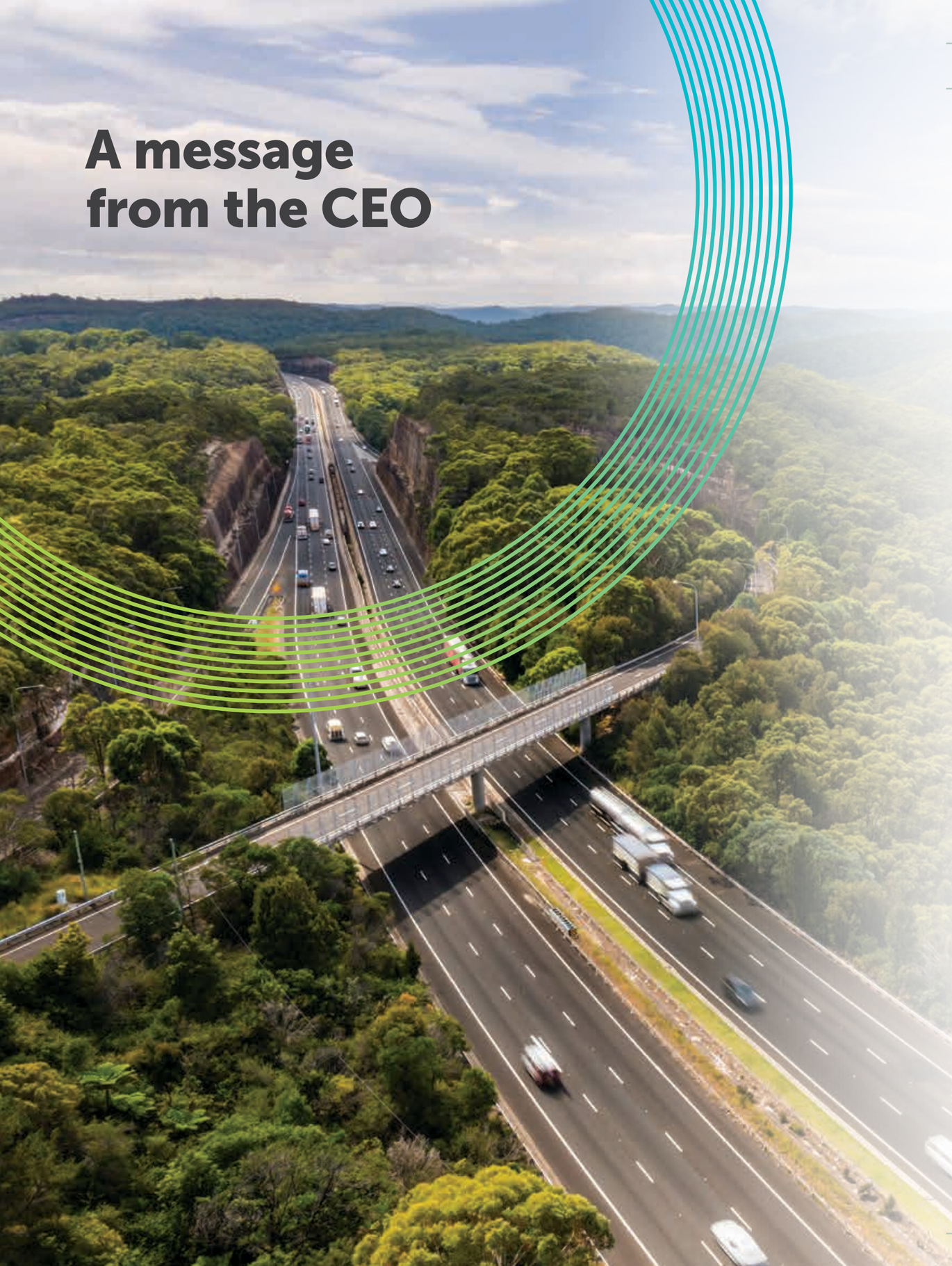
- this Report and the information, calculations, data and case studies included in this Report **(Report Information):**
  - i. - is provided for general information purposes only;
  - ii. - does not take into account any or all of the specific circumstances relevant to you or any other person;
  - iii. - does not constitute a recommendation by TSA or any other person; and
  - iv. - does not constitute any legal, financial or investment advice and is not to be relied upon as, nor to be used as a substitute for, legal, financial or investment advice;
- TSA provides no guarantee that the Report or any Report Information is accurate, current or complete;
- to the extent permitted by law, TSA accepts no responsibility or liability for any loss which may be suffered or incurred by any person who acts, or refrains from acting, on or as a result of this Report or any Report Information; and
- unless stated otherwise, copyright in this Report is owned by TSA and no part of this Report may be reproduced or used for commercial purposes without the prior written consent of TSA.

Acknowledgment

This report was produced by TSA and Randell Environmental Consulting.

Contents

A message from the CEO



In 2024, the Australian Government committed to a framework to double Australia's circularity rate, by reducing our material footprint by 10%, lifting materials productivity by 30% and safely recovering 80% of our resources.

These are commitments that align with the aims of the voluntary Tyre Product Stewardship Scheme (Scheme or TPSS) and TSA has been striving for more than the past decade. Scheme participants have collectively contributed over $50 million to fund solutions for end-of-life tyres and mitigate the harms of illegal dumping.

We have led the change and been successful in so many ways, acknowledging the efforts of every organisation contributing and participating voluntarily in the Scheme. But we have reached the limits of what's possible under the current framework.

As this report clearly shows, the time has come to move to the next level. Without mandatory participation in a tyre product stewardship scheme, the Scheme simply cannot deliver the circularity rates called for by the Government's framework.

A common viewpoint

In 2025, the Western Australian government published a National End-Of-Life Tyres Options Report (Tyre Options Report) that considered a wide range of approaches to the issues of tyre circularity.

That report concluded that "a well-designed regulated product stewardship scheme (tailored to the Australian context) was considered the most capable option." We agree with and welcome this finding, as it is something we have long advocated.

We commissioned this report to build on the Options Report by identifying how we can best address the issues in the scheme that are experienced across the supply chain.

The time to act is now

If we are to achieve greater circularity of materials for used tyres, we need to act now on the findings of both of these reports. We need governments to commit to a policy framework for success, and to back a scheme that will enable circularity and have an impact across the supply chain. Going only halfway now, and sending a signal to industry to invest, only to baulk at the hurdle of *actually implementing* a mandatory scheme would be reckless and risk causing long-term damage.

Everyone in the tyre supply chain has a role to play in making this work, and everyone stands to gain from the economic benefits and opportunities it will bring, but we can prevaricate and procrastinate no longer.

An ever-increasing challenge

It is getting harder every year to manage the challenges we face, whether it's the increased volume of tyres entering the market, free-riders and rogue operators flouting the Scheme, illegally dumped tyres in suburban streets and national parks, or the continued onsite burial of hundreds of thousands of tonnes of mining, agriculture and other off-the-road tyres. All these factors have also increased the burden on those in industry who *have* invested in tyre circularity, who now find that the feedstock they need is not available.

When it comes to tyres, far from moving towards greater circularity, Australia is at risk of going backwards: consumption of tyres overall is increasing, single-use tyres are becoming more common on trucks and buses, rates of recovery and growth in recycling are being outpaced by consumption.

Meanwhile, other countries are harmonising their approach through tighter regulations, more robust standards and expanded recovery capabilities. If Australia fails to act soon to increase the circularity of Australia's tyre and resource recovery, it risks becoming a target for poor-quality tyres not accepted elsewhere, and the problems we have today managing the issues identified in this report will only get worse.

> **Without mandatory participation in a tyre product stewardship scheme, the Scheme simply cannot deliver the circularity rates called for by the Government's framework.**

Without mandatory participation, we are running to stand still

This report examines all the interventions currently available to influence greater recycling of tyres and improved materials circularity, and analyses the impact of each intervention across the entire tyre supply chain.

The report's findings are clear: there are five Very High impact issues constraining the progress of Australia's tyre industry moving towards a circular economy: 'free-riding' tyre importers, lack of accredited used tyre collections, continued onsite burial of OTR tyres in mine sites, on-farm dumping, and undeveloped used-tyre processing infrastructure and markets.

As with the *National End-Of-Life Tyres Options Report*, this report also concludes that the single most effective way to deal with these issues is to introduce a Mandatory Participation Scheme at the national or jurisdictional level.

Industry by and large support this, and are ready for stronger regulation. What is needed now is government intervention, conducted in close cooperation with parties at all points of the supply chain. Without this, these issues will only get worse. As Section 1 of the report shows, TSA is doing all it can with state and federal governments within the current framework, yet without government providing the tool we need to make an impact, we find ourselves running to stand still.

TOGETHER, we can do it

The ways we choose to manage end-of-life tyres represent a significant contribution to the objective of doubling Australia's circularity rate. This report shows how we can do it, but time is of the essence. By stopping scheme free-riders, disabling rogue operators, ending onsite burial, creating incentives and developing markets for tyre-derived materials, we can ensure that the way we manage end-of-life tyres will make a meaningful contribution to the Australian Government's commitment to double Australia's circularity rate.

This report's findings are unequivocal. Australia's tyre supply chain is constrained from achieving high levels of material circularity due to fragmented policies, laws, implementation and enforcement. A mandatory participation product stewardship scheme is the most effective and equitable way to address these constraints.

Together, we can all be accountable for our roles in such a scheme to achieve our shared goals, support an existing and invested tyre recycling industry ready to grow and meet community expectations.

All of this depends upon mandatory participation in a tyre product stewardship scheme, and together, we can all be accountable for our roles in such a scheme to achieve the right changes for Australia.

What we need now is commitment from the Federal and State governments to implement mandatory participation in a product stewardship scheme for tyres. The time for researching and reporting is over. Industry has already invested millions for the change signaled by government, while other investment has stalled behind the assurance that comes with mandatory stewardship.

Only government can take the next necessary step — the time for action has come.

Lina Goodman
Chief Executive Officer
Tyre Stewardship Australia

Executive summary

In 2024, the Australian Government committed to a framework to double Australia's circularity rate, by reducing our material footprint by 10%, lifting materials productivity by 30% and safely recovering 80% of our resources. The way we consume tyres in Australia has a significant role to play in this: of the approximately 537,000 tonnes of end-of-life tyres of all types generated each year—from passenger cars to giant off-the-road (OTR) mining tyres—**only 9% were reused (retreaded) and just 17% were recycled**. Around 40% were used in energy recovery applications and around 30% were landfilled.

To double our circularity rate in tyres we need to identify the barriers that are preventing this. This report examines all stages of the tyre supply chain, from its design and manufacture, through sale, consumption and replacement, to recovery or disposal.

Current interventions

The report identifies a range of interventions that govern the various stages of the supply chain, including legislation, regulation, licensing, permits and schemes. The report finds that, while these interventions have the capability to grow the circular economy for tyres, they're not consistent nationally and are often not enforced or unenforceable. An example is the scheme administered by TSA, the Tyre Product Stewardship Scheme (TPSS), which is entirely voluntary, and focuses on tyres when they reach the end-of-life, rather than across the whole supply chain.

The issues

This report identifies 33 key issues across the tyre supply chain and assesses how much of a constraint on a circular economy each one represents. Five issues are rated at the highest level, Very High constraint, 7 were High, 13 as Medium and 8 as Low. The five highest rated constraints include, 'free-riding' tyre importers, lack of accredited used tyre collections, undeveloped used tyre processing infrastructure and markets, and continued onsite disposal of OTR tyres (approximately 135,000 tonnes each year).

Approaches

The report identifies a range of approaches that have the potential to improve the situation. These include creating a Mandatory Participation Scheme at the national or jurisdictional level, improving other supporting regulations, changing the terms of the TPSS, and TSA working jointly with the Federal and State governments to resolve local issues.

The finding

Of these approaches, and consistent with government reports and inquires to date, the report finds that a mandatory participation product stewardship scheme has the largest impact.

Implementing a mandatory participation scheme will require extensive consultation with all affected parties, including Federal and State governments, representatives from all sectors of the tyre industry from importing, through retail to recycling, as well as tyre consumers, in particular the mining and agricultural sectors. A mandatory participation scheme can be designed to drive for increased circularity across the entire supply chain, and may include a range of incentives to encourage approved collections and reuse, recycling, or energy recovery of end-of-life tyres.

Recommendations

The single most important observation of this report is that the tyre circular economy will not grow without a mandatory participation scheme.

The report's core recommendation is that national or jurisdictional mandatory participation schemes are the most effective and comprehensive solution, addressing the majority of the current circularity constraints, including for the five Very High and five High constraints.

The report also recommends improvements to a range of supporting interventions to be implemented mostly by Government to address two Very High and four High constraints. These programs assume even higher priority if no mandatory participation scheme is implemented.

Finally, the report recommends major amendments to the existing TPSS to address eight constraints, of which two are High, four are Medium, and two are Low level constraints.

This report makes it clear that the tyre supply chain in Australia can make a great contribution to the government's framework to double Australia's circularity rate. To achieve this though, active intervention and support from the Federal and State governments is urgently needed.

Tyre Supply Chain Analysis: Opportunities to grow Australia's circular economy for tyres

The Issue:
Circularity is constrained in current supply chain

Australia's tyre supply chain is constrained from achieving higher levels of material circularity due to fragmented policy, laws, implementation and enforcement.

The Solution:
Mandatory participation in the Scheme and implement supporting interventions

To fix the circularity constraints for tyres and ensure all operate by the same rules, Australia needs to implement a mandatory participation product stewardship scheme and implement supporting interventions. Meanwhile, continue to improve the existing tyre product stewardship scheme.

The tyre supply chain and circularity issues

Tyre Supply Chain

Design & manufacturing
(virgin/recovered material inputs)

Tyres placed on market
(imports and distribution)

Consumption
(retail, procurement and consumer use)

Used tyre removal & collection

Used tyre recovery
(reuse, TDM procurement and recycling and energy recovery applications)

Disposal
(landfill, onsite, illegal dumping)

Summary of Key Issues (Circularity Constraints)

- No incentives to design for circular economy
- ADR lags the EU and US (Australia risks being dumping ground)
- ADR slow to update, lacks enforcement for replacement tyres
- Retread industry undermined by lack of ADR enforcement
- We make mining conveyor belts, yet onsite storage of used belts allowed

'Free-riding' tyre importers
avoid paying Scheme levy, get the benefits of the Scheme and gain a financial advantage. 47% of replacement and 99% of fitted imports are not levied.

- Placed on market fees unchanged in a decade
- 'Parallel imports' and 'free-riders' avoid paying Scheme levy

- Many retailers see little business value in Scheme/ Accreditation while used tyre collection is not incentivised
- Fleet, mining, agriculture procurement opportunities (including retread) not realised
- TPSS Guidelines for commercial and local government segments needs review

Rogue collectors undercut accredited collections
resulting in illegal dumping and significant community, environmental and financial impacts.

- TSA collector/ recycler suspension periods ineffective
- Reverse logistics from mines remains missed opportunity
- Regional and rural remain high-risk for dumping

Australia recycles just 17% of used tyres
40% used in energy recovery applications, 30% onsite burial and landfill. Development of circular end markets is constrained by lack of TDM procurement, over reliance on energy recovery and permitting onsite burial of OTR tyres.

- Retread industry is under threat from single use tyres
- EPAs track waste to recovery facilities, but do not track processing outputs or stockpiling
- Whole baled tyre export ban lacking enforcement
- Need better info for onshore TDM markets and market risks from TDM imports
- Foreign End Market Verification program should be applied to all exports
- TPSS Guidelines recovery definitions and KPI needs review

'Free' onsite burial at mines
100,000 t/yr mining tyres permitted when recovery options are available.

On-farm dumping
and burning of large OTR tyres is common due to collection costs.

- Landfill often cheapest option in rural and remote areas and low cost, attracting metro volumes
- Rogue collectors and DIY disposal costs drive dumping, stockpiles and potential fires

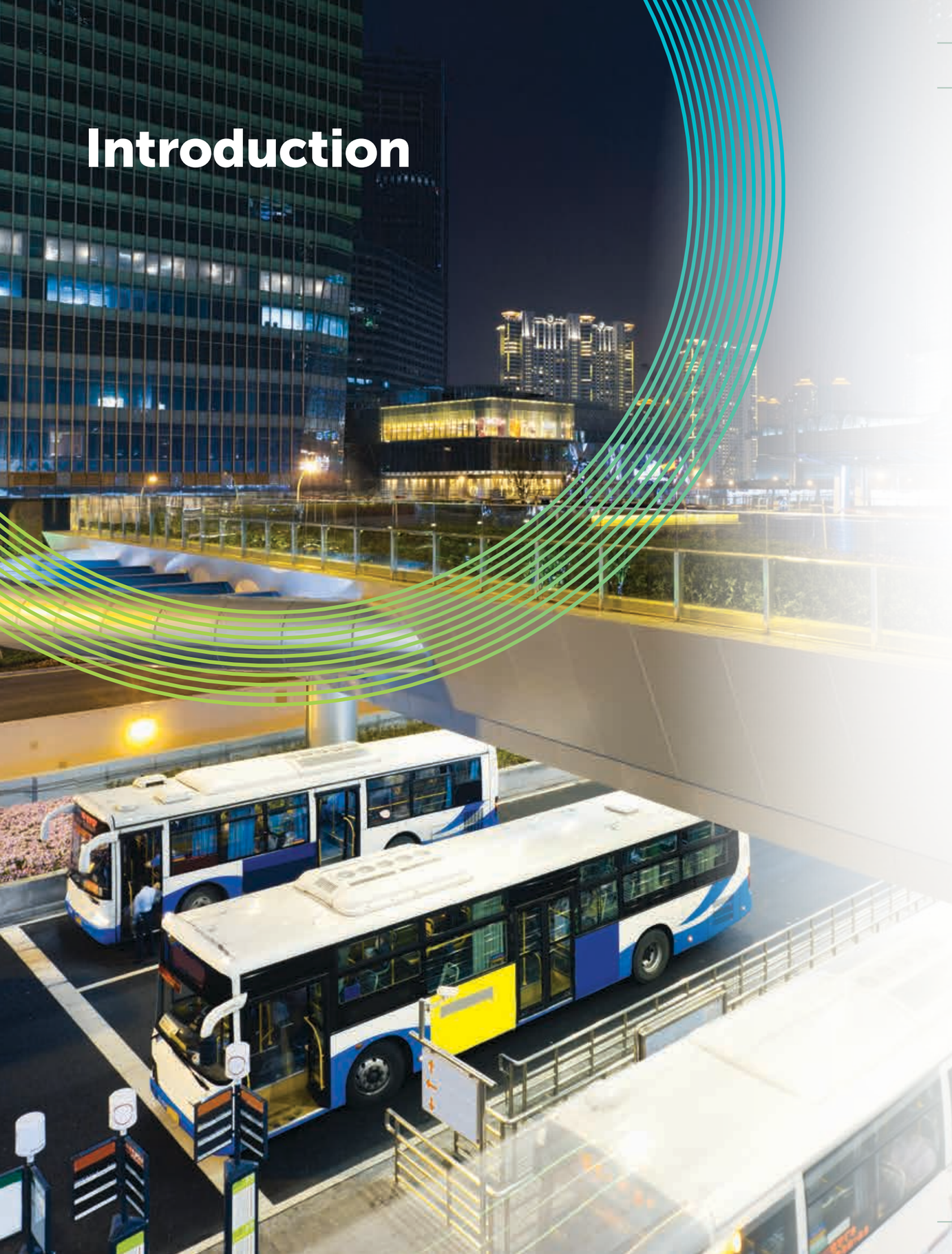
How to fix the tyre supply chain and circularity issues

What's needed and who is responsible	What circularity constraints are addressed
IMPLEMENT A MANDATORY PARTICIPATION SCHEME **Responsibility to implement:** Federal Government or relevant jurisdiction agency (if legislated)	'Free-riding' tyre importers avoid paying Scheme levy, get the benefits of the Scheme and gain a financial advantage. 47% of replacement and 99% of fitted imports are not levied.
	Rogue collectors undercut accredited collections resulting in illegal dumping and significant community, environmental and financial impacts.
	Australia recycles just 17% of used tyres — 40% used in energy recovery applications, 30% onsite burial and landfill. Development of circular end markets is constrained by lack of TDM procurement, over reliance on energy recovery and permitting onsite burial of OTR tyres.
	On-farm dumping and burning of large OTR tyres is common due to collection costs.
	No incentives to design for circular economy.
	Retread industry is under threat from single use tyres.
	EPAs track waste to recovery facilities, but do not track processing outputs or stockpiling.
	Rogue collectors and DIY disposal costs drive dumping, stockpiles and potential fires.
	ADR lags the EU and US (Australia risks being dumping ground).
	We make mining conveyor belts, yet onsite storage of used belts allowed.
	'Parallel imports' and 'free-riders' avoid paying Scheme levy.
	Many retailers see little business value in Scheme/ Accreditation while used tyre collection is not incentivised.
	Reverse logistics from mines remains missed opportunity.
	Regional and rural remain high-risk for dumping.
	Landfill often cheapest option in rural and remote areas and low cost, attracting metro volumes.
IMPROVE SUPPORTING INTERVENTIONS (e.g. ADR, licensing, procurement requirements) **Responsibility to implement:** Federal and State governments/ EPAs	'Free' onsite burial at mines — 100,000 t/yr mining tyres permitted when recovery options are available.
	Australia recycles just 17% of used tyres — 40% used in energy recovery applications, 30% onsite burial and landfill. Development of circular end markets is constrained by lack of TDM procurement, over reliance on energy recovery and permitting onsite burial of OTR tyres.
	ADR slow to update, lacks enforcement for replacement tyres.
	EPAs track waste to recovery facilities, but do not track processing outputs or stockpiling.
	Retread industry undermined by lack of ADR enforcement.
	Fleet, mining, agriculture procurement opportunities (including retread) not realised.
	Landfill often cheapest option in rural and remote areas and low cost, attracting metro volumes.
	Whole baled tyre export ban lacking enforcement.
IMPROVE THE EXISTING TYRE PRODUCT STEWARDSHIP SCHEME **Responsibility to implement:** Tyre Stewardship Australia	Placed on market fees unchanged in a decade.
	We make mining conveyor belts, yet onsite storage of used belts allowed.
	Fleet, mining, agriculture procurement opportunities (including retread) not realised.
	Landfill often cheapest option in rural and remote areas and low cost, attracting metro volumes.
	Need better info for onshore TDM markets and market risks from TDM imports.
	TPSS Guidelines recovery definitions and KPI needs review.
	TPSS Guidelines for commercial and local government segments needs review.
	TSA collector/recycler suspension periods ineffective.
	Foreign End Market Verification program should be applied to all exports.

Legend:

ADR:	Australian Design Rules
EPA:	State/Territory Environmental Protection Authorities
FEMV:	Foreign End Market Verification
OTR:	Off-the-road
TDM:	Tyre-Derived Material
TPSS:	Tyre Product Stewardship Scheme
TSA:	Tyre Stewardship Australia

Criticality Level:
Very High · High · Medium · Low



Introduction

Background

In 2024, the Australian Government published ***Australia's Circular Economy Framework: Doubling our circularity rate***. This framework commits to double Australia's circularity rate and three overall targets:

- Target 1: Reducing material footprint by 10%
- Target 2: Lifting materials productivity by 30%
- Target 3: Safely recovering 80% of our resources.

TSA's recently published ***Material Flow Analysis Report 2023-24***, found that the rate of tyres being consumed in Australia is continuing to increase year on year and the current rate of reuse and recycling is only 26%. On this basis alone, tyres are a product group that can contribute significantly more to measurable increases in material circularity and growing the circular economy.

TSA also recently published ***Maximising Material Circularity: Management Options for Tyres and Conveyor Belts***, which assesses the level of circularity of tyre-derived materials applications.

The recently published Western Australian Department of Water and Environmental Regulation ***National End-of-Life Tyres Options Project*** (Tyre Options Project) found that of the approaches assessed, a well-designed regulated product stewardship scheme for tyres (tailored to the Australian context) was considered the most capable option. The Tyre Options Project report noted that any framework for improved management of end-of-life tyres (EOL tyres) must be fit for purpose in the Australian context. Any changes may need to be staged to recognise the readiness of local markets for tyre-derived products (TDP), emerging processing capacity and the preparedness of industries that generate EOL tyres.

Purpose

In April 2025, Tyre Stewardship Australia (TSA) engaged Randell Environmental Consulting (REC) to:

- assess the tyre supply chain
- identify the constraints that must be addressed to grow the circular economy (CE) for tyres in Australia
- examine the effectiveness of existing policy and legislative interventions available to address those constraints, and
- propose potential ways forward.

Scope

This report analyses:

- the tyre supply chain
- the main issues that constrain the circular economy for tyres
- the opportunities to resolve the supply chain issues, and
- the recommended ways to realise these opportunities.

The scope of the tyres included is automotive (passenger, bus and truck) and off-the-road (mining, agriculture, industrial). Rubber-based conveyor belts share material and supply chain commonalities with tyres, but while this report includes supply chain synergies and opportunities for rubber conveyor belts, they're not the focus of this report.

Structure

Section 1 - Tyre supply chain interventions in Australia outlines the most significant tyre supply chain interventions that affect the growth of the circular economy for tyres in Australia. These include legislation, regulation, licensing, and permits for new tyre standards and used tyre management.

Section 2 - Issues, opportunities and approach explains the issues constraining the circular economy for tyres. It also includes opportunities to resolve these issues and recommendations on how to implement them.

Section 3 - Conclusions draws on the other three sections to provide a roadmap for the coming years to enable Australia to grow the CE for tyres.

Section 1

Tyre supply chain interventions in Australia

This section lists the existing supply chain interventions in Australia, including new tyre design standards and used tyre requirements. It focuses on interventions that affect the growth of the circular economy for tyres in Australia.

Australian Design Rules (ADR) for tyres

The Australian Design Rules (ADR) are our national standards and safeguard for road vehicle safety, anti-theft and emissions for new vehicles and trailers coming into the country.

The current ADR for tyres includes the fitting (ADR 96-00), and on-tyre labelling, quality, and safety parameters (ADR 23-03) that passenger tyres must meet. The aim of the ADR is harmonisation with the United Nations Economic Commission for Europe Regulations, but there is often a lag time for updates to the ADR.

For imported (new and second-hand) vehicles, the Commonwealth Government receives a statement of compliance by the vehicle importer, including tyre compliance.

For in-service vehicles and trailers, the ***Australian Light Vehicle Standards Rules 2015*** require that vehicles subject to an ADR when built or imported must continue to comply with the ADR. The states and territories are responsible for enforcing the ADR for in-service vehicles and trailers.

> **Scheme participants across the tyre supply chain can include tyre importers, retailers, commercial consumers, used tyre collectors and recyclers.**

Tyre Product Stewardship Scheme (TPSS) and TPSS Guidelines

The TPSS covers automotive (passenger, bus and truck) and off-the-road (mining, agriculture and industrial) tyres. While the TPSS does not cover conveyor belts, there are commonalities and opportunities across the tyre and conveyor belt supply chain. Scheme participants across the tyre supply chain can include tyre importers, retailers, commercial consumers, used tyre collectors, and recyclers.

The current voluntary Tyre Product Stewardship Scheme

The TPSS is a voluntary product stewardship scheme that has been operating for over 11 years. TSA is authorised by the Australian Competition and Consumer Commission to administer the Scheme, with the current authorisation period ending in September 2027. The Scheme has also been an Australian Government Accredited Product Stewardship Scheme since 2021.

The ***Guidelines for the Tyre Product Stewardship Scheme*** (TPSS Guidelines) explain the Scheme's objectives, principles and scope, including TSA's KPIs.

The Scheme aims to:

- increase resource recovery and recycling
- minimise the environmental, health and safety impacts of end-of-life tyres generated in Australia, and
- develop Australia's tyre recycling industry and markets for tyre-derived products.

The TPSS Guidelines set out requirements for participants across the supply chain. All participants commit to these principles for end-of-life tyres:

- environmentally sound use
- eliminate the inappropriate export of baled tyres from Australia
- eliminate the illegal dumping, and
- eliminate disposal to landfill.

The last point applies except where there's no viable alternative, and is subject to state and territory laws. For example, in rural and remote areas without recycling facilities or where transportation is too expensive.

Funding and participation

The TPSS is funded by voluntarily contributing tyre and vehicle importers. The current contribution required is $0.25 per equivalent passenger unit (EPU) on every passenger, bus and truck tyre they sell in Australia. For off-the-road tyres, a levy applies based on the type of tyre and rim size, capped at a maximum of $50 per tyre.

Current contributors voluntarily paying the levy for their tyres sold into the Australian markets consist of one vehicle importer:

PORSCHE

and 14 tyre importers:

ASCENSO never stop rising · BEARCAT TYRES · WHEELS · RUBBER TRACKS · BRIDGESTONE · BRIDGESTONE Solutions for your journey · Continental · GETAGRIP · GOODYEAR · HANKOOK driving emotion · KALTIRE · KUMHO TYRES · MICHELIN · PIRELLI · SAILUN · YOKOHAMA

The Scheme currently includes over 1,700 accredited participants, such as tyre retailers, collectors and recyclers, that are committed to managing used tyres responsibly. Participants are supported to meet best practice and are audited.

If a Scheme Participant breaches TSA's accreditation requirements, TSA can suspend their accreditation immediately by giving written notice or revoke their accreditation by giving 30 days' written notice.

TSA's ***website*** has up-to-date information about how funding is used to advance markets for tyre-derived material, through research and market development, and supporting the tyre industry with advocacy and education programs.

Recycling and Waste Reduction Act 2020 (RAWR Act)

The ***Recycling and Waste Reduction Act 2020*** (RAWR Act) is the main Commonwealth legislation that supports action on the circular economy, resource recovery and waste management. It is currently under review (see RAWR Act Review below).

The RAWR Act supports action to regulate the export of certain waste materials from Australia. It also establishes a framework for product stewardship, including for voluntary, co-regulatory and mandatory approaches.

Objectives

The aims of the RAWR Act are to:

- reduce the impact on human and environmental health of products, waste from products and waste material, including by reducing the:
  - amount of greenhouse gases emitted
  - energy and resources used and water consumed in connection with products, waste from products and waste material;
- realise the community and economic benefits of taking responsibility for products, waste from products and waste material;
- develop a circular economy that maximises the continued use of products and waste material over their lifecycle and accounts for their environmental impacts;
- contribute to Australia meeting its international obligations to reduce human impact on the environment.

Approach

The RAWR Act states it will meet its objectives by:

- regulating the export of waste material to promote its management in an environmentally sound way;
- encouraging and regulating the reuse, remanufacture, recycling and recovery of products, waste from products and waste material, in an environmentally sound way;
- encouraging and regulating manufacturers, importers, distributors, designers and other persons to take responsibility for products, including by taking action that relates to:
  - reducing or avoiding generating waste through improvements in product design;
  - improving the durability, reparability and re-usability of products; and
  - managing products throughout their life cycle.

Product stewardship

The RAWR Act provides three approaches to product stewardship, designed to encourage or require manufacturers, importers, distributors and others to take responsibility for products including, for example, through improved product design.

Voluntary product stewardship

This involves accrediting voluntary arrangements designed to further the objects of the Act in relation to products, and authorising the use of product stewardship logos (such as the TPSS).

Co-regulatory product stewardship

This involves requiring some manufacturers, importers, distributors and users of products (liable parties), who have been specified in the rules, to be members of co-regulatory arrangements approved by the Minister. These arrangements must have outcomes, specified in the rules, that are designed to further the objects of the RAWR Act.

Mandatory product stewardship

This enables rules to be made that require specified persons to take, or not to take, specified action in relation to products.

Minister's Priority List 2023–24

The ***Minister's Priority List*** identifies the current priorities for product stewardship action. The Priority List is made under the RAWR Act, and industry is expected to take action for the products on the list. The Minister reviews the list annually to see if the recommended actions have been taken. If action is not taken, the Minister can consider regulating the products.

Tyres have been on the priority list since 2022–23, and the 2023–24 listing covers end-of-life tyres, including passenger, bus, truck and off-the-road tyres. It also relates to rubber products such as rubber conveyor belts and rubber tracks which have similar characteristics, environmental impacts and management options to tyres.

Specified actions

The Minister specified various actions industry members needed to take to avoid regulation (by November 2024).

"Manufacturers, importers, distributors and retailers must demonstrate improved and measurable product stewardship actions which could include any of the following:

- expanding and improving the industry-led product stewardship scheme (including through a significant decline in free-riding);

- product design improvements and supply chain initiatives to increase durability, reparability, re-usability and/or recyclability;
- other supply chain initiatives that measurably support good product stewardship and circular economy progress; and
- to avoid government regulation, tyre importers not currently members of the Tyre Stewardship Scheme should commence formal participation."

These actions have **not been met**, but it's not clear whether the Australian Government will now regulate through a co-regulatory or mandatory scheme.

Recycling and Waste Reduction (Export—Waste Tyres) Rules 2021 (Tyre export rules)

Under the ***Tyre Export Rules*** you can export some types of waste tyres if you have a waste export licence. These are tyres:

- processed into shreds or crumb:
  - of not more than 150 millimetres for use as tyre-derived fuel;
  - buffings or granules not for use as tyre-derived fuel;
- for retread by an appropriate retreading facility, such as one verified by Tyre Stewardship Australia's Foreign End Market Verification program;
- sent to an appropriate importer for reuse as a second-hand tyre on a vehicle.

You can't export whole baled tyres or tyres in pieces larger than 150mm, and you must apply for and be granted a waste export licence to export regulated waste tyres.

Review of the RAWR Act

In 2025, the Australian Government began a review of the RAWR Act. This review is expected to make recommendations considering:

- limitations of current approaches to product stewardship, including concerns around the viability, integrity and impact of stewardship schemes supported by the Act
- whether waste export regulations are fit for purpose, including what process, decision making and evidence would be needed to regulate the export of waste representing existing and emerging harms, and
- improving the ways the Australian Government can respond to the needs of developing circular economy markets, and how the Act operates with relevant international and domestic obligations.

WA National End-of-Life Tyres Options Project

The Western Australian Department of Water and Environmental Regulation has been completing the WA National End-of-Life Tyres Options Project (Tyre Options Project) as requested by the Environment Ministers' Meeting.

The Tyre Options Project report found that of the approaches assessed, a well-designed and regulated product stewardship scheme for tyres (tailored to the Australian context) was considered the most effective option. Targeted options, such as market development and improved standards and design rules, were found to be 'no regrets' measures, providing foundational benefits, which could be implemented independent of other decisions, and should support a broad-based option, such as a mandatory participation product steward scheme.

The Tyre Options Project report noted that any framework for improved management of end-of-life tyres must be fit for purpose in the Australian context. Any changes may need to be staged to recognise:

- the readiness of local markets for tyre-derived products
- emerging processing capacity, and
- the preparedness of industries that generate end-of-life tyres.

NSW Product Lifecycle Responsibility Act 2025 (PLR Act)

The New South Wales new ***Product Lifecycle Responsibility Act 2025*** (PLR Act) enables the NSW Environmental Protection Authority (NSW EPA) to establish product stewardship requirements and targets for the entire lifecycle of a regulated product.

If a product becomes regulated under the PLR Act, brand owners of regulated products or product stewardship organisations can be required to:

- meet product stewardship requirements and/or targets
- submit an action plan in an approved form, which must be approved by the EPA before they supply a regulated product in or into NSW
- notify the EPA or relevant product stewardship organisation before they first supply
- provide an annual report to the EPA, using an approved form
- prepare, store and make certain records available to the EPA on request
- comply with directions from the EPA, including a stop notice or request for an independent audit of their records
- provide a financial assurance to secure or guarantee funding for implementing actions needed to meet product stewardship requirements or targets.

The PLR Act enables the NSW EPA to enter into an agreement with a product stewardship organisation to manage and administer a product stewardship scheme. The first product category to be regulated under the PLR Act is expected to be certain types of batteries.

State and territory tyre collection tracking systems

The collectors of used tyres are required to use waste tracking systems in all jurisdictions (except Northern Territory and Australian Capital Territory, which only require the transporter to hold a permit).

There are some variations across jurisdictions, but all the systems require tracking of the used tyres from the:

- producer
- accredited consigner who creates waste records for producers
- transporter administrator or driver
- receiver administrator or site receiver.

State and territory EPA tyre recovery site operating permissions

Used tyre storage and/or processing of more than 500 passenger tyre equivalents is the typical threshold that requires a permit for commercial processing in all jurisdictions. There is good permit coverage of tyre processing facilities.

Getting state/territory EPA approval for a processing site involves a rigorous analysis of the emissions that would be generated and effects that could result, but once they're operating, processing sites are typically not required (by regulation or licence) to report regularly on the fate of their outputs (e.g. reuse, recycling, energy recovery, stockpiling, disposal).

EPA-licensed landfill disposal

Most jurisdictions require tyres to be shredded before landfill at metropolitan and regional landfills, while rural landfills often don't have this requirement.

The cost of licensed landfilling of tyres is significant in all jurisdictions, particularly where landfill levies and gate fees are high, and tyres require shredding before landfilling. Landfilling tyres can still be a 'cheap' option in rural and remote areas where landfill levies are low (or zero), gate fees are low (or zero) and shredding is not a legal requirement.

It's important to note that landfill operators prefer not to take whole tyres as they don't compact and are difficult to manage (can entangle in compactor tractor running gear).

Permitted onsite burial at mine sites

Onsite burial of mining tyres and conveyor belts is common practice in all jurisdictions that have mines. The mine site development or operating permissions either explicitly allow onsite burial at mine sites or have general onsite waste management conditions that allow tyre burial.

The requirements for tyre burial, if any, set out burial batch sizes and minimum amount of cover only. This is not comparable with the modern engineered landfilling standards that are required at licensed solid inert landfills that don't operate at mining sites.

This list shows that Australia currently has interventions with the capability to grow the circular economy for tyres, but some allowances, such as onsite burial of tyres at mining sites, or lack of enforcement, undermine the circular economy.

Section 2 analyses the supply chain issues related to Australia's current implementation or lack of implementation of these interventions.

Section 2

Issues, opportunities and approaches

This section:

- discusses the issues across the tyre supply chain
- rates the extent to which each issue constrains the circular economy for tyres
- identifies opportunities to resolve the issues, and
- provides recommended implementation approaches.

The issues identified have been informed by:

- analysis of current tyre supply chain interventions in Australia and the extent of implementation, and
- industry consultation by TSA and the author over the course of the past five years.

Using the material in this section

Figure 1

Figure 1 shows the main stages of the supply chain (i.e. tyre design and manufacturing to used tyre recovery).

Appendix A includes Figure 1 with some additions in a larger A3 layout.

Table 1

- Includes a summary of each of the supply chain stages shown in Figure 1
- Identifies the key issues (including market failures, gaps in interventions, etc.) against each stage
- For each issue, includes a rating of constraint to the circular economy for tyres (from Very High to Low).
- Identifies the opportunities and implementation approaches against each of the issues identified.

Table 2

Provides a description of the circular economy constraint ratings.

Table 3

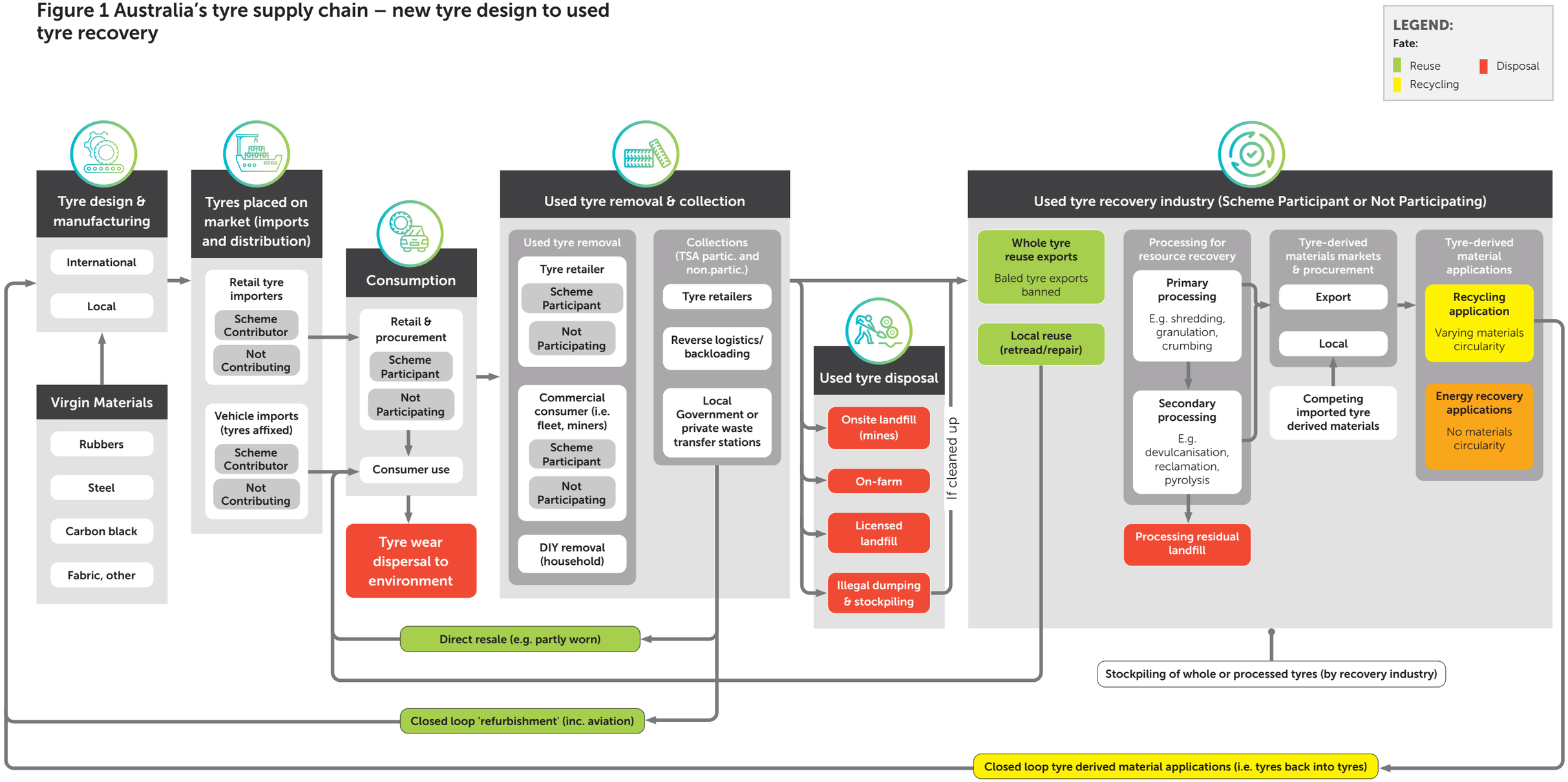
Provides a description of each type of implementation approach.

Tables 4 and 5

Provide additional analysis of the information presented in Table 1.

Appendix B provides more detailed discussion of the issues and opportunities.

Figure 1 Australia's tyre supply chain – new tyre design to used tyre recovery



Summary of supply chain issues

Table 1

Table 1 details the issues related to each stage in the tyre supply chain including rating the extent of CE constraint. It also outlines opportunities and implementation approaches to resolve the issues.

Tyre Supply Chain	Key Issues	Extent of Constraint on Circular Economy (CE)	Opportunities	Implementation approach
Tyre design and manufacturing (international and local)	1. Australia has no market and/or regulatory mechanisms to incentivise tyre design for a CE and to mitigate harm associated with chemicals of concern.	High	Mandatory participation product stewardship scheme that provides incentives for circular product design, e.g. eco-modulation.	National/jurisdictional mandatory participation scheme
	2. The European Union (EU) and the United States (US) are implementing tyre design regulations and Australia risks becoming a target market for poorer quality, higher polluting tyres.	Medium		
	3. The Australian Design Rules (ADR) for tyre imports are slow to update and lack enforcement for replacement tyre imports.	High	Update the ADR regularly to international standards and increase enforcement of the ADR by the jurisdictions for replacement tyre imports (through the *Australian Light Vehicle Standards Rules*).	Via other regulation (ADR, etc.) / TSA and State/Territory Governments (joint)
	4. The Australian truck and bus retread industry is being undermined by lack of ADR enforcement on replacement tyres.	Medium		
	5. Australia designs and manufactures large mining rubber conveyor belts onshore and used belts are mostly stockpiled or buried at mine sites.	Medium	Assess the inclusion of rubber conveyor belts in the 2027 reauthorisation of the TPSS.	Major amendment to TPSS
			Assess including rubber conveyor belts in potential future mandatory participation scheme for tyres.	National/jurisdictional mandatory participation scheme

Tyre Supply Chain	Key Issues	Extent of Constraint on Circular Economy (CE)	Opportunities	Implementation approach
Tyres placed on market (imports and distribution)	6. 'Free-riding' tyre importers are undermining Australia's accredited stewardship scheme. 47% of replacement and 99% of fitted imports are not levied. (TSA 24/25 annual report). Australian tyre consumption is increasing, yet scheme fee contributions are decreasing due to increasing free-rider importers of replacement tyres.	Very High	Mandatory participation product stewardship scheme that requires all tyre importers and manufacturers to participate and pay placed-on-market fees.	National/jurisdictional mandatory participation scheme
	7. TPSS placed on market fees for tyres (25 cents per EPU) has not changed in a decade and needs review and indexation.	High	Review TPSS fee structure and indexation.	Major amendment to TPSS
	8. Participating brand tyre imports that are old stock (or similar) and imported by another party (i.e. 'Parallel imports') are an issue as they don't contribute to the TPSS.	Medium	Mandatory participation product stewardship scheme that requires all tyre importers to participate, including those doing 'parallel imports'.	National/jurisdictional mandatory participation scheme

Tyre Supply Chain	Key Issues	Extent of Constraint on Circular Economy (CE)	Opportunities	Implementation approach
Consumption (retail, procurement, and consumer use)	9. Many retailers see little business value in Scheme/Accreditation while used tyre collection is not incentivised.	Medium	Mandatory participation product stewardship scheme designed to rebate or otherwise incentivise accredited retail, used tyre collection, and recovery.	National/jurisdictional mandatory participation scheme
	10. Commercial consumer (fleet, mining, agriculture,) procurement opportunities (including retread) are not realised and benefits of TSA accreditation need to be clearly defined.	Medium	Governments include mandatory procurement specification of retread tyres on all heavy commercial vehicles as a means of increasing reuse, reducing $/km, waste and emissions.	Via other regulation (ADR, etc.)
			Review TPSS Guidelines to clearly define commercial sectors, TSA accreditation benefits and procurement opportunities.	Minor amendment to TPSS
	11. TPSS Guidelines include confusing requirements for 'miners' that are intended to apply to mining tyre importers, rather than the consumer.	Low	Amend TPSS Guidelines to shift 'miners' to the importer section and change the category to 'importers - mining tyres'.	
	12. TPSS Guidelines incorrectly includes retread businesses under the retailer accreditation category.	Low	Amend TPSS Guidelines to include retread industry are a part of the 'tyre processor' category.	

Tyre Supply Chain		Key Issues	Extent of Constraint on Circular Economy (CE)	Opportunities	Implementation approach
Used removal and collections	**Overall**	13. Rogue collectors undercut accredited collections, resulting in illegal dumping and significant community, environmental, and financial impacts. TSA accredited collections need to increase significantly to drive better tyre recovery outcomes and prevent illegal dumping by 'rogue collectors'. Non TSA accredited collections risk: • tyres being illegally dumped by rogue operators that undercut accredited collections and collect without using the jurisdictional waste tracking system (where in place), and • tyres being collected (using waste tracking systems) and taken to a non-accredited, but EPA permitted, site that is stockpiling tyres or disposing directly to landfill.	Very High	Mandatory participation product stewardship scheme designed to rebate or otherwise incentivise scheme approved collections and tyre recovery.	National/jurisdictional mandatory participation scheme
	Tyre retailer	14. TSA collector/recycler accreditation suspension periods of three months are ineffective.	Low	Review TPSS accredited collector non compliance penalties.	Minor amendment to TPSS
	Reverse logistics, backloading	15. Reverse logistics for large OTR tyres (and conveyor belts) remains a missed opportunity in Australia.	Medium	Mandatory participation product stewardship scheme designed to rebate or otherwise incentivise scheme approved collections and tyre recovery.	National/jurisdictional mandatory participation scheme
	Local Government or private waste transfer stations	16. Regional and rural transfer stations (private and local government) are high-risk targets for rogue collectors.	Medium		
		17. The cost of disposal for DIY removal (from households) drives illegal dumping and cost to Local Government.	Low		
		18. TPSS Guidelines for Local Government accreditation requirements are too broad.	Low	Amend TPSS Guidelines for Local Government to split across: • Local Government fleet (for tyre procurement), and • Local Government used tyre collection point categories.	Major amendment to TPSS

Tyre Supply Chain		Key Issues	Extent of Constraint on Circular Economy (CE)	Opportunities	Implementation approach
Used tyre disposal	**Onsite landfill (mines)**	19. 'Free' onsite burial of >100,000 t/year mining tyres permitted when recovery options are available.	Very High	Jurisdictions' 'level the playing field' for tyre and conveyor landfilling rules and/or set a date to ban onsite landfilling.	TSA and State/Territory Governments (joint)
	On-farm	20. On-farm dumping/burning of large OTR tyres common due to collection costs.	Very High	Mandatory participation product stewardship scheme designed to rebate or otherwise incentivise scheme approved collections and tyre recovery.	National/jurisdictional mandatory participation scheme
	Licensed landfill	21. Licensed landfilling costs for tyres enable recovery in metro areas but landfill is often still the cheapest/easiest option in rural/remote areas.	Medium	Mandatory participation product stewardship scheme designed to rebate or otherwise incentivise scheme approved collections and tyre recovery.	
				Review TPSS Guidelines wording and the allowance for landfilling by accredited participants.	Major amendment to TPSS
				Jurisdictions consider banning landfilling of tyre shred except in exceptional circumstances.	TSA and State/Territory Governments (joint)
	Illegal dumping and stockpiling	22. Current voluntary scheme and resulting free-riders, consumer EOLT disposal costs and rogue collectors (drives illegal dumping, stockpiling and fires).	High	Mandatory participation product stewardship scheme designed to rebate or otherwise incentivise scheme approved collections and tyre recovery.	National/jurisdictional mandatory participation scheme

Tyre Supply Chain		Key Issues	Extent of Constraint on Circular Economy (CE)	Opportunities	Implementation approach
Used tyre recovery	**Overall**	23. EPAs track tyre collections 'to the gate' of a recovery site, they don't track the site outputs or their fate. TSA accreditation does.	High	EPAs could require TSA accreditation of licensed recovery sites to enable reporting on site outputs and fate.	TSA and State/Territory Governments (joint) Major amendment to TPSS
				Mandatory participation scheme that integrates EPA collection tracking and TSA tyre recovery industry data to provide comprehensive tracking and fate data for Australian tyres.	National/jurisdictional mandatory participation scheme
	Whole reuse tyre exports	24. The ban on whole and baled tyre exports needs to be actively enforced.	Low	Australian Border Force ensure export ban is enforced.	TSA and Federal Government (joint)
	Local tyre reuse and repair	25. Australia's truck and bus retread industry is under threat from single use truck and bus tyres.	High	Mandatory participation product stewardship scheme that is designed to incentivise the use of retread heavy commercial tyres re-manufactured in Australia.	National/jurisdictional mandatory participation scheme
	Processing for resource recovery	26. TPSS Guidelines definition for 'Tyre recycler' includes those processing for energy recovery, this needs correction.	Low	Correct TPSS Guidelines definition of 'tyre recycler' to 'tyre processor'.	Minor amendment to TPSS
	TDM markets, procurement and applications	27. Fate of our tyres: just 17% recycled, 40% used in energy recovery applications, 30% onsite burial and landfill. Development of circular end markets is constrained by a lack of TDM procurement, over reliance on energy recovery and permitting onsite burial of OTR tyres. Processing infrastructure and end markets that enable a circular economy for tyres need further development.	Very High	National/jurisdictional governments include mandatory procurement specification of proven TDM products such as rubber crumb into asphalt to support market development.	Via other regulation (ADR, etc.)
				Mandatory participation scheme that provides targeted funding to support a CE for tyres including: • targeted TDM procurement funding to support development of circular product applications, and • targeted funding to support development of circular tyre processing infrastructure.	National/jurisdictional mandatory participation scheme
				Product stewardship schemes can be designed to step in and support market development.	

Tyre Supply Chain		Key Issues	Extent of Constraint on Circular Economy (CE)	Opportunities	Implementation approach	
Used tyre recovery	**Local and export tyre-derived material markets and applications**	28. The TDM market potential for Australia's tyre retread and conveyor belt manufacturing industry needs quantification.	Medium	Assess Australia's conveyor belt and tyre retread industry market potential for TDM.	Potential TSA project	
		29. TDM imports need quantification to inform the need to protect local TDM markets from saturation from cheaper imports.	Medium	Assess TDM imports to inform the need to protect local TDM markets. If needed, engage Australian Government regarding potential anti-dumping action that can be taken.	Potential TSA project	TSA and Federal Government (joint)
		30. TSA Foreign End Markets Verification Program (FEMV) needs to be required for all exports.	Low	Assess the inclusion of FEMV into the scheme as a requirement of exporters.	Major amendment to TPSS	
		31. TSA reporting of 'environmentally sound use' needs to change, it is unclear and easily misinterpreted.	Medium	TSA revise reporting to align with national standard, including rates of: collection, reuse, recycling and energy recovery.		
		32. TPSS Guidelines need KPIs for reuse and recycling to support a circular economy and national reporting standards.	Medium	Implement TPSS KPIs for reuse and recycling.		
	Stockpiling of whole or processed tyres (by recovery industry)	33. EPAs tracking systems do not track stockpiling of tyres at permitted sites and EPAs often lack the resources to actively monitor stockpiling.	High	Jurisdictions review how tyre tracking systems could provide information on the stockpiling of tyres at receival sites.	TSA and State/Territory Governments (joint)	
				Mandatory participation scheme/s that include reporting on the fate of received at recovery sites including stockpiling.	National/jurisdictional mandatory participation scheme	

Table 2 - Description of circular economy constraint ratings

Rating	Description
Very High	Critical constraint. Until the issue is resolved little to no progress towards circularity is expected and tyre CE could decline.
High	Significant constraint. Slow progress towards tyre CE until resolved.
Medium	Moderate constraint. Progress towards tyre CE could be slowed until resolved.
Low	Minor or no constraint. Typically issues with guidance materials that need review. Still key issues for resolution, but not a direct constraint to tyre CE.

Table 3 - Description of implementation approaches

Implementation approaches	Description
National/jurisdictional mandatory participation scheme	Includes mandatory participation product stewardship schemes that are implemented at either a national or jurisdictional level. Includes national mandatory participation schemes (i.e. under RAWR Act as amended) and mandatory schemes under the NSW PLR Act or similar legislation developed by others that follow. It's beyond the scope of this project to provide detail of the specific mandatory participation scheme design elements needed to solve the issue. This would form part of the mandatory participation scheme design work.
TSA and Federal Government (joint)	Issues that need to be resolved by joint effort of TSA and the Federal Government.
TSA and State/Territory Governments (joint)	Issues that need to be resolved by joint effort of TSA and the State and Territory Governments.
Major amendment to TPSS – 2027	A major amendment to TPSS that would trigger ACCC re-authorisation of the scheme and therefore is likely best implemented as part of 2027 scheme re-authorisation.
Minor amendment to TPSS – deliver ASAP	A minor amendment to TPSS that would not trigger ACCC re-authorisation of the scheme that TSA can make in the short term.
Via other regulation (ADR, etc.)	The need for review, amendments, or improved implementation of other related regulation, such as the Australian Design Rules, or procurement requirements administered by Government.
Potential TSA project	Specific TSA project work that would help resolve the issue identified.

Table 4 - Supply chain issue CE growth constraints ranking

The project has identified 33 key issues across the tyre supply chain. To better understand the overall extent of CE constraints in Australia, Table 4 summarises the ratings.

Rating of CE growth constraints	Count
Very High	5
High	7
Medium	13
Low	8
Total	**33**

Appendix A shows where the 33 issues and ratings of constraint fall across the supply chain.

Table 1 lists opportunities and recommended implementation approaches. For several opportunities more than one implementation approach is recommended, resulting in a total of 45.

Table 5 - Implementation approaches and constraint ranking of associated issues

Table 5 provides a count of the type of implementation approaches recommended and breaks down the circular economy constraint rating for the associated issues.

Implementation approach	Count	CE constraint			
		Very High	High	Medium	Low
National/jurisdictional mandatory participation scheme	18	5	5	7	1
TSA and State/Territory Governments (joint)	6	1	3	2	0
Via other regulation (ADR, etc.)	4	1	1	2	0
Major amendment to TPSS	8	0	2	4	2
Minor amendment to TPSS	5	0	0	1	4
TSA and Federal Government (joint)	2	0	0	1	1
Potential TSA project	2	0	0	2	0
Totals	**45**	**7**	**11**	**19**	**8**

Analysis findings

Table 4 and 5 show several important findings:

A mandatory participation scheme is critical

A mandatory participation scheme (national or jurisdictional) is by far the most frequently recommended implementation approach (for 18 of the 45, 40%). Importantly, a mandatory participation scheme is recommended for five Very High and five High CE constraints.

From this we can conclude that the tyre circular economy will not grow without a mandatory participation scheme.

This report has identified the specific supply chain issues that are constraining the circular economy and need resolution through a mandatory participation scheme. It's beyond the project scope to provide further analysis of the overall scheme design.

Supporting interventions remain important

TSA and State/Territory Government joint program delivery is recommended for one Very High and three High constraints.

More effective implementation of other regulations including the ADRs and new tyre and TDM procurement requirements are recommended for one Very High and one High constraint.

These supporting interventions need to be pursued and would become a higher priority if no mandatory participation scheme is implemented, as they would improve the current supply chain.

Major amendments to TPSS are recommended

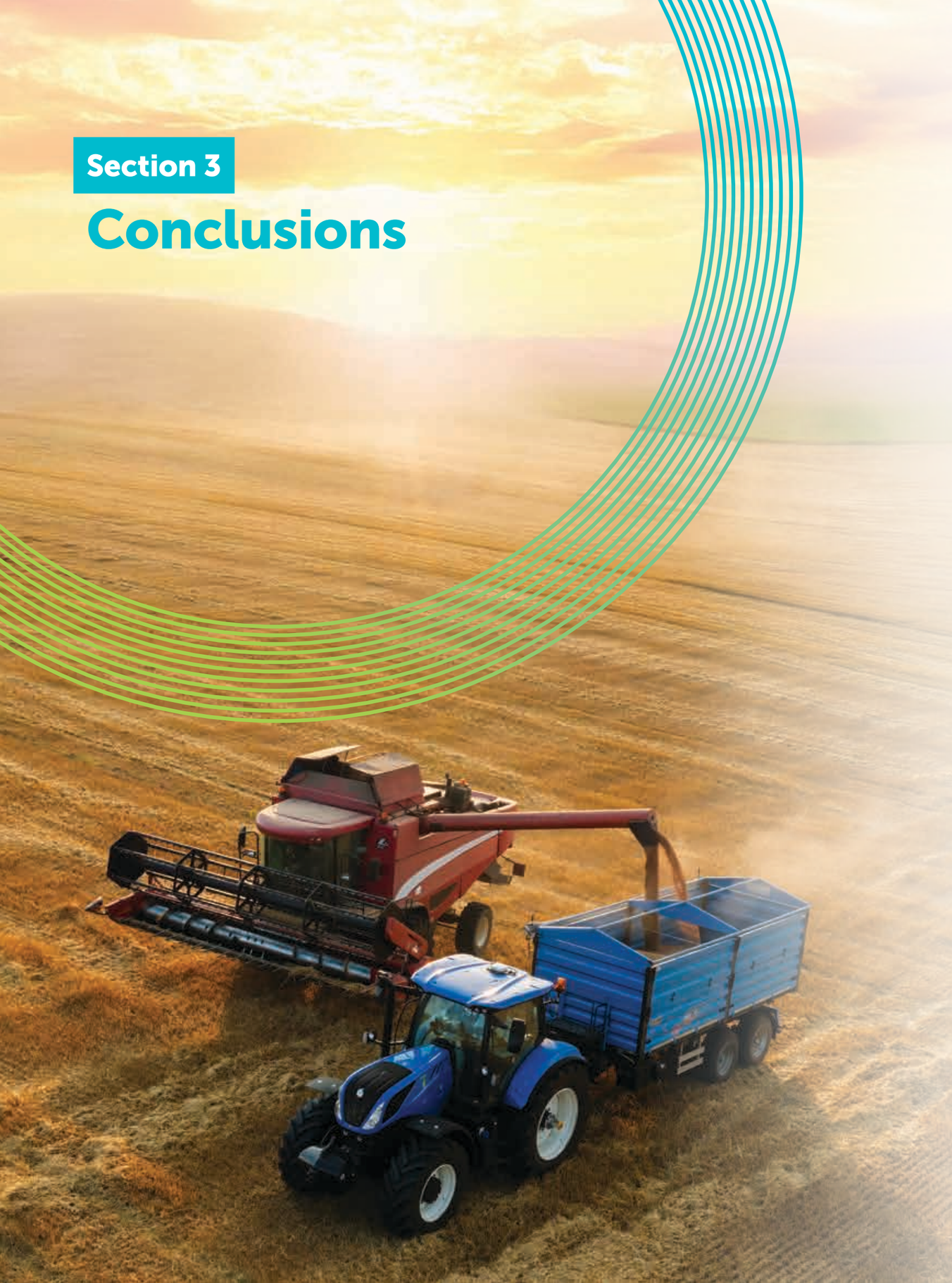
Major amendments to TPSS are recommended for eight of the 45 implementation approaches. Of the eight major amendments recommended, two are for High, four are for Medium, and the remaining two are for Low level CE constraints.

Major amendments to the TPSS would require ACCC approval and, while these major amendments are important, optimising the existing scheme will drive limited growth in the circular economy for tyres.

> **From this we can conclude that the tyre circular economy will not grow without a mandatory participation scheme.**

Section 3

Conclusions



The Australian Government has committed to growing the circular economy and it's clear that tyres are a product group that can contribute to measurable growth. The problem is that current interventions and their implementation are not proving effective in making this contribution.

Tyre supply chain interventions in Australia

Australia currently has interventions with the capability to grow the circular economy for tyres, but core existing interventions including mandatory participation product stewardship have not been implemented.

Australia also has interventions that undermine the circular economy, including permitting onsite burial of tyres at mining sites. This combination of a lack of intervention implementation and continuing to allow approaches that undermine the circular economy results in a tyre supply chain with significant issues to resolve.

Top 5 supply chain circularity constraints

The project has identified 33 issues across the supply chain with varying levels of circular economy constraint (five Very High, seven High, 13 Medium, and eight Low level).

The top five (Very High rating) circularity constraints for tyres are summarised below.

1. 'Free-riding' tyre importers

Australia currently has not implemented any mechanism at a federal or state level to prevent tyres being imported without contributing to the accredited product stewardship scheme ('free-riding' importers). This means that tyre and vehicle importers voluntarily paying the Scheme levy are penalised for following best practice and the actions requested by Federal Government, while those choosing to free-ride and not pay the levy benefit from scheme programs at no cost.

Australia's voluntary TPSS has a significant and increasing amount of 'free-riding' tyre importers.

'Free-riding' tyre importers are undermining Australia's accredited stewardship scheme. 47% of replacement and 99% of fitted imports are not levied.

While Australian tyre consumption is increasing, scheme fee contributions are falling due to increasing numbers of 'free-rider' importers of replacement tyres.

As tyre manufacturing continues to globalise, and tyre imports come from an increasing number of brands that don't participate in the TPSS, the viability of the current voluntary accredited scheme is at risk.

The problem of free-riders extends beyond tyres and is a significant challenge affecting all voluntary product stewardship schemes in Australia. It undermines efforts to achieve greater circularity and weakens the core objectives and operational effectiveness of these schemes.

The circular economy for tyres will not grow under the current voluntary scheme. A mandatory participation product stewardship scheme that requires all tyre importers and manufacturers to participate is needed.

2. Rogue collectors undercut accredited collections resulting in illegal dumping and significant community, environmental and financial impacts

Australia has a comprehensive network of accredited collectors, but they are undermined by rogue collectors operating outside of the Scheme.

Non-TSA accredited collections risk:

- tyres being illegally dumped by rogue operators that undercut accredited collections and collect without using the jurisdictional waste tracking system (where in place)
- tyres being collected (using waste tracking systems) and taken to a non-accredited, but EPA permitted, sites that are stockpiling tyres or disposing directly to landfill.

There is a need to increase the use of TSA-accredited collections, that by default will ensure tyres are recorded in a waste tracking system (in most states) and enable TSA to monitor the fate of the collected tyres (i.e. ensure no excessive stockpiling and that tyres are recovered).

A mandatory participation product stewardship scheme can be designed to rebate or otherwise incentivise scheme-approved collections and tyre recovery is needed.

3. 'Free' onsite burial at mine sites

Over 100,000 tonnes of mining tyres are permitted to be buried or stockpiled on mine sites each year.

Increasingly, recovery options for even the largest OTR tyres used in mining are available in Australia. Yet, 'free' onsite burial and stockpiling is still lawfully permitted through mine site establishment approvals and EPA licences.

Onsite burial and stockpiling of mining tyres and conveyor belts is known to be common practice in all jurisdictions that have mines operating. The requirements of burial, if any, set out burial batch sizes and the minimum amount of cover only. This is not comparable with modern landfilling standards required at licensed solid inert landfills that operate outside of mining sites.

Recycling businesses need a consistent and reliable supply of feedstock to attract investment, expand their capacity to process OTR tyres and be commercially viable. However, because mining companies can dispose of their tyres by burying/stockpiling them at no cost, they have little incentive to enter long-term contracts with recyclers creating a self-defeating cycle that reduces circularity.

Australia now has recovery options for giant OTR mining tyres and it's time to transition away from free onsite burial by:

- requiring mining companies to apply the same landfill standards as all other inert landfill operators
- progressively changing EPA licenses to discourage burial and encourage recovery.

4. On-farm dumping

On-farm storage, dumping or burning of larger OTR tyres is reportedly still commonplace in Australia.

Industry reports that significant quantities of larger OTR tyres remain on farms in long-term storage, disposed into fill areas, or burned onsite. Larger OTR tyres are often fitted onsite by the tyre retailer and the cost of taking back the used tyres from farms is the main reason most remain on-farm.

A mandatory participation product stewardship scheme designed to rebate or otherwise incentivise scheme-approved collections and tyre recovery from farms is needed.

5. Australia recycles just 17% of used tyres

Used tyre processing infrastructure, and end markets that grow the circular economy for tyres need further development.

In 2023–24, of the approximately 537,000 tonnes of end-of-life tyres of all types generated each year—from passenger cars to giant off-the-road (OTR) mining tyres—only 9% were reused (retreaded) and just 17% were recycled. Around 40% were used in energy recovery applications ~30% were landfilled.

The embedded value in the materials in end-of-life tyres is not being captured to an extent that reflects Australia's circular economy goals.

Globally, tyre-derived material recycling applications are diversifying, and circular applications such as the use of devulcanised rubber in tyre and conveyor manufacturing are operating in several jurisdictions.

Onshore and offshore circular markets for tyre-derived materials need development, and a mandatory participation scheme that provides targeted funding to support a circular economy for tyres is needed.

Opportunities and implementation approaches

The report identifies 33 issues across the supply chain and the opportunities to resolve them. It also recommends how the opportunities can be implemented. Three main implementation approaches are recommended.

1. A mandatory participation scheme

Implementing a mandatory participation scheme (national or jurisdictional) is by far the most frequently recommended approach (for 18 of 45, or ~40% of issues).

Importantly, a mandatory participation scheme is recommended for five Very High and five High circular economy constraints.

In short, the tyre circular economy will not grow without a mandatory participation scheme.

The project has identified the specific supply chain issues that are constraining the circular economy and can be resolved through a mandatory participation scheme.

The ***WA National End-of-Life Tyres Options Project*** also found that a well-designed regulated product stewardship scheme for tyres to be the most capable option to improve outcomes for tyres. It also noted that any:

- framework for improved management of end-of-life tyres must be fit for purpose in the Australian context
- changes may need to be staged to recognise the readiness of local markets for tyre derived products, emerging processing capacity and the preparedness of industries that generate used tyres.

The 2020 RAWR Act could be used to implement a national mandatory participation scheme for tyres, but the Australian Government has NOT done this, despite tyres being on the Minister's Priority List since 2023 and industry failing to meet the specified actions to avoid regulation.

The Australian Government has the legislation to design and implement a mandatory participation scheme for tyres to resolve critical constraints to growing the circular economy and increase material productivity.

The recently released NSW PLR Act could also implement a mandatory scheme at a jurisdictional level.

2. Supporting interventions

TSA and State/Territory Government joint program delivery is recommended to resolve one Very High and three High constraint issues.

More effective implementation of other regulations including the ADRs and new tyre and TDM procurement requirements are recommended for one Very High and one High constraint.

These supporting interventions need to be pursued and would become a higher priority if no mandatory scheme is implemented, as they would improve the current supply chain.

3. Major amendments to the TPSS

Major amendments to the TPSS are recommended for eight of the 45 implementation approaches (two High, four Medium, and two Low-level CE constraints).

Major amendments to the TPSS would require ACCC approval and, while these major amendments are important, optimising the existing scheme will only drive limited growth in the circular economy for tyres.

Appendix A - Tyre supply chain, issues and CE growth constraints

LEGEND:
Criticality Level:
- Very High
- High
- Medium
- Low

LEGEND:
Fate:
- Reuse
- Disposal
- Recycling

Total of 33 issues across the supply chain

- (5) 2xH, 3xM
- (3) 1xVH, 1xH, 1xM
- (4) 2xM, 2xL
- (6) 1xVH, 2xM, 3xL
- (4) 2xVH, 1xH, 1xM
- (11) 1xVH, 3xH, 4xM, 3xL

Tyre design & manufacturing
- International
- Local

Virgin Materials
- Rubbers
- Steel
- Carbon black
- Fabric, other

Tyres placed on market (imports and distribution)
- Retail tyre importers
  - Scheme Contributor
  - Not Contributing
- Vehicle imports (tyres affixed)
  - Scheme Contributor
  - Not Contributing

Consumption
- Retail & Procurement
  - Scheme Participant
  - Not Participating
- Consumer use

Tyre wear dispersal to environment

Used tyre removal & collection

Used tyre removal
- Tyre retailer
  - Scheme Participant
  - Not Participating
- Commercial consumer (i.e. fleet, miners)
  - Scheme Participant
  - Not Participating
- DIY removal (household)

Collections (TSA partic. and non.partic.)
- Tyre retailers
- Reverse logistics/ backloading
- Local Government or private waste transfer stations

Used tyre disposal
- Onsite landfill (mines)
- On-farm
- Licensed landfill
- Illegal dumping & stockpiling

If cleaned up

Used tyre recovery industry (Scheme Participant or Not Participating)

Whole tyre reuse exports
- Baled tyre exports banned

Local reuse (retread/repair)

Processing for resource recovery
- Primary processing
  - E.g. shredding, granulation, crumbing
- Secondary processing
  - E.g. devulcanisation, reclamation, pyrolysis

Processing residual landfill

Tyre-derived material markets & procurement
- Export
- Local

Competing imported tyre derived materials

Tyre-derived material applications
- Recycling application
  - Varying materials circularity
- Energy recovery applications
  - No materials circularity

Direct resale (e.g. partly worn)

Closed loop 'refurbishment' (inc. aviation)

Stockpiling of whole or processed tyres (by recovery industry)

Closed loop tyre derived material applications (i.e. tyres back into tyres)

Appendix B - Detailed supply chain issues and opportunities analysis

Tyre Supply Chain	Key Issues	Extent of constraint on circular economy	Opportunities	Implementation approach
Tyre design and manufacturing (international and local)	**1. Australia has no market and/or regulatory mechanisms to incentivise tyre design for a CE and to mitigate harm associated with chemicals of concern.** • To build a CE, Australia needs to incentivise the design of tyres that have lower rolling resistance (fuel usage), are more durable, suited to retread and repair (onshore), do not contain harmful chemicals, and are made of materials that can be readily recycled back into high performance product applications. • The current Tyre Product Stewardship Scheme (TPSS) sets no tyre design requirements for tyres sold in Australia and cannot effectively do so while participation is voluntary. See below discussion regarding 'free-riding importers'.	High		
	2. The EU and the US are implementing tyre design regulations and Australia risks becoming a target market for lower quality, higher polluting tyres. • **The EU are moving to lower emissions via tyre design and anti-dumping rules.** In the EU regulations set out requirements for tyre design and labelling. New regulations for tyre wear particles are under development (***https://energy-efficient-products.ec.europa.eu/product-list/tyres_en#scope-1***). The EU has anti-dumping and anti-subsidy measures in force on imports of tyres for buses and trucks from China. Currently, the EU is considering anti-dumping measures for passenger cars and light trucks from China. (see: ***https://policy.trade.ec.europa.eu/news/eu-investigates-allegations-dumping-tyres-china-2025-05-21_en***). • **The US seeks to incentivise their tyre reuse (retread) economy due to an influx of lower quality single use truck and bus imports.** In the US, new legislation seeks to strengthen the US tyre retreading industry. The legislation would provide tax credits for fleet purchasers of American-made retread commercial tires, aimed at strengthening domestic manufacturing, job creation and sustainable tyre solutions. There has been an estimated 50% decrease in the number of retread facilities in the US over the past 21 years, in part due to growing imports of tyres not designed for retread (see: ***https://www.ustires.org/newsroom/us-tire-manufacturers-support-new-legislative-proposal-boost-tire-retreading***). A similar trend is unfolding in the Australian retread industry. • **Australia risks becoming the target market for poorer quality, higher polluting tyres.** For example, the toxicity for tyre wear particles. The EU and USTMA have set rules to require PAHs and 6ppdq to be taken out of tyres. Australia could become a dumping ground for tyres with these chemicals if we do not have dynamic systems in place to control imports and/or create market incentives for tyres without these harmful pollutants.	Medium	**Mandatory participation product stewardship scheme that provides incentives for circular product design.** For example, use of 'Eco modulated' (discounted) placed on market (PoM) fees for tyres that: are suited to retread and repair, have lower rolling resistance, are durable, don't contain listed chemicals, and can be readily recycled back into high performance product applications.	National/jurisdictional mandatory participation scheme

Tyre Supply Chain	Key Issues	Extent of constraint on circular economy	Opportunities	Implementation approach	
Tyre design and manufacturing (international and local)	**3. The ADR for tyre imports are slow to update and lack enforcement for replacement tyre imports.** • The current ADR for tyres includes the fitting (ADR 96-00) and on-tyre labelling, quality and safety parameters (ADR 23-03) that passenger tyres must meet. The overall intent of the ADR is that harmonisation is achieved between the ADR and the United Nations Economic Commission for Europe Regulations, however, there is often a lag time for updates to the ADR. • **For imported (new and second-hand) vehicles:** the Commonwealth Government receives a statement of compliance by the vehicle importer, including tyre compliance. • **For tyres fitted to in-service vehicles and trailers:** the *Australian Light Vehicle Standards Rules 2015* requires that a vehicle that is subject to an ADR when built or imported continue to comply with the ADR. However, enforcing the ADR for in-service vehicles and trailers sits with the states/territories, but it is not clear if/how they are enforcing it. This is a problem. For example, anecdotally, non-ADR compliant new and used tyres are entering our markets in shipping containers and being sold and used on in-service vehicles and trailers. This risks unsafe tyres being fitted to in-service vehicles and trailers and also the importation of tyres that contain prohibited chemicals of concern.	High	**Update the ADR regularly to international standards and increase enforcement of the ADR by the jurisdictions for replacement tyre imports (through the *Australian Light Vehicle Standards Rules*).**	Via other regulation (ADR, etc.)	TSA and State/ Territory Governments (joint)
	4. Australian truck and bus retread industry is being undermined by lack of ADR enforcement on replacement tyres. • In the truck and bus service industry, there was once a strong retread market that reused high quality tyre casings several times. Businesses are now directly importing containers full of single-use tyres, that may not comply with the ADR and industry reports a lack of enforcement of the ADR on replacement tyre imports. This practice means that trucks and buses could be using non ADR compliant tyres (risking road safety), more used tyres are generated, and the retread industry is being undermined. (TSA RAWR submission)	Medium		Via other regulation (ADR, etc.)	TSA and State/ Territory Governments (joint)
	5. Australia designs and manufactures large mining rubber conveyor belts onshore and used belts are mostly stockpiled or buried at mine sites. • Rubber conveyor belts share many of the material attributes of tyres, can be recycled using similar technologies, and are currently almost all disposed. • Currently, conveyor belts are not included in the TPSS. • If included in a revised scheme (either voluntary or mandatory), incentives could be put in place to incorporate additional recycled TDM into design and to support collection and recycling.	Medium	**Assess the inclusion of rubber conveyor belts in the 2027 reauthorisation of the TPSS.**	Major amendment to TPSS	
			Assess including rubber conveyor belts in potential future co-regulated scheme for tyres.	National/jurisdictional mandatory participation scheme	

Tyre Supply Chain	Key Issues	Extent of constraint on circular economy	Opportunities	Implementation approach
Tyres placed on market (imports and distribution)	**6. Australia's voluntary TPSS has a significant and increasing number of 'free-riding' tyre importers.** • 'Free-riding' tyre importers are undermining Australia's accredited stewardship scheme. 47% of replacement and 99% of fitted imports are not levied (TSA 24/25 annual report). • Australian tyre consumption is increasing, yet scheme fee contributions are decreasing due to increasing free-rider importers of replacement tyres. • TSA KPI for participation is 90% in two years (FY27) (TSA 23/24 annual report). • Australia currently has no mechanism in place at a federal or state level to prevent tyres being imported without contributing to the accredited product stewardship scheme (free-riding). This results in participating brands being penalised for following best practice and the actions requested by Federal Government, whilst non-participants benefit from scheme programs at no cost. As tyre manufacturing continues to globalise and tyre imports come from an increasing number of brands that do not participate, the viability of the current voluntary accredited scheme is at risk. • Under the voluntary TPSS tyre importers and vehicle manufacturers and importers commit to: - contribute funding to support the administration and activities of TSA - provide data to TSA on the types and numbers of tyres sold, as directed by TSA - only import tyres that are compliant with the relevant Australian standards, whether the tyres are imported as loose replacements or fitted to new vehicles, and - promote participation in the Scheme to businesses and other organisations to which they supply tyres, including through the development of an Action Plan (Scheme Guidelines). • Currently there are 15 TSA members which pay the Scheme levy: - 14 tyre manufacturer-importers: Ascenso, Bearcat, Bridgestone, Bridgestone Mining Solutions Australia, Continental, Goodyear Dunlop, Hankook, Kal Tire, Kumho Tyres, Michelin, GetaGrip, Pirelli, Sailun and Yokohama, and - 1 vehicle manufacturer: Porsche (ACCC authorisation).	Very High	**Mandatory participation product stewardship scheme that requires all tyre importers and manufacturers to participate and pay PoM fees.** • PoM fees would be scaled by the weight of the tyre and be calibrated to ensure sufficient funding is available to incentivise accredited collection and processing. • **TSA submissions to RAWR Act review solutions below:** - A change be made to the Tyre Rules that requires all entities that import tyres to be licensed, and that a condition of that licence be participation in a tyre stewardship scheme. Akin to the situation for refrigerant imports. - The Minister's annual priority product stewardship list made under the RAWR Act could be used as a trigger mechanism currently in the RAWR Act, or new mechanisms. The aim would be to create simpler pathways to addressing barriers or stronger regulation than currently exists in the RAWR Act, such as impact assessments or an Act of Parliament. For example, a new Tyre Rule could require any material listed on the Minister's priority list triggers all producers to start contributing to the voluntary scheme within a period of time, addressing the barrier of free-riders (TSA RAWR submission).	National/jurisdictional mandatory participation scheme
	7. TPSS placed on market (POM) fees for tyres (25 cents per EPU) has not changed in a decade and needs review and indexation. • Current contribution required is $0.25 per equivalent passenger unit (EPU) on every passenger, bus and truck tyre they sell in Australia. For off-the-road tyres, a levy is applied based on the type of tyre and rim size, capped at a maximum of $50 per tyre (TSA website). • There are several issues regarding PoM fees that need review: - The current method of calculating levy rate by EPU can be cumbersome when tyre weights are constantly changing and is not well suited for large OTR tyres and conveyor belts (should they be included in an amended TPSS). - TPSS fees are currently collected based on sales data, not from the import data (i.e. tyre imports are not levied until they are sold). - TSA lacks clear contract agreements with participating importers regarding provision of data. - TSA cannot change the levy rate. Currently only able to use current rate or change to zero (i.e. to apply or not apply the levy). - The TPSS levy rate needs to be indexed to CPI and ideally increased to reflect CPI for the past 10 years.	High	**Assess the following issues regarding the TPSS fees:** • Changing scheme levy to a weight based system ($ per kg product imported) and a standard conversion to the EPU. • Shifting to a 'first importer pays' levy, not at the point of sale (as is currently done in practice). • Putting in place contract agreements with participating importers. This would outline the agreements of things such as data provision and potentially the ability of TSA to audit actual sales data against levy payments. • TSA's ability to change the levy rate including indexation to CPI and ideally increased to reflect CPI for the past 10 years. • Assessment needs to consider how members' current reporting systems are set-up and potential issues for implementation.	Major amendment to TPSS
	8. Participating brand tyre imports that are old stock (or similar) and imported by another party (i.e. 'Parallel imports') are an issue as they don't contribute to the TPSS.	Medium	**Mandatory participation product stewardship scheme that requires all tyres importers to participate, including those doing 'parallel imports'.**	National/jurisdictional mandatory participation scheme

Tyre Supply Chain	Key Issues	Extent of constraint on circular economy	Opportunities	Implementation approach
Consumption (retail, procurement, and consumer use)	**9. Many retailers see little business value in Scheme/ Accreditation while used tyre collection is not incentivised.** • Tyre retailers' decisions are driven by cost per tyre and margins are low per tyre (profit linked to volume). • Currently, store managers have a poor understanding of the scheme and may blame TSA for prices going up. • Retailers often don't see value in being with TSA, and hence it is difficult to enforce compliance, as they can just leave the scheme. • The current voluntary scheme is not funded to incentivise used tyre collections from retailers. • TSA KPI for retail accreditation is 90% in two years (FY27). • Currently, an estimated 69% of retail market share is TSA accredited (~1,700 stores, across 11 retail groups). • The remaining ~30% of retail market share occurs at vehicle repairers (14%), non-accredited retailers (12%), and car dealers (4%) (Growth Navigators 2025).	Medium	**Mandatory participation product stewardship scheme designed to rebate or otherwise incentivise accredited retail used tyre collection and recovery.**	National/jurisdictional mandatory participation scheme
	10. Commercial consumer (fleet, mining, agriculture) procurement opportunities (including retread) are not realised and the benefits of TSA accreditation need to be clearly defined. • The use of retread tyres on truck and bus fleets can result in $/km cost savings and reduce waste and emissions. Retread tyre procurement is also a key driver for tyre reuse and needs to be promoted and incorporated into government procurement specifications. • TPSS Guidelines need clearer definition of commercial sectors of most importance and the TSA value proposition for accreditation articulated for each sector. • Currently just seven fleet operators are TSA accredited.	Medium	**Governments include mandatory procurement specification of retread tyres on all heavy commercial vehicles as a means of increasing reuse, reducing $/km, waste and emissions.**	Via other regulation (ADR, etc.)
			Review TPSS Guidelines to clearly define commercial sectors, TSA accreditation benefits and procurement opportunities.	Minor amendment to TPSS
	11. TPSS Guidelines include confusing requirements for 'miners' that are intended to apply to mining tyre importers, rather than the consumer.	Low	**Amend TPSS Guidelines to shift 'miners' to the importer section and change the category to 'importers - mining tyres'.**	Minor amendment to TPSS
	12. TPSS Guidelines incorrectly includes retread businesses under the retailer accreditation category. This needs correction as the retread industry are a part of the recovery industry, and needs to be changed to processor category.	Low	**Amend TPSS Guidelines to include retread industry are a part of the 'tyre processor' category.**	Minor amendment to TPSS

Tyre Supply Chain		Key Issues	Extent of constraint on circular economy	Opportunities	Implementation approach
Used tyre removal and collections	**Overall**	**13. Rogue collectors undercut accredited collections, resulting in illegal dumping and significant community, environmental, and financial impacts.** TSA accredited collections need to increase significantly to drive better tyre recovery outcomes and prevent illegal dumping by rogue collectors. • Australia generated ~500,000 tonnes of EOLTs in 2023/24. • 52% (260,000 tonnes) were collected by Scheme participants (~245,000 passenger, bus and truck and ~15,000 OTR) (TSA annual report 23/24). • Overall, almost half of EOLT are either: - not collected and buried onsite (OTR mining tyres), or - collected from retailers, transfer stations, etc. by non-accredited collectors. • OTR tyres need to be collected from site and managed by the tyre recovery industry, discussed further under 'onsite landfill mines'. • **Non TSA accredited collections risk:** - tyres being illegally dumped by rogue operators that undercut accredited collections and collect without using the jurisdictional waste tracking system (where in place), and - tyres being collected (using waste tracking systems) and taken to a non-accredited, but EPA permitted, site that is stockpiling tyres or disposed directly to landfill. • There is a need to increase the use of TSA accredited collections, that by default will ensure tyres are entering into waste tracking system (in most states) and enable TSA to monitor the fate of the collected tyres (i.e. ensure no excessive stockpiling and that tyres are recovered).	Very High	**Mandatory participation product stewardship scheme designed to rebate or otherwise incentivise scheme approved collections and tyre recovery.** • Would provide an incentive for collectors to become accredited, report and take tyres to accredited recovery sites. • Regardless of the locations of the collection (store, on-farm, mine site), incentives to transport to an accredited recovery site. • Incentives could be scaled by the size of the tyre being collected and for rural and remote collections.	National/jurisdictional mandatory participation scheme
	Tyre retailer	**14. TSA collector/recycler accreditation suspension periods of three months are ineffective.** Retailers find it easier to simply stockpile and wait out the suspension rather than change collector/processors.	Low	**Review TPSS accredited collector non compliance penalties** including suspension timeframes to insure they are an effective deterrent.	Minor amendment to TPSS
	Reverse logistics, backloading	**15. Reverse logistics for large OTR tyres (and conveyor belts) remains a missed opportunity in Australia.** • Large OTR tyres are delivered to mining and agriculture consumers all around the country to remote locations. In the case of giant mining tyres, the delivery trucks are purpose built to transport the tyres. • Trucks delivering large OTR tyres should be utilised to return used tyres to major centres where they can be recovered (unless on or near site tyre recovery operations are in place). • The cost of running dedicated tyre collection services to remotes locations to collect large OTR tyres is often unviable for the consumer. Incorporating reverse logistics costs into the price of the new tyre delivery presents a cost effective collection option. • Without reverse logistics or onsite tyre recovery solutions for large OTR mining and agriculture tyres, the current practice of onsite dumping, burial or stockpiling will continue.	Medium	**Mandatory participation product stewardship scheme designed to rebate or otherwise incentivise scheme approved collections and tyre recovery.** • For large OTR mining and agriculture tyres that require onsite delivery, incentives could support reverse logistic solutions being provided. • This would likely require that the OTR delivery transport be accredited for waste tyre transport and use EPAs waste collection tracking for transport back to a recovery site.	National/jurisdictional mandatory participation scheme

Tyre Supply Chain		Key Issues	Extent of constraint on circular economy	Opportunities	Implementation approach
 **Used tyre removal and collections**	Local Government or private waste transfer stations	**16 Regional and rural transfer stations (private and local government) are high risk targets for rogue collectors.** • Risk factors include: - cost of collection are higher due to distance; tyres stockpiled for long periods increasing contamination; and often include wheel rims - sites lack funding and operators are typically looking for lowest cost option for collection - transfer stations are typically close to areas that could be used to dump.	Medium	**Mandatory participation product stewardship scheme designed to rebate or otherwise incentivise scheme approved collections and tyre recovery.** • Incentives could be scaled by the size of the tyre being collected and rural and remote collections. • Scheme incentives can be designed to reduce the risk factors in rural and remote areas.	National/jurisdictional mandatory participation scheme
		17. The cost of disposal for DIY removal (from households) drives illegal dumping and cost to Local Government. The local waste transfer station collection point will charge a gate fee per tyre to be disposed. Local Governments report this as a major driver for illegal dumping of small loads of a few tyres. The cumulative impact and costs to clean up these small loads of tyres is significant.	Low	**Mandatory participation product stewardship scheme designed to rebate or otherwise incentivise scheme approved collections and tyre recovery.** DIY drop-off of small domestic quantities from local residents (rate payers) at transfer stations could be free for the consumer. This would remove the main driver for small, dispersed bumping of a few tyres.	National/jurisdictional mandatory participation scheme
		18. TPSS Guidelines for Local Gov accreditation requirements are too broad. • Local Government may be complying in some but not all accreditation requirements. • Suggest requirements for Local Government are specified in two parts: 1. A new category for Local Government fleet, and 2. Local Government collection point accreditation.	Low	**Amend TPSS Guidelines for Local Government to split across Local Government fleet (for tyre procurement) and Local Government used tyre collection point categories.**	Major amendment to TPSS

Tyre Supply Chain		Key Issues	Extent of constraint on circular economy	Opportunities	Implementation approach
Used tyre disposal	**Onsite landfill (mines)**	**19. 'Free' onsite burial of >100,000 t/yr. mining tyres permitted when recovery options are available.** • In all jurisdictions, the mine site operating permissions either explicitly allow onsite burial at mine sites (WA, Qld) or permissions have general onsite waste management conditions. • Onsite burial of mining tyres and conveyor belts is known to be common practice in all jurisdictions that have mines operating. The requirements of burial, if any, set out burial batch sizes and the minimum amount of cover only. • This is not comparable with modern landfilling standards required at licensed solid inert landfills that operate outside of mining sites. • Australia now has recovery options available for giant OTR mining tyres and it is time to end permissions for free onsite burial and back industry investments in OTR recovery processes.	Very High	**Jurisdictions' 'level the playing field' for tyre and conveyor landfilling rules and/or set a date to ban onsite landfilling.** • Mining companies that are given permission to bury or stockpile on site to pay a levy (as per the landfill levy paid on other tyres sent to landfill), and the sites fall in line with the strict rules placed on all other offsite licensed landfills. (TSA RAWR submission). • Set a national date for the prohibition of onsite burial (e.g. by 2028).	TSA and State/Territory Governments (joint)
	On-farm	**20. On-farm dumping/burning of large OTR tyres common due to collection costs.** • Industry report that significant quantities of OTR tyres remain on-farm in long-term storage, disposed into fill areas or burned onsite. • Smaller OTR tyres are often disposed at local waste transfer stations, where they exist. • Larger OTR tyres typically don't leave site due to cost of offsite disposal. • All jurisdictions limit the amount of tyres that can be stored onsite without a permit. Smaller farm storages may fall below these thresholds. • EPAs lack the resources required to enforce laws against on-farm dumping and burning. • Large OTR tyres are often fitted onsite by the tyre retailer and the cost of taking back the EOLT from farms is the main reason most remain on-farm.	Very High	**Mandatory participation product stewardship scheme designed to rebate or otherwise incentivise scheme approved collections and tyre recovery.** • For large OTR mining and agriculture tyres that require onsite delivery, incentives could support reverse logistic solutions being provided. • This would likely require that the OTR delivery transport be accredited for waste tyre transport and use EPAs waste collection tracking for transport back to a recovery site.	National/jurisdictional mandatory participation scheme
	Licensed landfill	**21. Licensed landfilling costs for tyres enable recovery in metro areas but landfill is often still the cheapest/easiest option in rural/remote areas.** • The cost of landfilling tyres is significant in all jurisdictions, particularly where landfill levies and gate fees are high and tyres require shredding before landfilling. • Most jurisdictions require tyres to be shredded before landfill at metropolitan and regional landfills. Rural landfills often do not have this requirement. • Landfilling tyres can still be a cheap option in rural and remote areas of the country where landfill levies are low (or zero), gate fees are low (or zero), and shredding is not a legal requirement. • This can result in rural landfills being used to dispose of tyres transported from urban areas for disposal. • Rural Local Governments often run a landfill in proximity to the transfer station. When collection costs are high, a council may opt to landfill the tyres, even if they are required to shred them first. Equipment is often brought in (once a year) to process timber/green waste and crush concrete.	Medium	**Mandatory participation product stewardship scheme designed to rebate or otherwise incentivise scheme approved collections and tyre recovery.** Incentives could be scaled for rural and remote scheme approved collections.	National/jurisdictional mandatory participation scheme
				Review TPSS Guidelines wording and the allowance for landfilling by accredited participants.	Major amendment to TPSS
				Jurisdictions consider banning landfilling of tyre shred except in exceptional circumstances. Once tyres are shredded, the cost of collection would be greatly reduced, and should be comparable with landfilling fees.	TSA and State/Territory Governments (joint)
	Illegal dumping and stockpiling	**22. Current voluntary scheme and resulting free-riders, consumer EOLT disposal costs, and rogue collectors (drives illegal dumping, stockpiling and fires).** • Illegal dumping and stockpiling remains a significant issue in Australia. Stockpiles continue to cause tyre fires (impacting surrounding environment and community health), increased disease risk, amenity impacts and increased costs to rate payers for clean-ups. • The costs for EOLT collection drives the market for rogue collectors, that in turn drives illegal dumping and stockpiling. A regulated stewardship scheme can incentivise scheme approved collections that are using waste tracking systems. • A 2024 study on stockpiling and illegal dumping of tyres found collectively local governments are having to pay around $6.5 million annually to clean up inappropriately disposed EOLTs • There are significant fines and penalties for illegal dumping of waste tyres, which could impact the agriculture sector in particular where it is understood that significant amounts of waste tyres are disposed on-farm via burial or burning.	High	**Mandatory participation product stewardship scheme designed to rebate or otherwise incentivise scheme approved collections and tyre recovery.** By ensuring all collections are accredited and tracked to a permitted recovery site the issue of rogue collectors, illegal dumping and stockpiling could be largely resolved.	National/jurisdictional mandatory participation scheme

Tyre Supply Chain		Key Issues	Extent of constraint on circular economy	Opportunities	Implementation approach	
Used tyre recovery	**Overall**	**23. EPAs track tyres collections 'to the gate' of a recovery site, they don't track the site outputs or their fate. TSA accreditation does.** • The collection and transport of tyres is managed via waste tracking systems in all jurisdictions (except NT and ACT that only require the transporter to hold a permit). • Around 85% of recyclers participate with TSA currently (by tonnes of EOL tyres processed and recovered). • Tyre storage and/or processing triggers an EPA permit for commercial processing in all jurisdictions. • There is good EPA permit coverage of tyre recovery facilities. • The gap is the lack of EPA requirement to report on the outputs from a processing sites. • EPAs do not track the amount of tyre recycling, energy recovery, landfilling, or stockpiling. • Under the current TPSS, there is an opportunity for TSA to do more with the jurisdictions in this area. TSA currently requests quarterly data on the outputs from accredited recovery sites. • A mandatory participation scheme could integrate EPA collection tracking and TSA tyre recovery industry data to provide comprehensive tracking and fate data for Australian tyres.	High	**EPAs could require TSA accreditation of licensed recovery sites, to enable reporting on site outputs and fate.** Consult with EPAs to see if they could require TSA accreditation of EPA licensed tyre recovery sites to ensure end markets are audited. EPA could include a generic audit requirement of fate of outputs (TSA accreditation could meet this need). This would be excellent example of state regulations being supported by TSA.	TSA and State/ Territory Governments (joint)	Major amendment to TPSS
				Mandatory participation scheme that integrates EPA collection tracking and TSA tyre recovery industry data to provide comprehensive tracking and fate data for Australian tyres.	National/jurisdictional mandatory participation scheme	
	Whole reuse tyre exports Baled tyre exports banned	**24. The ban on whole and baled tyre exports needs to be actively enforced.** • Industry report that baled whole tyre exports continue (although at a reduced rate) and the export ban needs more active enforcement.	Low	**Australian Border Force ensure export ban is enforced.**	TSA and Federal Government (joint)	
	Local tyre reuse and repair	**25. Australia's truck and bus retread industry is under threat from single use truck and bus tyres.** • Australia has experienced a significant decline in the retread of tyres, however retread capability is high. • A trend towards the use of single use only tyres is driving this decline, as it has done in the US. • For Australia to build a CE, processes such as retread will be required.	High	**Mandatory participation product stewardship scheme that is designed to incentivise the use of retread heavy commercial tyres re-manufactured in Australia.**	National/jurisdictional mandatory participation scheme	
	Processing for resource recovery	**26. TPSS Guidelines definition for 'Tyre recycler' includes those processing for energy recovery, this needs correction.** Energy recovery is not recycling. Suggest amending the definition to 'tyre processor' only. This term covers all potential material fates, including energy recovery.	Low	**Correct TPSS Guidelines definition of 'tyre recycler' to 'tyre processor'.**	Minor amendment to TPSS	
	TDM markets, procurement and applications	**27. Fate of our tyres: just 17% recycled, 40% used in energy recovery applications, 30% onsite burial and landfill. Development of circular end markets is constrained by a lack of TDM procurement, over-reliance on energy recovery and permitting onsite burial of OTR tyres.** • Processing infrastructure and end markets that enable a circular economy for tyres need further development. • Of the approximately 540,000 tonnes of end-of-life tyres of all types generated each year — only 26% (135,000) were reused or recycled. • 217,000 (40%) were exported for use in energy recovery (not recycled). • Australia landfilled, buried onsite or dumped 184,000 tonnes of EOLTs (~30%). Around 135,000 (75%) tonnes were OTR tyres buried on mine sites. (TSA Material Flow Analysis Report 2023–24) • 10 years of a voluntary scheme focused on market development has achieved a lot but won't enable a CE for tyres in Australia. • The lack of mandatory TDM procurement requirements into proven applications such as crumb rubber into asphalt and sprayed sealing is limiting the development of these markets. • Globally TDM recycling applications are diversifying and circular applications such as devulcanised rubber use in tyre and conveyor manufacturing are operational in several jurisdictions. • Onshore and offshore circular markets for TDMs need development, such as crumb rubber inputs for tyre and conveyor belt manufacturing. • Australia has an over reliance on exports of tyre derived fuel (TDF) for energy recovery. Australia's domestic TDF market, on the other hand, is underutilised and could be developed.	Very High	**National/jurisdictional Governments include mandatory procurement specification of proven TDM products such as rubber crumb into asphalt to support market development.**	Via other regulation (ADR, etc.)	
				Mandatory participation scheme that provides targeted funding to support a CE for tyres. • Targeted TDM procurement funding to support development of circular product applications. • Targeted funding to support development of circular tyre processing infrastructure.	National/jurisdictional mandatory participation scheme	
				Product stewardship schemes can be designed to step in and support market development. The current voluntary Tyre Product Stewardship Scheme allows for levies to be used to support market development initiatives, with over $10 million across 74 projects funded to date. But well-designed schemes can go further, such as incentivising to support the competitiveness of products using recycled materials in the market. For example, the Tyre Rules could limit the volume of tyre-derived material shipped overseas for low circularity fates and help achieve the circularity Objects in the RAWR Act (TSA RAWR Act sub.).	National/jurisdictional mandatory participation scheme	

Tyre Supply Chain		Key Issues	Extent of constraint on circular economy	Opportunities	Implementation approach	
Used tyre recovery	**Local and export tyre derived material markets and applications**	**28. The TDM market potential for Australia's tyre retread and conveyor belt manufacturing industry needs quantification.** • Australia has an onshore conveyor belt manufacturing and retread industry. Both industries should benefit from the use of locally produced TDMs as feedstock materials. The TDM market potential for both application areas needs quantification.	Medium	**Assess Australia's conveyor belt and tyre retread industry market potential for TDM.**	Potential TSA project	
		29. TDM imports need quantification to inform the need to protect local TDM markets from saturation from cheaper imports. • Industry notes the difficulty of competing with cheaper imported TDMs. The extent of the TDM imports needs to be verified and options assessed for protecting the onshore recycling industry, where required.	Medium	**Assess TDM imports to inform the need to protect local TDM markets.** If needed, engage Australian Government regarding potential anti-dumping action that can be taken.	Potential TSA project	TSA and Federal Government (joint)
		30. TSA foreign end markets verification program (FEMV) needs to be required for all exports.	Low	**Assess the inclusion of FEMV into the scheme as a requirement of exporters.**	Major amendment to TPSS	
		31. TSA reporting of 'environmentally sound use' needs to change, it is unclear and easily misinterpreted. • To align with national reporting standards, TSA need to report the following by tyre type: - collection rates - reuse rates - recycling rates - energy recovery rates - the overall recovery rate (sum of reuse, recycling, energy recovery).	Medium	**TSA revise reporting to align with national standard, including rates of: collection, reuse, recycling, energy recovery.**	Major amendment to TPSS	
		32. TPSS Guidelines needs KPIs for reuse and recycling to support a CE and national reporting standards. • KPI set for environmental sound use only. The scheme KPIs need to specify targets for reuse and recycling, noting that this would be minimum requirement to be able to report on circular material flows.	Medium	**Implement TPSS KPIs for reuse and recycling.**	Major amendment to TPSS	
	Stockpiling of whole or processed tyres (by recovery industry)	**33. EPAs tracking systems do not track stockpiling of tyres at permitted sites and EPAs often lack the resources to actively monitor stockpiling.** • Tyre recovery industry illegally stockpiling of whole or processed tyres is driven by: - waste transport systems not tracking stockpiling on tyre recovery sites - EPAs lacking resources to actively enforce stockpiling limits are often specified in operational permits, and - a lack of or collapse in end markets onshore and or offshore. • Under the current TPSS, there is an opportunity for TSA to do more with the jurisdictions on stockpiling. TSA currently requests quarterly data on the outputs from accredited recovery sites. • A mandatory participation scheme could integrate EPAs collections tracking and TSA tyre recovery industry data, thus enabling the capturing of significant stockpiling data nationally that EPA could take preventative enforcement action (i.e. before a fire).	High	**Jurisdictions review how tyre tracking systems could provide information on the stockpiling of tyres at receival sites.** This could be including basic declaration from receival sites that they are not exceeding stockpile allowances (each time they accept a load via the tracking system).	TSA and State/Territory Governments (joint)	
				Mandatory participation scheme/s that include reporting on the fate of received at recovery sites including stockpiling.	National/jurisdictional mandatory participation scheme	

References

- ACCC 2024, (ACCC authorisation), *Determination Application for revocation of AA1000409 and the substitution of authorisation AA1000655 lodged by Tyre Stewardship Australia Limited in respect of the continuation of the Tyre Product Stewardship Scheme Authorisation number: AA1000655.* Available here: https://www.accc.gov.au/system/files/public-registers/documents/Final%20Determination%20-%2002.09.24%20-%20PR%20-%20AA1000655%20TSA.pdf
- Growth Navigators, 2025, *Engaging Retailers*, prepared for TSA.
- Government of Western Australia Department of Water and Environmental Regulation, August 2025, National End-of-Life Tyres Options project, available here: https://www.wa.gov.au/service/building-utilities-and-essential-services/waste-management/national-project-options-end-of-life-tyres
- Tyre Stewardship Australia (TSA), *2025, 2023/24 Annual Report*, available here: https://www.tyrestewardship.org.au/annual-reports
- TSA, 2025 (b), TSA Material Flow Analysis Report 2023–24, available here: https://www.tyrestewardship.org.au/tools-and-resources/material-flow-analysis-report-2023-24
- TSA, 2025 (c), (TSA RAWR sub), *Submission to the Review of the Recycling and Waste Reduction Act 2020*
- TSA 2024, (Scheme Guidelines), *Guidelines for the Tyre Product Stewardship Scheme*, available here: https://www.tyrestewardship.org.au/what-we-do/about-the-tyre-product-stewardship-scheme

Glossary

Term	Meaning
ACCC	Australian Competition and Consumer Commission
ADR	Australian Design Rules
CE	Circular Economy
DIY	Do it yourself
EOLT	End-of-life-tyre
EPU	Equivalent passenger unit
FEMV	Foreign end markets verification program
Free-riding	Benefiting without contributing, participating, and or being compliant with a scheme.
KPI	Key performance indicators
OTR	Off-the-road
PLR Act	New South Wales new *Product Lifecycle Responsibility Act 2025*
POM	Placed on market
RAWR Act	*Recycling and Waste Reduction Act 2020*
TDM	The tyre derived material
TDP	Tyre derived product
TPSS Guidelines	Guidelines for the Tyre Product Stewardship Scheme
TPSS/Scheme	Tyre Product Stewardship Scheme
Tyre export rules	*Recycling and Waste Reduction (Export—Waste Tyres) Rules 2021*

TyreStewardship AUSTRALIA

Australian Government Accredited Product Stewardship Scheme

ISO/IEC 27001 CERTIFIED

ABN: 44 164 971 939
Address: Suite 101, 271 Bridge Road, Richmond, VIC 3121
Phone: 03 9977 7820
Email: getonboard@tyrestewardship.org.au
Website: tyrestewardship.org.au