



STRATEGIC PLAN
2020 – 2023



TyreStewardship
AUSTRALIA

Our purpose is to drive sustainable outcomes for end of life tyres

Tyre Stewardship Australia (TSA)

was established in 2014 to implement the national Tyre Product Stewardship Scheme (TSS) which aims to promote the development of viable markets for end of life tyres.

ABOUT TYRE STEWARDSHIP AUSTRALIA

The national Tyre Product Stewardship Scheme (the Scheme) objectives are:

- to increase resource recovery and minimise the environmental and human health risks associated with used tyres in Australia; and
- develop Australia’s tyre recycling industry and markets for tyre derived products.

TSA accredits participants, including tyre retailers, manufacturers, recyclers and collectors, who are committed to supporting the objectives of the Scheme.

TSA also invests in market development initiatives including research and development, and commercialisation, of new productive uses for end of life tyres.



Trial of crumb rubber asphalt in resurfacing of Stanlake Avenue in the City of Mitcham, Adelaide. Approximately 850 used tyres were recycled in this application with the aim to improve road durability.

TSA’s work helps to drive the transformation of a waste product into a useful commodity, creating new industries and employment opportunities while also reducing the environmental harm caused by the illegal dumping of old tyres.

TSA envisions a circular economy for tyres, where resources from end of life tyres are used and reused, such as through recycling, recovery and/ or repurposing, ultimately boosting new industries and eliminating tyres from the waste stream.



Project with University of South Australia - pouring of reinforced Crumb Rubber Concrete (CRC) for use in Australia’s residential construction industry.

OUR PURPOSE, VISION AND MISSION

TSA's purpose is to drive sustainable outcomes for end of life tyres.

OUR VISION

Our vision is a circular economy for end-of-life tyres which contributes to a sustainable society.

OUR MISSION

Our mission is to collaboratively ensure the sustainable management, recycling and productive use of end of life tyres.

TSA aims to build awareness and facilitate the commercialisation of better opportunities provided by end of life tyres, provide accreditation and stimulate innovation, in order to advance circular economy principles within the sector.



Recycled crumbed rubber granules - a valuable recycled raw material that Tyre Stewardship Australia is working to find more uses for.

OUR STRATEGIC PLAN FOR 2020-2023

Our Strategic Plan for 2020 – 2023 sets out our strategic goals and will drive our decision making and activities.

OUR STRATEGIC GOALS ARE:

1. Increase used tyre recovery and end markets.
2. Continue to improve data and information on all used tyre fates, both in Australia and overseas.
3. Growth in the number of organisations contributing to and participating in the TSS
4. TSA is a trusted entity, building relationships and value for its stakeholders
5. TSA is a significant contributor to the global circular economy for end-of-life tyres

TYRE RECOVERY CIRCULAR ECONOMY



The UN Sustainable Development Goals

The Sustainable Development Goals (SDGs) were launched by the United Nations in 2015 and agreed to by all 193 UN-member governments including Australia.



The agenda sets 17 global goals which lay out an action plan to 2030 to address poverty and inequality and protect the planet, among other issues which are critical to sustainable development.

TSA has mapped its strategy against the SDGs and identified the following five priority Goals for the organisation. A brief overview of some of the ways TSA is supporting these Goals is set out below. These Goals have also contributed to the development of this Strategic Plan.



GOAL 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Billions of people around the world still live in poverty, and many working people do not enjoy stable employment or decent pay and conditions. Achieving Goal 8 will require inclusive economic growth, improved productivity, and greater entrepreneurship and innovation.

The creation of decent jobs which respect workers' rights will also be critical. Decoupling economic growth from environmental degradation is also a target under Goal 8.

- TSA's market development initiatives support job creation, creativity and innovation
- Promoting sustainable and productive uses for end of life tyres helps support a decoupling of economic growth from environmental degradation
- TSA is introducing compliance with worker entitlements into its accreditation process to promote labour rights
- Taking its global footprint seriously, TSA has developed a global platform to verify the final disposition of end-of-life tyres to mitigate against the exploitation of workers.



GOAL 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Sustainable industrial development and quality infrastructure, including transport, water and waste utilities, information and communication networks, are fundamental to higher standards of living and productivity.

Technology and innovation will be critical to achieving Goal 9. Policy levers include through enhancing scientific research and encouraging innovation, and increasing the number of workers in research and development, as well as supporting domestic technology development.

- TSA's market development initiatives invest in research, infrastructure and development; encouraging innovation and supporting job opportunities in this space
- Recycled end of life tyres are often used in a variety of applications such as roads, civil infrastructure and advanced manufacturing. TSA is working with relevant agencies to support increasing the amount of tyre-derived products that can be used in such applications.
- New innovation and technology in the handling of waste tyres.



GOAL 12: Ensure sustainable consumption and production patterns

Worldwide material consumption and footprint per capita have expanded significantly. It is critical that action be taken to avoid the over-extraction of resources or the degradation of environmental resources. Critical to this will be improved resource efficiency, a reduction of waste and the mainstreaming of sustainability practices. Sustainable public procurement is one lever to achieve this goal.

- TSA’s purpose, vision and mission are fully aligned with Goal 9
- TSA encourages organisations along the waste tyre value chain to adopt sustainable practices, and its accreditation program verifies participants’ continued commitment
- TSA promotes public, commercial and government procurement practices that support the use of end of life tyres in existing and new markets.



GOAL 13: Take urgent action to combat climate change and its impacts

The UN has singled out climate change as the biggest single threat to development. Climate change is contributing to extreme weather events, large natural disasters and rising sea levels. It threatens to unbalance ecosystems and undermine food production on land and from the sea. Goal 13 requires all actors to take steps on climate change mitigation and adaptation.

- TSA’s market development activity which encourages alternate use of end-of-life tyres in replacement to raw materials aligns with Goal 13.
- The Accreditation and Compliance function creates an economy of approved participants who have committed to manage end-of-life tyres in a sustainable and responsible manner, mitigating against the impact of hazards associated with tyre stockpiles.
- A global verification program enables TSA to stamp out organisations that use end-of-life tyres to the detriment of human and environmental health.
- TSA supports the use of tyre derived fuel to offset the mining of traditional fuel sources.
- TSA supports the efficient and safe management of the resource recovery sector, advocating for more efficient operations and reductions in unnecessary energy use.
- TSA supports research and innovation into new thermal processing of tyres, with the aim to drive alternative fuel sources to fossil fuels.



GOAL 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development

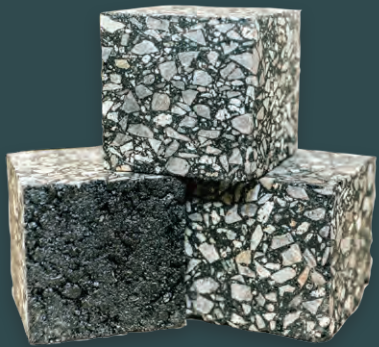
Achieving the ambitious goals in the SDG agenda requires significant collaboration and partnership between the private sector, governments, civil society, academic institutions and others. Goal 17 also encourages cross-border cooperation on science, technology and innovation and the diffusion of sustainable technologies.

- TSA facilitates collaboration across the end of life tyre value chain to support sustainable outcomes
- TSA invests in and partners with research organisations to drive innovation in productive uses for end of life tyres
- TSA is engaged with similar organisations around the world, seeking to share knowledge and foster global cooperation
- Foreign end market collaborations to create a global circular economy for recovery of end of life tyres.

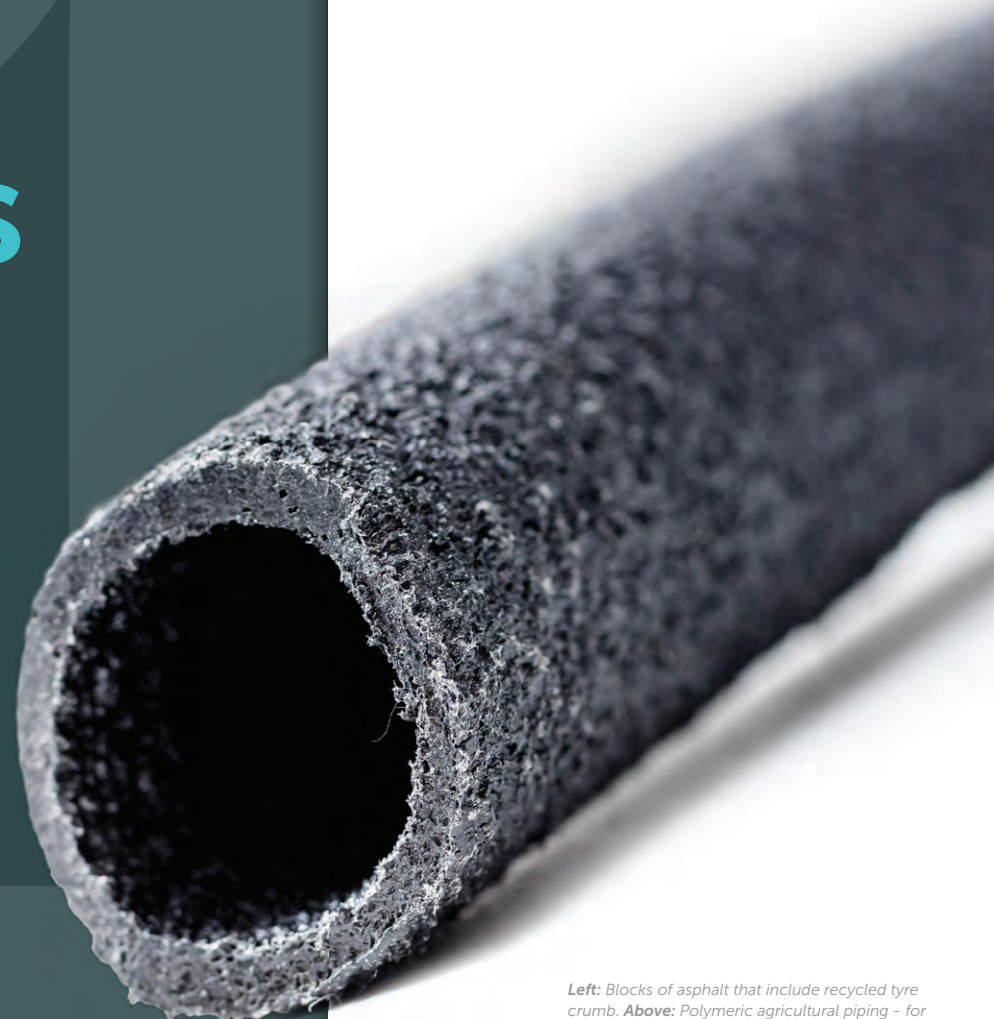
STRATEGIC GOAL 1

Increase used tyre recovery and end markets

End-of-life tyres can be used in a range of ways, including in road production, playground and sporting surfaces, civil infrastructure and engineering projects. They can also be used in explosive compounds for the mining industry.



At the end of their life, tyres can be processed into tyre crumb, shred, chip, granules, steel and other tyre components; used as fuel, or converted into other tyre derived products.



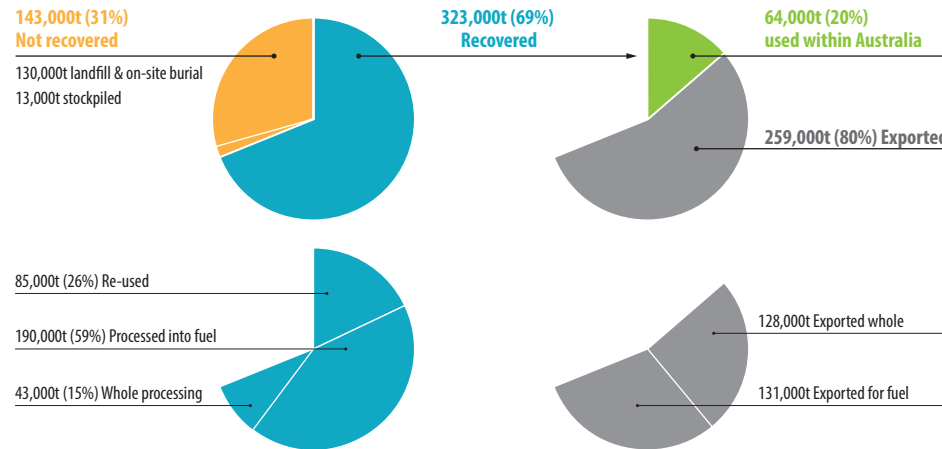
Left: Blocks of asphalt that include recycled tyre crumb. Above: Polymeric agricultural piping - for use in irrigation and sewer pipe markets.



From top: 1. Use of recycled tyre rubber granules in synthetic sporting fields and pitches provides a stable, shock absorbing and durable base layer. 2. Development of reinforced concrete - using baled end-of-life tyres sandwiched between highly stable concrete skins, for use as retaining wall or blast resistant wall. 3. A series of blast tests on an innovative product aimed at making walls blast, bullet and fire-resistant using a combination of recycled crumb rubber from old tyres with composite fibres in a cementitious mix design. 4. Crumb rubber permeable pavement installed at St Mary's Park in the City of Mitcham SA. This is the first time permeable pavement, made using 50% used tyres, has been installed in a full-scale trial tested under various traffic loads.

FINAL END USE OF AN AUSTRALIAN END OF LIFE TYRE

BASED ON 450,000 TONNES EOLT VOLUME 2018-2019



Over the last five years, the average EOLT volume generated in Australia is **450,000 tonnes**, or the equivalent of **56 million** passenger tyres

In 2018-19, approx. **323,000 tonnes** (or 69%) were recovered as follows: Re-use (85,000 tonnes), processing into products and fuels (190,000 tonnes), and whole thermal processing (48,000 tonnes)

In 2018-19, it was estimated that 130,000 tonnes was disposed to landfill or on-site burial, and 13,000 tonnes was stockpiled.

Of the 323,000 tonnes of recovered material, **64,000 tonnes** or 20% was

used domestically for re-use and as a tyre-derived product and 259,000 tonnes was exported.

The volume exported is comprised of 131,000t of tyre-derived fuel and 128,000t was exported whole.

TSA is committed to promoting increased local use of Australian EOLT in productive ways, by significantly investing in market development to drive high volume uses of TDP and research into new innovations.

What *our success*

looks like

- 1 Increased capacity for EOL passenger tyres in Australia
- 2 Increased use of Australian tyre derived products within Australia, including replacing imports of these products
- 3 Strengthened collaboration between TSA and the mining industry to explore sustainable solutions for used OTR tyres
- 4 Agreements with government, private and public procurement policies to support the increased productive use of EOLT
- 5 Increased commercialisation of TSA's market development projects
- 6 Further the model for the sector that reflects the true cost of recycling within Australia, encouraging investment and creating local jobs



STRATEGIC GOAL 2

Continue to improve data and information on all used tyre fates, both in Australia and overseas

Currently, the destination of a significant number of Australia’s end of life tyres is not transparent, particularly as many are exported.

It is unclear if the exported material is being dealt with in a sustainable and responsible manner.

Whilst accredited TSA participants are required to submit data on the flow and fate of end of life tyres collected within Australia, often the final destination (if exported) is unknown. Additionally, there is a lack of transparency of those operators that do not participate in the Scheme, leading to potential for dumping stockpiling and mismanagement.

TSA actively monitors all local Scheme participants to support sound business practice and a strong resource recovery sector. TSA’s foreign end markets program assesses and audits the overseas destinations of Australian end of life tyres, and will move to verifying the downstream outcomes for exported Australian end of life tyres.



What *our success*

looks like

- 1 The destination of all Australian end of life tyres is known
- 2 The overseas destinations for Australian end of life tyres is verified through TSA’s foreign end markets program
- 3 A global framework to stamp out poor operators who may cause environmental and social harm
- 4 A strong monitoring and compliance program that ensures legitimate recovery of tyres to mitigate stockpiling, dumping and mismanagement

STRATEGIC GOAL 3

Grow the number of organisations contributing to and participating in the Tyre Stewardship Scheme

Contribution to (for tyre producers or importers) and participation in (for tyre retailers, recyclers, collectors and others) the Scheme.

In the absence of a regulatory framework to support the Scheme, TSA is to continue building on its objectives as set out in the Tyre Stewardship Scheme; this includes working with the tyre industry and ensure more end of life tyres are sustainably managed, more tyre producers and importers, tyre retailers, recyclers, collectors and others in the tyre value chain are brought into the Scheme.

End of life off road tyres (OTR) are not currently part of the Scheme. Further, regional and remote areas are not currently well serviced in terms of collection, recycling or alternate use of tyre-derived products. These represent opportunities to grow the Scheme and its impact.



What *our success*

looks like

- 1 **Increased number of:**
 - Tyre importers contributing to **80% of market share**, measured by sales of new tyres applicable to the Scheme levy)
 - **Vehicle manufacturers / importers participating to 75% of market share**, measured by total new vehicle sales)
 - **Tyre retailers participating to 75% of market share**, measured as market share of passenger tyre sales by retailers)
 - **Tyre recyclers participating to 85% of market share**, measured as market share of available EOLT for recycling – excluding the recovery and export of whole tyres)
- 2 **Off the road (OTR) tyre producers and users begin contributing and participating in the Scheme**
- 3 **Collaboration between TSA and relevant third parties to explore the challenges and potential solutions for managing end of life tyres in regional and remote areas**
- 4 **Continued engagement with Government in relation to a potential regulatory framework**

STRATEGIC GOAL 4

TSA is a trusted entity, building relationship and value for its stakeholders

TSA has cemented relationships across its broad range of stakeholders, including industry, Government, research and development organisations.

TSA will continue to focus on strengthening its stakeholder relationships and communication, in order to drive new collaborations and continuous improvement in sustainable outcomes for end of life tyres.

TSA continues to work towards meeting its Scheme objectives as authorised by the ACCC; in doing so maintains strong governance principles.

TSA will also continue to build its external communication activities, including to grow public awareness around end of life tyres and the Scheme.



What *our success*

looks like

- 1** TSA is a thought leader, expert and information hub on end of life tyres
- 2** TSA provides effective, transparent and timely communication
- 3** TSA is seen to deliver value to stakeholders
- 4** TSA collaborates effectively with stakeholders willing to work towards better outcomes for end of life tyres
- 5** There is increased public awareness about end of life tyres and the Scheme

STRATEGIC GOAL 5

TSA is a significant contributor to the global circular economy for EOLT

Building a circular economy for tyres will require global cooperation and collaboration.

There are a number of tyre stewardship schemes and other organisations around the world which, like TSA, are advancing sustainable solutions for end of life tyres.

There are significant opportunities for TSA to learn from others and to share Australian successes, entrepreneurship and innovations globally.



What *our success*

looks like

- 1 TSA is contributing to a global framework for end of life tyres
- 2 TSA is collaborating and engaging with other tyre stewardship schemes and relevant organisations
- 3 TSA is engaging with foreign regulators
- 4 TSA is participating in an exchange of knowledge, know how and expertise across global markets
- 5 TSA has benchmarked Australian end of life tyre data against international data
- 6 Australian innovations, technology and entrepreneurship is exported



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