

Media Release
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Queensland's tyre circular economy starts with rubberised roads

Regional Queensland is suffering with illegal tyre dumping and dangerous tyre stockpiles representing a missed opportunity for Australia's northeast state. By recovering resources like steel and rubber from end-of-life tyres, Queensland can build high-performance roads and generate valuable commercial markets that promote local jobs and manufacturing across the state.

"Putting crumb rubber in roads is a winning circular economy formula already happening across Australia and around the world.

"It's time for Queensland State and Local government to start mandating their roads be made using Australian crumb rubber. By not mandating locally available rubber resources for roads, Queensland risks letting its road sector fall behind on industry best practice," says Lina Goodman, CEO of Tyre Stewardship Australia.

Across Queensland about 112,000 tonnes of tyres reach their end-of-life annually, including tyres from passenger cars, trucks, and off the road vehicles (used in mines, agriculture, and civil construction sectors).

Of this quantity, about 60% are presently collected and processed by tyre facilities concentrated in the state's Southeast region (in metropolitan and urban areas).

Sadly, in regional and remote areas across North and Far North Queensland, it's a different story. Recovery rates are presented with obstacles of low quantities and large distances engendering rates of recovery lower than other parts of the state and providing a perfect storm for illegal stockpiling and dumping.

In a recent workshop, representatives from local and state government, roads and civil construction and the resource recovery sector from the North and Far North regions came together to discuss solutions to increase recovery rates across regional Queensland, and local opportunities to retain the valuable resources from end-of-life tyres.

New and existing tyre processing infrastructure and consolidated collection systems may help address the challenges associated with logistics, but the lynchpin for success was lifting investor confidence by establishing local end-markets for crumb rubber.

A recent report from the Australian Road Research Board (ARRB) demonstrated that by introducing crumb rubber instead of polymers to modify bitumen has the capacity to increase flexibility and provide resistance to reflective cracking, while it assists to avoid bleeding and instability when high contents of binder are used. When compared to unmodified bitumen, crumb rubber modified bitumen has also been found to increase durability and enhance elasticity.

Furthermore, TSA's recent study on Greenhouse Gas Emissions (GHG) found that crumb rubber used as 15-20% of an asphalt binder in the wet process has a 7% improvement in GHG emissions compared to an average polymer modified binder (PMB). This figure is even higher when used in other applications like sprayed seal or permeable pavement.

"TSA has already committed \$9 million to market development initiatives of which the roads sector has received the lion share and has the capacity to consume the volume that ensures a robust market – right across the value chain.

“I am urging Local and State Government to step up, mandate Australian crumb rubber in its roads and accept this proven circular economy solution. Industry is ready, educated and waiting to implement without hassle or risk – in fact, we now face the risk of not using this resource available to us.

“This simple step by all levels of the Queensland Government will pack a huge punch for the South West and North and Far North Queensland.” Goodman continued, “Given the extensive road network across Queensland, there is a clear path towards a circular economy starting with proactive procurement strategies by government, for the benefit of all Queenslanders.”

Globally, we see how regulated schemes can remove barriers like those experienced in regional Queensland, stimulate markets, and build a local advantage for crumb rubber. In turn, reducing market availability for rogue operators, and consequently reducing stockpiles and illegal dumping.

A win for Queensland. A win for Australia’s tyre circular economy.

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Background on Tyre Stewardship Australia

- TSA was established in 2014 to implement the national Tyre Product Stewardship Scheme (TPSS), an ACCC-authorised industry framework to reduce the environmental, health and safety impacts of the 56 million Equivalent Passenger Units (EPUs) which reach their end of life in Australia each year.
- TSA’s vision is of a circular economy for end-of-life (EOL) tyres which contributes to a sustainable society.
- It works to drive sustainable outcomes for EOL tyres in Australia, by:
 - accrediting participants – now 1,700 tyre manufacturers, retailers, collectors, and recyclers who are committed to sustainable practices
 - working with voluntary levy contributors to invest in market development initiatives including
 - research and development
 - commercialisation of new productive uses for EOL tyres driving the transformation of a waste product into a useful commodity, creating new industries and jobs while reducing the environmental harm caused by the illegal dumping of old tyres
 - TSA Foreign End Market verification platform - the only global platform aimed at verifying that Australian-generated end-of-life-tyres are not causing environmental or social harm at their final destination.
 - TSA Circular Collaborator platform which supports products manufactured in Australia using tyre derived material.
- As of 2022, we have committed over \$8 million to 56 projects creating real-world outcomes and solutions for Australia’s end-of-life tyres including roads, research, civil engineering, manufacturing, mining and rail.
- Revenue generated from the tyre retail industry in Australia is approximately \$5.1 billion annually.
- Tyre and automotive importers that pay a voluntary levy to TSA include:

• Ascenso Tyres	• Mercedes-Benz
• Bearcat	• Michelin
• Bridgestone	• Pirelli
• Bridgestone Mining Solutions	• Porsche
• Continental	• Toyo Tyres
• Goodyear-Dunlop	• TyreConnect
• Hankook	• Volkswagen
• Kal Tire	• Yokohama
• Kumho Tyres	
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