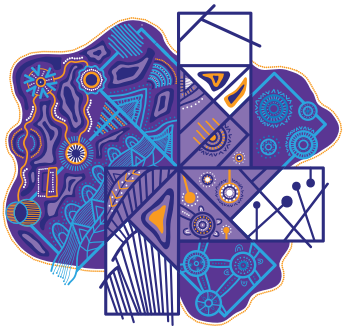
National Decarbonising Transport Summit Report



Acknowledgement of Country

In the spirit of reconciliation we acknowledge the Traditional Custodians of country throughout Australia and their connections to land, sea and community. We pay our respect to their Elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples.

‘Continuing to Shift to shape an even better world’ original artwork by Tarni O’Shea of Gilimbaa and updated by David Williams of Gilimbaa.

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Introduction

Transport industries rise to the challenge

Transport is Australia's social and economic engine. Decarbonising the sector is critical to achieving the nation's net zero targets. We need bold, collaborative action to make the leap.

Transport's greenhouse gas emissions are the nation's third largest and fastest growing. Without effective intervention the sector is projected to be Australia's largest emitter by 2030. It is time for transformative change in how we move Australia's people and goods.

National Decarbonising Transport Summit

United by a shared commitment, the Public Transport Association Australia New Zealand (PTAANZ), Roads Australia (RA) and the Australasian Railway Association (ARA) came together with support from Arup to host a National Decarbonisation Transport Summit in Canberra on 26 June 2024.

Radical transformation over incremental change

The purpose of the Summit was to bring together a diverse group of leaders from across the transport sector to explore what needs to happen now to accelerate Australia's land-based transport decarbonisation journey, and how the industry can collaborate to make it happen.

Multiple pathways for a resilient sector

Mode, access, choice, ability and expectation all come into play in decarbonising our transport system. Delegates explored a diverse suite of solutions connected by three intersecting themes – achieving mode shift at an unprecedented scale, accelerating the net zero vehicle and rail transition, and consistently and adequately assessing whole of life carbon.

Many of the solutions are available today

Delegates brought global inspiration to the table, sharing tangible examples of purposeful efforts to drive emissions down while increasing economic, social and environmental value. Lessons showcased the potential to harness changing attitudes and behaviours, adapt new methods, tools and technologies for an Australian context, and adopt fresh collaborative models across industry and government.

A whole-of–sector response

Collaboration, courage and a total system view will be necessary to accomplish a sustainable, equitable and efficient transport system under net zero conditions. This report summarises outcomes from the Summit, identifying immediate measures government should take in relation to overall transport planning and funding, and priorities that the industry should lead and act upon.

The climate clock is ticking

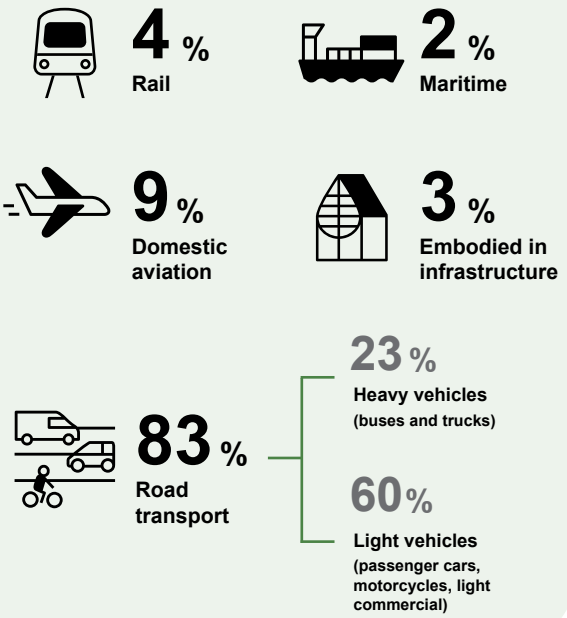
"…every year from hereon in will be one of the hottest years on record and 2023 will end up being one of the coldest years this century."

Joëlle Gergis "Highway to Hell: *Climate Change and Australia's Future*" Quarterly Essay 94.

The National Decarbonising Transport Summit began with a stark reminder. Staying within a 'safe operating space' for people and planet relies on cutting total emissions to 43% below 2005 levels by 2030, and net zero by 2050. Forecasting shows emissions have been declining at just over half the rate required and in fact rose slightly in 2023 [ref]. With our first milestone just five and a half years away, the urgency is clear.

Achieving a quick, low-cost, and smooth transition needs the right settings for how we plan, fund, construct and maintain transport. An important part of the puzzle is focusing attention and investment where the greatest decarbonisation impact will be felt – reducing private car and light commercial freight reliance.

Australian transport emissions by mode, 2023



Source: DCCEEW, 2023
Note: Sums may not total due to rounding

Avoid, shift, improve

The moves we need to make are clear. Aligning behind the 'Avoid-Shift-Improve' (A-I-S) framework offers a unified, clear hierarchy to accelerate the pace of decarbonisation by prioritising transport investment and action.

Avoid
the need for emission generating trips

Shift
to less carbon intensive modes of transport

Improve
optimised vehicles, fuel sources, technologies and systems

Principles for a smooth, low cost and just transition

Summit delegates spotlighted principles to underpin a fast-tracked transport decarbonisation journey.

The biggest impact the transport sector can make is transitioning to more sustainable modes, including public and active transport, rail freight and low impact freight movement, and decarbonising transport for people who must drive. This requires coordination between transport and urban planning, and strong leadership from government and industry.

Consistent, adequate carbon value and assessment needs to sit at the centre of appraising and prioritising transport proposals. Agreed modelling assumptions are crucial in getting 'best bang for emissions buck' by calculating the economic and community cost of rising climate impacts alongside the benefits and savings of decarbonisation.

Current economic evaluation tools and methods, standards, procurement models and risk management procedures need to become fit-for-purpose in a decarbonising world. Outcomes-based procurement and operational models are needed to remove barriers to innovation, introduce whole-of-life considerations and reframe business-as-usual as both a cost and a risk.

Meeting the decarbonisation challenge in a financially constrained environment needs an unrelenting focus on productivity and efficiency. The right technology, data, skills and collaboration cultures are non-negotiable to optimise efficiency and operations, and to prolong existing asset life.

The transition cannot penalise people and businesses without the means to 'avoid' or 'shift'. Differentiated and elastic pricing models, buy-back schemes ('swap the bomb'), and targeted investment for areas that lack access to reliable, affordable and accessible low emissions options should all be on the table.

Different places and demographics face specific constraints and opportunities. On-the-ground engagement is crucial to understanding what drives behavioural change and building the social licence needed for mode shift and fleet transition. Equally important is demonstrating the benefit of sustainable transport to, and for, all users, industry and government.

It's time to embrace the circular economy when it comes to construction, maintenance repair and end of life. Sector awareness and better low-carbon literacy will need to go hand in hand with regulation to incentivise solutions and remove barriers for innovation.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148

Getting the settings right – recommendations for short-term action to deliver long-term change

Whole-of-government direction on decarbonising the transport network gives industry confidence and clarity, underpinned by consistent expectations. A collaborative industry stance on the necessary conditions to unlock investment and innovation supports government's ability to set the necessary processes for generating desired outcomes. Together, government and industry can then work with communities to deliver place-specific progress towards our national decarbonisation goals.

The Summit surfaced three cross-sector recommendations and a set of short-term priority actions. Outcomes informed the joint submission to the Australian Government's Transport and Infrastructure Net Zero Consultation Roadmap. PTAANZ, RA and ARA members and partners will also leverage these recommendations to develop and strengthen industry action plans to lay the path for a just, low-cost and sustainable transition.

Each recommendation should be complemented by:

- knowledge transfer initiatives to build carbon literacy and confidence across government, industry and community;
- collaborative planning across energy, land use and economic development sectors; and
- place-based responses that connect a national agenda to local needs, motivations and dynamics.


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A ‘mode shift’ first approach

23%
United Nations recommendation for transport budget allocations to non-motorised modes

< 2%
average transport budget allocation for active transport made by Australian states

$19b
annual cost of congestion to Australia’s economy [ref]

A credible decarbonisation plan must lead with mode shift if we are to resolve both carbon and congestion. Moving more people through active and public transport could mean, for example, replacing a five-minute drive to the shops with a safe, enjoyable walk; a 35km road commute with smooth cycling-and-rail connections; or shifting from heavy vehicles to rail freight and last mile EV delivery.

The first step is to prioritise mode shift in budgets and investment cases, alongside investigation into the most effective behavioural change levers across affordability, access, convenience, comfort and quality of service.

Recommended actions

Six to twelve months

- Australian federal, state and territory governments, and industry: complement existing data with new modelling evidencing the wide economic, social and environmental benefits of mode shift.
- Australian federal, state and territory governments: continue planning for mode shift in tandem with long-term land use and economic planning.
- Australian federal, state and territory governments, industry and academia: share research to scale up more impactful behavioural interventions, including outcomes and lessons from pilots and trails.

Twelve to eighteen months

- Australian federal, state and local governments: adopt the ‘avoid/shift/improve’ framework to identify and prioritise alternatives to carbon costly investment in business cases.
- Australian federal, state and territory governments: investigate the benefits and impacts of consistent, equitable road and rail pricing.

Accelerate an equitable Zero Emission Vehicles and rolling stock transition

8.45%
of all cars sold in Australia in 2023 were EVs, up 120% from 2022 [ref]

$400
average annual electricity cost to power an EV car, compared to $2,400 in petrol [ref]

90%
of Scope 1 and 2 rail emissions are from energy used to propel trains - diesel locomotives are by far the biggest contributor [ref]

Australia lags many other countries in EV adoption. A combination of policy settings, market dynamics and the cost/effort of adapting a new technology cause slower-than-average uptake.

Strategies for electric car, bike and bus adoption are needed, particularly in market segments where the most impact will be felt – for example, large fleet transition and locations where there are few alternatives to driving.

The zero-emission transition cannot be constrained to EVs. Particularly for heavy transport fleets and long regional distances, we need the widest remit to include technologies such as low carbon liquid fuels and hydrogen fuel cells, alongside battery electric vehicles.

Shifts are also needed in the rail sector, particularly rail freight which relies significantly on diesel-powered traction. The transition to renewable diesel, hybrid diesel electric technologies, and/or battery electric or alternative fuels such as hydrogen, will need to be supported by a clear, national strategy and coordinated research, investment, planning and trials.

Recommended actions

Six to twelve months

- Australian federal, state and territory governments, with industry: adopt the emerging Australian fuel efficiency standards to provide certainty and unlock the zero-emission vehicle supply chain, set pathways to refine the approach, and apply it to trucks, buses and trains.
- Australian federal, state and territory governments: continue planning for transport electrification alongside energy transition planning, to minimise lumpy demand that destabilises the grid.
- Australian federal, state and territory governments, together with industry: develop a shared, national vision for rollingstock decarbonisation to accelerate the transition from diesel-powered traction.

Twelve to eighteen months

- Australian federal, state and territory governments: promote and expand on incentives to stimulate EV demand, with an emphasis on removing barriers for lower income earners and businesses, and financial instruments to accelerate industry fleet shifts.
- Australian federal, state and territory governments, with industry: ramp up the roll-out of enabling infrastructure (e.g. charging points and retrofits), regulation (e.g. building codes) and guidance to ensure a smooth transition for communities, industry and the grid.

Consistently and adequately assess whole of life carbon

1.1°C

current warming – continuing with current climate policies are projected to increase global warming by 3.2°C by 2100 [ref]

70+

countries have pledged to reach net zero between 2050 and 2060, accounting for 76% of global emissions [ref]

23%

potential reduction in upfront carbon emissions through low emission material and construction processes [ref]

There is an urgent need to transparently and consistently address the significant carbon cost associated with our transport systems. It is essential to consider carbon costs from the whole-of-life perspective.

The UK and European Union are lighting the path with methodologies to assess and understand whole of-life impact, from carbon embodied in assets through to the additional carbon created by using those assets.

It should also be noted that emissions assessments for electrified transport, such as rail, are not benefiting from the commitments made to increasing future renewable energy supply. For example, legislated targets for renewable energy give certainty to future energy emissions intensity and this should be considered in assessments of electric powered transport. This may require an update to the national guidelines for Transport Assessment.

The right approach will challenge the need to build new infrastructure and will prioritise low-build and no-build solutions.

Recommended actions

Six to twelve months

- Australian federal government: develop a standardised embodied carbon measurement system, and drive alignment across states and territories.
- Australian federal, state and territory governments, transport sector: set agreed expectations and timeframes for carbon targets, carbon accounting and shared carbon architecture.

Twelve to eighteen months

- State and territory governments: work with the federal government and industry to develop principles and objectives, to inform nationally consistent implementation of business cases piloting carbon accounting and targets, modelling and adapting successful international approaches.
- Australian federal, state and territory governments: develop and adopt nationally consistent procurement guidance, informed by leading global practice and focused on removing barriers to innovation and low carbon construction.
- Australian federal, state and territory governments, with industry: develop and adopt performance-based, collaborative contract models to coordinate and prioritise low carbon investments, and craft new risk-sharing frameworks to incentivise innovation and address existing barriers to industry participation.

National Decarbonising Transport Summit program and summary of discussions

Summit program

Secretary Jim Betts from the Federal Department of Infrastructure, Transport, Regional Development, Communications and the Arts opened the Summit by reminding delegates how powerful a harmonious industry voice is in building the momentum for change.

Sally Stannard, Chair of PTAANZ, Aneetha de Silva, Chair of RA, Caroline Wilkie, Chief Executive of ARA, and Kate West, Co-Chair of Arup, Australasia Region also shared insights on the need to act swiftly, boldly and with urgency.

The 49 delegates split into breakout groups to define 'avoid, shift, improve' actions across planning and policy, capability and capacity, data and technology, and infrastructure and operations. Groups then mapped actions from 'higher' to 'lower', discussing relative impact of each for system-wide change.

Finally, a plenary brought the conversations together to collectively prioritise the big moves needed to unlock change.

Summit discussions

Outcomes from breakout group discussions and the plenary have been synthesised and categorised under the four themes defined by the Transport and Infrastructure Net Zero Consultation Roadmap – rethinking our transport networks and systems, net zero for transport modes, supporting transport's net zero pathways and achieving net zero together.

Each idea has been characterised under the 'Avoid, Shift, Improve' framework, listed by relative impact as outlined by participants. Timeframes have also been allocated for realisation of benefits, aligned with the Roadmap's timeline of short-term (before 2030), mid-term (between 2030 and 2040) and long-term (2040+).

Rethinking our transport networks and systems

- Transport systems that are sustainable, equitable and efficient
- More affordable, high frequency and high-quality public transport
- Safe, delightful and connected active transport routes
- Technologies, data and operating models designed for the common good

Discussion points

Avoid

- **Reduce urban sprawl.** Prioritise smart, mixed-use land use densification underpinned by quality services so more people can meet their everyday needs with a mix of walking, cycling and public transport.
- **Eliminate unnecessary travel through digital connectivity.** Make commitments to embracing digital connectivity and support telecommuting, telehealth and e-learning where possible.

Shift

- **Invest in the quality, frequency and connectivity of services.** Make active and public transport the obvious choice with shorter wait times, smooth connections, convenient operating hours and safe, enjoyable experiences.
- **Champion the co-benefits of public and active transport, and the sharing economy.** Motivate changes in vehicle ownership, particularly in mobility rich areas, by actively promoting safety, cost, social and environmental benefits.
- **Build on improved services with price signals for public and active transport.** Examples might include elastic public transport pricing, ‘under 15s ride free’, rebates or cash for e-bikes.
- **Share learnings on low carbon transport trials to tailor new solutions and policy settings.** For instance, lessons learned from Queensland’s Transport and Main Roads 50c fare trial.
- **Improve integrated digital journey planning and payments.** Connectivity for simple, convenient shared mobility. Trustworthy data collection will inform scheduling, infrastructure and experience.
- **Partner in research and trials to take high emitting commercial and heavy vehicles off roads** e.g. shifting road freight movements off peak, moving freight to rail, last mile delivery by electric cargo bikes or drones, incentives to boost market availability of light commercial EV.
- **Industry incentives to help make the healthy choice for people and planet.** Options include subsidised public transport trips, quality bike parking, leases for EVs and charging for e-bikes and electric cars.

Improve

- **Require data output exchange.** Create the conditions for safer and more efficient intelligent transport systems. Establish trusted data protocols and architectures to incentivise participation
- **Assess governance and operations for mobility as a service platforms.** Ensure any initiatives are centred on positive social and environmental impact.

Legend

Short term Mid term

Case study

The 2024 Olympics have showcased Paris' recent urban transformation from a city for cars to a city for people. Since 2016, the French capital has moved to decisively to pedestrianise and green the city through an integrated program of transport and urban realm works combined with behaviour change initiatives and intensive monitoring to build the evidence base for lasting impact.

By 2030, Paris intends to create more than 100 hectares of pedestrian space in public areas – 140 football pitches worth – including over 100 'children's streets' designed to be kid-safe and friendly [ref]. More than 1,000km of cycling lanes have been rolled out, with studies showing bicycle trips now surpass car trips in the city centre alongside an increase in bike use in neighbouring areas. From 2010 to 2020, mode share of car tips went from 12.8% to 6%, a number that continues to decline [ref].

Following the example of cities like Madrid and Rome, Paris will soon implement a Limited Traffic Zone (LTZ) in the city centre. The LTZ aims to reorganise city space to favour pedestrians, cyclist and public space by restricting transit vehicles passing through the city centre without stopping.

In under a decade, the City of Lights has reinvented the way people and goods move around the city and is already reaping the benefits. Australian's metros and regional centres are also beginning to rally around smart densification combined with low emissions mobility, from incentives like Queensland's 50c public transport fare trials to Victoria's 20min city plan aiming to concentrate housing, transport and employment choice. Paris demonstrates how these initiatives can grow in a short time when joined up planning is guided by clear shared vision.

Net zero transport for transport modes

Abatement opportunities through technologies, policies and planning for

- Light vehicles, including private cars, motorbikes and light commercial
- Heavy vehicles, including buses and heavy commercial
- Rail

Discussion points

Avoid

- **Road user pricing that exacerbates inequality.** Model differentiated road pricing and low/ ultra-low emissions zones to manage demand. Nuance is needed based on geography, access and socio-economic factors to ensure just outcomes for communities and small businesses.

Shift

- **Accelerate incentives to make EVs the obvious choice.** For example, cashback for high emission vehicles for people and business on lower incomes, rebates, reduced tolls and lower registration fees for electric cars, vans and bikes, remove incentives associated with high emission vehicles where other options are available, investigate options to incentivise heavy commercial vehicles in the Australian market.
- **Speed up the roll out of charging infrastructure.** Back planned development of a national mapping tool and battery reuse/recycle scheme. Advance guidance and support rebates to retrofit charging infrastructure through body corporates and commit industry partners, consider alignment of charging needs across all transport modes to maximise investment in energy infrastructure.
- **Grow understanding and awareness of whole-of-life abetment cost.** Calculate and publish the impact of abetment opportunities against the cost of addressing a long-term emissions increase.
- **Drive equity by assessing impacts of interventions.** Evaluate how changes affect socio-economic demographics to ensure the transition is fair on those with fewer options.
- **Walk the talk on fleets.** Industry to follow federal and state commitments with low emission fleet transition complemented by associated infrastructure, led by large industry.
- **Swap, don't junk.** Rather than dispose of earlier fleet models, explore options to gift vehicles where comparably lower emission vehicles would hasten the global transition. As an example, lower emissions buses could become part of regional school fleets or be used overseas to replace diesel versions.
- **Dispel concerns about EV range**. Tailor public messages to specific groups, focusing on individual benefits and getting the facts out – e.g. battery power currently averages 400km, most Australian car trips are less than 5km, car sharing makes financial sense for occasional longer trips.

Improve

- **Support the emerging Fuel Efficiency Standards.** Make it clear industry supports improvements to the efficiency and performance of light and heavy vehicles.
- **Create a national strategy to support and collaborate on research into alternative locomotive fuels and hybrid fuels.** Reduce the impact of diesel rail.
- **Centre decarbonisation in conversations about the roll-out of automated vehicle (AV) and connected automated vehicle (CAV) conversation.** Add to discussions on governance, data security, ownership and operational models.

Case study

Santiago, Chile, has joined the dots between low emissions mass transit, exemplary user experiences and local productivity. Since 2018, the city has been rolling out a fleet of Zero Emissions Buses (ZEB) to serve Santiago's 3.5m public transport users. The electric-battery buses are sustainable, safe, quiet and reportedly reduce operating costs by ~70% when compared to a standard diesel buses [ref].

Now home to the largest electric bus fleet outside of China, Santiago rapidly scaled early pilots with local authorities facilitating innovative models of finance and partnerships including with utility companies [ref]. Collaboration and coordination through a suite of public-private partnerships have fostered local production, knowledge transition, learning and skills development. With 30% of the fleet now electric, the Chilean government has moved its goal of 100% electrification from the original 2040 target to 2035 [ref].

The transition has also been an opportunity to deliver what the mayor of San Joaquín, Cristóbal Labra, calls 'dignified' public transport [ref].

The new fleets and associated infrastructure emphasise comfort and safety for all users and drivers including inclusive access for all genders and all types of mobility. Developed with local citizens through participatory processes, the upgrades extend to bus stops fitted out with universal access, free chargers and WiFi, and solar panels.

As Australia's ZEB shift gains tractions, Santiago offers lessons in adopting a people-focused approach aims to make public transport trips not just convenient but welcoming and enjoyable.

Supporting transport's net zero pathways

- The right transport infrastructure – how to build, when to build and if we should build
- Assessing infrastructure through enabled, operating and embodied emissions
- Decarbonised infrastructure through materials and design

Discussion points

Avoid

- **Reduce inefficiency of existing assets and avoid the creation of unnecessary new infrastructure.** Assume the preferred option is 'build nothing'. Calculate the cost of maintenance and adaptation over the new, particularly when it comes to roads. Relentlessly sweat existing assets and drive change in off-peak periods.
- **Stop leading transport investment cases with traditional economic models.** Expand the repertoire of modelling beyond travel time savings and incentivise alternatives to carbon-costly investment where possible.

Shift

- **Demonstrate the value of using carbon budgeting as a primary investment tool.** Following adoption in the European Union, the UK and cities like New York by applying a carbon budgeting approach to the national pipeline. Analyse the carbon value of current government transport commitments, determine the 'carbon gap' needed to meet targets (the carbon budget) and re-assess commitments against these budgets.
- **Grow understanding and awareness of whole of life costs for active and public transport.** Calculate the costs of decarbonisation investment and subsidies in transport and land use planning business cases. Compare cost of high emission trip subsidies and addressing long-term emissions increase.
- **Assess and promote the co-benefits of decarbonisation by evaluating cross-sector and agency impact** e.g. the value to health, housing and education, impacts on economic participation, the multiplier effects multifunctional transport infrastructure like railway and bus stations offering public charging, or walking tracks built to improve coastal resilience and grow biodiversity.
- **Redesign procurement contracts to include decarbonisation at all stages of the lifecycle.** Increase the focus on outcome-led design and delivery, acknowledging both government and industry need room to innovate through the reallocation of risk.
- **Champion mandated carbon targets in all major infrastructure projects.** Promote explicit targets from assessment to procurement, construction and ongoing operations. Combine this with broadcasting the benefits of taking a 'decarbonise first' approach'.
- **Show the real cost of journeys.** Collect and analyse real cost data to make the case for redistributed funding. For example, inclusion of the total subsidised cost per km for a car trip versus total subsidised cost per km for public transport or rail freight in options assessment
- **Inform Australia's green bond framework** by working closely with federal government to agree Australia's top 10 transport decarbonisation projects.

Improve

- **Model sustainable whole-of-sector funding approaches for future transport system.** Use macroeconomics to explore new models to ensure the best, most efficient use of all modes, as well as low and zero emissions technologies.
- **Work across sectors to improve access to green power.** Take a collective approach to making green power available, purchasable and distributable for land-based transport.
- **Push for standards and guidelines that allow faster scaling and adoption of existing and new low carbon materials.** Focus first on material substitutes for the highest emitting materials.
- **Shine a light on supply chains.** Collaborate with state and federal government to support the integration of scope 3 reporting for transport supply chains and address battery lifecycle management.
- **Procure the right technology and build the skills for efficient infrastructure.** Share leading practice in material design, specification and use. Invest in training and development to mature workforce capability. Focus on doing simple things consistently and well e.g. regular as-builts, connected digital twins, agent-based modelling.

Case study

Sydney Metro is Australia's biggest public transport project. As well as a more connected public transport network, New South Wales is using the opportunity to bring about a materials revolution. A full 100% of clean spoil has been reused [ref].

Limits set on carbon intensive binding agents like Portland cement are complimented with low carbon replacement targets focusing on translating waste processes into resources. Quick check compliance tools helps contractors navigate their way through the new processes while growing sector alignment and capability.

The record infrastructure investment of Victoria's Big Build program has also kick-started market transformation towards a circular economy.

Beginning with the ecologiQ program, procurement levers and industry development are being used to introduce recycled and reused materials as business-as-usual. Since the program began, over. 3.4m tonnes of recycled materials have been committed and permitted opportunities to use recycled materials has almost doubled [ref].

Further afield, Transport Infrastructure Ireland's Circular Economy Strategy is integrating material life cycle assessment alongside procurement guidance to incentivise reuse of materials, rethinking the need to build in favour of repair refurbish, and design for deconstruction [ref].

Achieving net zero together

- Collaboration across industry
- Working with federal, state and territory governments
- Connecting to communities

Discussion points

Avoid

- **Avoid overemphasis on technical solutions.** Social licence and new behaviours will help to unlock mode shift. We need to collate and build on research to understand what drives behaviour change towards mode shift adoption. This will take collaboration and engagement across government, industry, academia and communities.

Shift

- **Break down silos between transport planning, land use planning and economic planning.** Better connections and sharing grow the collective ability to deliver on multi-agency needs and shared investment cases.
- **Agree to an industry standard based on federal direction for carbon modelling assumptions and parameters.** This should include exploration of potential interoperability issues.
- **Collaborate with the energy sector.** Forecast the quantum and locations of public transport energy and EV demand to underwrite generation and transmission capacity uplift, and ensure we have capacity in the grid to enable further clean energy public transport.
- **Participate in the Australian Sustainable Finance Institute's consultation process.** Work with processes to develop industry-agreed benchmarks for green and transition transport projects that accelerate Australia's decarbonisation.

Improve

- **Work more closely with the federal government, TAFE and universities on workforce requirements and talent attraction.** Australia needs a new skills pipeline to plan, build and operate a low emissions sector.

Case study

In 2019, the European Union (EU), the world's third largest economy, announced its Green Deal policy initiative. Under the Green Deal, the EU legislated member country commitments to reduce net greenhouse emissions by at least 55% by 2030.

The Green Deal was strengthened in 2023 through the adoption of a wide body of decarbonisation legislation. A key lever is the Methodology Delegated Act, which provides member countries with a standard method for calculating emission savings [ref]. This agreed standard ensures consistency across markets and provides a reference for certification, harmonising expectations across government, industry and the community.

The 2023 legislation also introduced the EU Emissions Trading System (ETS), pricing carbon dioxide equivalent emissions and setting an annual cap for emissions in certain sector [ref]. A separate ETS (ETS II) is being created for buildings and road transport slated to be operational by 2027. An annual procedure of monitoring, reporting and verification will help industry achieve compliance and the EU to meet its emissions reduction targets [ref].

Summit delegates

PTAANZ, RA and ARA thank the following government agencies and industry associations and organisations for their participation in the Summit.

AECOM

ARTC

Alstrom

Arcadis

Arup

AustRoads

Aurecon

Bus Industry Confederation

CPB Contractors

Commonwealth Department of Infrastructure, Transport, Regional Development, Communications and the Arts

GHD

Hitachi Rail

High Speed Rail Authority

Kelsian

Major Projects Canberra

National Transport Commission

NEC

Port of Melbourne

Queensland Department of Transport and Main Roads

SYSTRA ANZ

Transport Canberra and City Services

Transport for New South Wales

Transurban

UGL

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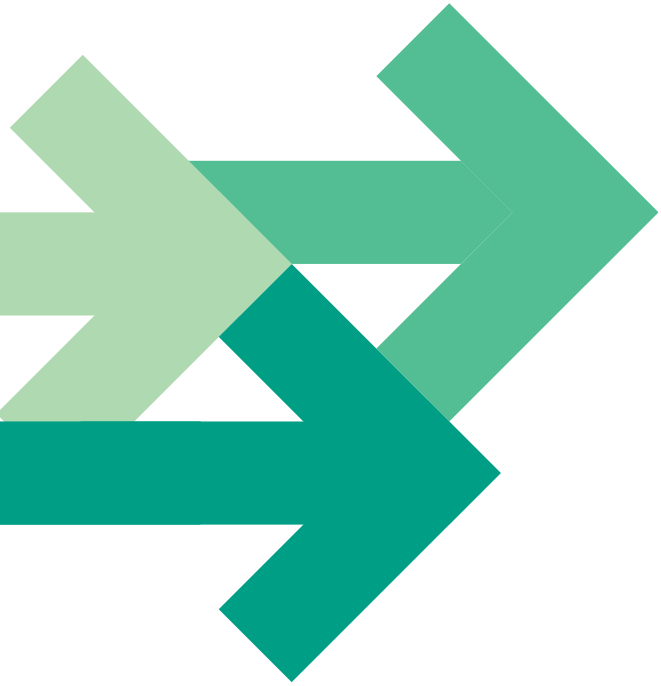

PTA ANZ PUBLIC TRANSPORT ASSOCIATION AUSTRALIA NEW ZEALAND

roadsaustralia

Australasian Railway Association

ARUP