PATREC

STRATEGIC PLAN 2026 - 2028

Including Business Plan 2026

FINAL

May 2026

STRATEGIC PLAN 2026 - 2028

Including Business Plan 2026

Version control

FINAL

About PATREC

The Planning and Transport Research Centre (PATREC) is a collaboration between the Government of Western Australia and local universities, constituted to conduct collaborative, applied research and teaching in support of policy in the connected spaces of transport and land use planning. The collaborating parties are: The University of Western Australia, Curtin University, Department of Transport and Major Infrastructure, Main Roads Western Australia, Western Australian Planning Commission and the Western Australian Local Government Association.

Acknowledgement of Country

PATREC acknowledges the traditional custodians throughout Western Australia and their continuing connection to the land, waters and community. We pay our respects to all members of the Aboriginal communities and their cultures; and to Elders both past and present.

Publisher

Planning and Transport Research Centre
The University of Western Australia (M087)
35 Stirling Highway, Crawley, WA 6009
+61 8 6488 3385
patrec@uwa.edu.au
https://patrec.org/

PLAN IN BRIEF

Purpose
- Broad strategic direction for 2026-28
- Contextual driver changes
- Incorporate climate action (CA) strategic plan
- Business Plan 2026

PATREC mandate
Coordinate and conduct collaborative, applied research in support of policy and operations in the connected spaces of transport and planning.

PATREC value proposition
- Advancing the knowledge base, forging new and innovative, evidence-based solutions
- Supporting more effective, efficient, safe and sustainable transport and planning systems, supporting WA communities to live and travel better, adapting to climate change and achieving Net Zero emissions

Strategic objectives
- Coordinate and conduct applied research in response to agency needs
- Communicate research findings through publications, events, website and training
- Secure additional research funds to supplement core funding
- Acquire and sustain access to key datasets and tools to facilitate and expedite research

Contextual drivers
- Strong climate action (adaptation, mitigation) policy objectives
- Facilitating energy transition requirements
- Housing availability and diversity
- Sustainable resource use and decarbonising life cycle impacts of infrastructure
- Intelligent, safe, sustainable and optimised transport networks
- Enabling operation of future mobility technology – CAVs, micro and e-mobility
- Climate Science Initiative – downscaled data for adaptation and mitigation research

Research focus areas
- Integrated land use-transport planning and modelling
- Sustainable and resilient communities
- Smarter travel decisions
- Freight system optimisation and decarbonisation
- Intelligent transport systems and AI-driven mobility analytics
- Transport infrastructure decarbonisation and circular resource use

9 core projects for completion (2025-27 program)
- Video analytics for monitoring active transport
- Roundabout safety review - drone video analytics
- Preparing WA to deploy automated on-road freight vehicles
- Satellite imagery-informed deep learning approach to estimate and forecast Perth's dwelling yields
- Take up rates – future dwelling capacity and yield forecasts in higher density or infill areas
- Low-carbon transit-oriented development precincts
- Evidence-based climate adaptation strategies for Perth's primary network for active transport
- Mapping the circular economy of WA – transport infrastructure
- Enhanced vehicle detection at traffic signals and smart freeways

2027-2028 core research program established
- Reduced funds to allocate to projects (no iMOVE CRC leverage, infrastructure levy waiver)
- Reduce number of projects, obtain top-up funds from beneficiaries – partner and other agencies

External projects for completion
- Risky driver behaviour detection
- AURIN WA Node – climate action support
- Safe Paths – enhancing active transport infrastructure
- RoadSense Analytics – AI-enabled traffic intelligence

External opportunities to pursue
- Future Freight CRC
- Ports WA
- AURIN "Challenge Area" funding stream
- Climate Science Initiative applications
- Sustain the AI mobility analytics team

Communicate research finding
- >8 academic publications/annum
- >10 technical reports/software tools/annum
- >5 connection events/annum
- >8 news articles/annum
- Redesign, update website linked to social media
- >2 training initiatives/annum

Impacts
- >6 positive project impact statements/annum
- Annual satisfaction survey rate at least 85%

Resourcing and governance
- Extend PATREC and core funding to end 2028
- Achieve PATREC@Curtin
- Explore involving Murdoch as partner (CA)
- Secure external funds >$2million/annum
- Address matters of real costs of research
- Achieve university ROI: >6:1 (3-year rolling)
- Consider need for revised collaborative agreement

Table of Contents

1. INTRODUCTION

1.1. Background

The last PATREC Strategic Plan was produced for the period 2023-2025 including a more detailed Business Plan for the inner year, 2023. Subsequent Annual Business Plans for 2024 and 2025 were produced, including any strategic updates where necessary.

PATREC Research Advisory Committees (RAC) - PATREC RAC (PRAC - traditional program) and Climate Action RAC (CARAC – climate action program) - and project steering committees, have been instrumental in guiding the research direction presented in this Strategic Plan for the period 2026-2028, through the process of developing the 2025-2027 core research program comprising five priority research projects. This program was fast-tracked to commence earlier than usual (2025), for completion by December 2026, as the final round of projects to be undertaken through the iMOVE CRC, formally ending in June 2027. The program also includes replacement projects for those withdrawn for various reasons.

Following the establishment of a new PATREC program of research: Climate Action in Transport and Land Use Planning in 2022, a strategic plan (CA Plan) to guide the new program was prepared and approved by the Board in April 2025. As agreed by the Board, this Strategic Plan 2026-28 incorporates the CA Plan with the PATREC mandate revisited and broadened to encompass the new program and other emerging opportunities.

1.2. Purpose and structure

The purpose of this Strategic Plan 2026-2028 (the Plan) is to set out the strategic direction of PATREC for the period, also providing a more detailed action-focussed Business Plan for the inner year, 2026. In line with the 2016 PATREC Collaborative Agreement, as varied annually and more recently, biennially, the Plan is revised every three years with any interim updates included as part of the annually prepared Business Plans.

This Plan has four parts. This introductory section, which provides the background to PATREC's current position and the purpose and process of developing the Plan, is followed by a summary of achievements under the 2023-2025 Strategic Plan and a restatement of the value proposition of PATREC which, with some minor amendments, remains valid. The third part presents the strategic direction with a three-year focus which sets out what PATREC will be doing, the context within which it is operating, resourcing allocations for delivery and Key Performance Indicators for measuring the success of delivery. The final part comprises the Business Plan which provides a more detailed view of goals, actions, deliverables, resourcing and a budget for the inner year of 2026.

Building on the achievements of the last three years in line with the direction set in the previous strategic plan (2023-25), but cognisant of an evolving contextual environment, this Strategic Plan 2026-2028 will guide the operations of PATREC and its research program during that period.

2. ACHIEVEMENTS AGAINST LAST PLAN 2023-2025

Guided by the last Strategic Business Plan 2023-2025, PATREC has successfully achieved outcomes across a range of performance areas, including:

- Research projects (core and externally funded)
    - 27 substantial research projects with technical reports/software packages completed – 18 core and 9 external (Annexure B)
    - 2025-2027 core research program established, fast-tracked to meet the timeline for the final round of iMOVE CRC, incorporating replacement projects for withdrawn

projects – 5 projects approved for commencement from mid-2025 and completion by December 2026 to meet iMOVE deadlines

- Attracting additional financial resources (Annexure A)
    - $6,408,000 of additional project funding secured, sourced from non-core income i.e. external funding (a third of income from a large Commonwealth grant in 2025)
- Knowledge transfer and dissemination (Annexure A)
    - 56 presentations made at PATREC and other connection events
    - Australasian Transport Research Forum, PATREC was local organising committee, 29 November to 1 December 2023, record attendance, positive feedback from post-conference survey by IPSOS
    - Publication of 20 peer-reviewed academic journal articles
    - 4 PhD graduated; 3 PhDs attracted and retained
- Satisfaction survey: 85% (2023), 80% (2024), 93% (2025) – average 86% satisfaction achieved
- Director appointed Chair of the Australian Urban Research Infrastructure Network (AURIN) Scientific Advisory Committee in 2025 (national)
- Director continued as Advisory Board member, Computational Urban Planning and Urban Management (CUPUM) (international)

3. VALUE PROPOSITION

3.1. Mandate

Given shifts in the ambit and context of PATREC research over the past few years, the mandate has been amended slightly: 'to continue a research collaboration known as the Planning and Transport Research Centre ("PATREC") for the purposes of **coordinating and** conducting collaborative, applied research in support of policy **and operations** in the connected spaces of transport and **planning**.

Changes inspiring this amendment include:

- Shift in the transport focus from planning to include network operations and infrastructure maintenance.
- Shift in the land use planning focus beyond strategic land use planning to (settlement) planning more generally, and to design, more specifically.
- PATREC was originally constituted primarily to teach a formal, joint Master program between the partner universities, this has not been a key activity of PATREC for many years. The only 'teaching' which has continued to occur since 2016 has been limited to guest lectures, unit contributions, occasional short courses (e.g. cost-benefit analysis), specialist training sessions (e.g. econometrics training linked to land use modelling research) and under- and post-graduate research project supervision. These activities are essentially a form of knowledge transfer – an integral part of the research process including dissemination and communication of research - rather than a function in its own right. In addition, with urban and regional planning no longer taught at UWA, opportunities for contributing to teaching in this area, are further limited.
- PATREC has continued to 'conduct' research but has in parallel, proceeded to enhance its governance structures to bring an element of formality to the collaboration process amongst universities and agencies (and for eight years, with the iMOVE CRC) to ensure responsive and responsible use of PATREC funds, without being overly onerous. The Director, senior administrative officer, RAC Chairs and members and project steering committees, all play a coordination, in addition to technical, role. While collaborative research achieves benefits beyond the sum of the parts, it is costly to administer and this important role in PATREC should be more prominent.

3.2. Purpose

The contractual mandate is extended to a statement of purpose or 'value proposition' to more fully capture the nature of the collaboration, role of coordination, value to partner groups and outcomes. The purpose has been amended to accommodate the mandate changes but also the inclusion of the climate action program plan, with outcomes restated to incorporate climate action goals of reaching net zero emissions and adaptation and resilience to climate change as well as safe and sustainable transport as emphasised in the latest Transport Strategic Plan 2025-2029.

The amended purpose is:

- 'Capitalising on our extended network of academic and government agency partners,
- our value proposition is to coordinate and conduct applied research in support of policy and operations in the connected spaces of transport and planning,
- in order to advance the knowledge base and forge new and innovative evidence-based solutions,
- contributing to more effective, efficient, safe and sustainable transport and planning systems, supporting WA communities to live and travel better, adapting to climate change and achieving Net Zero emissions consistent with science-based targets'.

3.3. Objectives

The value proposition is achieved through four related key strategic objectives:

1. Coordinate and conduct multi-disciplinary, multi-institutional applied research in response to identified agency research needs and knowledge gaps;
2. Disseminate and communicate research findings (knowledge transfer) through
    - academic and technical publications
    - connection events
    - website as a reliable, accessible and up-to-date resource for researchers and policy-makers
    - training, predominantly in the form of short courses, master classes, teaching unit contributions and postgraduate supervision;
3. Attract additional research funds to supplement core partner funding through business development; and
4. Acquire and maintain access to key and frequently used research infrastructure - datasets and tools - to facilitate and expedite research.

Changes from the last strategic plan include these as objectives rather than activities, including training as a means of knowledge transfer rather including it as part of teaching as a separate objective (as discussed in 3.1) and an additional objective relating to research infrastructure given the establishment of the NCRIS-funded, AURIN WA Node at PATREC with its strong potential for continuation under the new AURIN operating model.

3.4. Strategic activities

The value-add role of PATREC is further articulated in a set of strategic activities relating to each key strategic objective:

Key Strategic Objective 1: Coordinate and conduct multi-disciplinary, multi-institutional applied research in response to identified agency research needs and knowledge gaps

- Identify, articulate, compile and communicate R&D needs of research users and knowledge gaps and opportunities as identified by research providers in the form of research focus areas and priorities.
- Initiate the translation of identified research needs and knowledge gaps into key research questions and project designs.
- Craft the research so as to achieving the R&D balance between more basic and applied research by pitching and designing the research in such a way as to deliver some shorter term, policy-responsive wins, but also enables publishable contribution to the knowledge base in the longer term.
- Coordinate, assemble and mobilise multi-disciplinary, multi-institutional research teams to propose and undertake research projects.
- Track and communicate current R&D activity to avoid duplication, identify knowledge gaps and collaborating opportunities.
- Contribute to the resourcing of R&D through:
    - Inspiring, attracting, acquiring and retaining human resource capacity by:
        - advertising and proactive search to discover potential human resource capacity
        - providing top-up scholarships for postgraduate studies, particularly PhDs
        - contributing to funding of postdoctoral fellowships in exceptional cases
        - identifying and communicating available research capacity for optimal sharing of resources.
    - Undertaking core research including baseline studies as a platform on which to build more comprehensive research concepts to be undertaken by larger research teams funded by additional funding.
- Facilitate the establishment of new spin-off research entities, if and when it is opportunistic and reasonable to do so.

Key Strategic Objective 2: Disseminate and communicate research findings (knowledge transfer) through academic and technical publications, connection events, website and training

- Require, produce and monitor the delivery of formal academic and technical publications as an essential research output in the form of:
    - Peer-reviewed technical reports, overseen by project steering committees to ensure quality, published online
    - News articles on key findings for less academic audiences
    - Academic journal articles, books and book chapters and conference papers published in proceedings.
- Require, produce and monitor the delivery of specific, practical policy products such as software tools, methods and datasets, demonstrated and described.
- Initiate and conduct a range of targeted connection and communication events to inform and be informed of research and policy activities, products and findings in the form of:
    - Research Forums
    - Topic-specific conferences, seminars, workshops and breakfast functions, inviting national and international visiting experts as speakers when appropriate.
- Develop the website into more of a 'Knowledge Portal' to disseminate relevant information:
    - Central resource for researchers and policy-makers and agencies (e.g. research supervisors, speakers)
    - One-stop-shop of who's doing what
    - Facilitating integration with a wider community of interest
    - Links to available transport data.
- Undertake training including guest lectures, unit contributions, occasional short courses (e.g. cost-benefit analysis), specialist training sessions (e.g. econometrics training linked to land use modelling research) and under- and post-graduate research project supervision.

Key Strategic Objective 3: Attract additional research funds through business development

- Ensure continued core funding of PATREC through biennial variation agreements
- Supplement core funding through
    - Securing external project research income
    - Sponsorship for key events e.g. ATRF conference, annual John Taplin Memorial Lecture
    - Leverage external research funds by contributing core funding to secure involvement in external initiative such as CRCs and ARC Linkage grants.
- Identify opportunities, facilitate tendering and conducting contract research.

Key Strategic Objective 4: Acquire and maintain access to key and frequently used research infrastructure - datasets and tools - to facilitate and expedite research

- Building on the success of securing access to the SmartRider database and given the success of securing the NCRIS-funded, AURIN WA Node at PATREC with its strong potential for continuation under the new AURIN operating model, use the opportunity to expand on the provision of research infrastructure for the benefit of PATREC research.

4. CONTEXTUAL STRATEGIC DRIVERS

Since PATREC applied research is focussed on responding to WA transport and planning agency policy and operations needs, it is important to continuously assess the relevance of PATREC research focus areas to evolving government policy and operations priorities. The focus in this section is on WA government drivers relating more specifically to transport, planning and climate action come from strategic and policy documents, published since the last strategic plan (2023-25), annual updates provided in the 2024 and 2025 Business Plans and CA Plan. Applicable policy direction from earlier plans which still remain valid, include: Shaping Western Australia's low-carbon future (2021), Active Transport Infrastructure Policy (2021) and supplement (2022), Foundations for a Stronger Tomorrow, State Infrastructure Strategy (2022), WA Government Response to the State infrastructure Strategy (2023) and Driving Change: Road Safety Strategy for Western Australia 2020–2030 (2020).

A selection of national scale cross-sectoral policy has been included particular as related to urban, infrastructure and planning to boost housing supply policy, as well as climate action policy (net zero, adaptation and risk assessment, productivity, low energy buildings).

This section does not provide a systematic, original review of policies, rather, selectively draws on potentially relevant statements from policy documents, copying and pasting directly from sources to provide a high-level indication of priorities. The policy highlights have been organised to cover WA transport, climate action and planning policy followed by the national scale selection.

The most relevant policy stand-outs from policy covered in this section can be summarised as follows:

- Sustainable, resilient communities - planning response to climate change (adaptation, mitigation) and natural hazards and risks, facilitate energy transition requirements in planning frameworks – very strong climate action objectives across planning and transport policy – particularly planning policy
- Land planning and management for housing availability and diversity
- Safe and sustainable transport
- Transport and (settlement/building but we mainly look at residential) Infrastructure - sustainable resource use (materials) and decarbonisation of life cycle impacts – circular economy
- Integrated data sources for active travel monitoring
- ITS - intelligent, safe, sustainable and optimised network
    - ITS for efficiency benefits with flow-on environmental benefits
    - ITS for regional resilience
    - ITS for moving people and goods more safely, efficiently and sustainably with reduced travel times, improved network reliability, a consistent road user experience and increased uptake of active modes and public transport
    - ITS for enabling operation of future mobility technology – CAVs, micro and e-mobility - increasing the number of trials
- Climate Science Initiative – downscaled data for climate future scenarios available for integration with other data sets, enabling application to transport and planning for resilience, adaptation and mitigation research

4.1. Transport

4.1.1. Connecting People and Places, Transport Portfolio Strategic Framework

Providing integrated transport solutions and services through:

- Holistic planning and prioritisation for a growing State

- Optimising investment, maximising the benefits of every transport dollar
- Embracing collaboration to achieve better outcomes
- Customer culture with customers at the centre of service delivery and decision making
- Sustainable Transport Systems, delivering integrated, safe, efficient transport solutions
- Innovative solutions to optimise service delivery and infrastructure

https://pta.wa.gov.au/Portals/15/AA_DOCUMENTS/About_us/Our%20role/Portfolio%20Strategic%20Framework.pdf?ver=2017-10-12-095612-533

4.1.2. Transport Strategic Plan 2025-2029

Strategic priorities (selected):

- Community first - reflect the diverse and evolving needs of our community, removing barriers to **equitable transport** so that all Western Australians have access to the **safe** services and infrastructure they need
    - Adapt to meet changing community needs with **reliable information**, **evidence-based research**, and community insights that support policymaking and **safe** service design
- **Safe and sustainable** transport - create flexible, climate-resilient, and integrated transport that reduces emissions, helps grow the WA economy, strengthens local jobs, and ensures all Western Australians can access the services and infrastructure they need, when they need it, no matter where they live
    - Monitor environmental, social and economic trends to guide investment in **safe**, **sustainable** transport that meets the long-term needs of the WA community
    - Lead and contribute to whole-of-government priorities to build sustainable and resilient supply chains, improve community access to integrated transport, support trade growth, and cut emissions

https://transport.wa.gov.au/getmedia/aa27d7b9-8208-409c-a2da-e667561ed50c/ABOUT_P_TransportStrategicPlan2025-2029.pdf

4.1.3. Transport Portfolio Sustainable Infrastructure Policy 2024

This Policy commits the Transport and Major Infrastructure Portfolio to strengthen sustainable resource use and decarbonisation of life cycle impacts from energy, water and materials across transport infrastructure and assets. The aims of this Policy are to:

- Achieve a consistent approach to sustainable material use and decarbonisation of life cycle impacts for energy, materials and water across the Transport Portfolio infrastructure and assets
- Overcome barriers to greater uptake of sustainable materials and low/zero carbon products across four key areas: cultural (willingness to adopt new products); technical (risk and asset life impacts), local market supply (availability, cost) and regulatory (specifications, compliance)
- Increase the use of low/zero carbon, reused and recycled products for priority materials including steel, concrete, asphalt, aggregates, sand, and plastic
- Explore transition of transport fleets and off-road machinery and equipment to low/zero emissions technology
- Share knowledge, research and experience with industry partners to improve and drive outcomes.

https://www.transport.wa.gov.au/getmedia/ebaf12bd-beac-497a-9928-95a128cc9bb3/ABOUT_P_Sustainable_Infrastructure_Policy_2024.pdf

4.1.4. Western Australian Bicycle Network Data and Monitoring Strategy 2023

'Looking Forward' section:

- Potential future monitoring scenarios may include responsive monitoring of key destinations (e.g., activity centres and public transport hubs) and the detection of multiple active transport modes (e.g., bike riding, walking and eRideable use)
- It will also consider improvements in monitoring capabilities for walking and eRideables that can be triangulated with the relatively advanced methods for monitoring of bikes
- Monitoring improvement ideas for investigation
    - Collection of baseline area-specific usage data - to estimate the daily profiles or annual volumes of people walking, wheeling or riding through a key destination or area of interest. Baseline data provides useful information to estimate the wide-ranging potential benefits that come from investment in active transport infrastructure and behaviour change programs.
    - Conduct technical studies including testing the triangulation of several data sources to obtain valid holistic active transport usage estimates; and determining the optimal placement and implementation of the preferred counting technologies to improve the monitoring of overall and targeted active transport network activity

file:///C:/Users/00081632/OneDrive%20-%20The%20University%20of%20Western%20Australia/Downloads/other%20downloads/Downloads/AT_P_WesternAustralianBicycleNetworkDataandMonitoringStrategy%20(3).pdf

4.1.5. Keeping WA Moving, Main Roads updated 2023

Strategic areas of focus:

- Movement - improve mobility of people and the efficiency of freight
- Sustainability - develop a sustainable transport network that meets social, economic, and environmental needs
- Customers - provide a transport network centred on what our customers need and value
- Capability – develop our people and industry to create a mentally healthy, skilled and inclusive workforce
- Safety - provide improved safety outcomes for all users of the transport network

Values:

- Roads matter - taking pride in the state's road network
- Embracing challenge - anticipating and responding to challenges
- Excellence in customer service - understanding and delivering what's important to customers
- Working together - collaborating to strengthen relationships and achieve good outcomes
- Professionalism - providing high levels of expertise and acting with integrity
- Family - respecting and supporting each other, our customers and the community

Strategic initiatives - short-term priorities to shape and inform the longer-term strategic direction:

- **Future transport and technology -** understanding the impacts of connected and automated vehicles, intelligent transport systems, cybersecurity, digitalisation, artificial intelligence and related technologies by removing barriers for adoption, ensuring technology integration and supporting trials and implementation when appropriate. Potentially includes studies, simulations, trials, working groups.
- **Net zero emissions and decarbonisation -** helping the transition towards a low carbon and climate resilient WA economy to support the WA Government's aspiration to net zero

emissions by 2050. We will proactively support actions to remove carbon emissions from our activities and supply chain where practicable.

- **Road safety -** incorporate changes to policies, processes, designs and systems management to achieve our commitment to road safety to reduce death and serious injuries on WA roads by at least 50% by 2030 and to eliminate serious trauma by 2050.
- **Skills and capabilities -** ensuring we have the right skills and capabilities to deliver business outcomes now and into the future. Includes succession planning, knowledge management and development programs for new and existing staff and includes externally focused activities to ensure industry has the capacity to support our works.
- **Aboriginal engagement and participation -** ensuring we are committed to the engagement of Aboriginal peoples, offering a workplace where Aboriginal cultures and histories are embraced and respected and full participation in our workforce and supply chain is commonplace.

https://annualreports.mainroads.wa.gov.au/AR-2024/about/our-strategy.html

4.1.6. ITS Master Plan 2022-2030, Main Roads 2023

The ITS vision is "providing world class mobility for Western Australians across an intelligent, safe, sustainable and optimised network", with the following strategic focus areas:

- Safety and vision zero – safe and secure transportation infrastructure to create a safe mobility system
- Sustainability and net zero – implementation of transport technologies that provide efficiency benefits that have flow on environmental benefits. To enable an optimised network, ITS signage and wider information provision should act to support efficient mode choices for travel
- Regional resilience - fostering regional capability in standardised deployment of ITS that is fit for purpose and using ITS as a solution/toolkit to address issues particular to rural areas within a regional context
- Moving people - application of innovation and technologies to enable intelligent, integrated travel solutions for the safer, efficient and more sustainable movement of people achieving reduced travel times, improved network reliability, a consistent road user experience and increased uptake of active modes and public transport
- Moving goods - application of innovation and technologies to enable intelligent, integrated transport solutions for safer, efficient and more sustainable movement of goods achieving reduced travel times, improved network reliability and a consistent road user experience
- Future vehicle technology - CAVs in tandem with micro and e-mobility elements are forming part of the future mobility technology framework - enable the operation of future mobility technologies on WA transport infrastructure, increasing the number of trials of new technologies and the number of new pre-approved ITS devices for use in WA

https://www.mainroads.wa.gov.au/4a461d/globalassets/technical-commercial/technical-library/its/intelligent-transport-systems-its-master-plan-2024-2030.pdf?v=49bfae

4.1.7. PTA Strategic Plan 2025-2030

Of the five strategic pillars of finance, customers, people, resilience and growth, the growth pillar offers the greatest potential for research:

- Ensure greater access to our public transport network
- Progress an integrated transport planning approach, focussing on a multi-modal growth strategy for equitable access and network coverage
- Measure the number of people who shift from using private vehicles to public transport
- Increase capacity for people to move through high-demand transport corridors to enable a greater public transport mode-share
- Improve public transport access to and between strategic activity centres and the central sub-regions' secondary activity centres

https://pta.wa.gov.au/About-us/Priorities-and-performance/Strategic-Plan

4.2. Climate action

Further to still relevant policies summarised in the PATREC Strategic Plan 2023-2025 (WA Climate Policy, 2020; Shaping WA's Low Climate Future, 2021) and the PATREC CA Strategic Plan 2025-2028 (Climate Adaptation Strategy, 2023; Sectoral Emissions Reduction Strategy, 2023), progress with the Climate Science Initiative WA - downscaled scenario-based climate data - provides opportunity for application in transport and planning research focussed on resilience, adaptation and mitigation through integration with other domain-specific data sets. This is less a policy driver and more a research infrastructure availability driver.

https://www.wa.gov.au/organisation/department-of-water-and-environmental-regulation/climate-science-initiative-and-wa-climate-projections

4.2.1. State Electric Vehicle Strategy and progress report DWER 2020, 2025

Key areas of action:

- Accelerating electric vehicle uptake, through leadership within its own fleet
- Increasing availability of charging and hydrogen refuelling infrastructure
- Developing and updating standards, guidelines and planning approval requirements
- Improving levels of consumer awareness and knowledge
- Industry development and commercial vehicles.

https://www.wa.gov.au/system/files/2020-11/State_Electric_Vehicle_Strategy_for_Western_Australia_0.pdf

The 2025 progress report includes additional commitments and actions since the original strategy was released in 2020 and provides a status update on each action. Actions are predominantly operational in nature and do not provide significant opportunities for applied research e.g. building the WA EV Network, rebates for EVs purchased, supporting small businesses, not-for-profits and local governments to install charging infrastructure, trial the installation of EV charging infrastructure at train stations, electrify the Transperth bus fleet, statewide strategy for future electric road transport charging infrastructure and a road freight decarbonisation strategy for south west WA in consultation with the road freight sector.

Possibly some options for research included in the collaborative action with other states and territories and national working groups:

- Adoption of current market-based standards for EV plugs for charging infrastructure to guide councils, companies and charging infrastructure installers

- Development of national operability standards for charging infrastructure, such as common open-payment platforms and motorist accessibility
- Development of guidelines to support installation of EV charging and refuelling infrastructure
- development of guidelines to make buildings and other accommodation 'EV ready' – ensuring that new buildings cater for EV charging
- Supporting national work to develop data sharing and exchange standards for vehicle charging and energy data, while preserving personal privacy and commercial confidentiality
- Reviewing land use planning guides and standards related to fuel and service stations to support establishment of EV infrastructure.

https://www.wa.gov.au/system/files/2025-10/state_electric_vehicle_strategy_for_western_australia_progress_report_2025.pdf

4.2.2. Electric Vehicle Action Plan 2021

This Plan, prepared by the Energy Transformation Taskforce, outlines actions required to prepare WA's electricity system for EVs.

Major initiatives:

- Development of credible scenarios for EV uptake and reflection of these scenarios in Whole of System Planning and the Electricity Statement of Opportunities
- Steps to improve visibility of, and connection requirements for, EVs in the power system
- Achieving longer-term integration of EVs within the power system through the development and implementation of capability for aggregation and control
- Development of a specific electricity tariff for EV customers.

https://www.wa.gov.au/system/files/2021-08/EPWA-EVActionPlan_18Aug2021e.pdf

4.3. Planning

4.3.1. Western Australian Planning Commission's Strategic Plan 2025-29

Strategic focus areas of relevance to PATREC research:

- Contemporary and coordinated planning, including
    - Streamlined innovative policies, frameworks and practice to deliver a contemporary and efficient system
    - Robust, evidence based, decision making and evaluation
- Sustainable communities and environments, enabling community resilience, responding to climate change, including
    - Rapid facilitation of energy transition requirements in planning frameworks
    - Planning and design for liveability, equity and wellbeing
    - A clear roadmap for the planning response to climate change (adaptation, mitigation)
    - Proactive planning to respond to natural hazards and risks
- Infrastructure – enabled delivery
    - Optimise use of existing infrastructure and investment

https://www.planning.wa.gov.au/docs/default-source/wapc/wapc-strategic-plan-2025-29.pdf?sfvrsn=23c81184_20

4.3.2. Department of Planning Lands and Heritage Strategic Plan 2025-2029

- Plan and manage land in a manner that will help accelerate and broaden the availability of housing
- Shaping Communities - planning and managing the use of land and places and we work to create and maintain thriving communities:
    - Liveable communities through balancing the need for development with maintaining natural assets
    - Maximised availability of State land for well-designed dwellings built in proximity to precincts and centres;
    - Planning to facilitate access to greater diversity of housing to suit changing community needs;
    - Appropriate infrastructure and services which support the current and future needs of communities
    - Improvements in amenity, particularly for regional communities
    - Planning decisions that directly support the State Planning Strategy and regional planning strategies, including Perth and Peel at 3.5 million
- Sustainable and Responsible Management of Land - proactively manage cultural, built and natural assets to deliver economic, social and environmental benefit
    - Solutions for responsible and sustainable management of land
        - Optimised use of land to
            - Deliver Government priorities and objectives, ensuring land availability for future purposes
            - Improve social, economic and environmental outcomes
    - Responsible use of resources for the benefit of current and future generations
        - Measures for assessing achievement of social, economic and environmental outcomes
        - Identification of innovative service delivery model options with stakeholders
    - Proactively mitigate climate impacts and planning for adaptation to a different climate through the management of land
        - More effective policies related to the intersect between climate change and management of land
        - Transition to net zero and achievement of policy targets
        - Information and projects which support climate resilience and mitigation
- Economic diversification - proactively facilitate economic diversification to provide public value
    - Strategically led land use planning, development, and management
    - Delivery of environmental objectives in the transition to net zero and managing climate risk
        - Policy and decision making that respond to a changing climate
        - Renewable energy transition through fit for purpose land tenure
        - Delivery of net zero and emission reduction targets to achieve environmental and economic benefits
        - Streamlined pathways for proposals which support transition to net zero.

https://www.wa.gov.au/system/files/2025-06/dplh-strategic-plan-25-29.pdf

4.4. Commonwealth policy across planning, transport and CA (selected)

4.4.1. National Urban Policy 2024

Sustainable urban growth:

- Liveable and equitable
    - Suitable, safe housing that is affordable and located close to jobs, education, health care, child care and other essential services and amenities
    - Effective, safe and affordable transport networks, including active and public transport options
    - Access to services and opportunities for all, recognising and addressing existing disparities
- Productive and innovative
    - Well-planned transport to connect people and resources to the places they need to go
    - Efficient global freight and transport connections that facilitate the flow of people, goods and technologies
    - Physically and digitally connected sectors that support industries to take advantage of data, technological change and knowledge spillover
    - Efficient land use that improves the spatial distribution of economic activity and maximises the benefits of agglomeration
    - World-class education and research institutions with strong connections to business and industry
- Sustainable and resilient
    - Low greenhouse gas emissions through support for clean energy infrastructure, improved energy performance, reduced embodied emissions and encouraging public and active transport
    - Accessible opportunities for connection to natural environments
    - Hazard reduction and buffers (where appropriate) between natural and built environment
    - Resource circularity to improve the way we produce, consume and dispose of materials
    - Adaptive urban planning and risk-based approaches toward urban development in areas of high environmental risk
    - Minimised impacts of urban heat
    - Improved land use and planning for local climate, risks and weather
    - Networks and infrastructure that are able to function and support communities in times of disaster
    - Urban systems that are ready to respond to interruptions and unforeseen events
- Implementation Principle 5: Decisions should be guided by evidence-based practice - high-quality data at the local level can provide valuable insights - importance of data-driven decision making and the need for a strong evidence base of research, supported by clear standards and guidelines to inform shared practice
    - Collaboration across all levels of government to enhance the national urban evidence base
    - Clear and consistent indicators, frameworks and methodologies - monitor implementation of plans, policies and programs in cities, performance measurement tools that inform urban plans, policies, programs, development, targeted investment and decision making
    - Urban innovation through initiatives such as ‘living labs’ and ‘digital twins’ to de-risk investment on larger scales. Improve on the high-quality domestic urban research base that aligns with achievement of both national and global goals

https://www.infrastructure.gov.au/sites/default/files/documents/national-urban-policy.pdf

4.4.2. Infrastructure Policy Statement 2023

Strategic themes for the infrastructure investment reform agenda:

- Productivity and Resilience – invest in projects that
    - Improve the ability of Australians to move around their cities, towns and regions, including prioritising investments that increase the role of mass transit
    - Improve the resilience of critical road and rail corridors, including through upgrading existing assets that are vulnerable to risks, enhancing networks to achieve greater redundancy, as well as building to a higher standard where appropriate to create more resilient infrastructure after disasters
    - Contribute to the goals of the National Freight and Supply Chain Strategy, including:
        - improved efficiency and international competitiveness
        - safe, secure and sustainable operations
        - innovative solutions to meet freight demand
    - Improve the efficiency of the supply chains by removing bottlenecks and improving network resilience
- Liveability – invest in projects that
    - Advance equity for Indigenous Australians and vulnerable communities, and improve the prosperity, accessibility and liveability of our communities
    - Link strategic planning, population and employment growth, the supply and availability of housing, and land transport infrastructure investment
    - Enhance operational safety, including through the road safety measures agreed with the states and territories in the National Road Safety Strategy 2021-30 and Action Plan 2023-25, and via reform to rail interoperability to improve rail safety by reducing reliance on human factors.
- Sustainability – invest in projects that
    - Encourage and enable integrated and more sustainable approaches to land use that can allow people opportunities to work closer to where they live and reduce the need for long commutes, particularly by private vehicle.
    - Support commuters to choose more efficient, affordable and sustainable modes of transport, including walking and cycling
    - Encourages more sustainable approaches to land use and town planning and more efficient and less polluting freight networks
    - Support changes to the way transport industries operate, contributing to our decarbonisation agenda
    - Encourage the use of lower emissions materials in infrastructure construction
    - Facilitate the take-up of low or zero emission transport technologies, consistent with our National Electric Vehicle Strategy.

https://www.infrastructure.gov.au/sites/default/files/documents/infrastructure-policy-statement-20231114.pdf

4.4.3. Australia's Net Zero Plan 2025

Including themes:

- Lowering emissions by electrification and efficiency, including
    - Implement the Circular Economy Framework to double circularity by 2035
    - Explore ways to drive down emissions across Australia's transport fleet faster, including across different modes of transport
- Accelerating new technologies - innovating to expand emissions reduction options, including

    - Informed by the Government's Strategic Examination of R&D, look for ways to streamline and scale up research collaborations that power the transition
    - Progress important climate technologies with the potential to drive down emissions beyond 2035
- Sector Plans – key challenges
    - Built Environment
        - Retrofitting existing buildings due to upfront costs, or complexity for commercial, multi-use or multi-unit buildings
    - Transport
        - Accelerating rollout of EV charging infrastructure
        - Solutions for longer range heavy vehicles, maritime and aviation not yet commercially viable
        - Reducing cost and increasing availability of LCLF and hydrogen

https://www.dcceew.gov.au/sites/default/files/documents/net-zero-report.pdf

4.4.4. National Climate Risk Assessment 2025

Priority risks (infrastructure and the built environment) include:

- Risks to critical infrastructure that impact access to essential goods and services.
- Risks to supply and service chains from climate change impacts that disrupt goods, services, labour, capital and trade

Risks:

- Disruption to energy supply
- Damage to transport networks
- Increasing housing and community infrastructure damage
- Coastal infrastructure damaged or destroyed
- Compromised telecommunications
- Exacerbation of inequalities for Aboriginal and Torres Strait Islander peoples and remote communities
- Supply chain disruptions
- Water infrastructure failures
- Higher infrastructure upgrade and repair costs

https://www.acs.gov.au/pages/national-climate-risk-assessment

4.4.5. National Adaptation Plan 2025

Future priorities - Infrastructure and built environment - A well-planned and designed built environment is critical to help mitigate the impacts of climate change on health and support the wellbeing, safety and liveability of communities. Land use and regulatory planning reforms are central to reducing climate risk in the built environment and to ensuring the places we live, and the supporting infrastructure, are healthy, sustainable and resilient

- Sustainable densification in lower-risk areas, and supporting liveable communities through improved access to transport and amenities while reducing exposure to climate hazards
- Climate change considerations need to be mainstreamed and integrated across all levels of planning and design within the system
- Land-use planning processes should appropriately consider and incorporate local and future risks from climate change

https://www.dcceew.gov.au/sites/default/files/documents/national-adaptation-plan.pdf

4.4.6. Boosting Australia's Productivity, Productivity Commission 2025

Including, investing in cheaper, cleaner energy and the net zero transformation:

- Reducing the cost of meeting emissions targets
    - Introduce an emissions-reduction incentive for heavy vehicles
    - Phase out subsidies for buying EVs
    - Apply national carbon values in designing and assessing policies
- Addressing barriers to private investment in adaptation
    - Set up a climate risk information database covering all climate hazards
    - Develop a nationally consistent climate resilience rating system for housing
    - Governments agree on measures to improve housing resilience over time
    - Climate Change Authority should monitor and evaluate adaptation policy

https://assets.pc.gov.au/2025-09/five-productivity-inquiries-draft-recommendations.pdf?VersionId=jdcXN8gQAYBnDhGHysowR3_pDGAFnBQRproductivity-inquiries/five-productivity-inquiries-draft-recommendations.pdf

4.4.7. National Planning Reform Blueprint 2024

Relates to planning, zoning and land release measures to improve housing supply. Planning Ministers will (amongst others):

- Identify well-located 'development ready' land having regard to the protection of land with key attributes e.g. environmental or economic
- Streamline approval pathways and prioritise planning control amendments to support diverse housing across a range of areas, including promoting medium- and high-density housing in well-located areas close to existing public transport infrastructure connections, amenities and employment
- Identify and rectify gaps in housing design guidance and building certification processes, to ensure the quality of new builds, particularly apartments

https://treasury.gov.au/sites/default/files/2024-08/p2024-560520-blueprint.pdf

4.4.8. Trajectory for Low Energy Buildings Update, Commonwealth 2025

- Work to achieve a net zero emissions building sector by 2050, while lowering costs for households and businesses and improving building comfort for all Australians
- Outcomes - Residential and Commercial Buildings (selected)
    - New buildings are designed and constructed to a high energy performance level
    - Existing and new buildings are resilient to climate related hazards such as heatwaves
    - Embodied emissions in building construction are minimised
- **Research** the effects of the net zero transition on residential buildings:
    - Forecast economic, social and health effects of changes to key areas of the built environment through the transition to net zero
    - Identify further policy opportunities to reduce costs to households and ensure long term equitable access to energy performance benefits, including analysis of the effect of households electing to reduce gas consumption, analysis of the influence of green finance on residential buildings and investigation of future trends in the housing industry

https://www.energy.gov.au/sites/default/files/2025-08/update-to-the-trajectory-for-low-energy-buildings.pdf

4.4.9. The National Electric Vehicle Strategy, DCCEEW 2023

- Vision - Increase the uptake of EVs to reduce our emissions and improve the wellbeing of Australians
- Objectives
    - Increase supply of affordable and accessible EVs
    - Establish the resources, systems and infrastructure to enable rapid EV uptake
    - Encourage increase in EV demand
- Outcomes
    - Expand EV availability and choice
    - Reduce road transport emissions
    - Make it easy to charge an EV across Australia
    - Increase local manufacturing and recycling
    - Make EVs more affordable
    - Reduce the cost to Australians of running their vehicles
- The Government will collaborate with state and territory governments to ensure a national approach on:
    - National standards – to encourage national consistency around standards which impact the effective uptake and use of EVs, like signage, charging infrastructure, accessibility and safety.
    - Data sharing – where possible, aligning reporting and sharing of vehicle and infrastructure related data. Data sharing will help us understand where EVs are charging and being driven which will inform the best locations for charging.
    - EV affordability – encouraging initiatives to reduce costs and increase affordability. This may include assessing the impacts of incentives as EV uptake increases.
    - Remote and regional EV charging infrastructure – supporting the roll-out of EV charging infrastructure across regional Australia to achieve a comprehensive national charging network
    - Fleet procurement – to meet government fleet targets, collaborate with New Zealand and states and territories to aggregate government fleet vehicle purchasing and consider opportunities beyond light vehicles, such as buses.
    - Education and awareness – to ensure nationally consistent information on the benefits and realities of driving an EV in Australia.
    - New initiatives:
        - Preparing for a recycling, reuse and stewardship initiative for EV and other large format batteries
        - Delivering world-leading EV guidance, demonstrations, and training for emergency service workers.
        - Develop tools and guidance to enable EV uptake for residents of existing multi-residential buildings.
        - Deploy a proof of concept national mapping tool to help optimise EV charging infrastructure investment, supporting co-planning of charging with energy system investments.

https://www.dcceew.gov.au/sites/default/files/documents/national-electric-vehicle-strategy.pdf

5. RESEARCH FOCUS AREAS

PATREC's program of research is guided by research focus areas which provide a framework for research projects and delivering high-impact outcomes, although there are overlaps and links between areas. These focus areas have evolved since their initial conceptualisation in the Strategic Plan 2013-16 in response to changing research needs and policy priorities. More recently, the CA Plan included a set of CA-specific focus areas, also with some overlaps with previous, more "traditional" focus areas. In this Plan (2026-2028), preceding focus areas from the Strategic Plan 2023-2025 (Table 1) and the CA Plan 2025-2028 (Table 2), have been consolidated, reorganised and refined in relation to changes in strategic drivers presented in section 4, broadened value proposition (section 3) and recent project priorities as the 2026-2028 research focus areas (Table 3). There are unavoidable overlaps and inter-linkages between focus areas.

Table 1: 'Traditional program' research focus areas (Strategic Plan 2023-2025)

Focus area	Description
Integrated land use and transport futures	Improving land use and transport integration now and into the future, using a systems-based, scenario-oriented, big data analytics approach to longer term strategic forecasting and evaluation, depending on and informing, integrated LU-T modelling
Smarter travel decisions	Focus on the potential for deployment and integration of technology to enable more intelligent and connected transport choices, helping Australian cities use resources more efficiently and deferring the need for new infrastructure
Integrated freight system optimisation	Planning intermodal and general logistics infrastructure for the future needs of Perth
Emerging technology **for** network optimisation **and maintenance, safety** and intelligence	Developing data- and simulation-driven decision support systems for optimising road network operations **and maintenance and improving road safety**
Transport infrastructure investment risk management	Incorporating uncertainty in transport infrastructure planning and policy through adapting portfolio-wide strategic infrastructure investment planning and management tools, guidelines and frameworks to account for emerging risks

Table 2: Climate action program research focus areas (CA Plan 2025-2028, shortened descriptions)

Focus areas	Description	Potential research topics
Climate risk and adaptation	It is common for climate research to focus on climate mitigation and emissions reduction however climate risk and adaptation are key to managing unavoidable climate impacts. The State Government is developing sector adaptation strategies and plans, of which the built form is a key sector, with land use planning and transport included, along with broader infrastructure such as utilities.	Climate risk and vulnerability assessment; physical, transitional and financial risk, impacts to people, assets and infrastructure; urban greening and heat island; resilient communities and infrastructure; planning for long-term population movement from climate hotspots in regional WA.
Transport system	The 'Avoid, Shift and Improve' framework is often used to articulate the most effective way to decarbonise transport	Barriers to behaviour change in adopting new technologies or shifting to more sustainable

decarbonisation	systems, including freight. Avoid measures include integrated land use planning, working from home or local hubs, and walkable communities and amenities. Shift measures include investment, evaluation and measurement of active and public transport and behaviour change programs. Improve measures include the technology transition to zero emissions vehicles and fuels.	transport modes e.g. effectiveness of free public transport, evaluation and measurement tools for effective policy and investment, opportunity to integrate micro-mobility and e-mobility with the energy system and land use planning, emissions modelling and forecasting to inform policy and decisions making, understanding future technology, fuels and charging/refuelling needs.
Infrastructure and built environment decarbonisation	Reducing embodied emissions across the asset life cycle is critical to meeting overall climate targets. Avoid measures include actions to minimise requirement for new infrastructure through tools such as travel demand management and modelling, refurbishing or reusing existing assets or reducing the footprint of new infrastructure. Switch measures include optimising design of planned infrastructure to reduce material requirements. Improve measures include applying circular economy principles utilising recycled and reuse materials, and zero emissions technologies.	Sustainable, low carbon materials such as concrete, steel, aggregates, plastics and asphalt; transition to zero emissions off-road machinery and equipment; using digital tools to maximise emissions reduction in planning and design phase; incorporating carbon values into business case planning and options analysis; life cycle assessment; general case studies of fast-track proofs of concept/trials of new technology and products used in large scale construction in transport that can then be scaled up once proved safe and effective (e.g., such as concrete, steel and aluminium); economics of climate risk for the built environment and infrastructure in WA.
Circular economy and materials	Transform linear value chains and preserve material value to achieve Net Zero at the city scale. Move away from wasteful linear models of resource consumption to more sustainable circular resource models. Support State level in achieving avoid, reuse and recycling targets for residential, commercial and C&D waste.	Life cycle assessment and material mapping, trials and application of recycled and reuse materials, marketplaces and financial models for circular economy operations, metrics and indicators for measuring circular economy, identifying opportunities for circular resource use in transport and land use planning.
Land use planning and sustainable communities	Given historical land development trends and preferences in Greater Perth and regional towns for large land parcels, low rise developments and urban sprawl, achieving optimal integrated land use planning and sustainable communities can be challenging. Providing tools and policy and operations solutions, as well as addressing structural barriers, is therefore	Urban greening, zero carbon and resilient communities and neighbourhoods; sustainable planning and design; evaluation and metrics for measuring benefits of sustainable communities; visioning/ reimagining/narratives for sustainable; climate friendly and just futures for WA communities,

	needed. Changing consumer behaviour and preferences will be critical to having political support to do this. With materials, labour and housing costs rising with interest rates in recent years, a priority has been for faster, low-cost build and infill developments. Building the case for co-benefits with sustainable design and demonstrating evidence for this is therefore critical over the coming years.	incorporating private sector, government and indigenous knowledge and views; addressing structural barriers (governance, institutions, funding, performance measurement systems, policies and tools, revising standard business case and cost benefit analysis templates, to explicitly incorporate climate action considerations; revised governance and expenditure models, alternative business KPI's and spending metrics for achieving more sustainable outcomes

Table 3: Consolidated and refined research focus areas 2026-2028

Focus area	Description	Project examples
Integrated land use and transport planning and modelling	Improving land use and multi-modal transport integration using systems-based, scenario-oriented, big data analytics approaches to longer term strategic planning, multi-modal corridor planning, forecasting, evaluation and modelling. This will contribute to reducing the need to travel, increasing opportunities for infill development and optimising road space for all modes.	• Mass Transit plan for Perth and Peel at 3.5 million • Working from home travel impacts • Tour-based mode choice model using revealed and stated preference data • Identifying opportunities to address transport disadvantage • Transport modelling review • Activity Centres: Making Land Use and Transport Work • Activity Centre Accessibility
Sustainable and resilient communities and neighbourhoods	Planning and designing communities and neighbourhoods facilitating greater opportunity for increasing housing supply and quality, accessibility, climate resilience and decarbonisation. Addressing structural barriers, risk and vulnerability assessment - to people, assets and infrastructure - and urban greening and other measures to mitigate heat island effects will amongst others contribute to more sustainable communities	• A satellite imagery informed deep learning approach to estimate and forecast Perth's dwelling yields • Take-up rates – future dwelling capacity and yield forecasts in higher density or infill areas • Low carbon TOD precincts • Accounting for carbon in planning • Climate adaptation strategies for Perth's primary network for active transport
Smarter travel decisions	Facilitating shifts to more energy-efficient, lower emissions and autonomous (shared, connected) modes and vehicles through deployment and integration of technology and behaviour change	• Transport Environment and Kids… 15 Years On – active travel to school • Feasibility of battery electric school bus services • Impact of e-rideables on the transport task

	measures to enable more intelligent and connected transport choices. Travel demand management mechanisms, enabled by technological advances, accelerate opportunities to reduce the need to travel, increase the share of low carbon modes and optimise use of existing infrastructure, deferring the need for new infrastructure	• Assessing the efficacy of video analytics for comprehensive active transport monitoring • Congestion Abatement through Travel Demand Management • Stated preference surveys: experimental design • Factors influencing public transport patronage trends
Technology for integrated freight system optimisation, decarbonisation and resilience	Smart technologies, digitisation, sensors, AV circular economy principles, applied to the freight system - hubs (including Ports), multi-modal network integration and first-last mile connectivity - for enhanced efficiency, safety, transition to net zero and adaption to climate risks and vulnerability.	• Preparing WA to deploy automated on-road freight vehicles • Micromobility and freight • Sustainable last km food and beverage delivery system • Planning intermodal and general logistics infrastructure for the future needs of Perth
Intelligent transport systems and AI-driven mobility analytics	Designing AI-based sensing, computer vision, analytics, and decision-support tools for transport network optimisation, road asset maintenance, safety enhancement, and infrastructure planning across multi-modal transport environments	• Evaluation of road safety treatments using video analytics • Automated intersection parameter measurement – pilot • Enhanced vehicle detection at traffic signals and smart freeways • Roundabout safety review using drone video analytics • Integrating AI and IoT based bridge health monitoring
Transport infrastructure decarbonisation	Transport infrastructure decarbonisation across the infrastructure life cycle includes reducing the footprint of new infrastructure and material requirements, using alternative low carbon and/or recycled materials, applying circular economy principles and using low emission technologies in construction.	• ML and multi-objective optimisation models enhanced road maintenance decision-making • Application of biochar waste in pavement design • Biofuels – evaluation of Hydrotreated Vegetable Oil (HVO) renewable diesel trial pilot • Mapping the circular economy of WA – transport infrastructure

All focus areas are underpinned by data and tools, with renewed impetus afforded through the funding support from external sources e.g. AURIN.

6. CORE RESEARCH PROJECTS

6.1. Core projects – 2025-27 research program

Research will continue on projects which commenced in 2025 as part of the approved 2025-27 program (traditional and CA programs combined), fast-tracked to meet the timeline for the final round of iMOVE CRC projects, all planned for completion by December 2026 as required by iMOVE. Also included in this program are projects selected to replace withdrawn projects and the stage 2 CA projects. One of the stage 2 CA projects - Feasibility of battery-electric school buses – scaling up the transition – commenced and was completed in 2025. As part of the fast-track projects, some core funding was allocated to the project: evidence-based climate adaptation strategies for Perth's primary network for active transport. Although it was primarily funded through additional (external) funding from PATREC's government partners, it is reported here as some core funds were expended with progress reported at the CARAC.

This program of research uses core PATREC subscription funding for 2025 and 2026. Although the title of the program period is 2025-2027, it refers to a two-year period from July 2025 to June 2027 to match the iMOVE CRC financial years but is funded from 2025 and 2026 PATREC core funding, which is collected annually on a calendar year basis. With the iMOVE CRC ending in June 2027 and the last round of iMOVE projects (2025-27 program) underway, PATREC core research program periods will revert to 2-yearly (calendar year) from 2027 i.e. 2027-2028, 2029-2030 etc.

The last remaining core project of the 2019-21 research program: Enhanced vehicle detection at traffic signals and smart freeways has recommenced since sensors have been installed and data collected. This project will be completed in early 2027.

CARAC agreed to a mini-process to select two projects to use unspent funds due to the CA Program Leader position not being filled at Curtin after the incumbent accepted a longer- term position. This process is underway with projects expected to commence by mid-2026.

Table 4: 2025-2027 research program including fast-track, replacement and recommenced projects (traditional and CA programs combined)

Project title	Government agencies	Research lead
Assessing the efficacy of video analytics for comprehensive active transport (fast-track)	DTMI, MR	Chao Sun
Roundabout safety review using drone video analytics (fast-track)	MR	Chao Sun
Preparing WA to deploy automated on-road freight vehicles (fast-track)	DTMI, MR	Doina Olaru
A satellite imagery-informed deep learning approach to estimate and forecast Perth's dwelling yields (replacement)	DPLH	Bryan Boruff
Take up rates – future dwelling capacity and yield forecasts in higher density or infill areas (replacement)	DPLH	Ranjodh Singh
Mapping the circular economy – transport infrastructure (CA)	DTMI	Dora Marinova
Low carbon TOD development precincts (CA)	DTMI, DPLH	Julian Bolleter
Feasibility of battery-electric school buses – scaling up the transition (DOE school buses) – commenced and completed in 2025 (CA)	DTMI, DOE	Thomas Braunl

Evidence-based climate adaptation strategies for Perth's primary network for active transport (CA)	DTMI, MR	Julian Bolleter
Enhanced vehicle detection recommenced (2019-2021 program)	MR	Farid Boussaid

6.2. Core projects – 2027-28 research program

The formal selection process for 2027-28 projects will commence in July 2026 following the approved schedule (section 9.3.3, Figure 1). Through a process led by the PATREC Research Advisory Committees (PRAC, CARAC), project ideas will be submitted and prioritised by partner government agencies, agreed by the PRAC/CARAC evaluation panel and priority ideas circulated amongst partner universities. A "pitch session" will be arranged for agencies to present ideas to researchers and answer questions. Interested researchers respond by means of concept proposals/expressions of interest which will be evaluated by government proposers with recommendations put forward for evaluation panel consideration and decision. The agreed projects are then endorsed by the PRAC and CARAC. Agreed projects are finally endorsed by the Board to commence in mid-2027, continuing through to completion by late 2028/early 2029, allowing a project duration of around 18 months.

Given the end of the iMOVE CRC in mid-2027, with final round PATREC projects completed by December 2026, the core funding leverage from iMOVE also ends. In addition, iMOVE projects enjoyed a waiver on infrastructure charges (to cover university administrative overheads etc.), not necessarily the case for PATREC projects (raised as part of the internal review). Effectively, with reduced core funds for research projects, alternatives need to be considered for a worthwhile program of research including:

- Using core to partially fund core projects with top-ups from beneficiary partner government agencies
- Do fewer, very select, higher budget projects
- Extend the core program to include external projects to be fully funded by partner and/or allied agencies e.g. DWER, PTA.

7. EXTERNAL PROJECTS

External projects are those that are funded using non-core funds. External projects can be funded by PATREC collaborating partners by contributing additional funds (to subscription payments) and/or by other external funding agencies including the Commonwealth.

7.1. External project completion

External projects already secured and continuing into 2026-28, will be progressed and completed (Table 5).

Table 5: Current external projects for completion in 2026-28

Project Title	Key Agencies	Research Lead	Timeframe ($)
Risky driver behaviour detection	Main Roads, Curtin	Tele Tan	1/04/2026 – 30/08/2026
AURIN WA Node to support climate action in transport and land use planning research	National Critical Research Infrastructure Strategy (NCRIS), Uni Melbourne, UWA, Curtin, DEED	Sharon Biermann	1/07/2024 – 30/06/2028 ($1,240k)
Safe Paths – enhancing active transport infrastructure through video analytics and community reporting	National Road Safety Action Grants Program, Main Roads, City of Stirling, UWA	Chao Sun	1/06/2026 - 30/01/2027 ($787,500)
RoadSense Analytics – AI-enabled traffic intelligence	Australia's Economic Accelerator (AEA) Innovate, Main Roads, Surveytech, Stech cameras, UWA	Chao Sun	27/06/2025 – 26/06/2027 ($3,326,742)

7.2. External projects – new opportunities

PATREC will continue to pursue external project opportunities, including those currently under discussion: extending and supplementing the WA AURIN Node project and participation in the potential Future Freight CRC.

7.2.1. AURIN WA Node – stage 3

The current funding to establish the WA AURIN Node was from NCRIS Research Infrastructure Investment Plan (RIIP) Stage 2 funding (July 2024 – June 2027). AURIN has commenced the process to secure NCRIS Research Infrastructure Investment Plan (RIIP) Stage 3 funding (July 2027 – June 2030). PATREC provided a letter of support for AURIN in its funding submission in October 2025. AURIN's Strategic Plan 2023–2028 is well-aligned with PATREC priorities, including the focus on the impact of climate change and energy transition on cities, infrastructure systems and local communities. The use of data and analytics to inform evidence-based policies and interventions is also a shared practice between AURIN and PATREC. PATREC would be particularly interested in supporting AURIN's initiatives aimed at developing the Australian Urban Climate Research Infrastructure (AUCRI) and the Australian Urban Mobility Research Infrastructure (AUMRI). There is a mutual benefit in expanding and enhancing our current realm of collaboration.

If successful, AURIN has advised that the additional funding will be considered as a simple variation to the existing WA Node Agreement, supporting new activities or expanding current ones. As in the case of the Stage 2 funding, matching funding would need to be secured from WA sources.

Also, as part of current stage 2 AURIN funding, there is an opportunity for the WA Node to access additional strategic priority "challenge stream" funding, which will be pursued.

7.2.2. Future Freight CRC

With the ending of the iMOVE CRC in mid-2027, in mid-2024, the current iMOVE CRC team commenced a process to consider proposing a Future Freight CRC, a national, 10-year program focused on transforming the performance, safety, resilience and sustainability of Australia's multimodal freight system, to commence in mid-2027, if successful. A national Bid Team has been established and has visited WA on a number of occasions to secure support from a wide range of WA industry/government stakeholders and universities. The Bid Team considers WA involvement as essential to the success of the Bid given "Western Australia has one of the most complex, demanding and economically critical freight networks in the nation…[with a] remit span[ning] an extraordinary system of long-distance road freight corridors, high-productivity heavy vehicles, port access roads, rail interfaces, intermodal hubs, and regional supply chains that underpin a resource-driven economy".

Through his involvement in Ports WA as Chair of Kimberley Ports Board, the PATREC Board Chair has been instrumental in facilitating a commitment from Ports WA, supported by the Minister, to participate in the CRC, with PATREC coordination.

UWA, Curtin and the Bid Team have been progressing a number of other initiatives to secure other industry commitments for the Bid and mobilise researchers.

Unlike the iMOVE CRC, where there was greater alignment between the CRC programs and PATREC research themes, in the case of freight, the degree of alignment is less. It does however provide the opportunity for strengthening and broadening the freight theme, and even if the CRC Bid is not successful, the Port WA connection offers potential for PATREC to get involved in research focussed on addressing WA port needs.

7.2.3. Other opportunities

With the two large external grants underway (Safe Paths and RoadSense Analytics), the research team has had to expand significantly to resource the projects. If the team is to be sustained once the grants have been completed, significant income will need to be generated. While there is opportunity for further application of the technology across other agencies e.g. PTA, the scale of funding needed to sustain the team would require success with other grant funding opportunities. This will be a key activity in 2027 since 2026 requires massive team effort to deliver a significant part of the research for the two current grants.

Now that the CA program has been entrenched with second stage projects underway, securing additional funding for external CA projects is a priority. While DOE contributed cash to the project: Feasibility of battery-electric school buses – scaling up the transition (DOE school buses), attracting additional funding for CA projects from allied WA agencies for the Stage 2 projects did not materialise as planned. The mutually reinforcing approach is to:

- Use the NCRIS-funded AURIN WA Node Research Infrastructure Lead position at Curtin, to transition from this initially, full-time, role to design the Node with stakeholders, to conduct business development for the CA program, at least on a part-time basis as part of the role of strengthening the collaboration of PATREC@Curtin, with the aim of replicating the PATREC Research Fellow at UWA's success at securing external projects, but at Curtin
- Pursue projects using the Climate Science Initiative's downscaled climate data for integration with transport and planning data for application in addressing planning and transport applied research questions

- Run an integrated or parallel process with the establishment of the 2027-28 core research program, specifically to identify external CA projects, attracting external funding from partners and applied government agencies, building on the research ideas proposed as part of the CA Strategic Plan, including:
    - Cooperation with DPLH and WAPC on funding more land-use based climate action research customized to Departmental needs
    - Cooperation with DWER to explore opportunities for adaptation research based on previous work conducted by DWER
    - Working with the RACE-for-2030 CRC
    - Collaboration with the RAC, UDIA and other industry bodies in the land use planning and transport space to better understand the commercial aspects of this space and work on common climate action topics.
- Explore opportunities to secure funding to build on the emerging collaboration with Nagoya University, the University of Tokyo and Gifu University, led by UWA Business School, with a focus on autonomous solutions and trials

8. KNOWLEDGE TRANSFER

PATREC will continue to present research project results and outcomes at project dissemination seminars, conferences and other events. While the primary output of PATREC research is technical reports, publication in academic journals continues to be encouraged as a requirement from university partners.

In line with KPIs, with more details of particular communication and connection activities provided in annual Business Plans, building on the achievements of the past three years, expected knowledge transfer activities over the next three-years include:

- Publication of at least an average of 8 academic articles per annum
- Acceptance/publication of an average of at least 10 technical reports (or software tools) per annum
- Arranging and holding an average of at least 5 connection events per annum, including the annual John Taplin Memorial Lecture in partnership with UWA Business School
- Presentation of project findings as a requirement of project deliverables
- Presentations at PATREC and other connection events
- Publishing an average of at least 8 news articles per annum
- Redesign and regularly update the PATREC website with links to social media
- Conducting an average of at least 2 training initiatives per annum, including master classes
- Attracting and retaining on average 4 PhD candidates per annum, pursuing opportunities to involve early career PATREC associate researchers in supervision
- Explore opportunities for industry internships

9. DELIVERING ON THE PLAN

9.1. Human resources

9.1.1. Core team

- Senior Administrative Officer (Charise Baker) – fixed term contract extended for a year to December 2026 in line with current PATREC secured funding. From 1 January 2026, this contract has been increased from 0.6 FTE (3 days/week) to 0.8 FTE (4 days/week) to support a significantly increased external grant funding administrative load.
- Associate Professor (Chao Sun) - fixed term contract extended for the maximum allowable period of 2 years to 30 June 2027, salary fully funded from project funds (external grants and PATREC/iMOVE projects)
- Chao Sun's team - contracts extended to deliver on two external grants and an additional 7 appointments made – extended team fully funded by external grant funding and to a lesser extent PATREC/iMOVE projects
- AURIN WA Node recruitment of Research Infrastructure Lead at Curtin – despite 2 recruitment rounds held, the preferred candidate did not accept the appointment. An alternative option involving a secondment, is currently under negotiation with the appointment becoming very urgent not only for delivering on the AURIN WA Node but also with implications for the PATREC@Curtin appointment
- PATREC@Curtin appointment – since the appointed PATREC Program Leader at Curtin took up another position at Curtin as Deputy Director CUSP, the position has not been filled for a number of reasons. The intended purpose remains to provide capacity in leading and managing projects and driving business development in particular for the CA program, strengthening collaboration between UWA and Curtin and within Curtin, including drawing in urban planning and sustainability expertise to support WAPC and DPLH needs. The intention was also to partly fund the position using PATREC core CA funds to start off with but that the business development activity would result in external project activity to gradually replace the need for core funding. With the securing of the AURIN WA Node NCRIS funding, the approach turned to appointing someone with the right skills to not only lead the AURIN WA Node project but who could transition to the PATREC@Curtin role in time. This remains the intention but depends on the successful appointment/secondment to the position
- Some form of succession planning will need to be considered during this period as the Board Chair is looking to step down and the Director to retiring after this period

9.1.2. Wider research team

With leadership, administration and coordination by a small PATREC core team, a much wider team of PATREC project research associates from across the partner universities and with some support from adjuncts, consultants and PhD students, are called upon to conduct policy-informing, applied research. Through the mechanism of project steering committees, researchers are supported and enabled by a dedicated team of agency stakeholders who ensure that the research is well-aligned with policy objectives and that the research outcomes are well-communicated within the agencies and wider if required.

Table 6: Research team members confirmed for 2026-2028

Sharon Biermann	PATREC office - Director
Charise Baker	PATREC office - Senior Administrative Officer
Chao Sun	PATREC Research Associate Professor – AI for transport analytics lead
Len Webel	PATREC Research Assistant – AI for transport team
Sergio Banchero	PATREC Research Assistant – AI for transport team
Liam Cummins	PATREC Research Assistant – AI for transport team
Tom Lymburn	PATREC Research Assistant – AI for transport team
Max Davidson	PATREC Research Assistant – AI for transport team
Samson Ting	PATREC Research Assistant – AI for transport team
Sheldon Feng	PATREC Research Assistant – AI for transport team
Xiaoyun Liu	PATREC Research Assistant – AI for transport team
Shun Fu	PATREC Research Assistant – AI for transport team
Jinghe Yang	PATREC Research Assistant – AI for transport team
Rahul Devaskar	PATREC Research Assistant – AI for transport team
Doina Olaru	Research Associate, UWA Business School
Tristan Reed	Research Associate, UWA Business School
Lillian Wu	Research Associate, UWA School of Engineering
Miguel Loyola	Research Associate, UWA Business School
Ronnie Das	Research Associate, UWA Business School
Brett Smith	Research Associate, UWA Business School
Richard Gruner	Research Associate, UWA Business School
Thomas Stemler	Research Associate, UWA Mathematics and Statistics
Michael Small	Research Associate, UWA Mathematics and Statistics
Yuxia Hu	Research Associate, UWA Civil, Environmental & Mining Engineering
Colin Leek	Research Associate, UWA Civil, Environmental & Mining Engineering
Teresa Senserrick	Research Associate, WA Centre for Road Safety Research, UWA
Paul Roberts	Research Associate, WA Centre for Road Safety Research, UWA
Matt Albrecht	Research Associate, WA Centre for Road Safety Research, UWA
Julian Bolleter	Research Associate, AUDRC, UWA
Bill Grace	Research Associate, Adjunct, AUDRC, UWA
Nicole Edwards	Research Associate, AUDRC, UWA
Enamul Hoque	Research Associate, AUDRC, UWA
Caine Holdsworth	Research Associate, AUDRC, UWA
Anthony Duckworth-Smith	Research Associate, AUDRC, UWA
Bryan Boruff	Research Associate, UWA School of Agriculture & Environment; Centre for Water & Spatial Sciences
John Duncan	Research Associate, UWA School of Agriculture & Environment; Centre for Water & Spatial Sciences
Alex Saunders	Research Associate, Social Sciences, UWA
Farid Boussaid	Research Associate, Electrical, Electronic & Computer Engineering, UWA
Mohammed Bennamoun	Research Associate, Electrical, Electronic & Computer Engineering, UWA
Tele Tan	Research Associate, Electrical Engineering, Computing & Mathematical Sciences, Curtin
Jayne Bryant	Research Associate, CUSP, Curtin
Zhen Peng	Research Assistant, Civil & Mechanical Engineering, Curtin

Ritu Gupta	Research Associate, Electrical Engineering, Computing & Mathematical Sciences, Curtin
Andrew Grose	Research Associate, Electrical Engineering, Computing & Mathematical Sciences, Curtin
Himanshu Agrawal	Research Associate, Electrical Engineering, Computing & Mathematical Sciences, Curtin
Courtney Babb	Research Associate, Design & Built Environment, Curtin
Parisa Izadpanahi	Research Associate, Design & Built Environment, Curtin
Dora Marinova	Research Associate, CUSP, Curtin
Josh Hopkins	Research Associate, Adjunct, CUSP, Curtin
Roberto Minunno	Research Associate, CUSP, Curtin
Charlie Hargroves	Research Associate, CUSP, Curtin
Leo Hebert	Research Associate, CUSP, Curtin
Ranjodh Singh	Research Associate, Accounting, Economics & Finance, Curtin
Francesca Perugia	Research Associate, Design & Built Environment, Curtin

Table 7: Core project steering committee government participation

Michelle Prior	Director Active Transport, Urban Mobility	DTMI	Cory Ross	Acting Manager Intelligent Transport Systems Operations	MRWA
Ensiyeh Ghavampour	Research and Evaluation Coordinator	DTMI	Raj Shah	Senior Traffic Engineer	MRWA
David Wake	Research and Evaluation Officer	DTMI	Richard Amoh-Gyimah	Road Safety Research Analyst, Planning and Technical Services	MRWA
Helen Ginbey	Manager Behaviour Change	DTMI	Sharon Forster	Traffic Services Manager, Network Operations	MRWA
Michelle Moyo	Policy and Project Manager, Freight, Ports, Aviation and Reform	DTMI	Georgina Gibbs	Acting Principal Analyst Strategic Planning, Strategy and Communications	MRWA
Madeleine Sammut	Freight, Ports, Aviation and Reform	DTMI	Steve Atkinson	Principal Analyst Strategic Planning, Strategy and Communications	MRWA
Claire Thompson	Policy and Project Manager, Driver and Vehicle Services	DTMI	Scott Fennelly	Director Realtime and ITS Operations Intelligent Transport Systems Operations	MRWA
Tracy Tan	Senior Policy Officer, Driver and Vehicle Services	DTMI	Ziad Boufajreldin	Intelligent Transport Systems (ITS) Operations	MRWA
Callie Cummings	Principal Sustainability Project Officer, Transport Sustainability and Strategic Projects	DTMI	Ivan Kiss	Traffic Signal Systems Operations Coordinator Intelligent Transport Systems (ITS) Operations	MRWA

Steve Beyer	Director Transport Sustainability and Strategic Projects	DTMI	Louis Bettini	Principal Advisor, Sustainability Strategy Strategy and Communications	MRWA
Stephanie Zhang	Research and Business Support Officer, Transport Sustainability and Strategic Projects	DTMI	Andrew Wilkinson	Forecasting Manager, Strategy and Engagement	DPLH
Ryan Falconer	Director Transport Insights, Urban Mobility	DTMI	Nilimesh Halder	Principal Demographic Forecaster, Strategy and Engagement	DPLH
Sarah Court	Manager Built Environment, Urban Mobility	DTMI	Gemma Habins	Climate Policy Manager, Strategy and Engagement	DPLH
Helen McGettigan	Director, Planning & Strategy	IWA	Meghan Castelli	Data Scientist, Strategy and Engagement	DPLH
Andrea Down	Rail Planning Coordinator, Infrastructure Planning and Land Services	PTA	Paul Macintyre	Geospatial Data Management Team Leader, Strategy and Engagement	DPLH
Cara Francis	Manager, Waste Policy	DWER	Haiyan Liu	A/Principal Economic Forecaster, Strategy & Engagement	DPLH
Rebecca Properzi	Manager, Infrastructure and Value Chains, Circular Economy	DWER	Matt Stack	Urban Design Manager, Strategy and Engagement	DPLH
Iva Munro	Project Manager, Net Zero Strategy	Westport	John Clifton	Head of Strategy and Innovation	DevWA

9.2. Financial resources

The three-year budget estimate has been prepared on the basis of actual income and expenditure for the year 2025 up to 24 November 2025, the 2025 budget and the year-end forecast as reported to the last Board meeting of 2025. Also considered are average performance in the last three years, CPI-adjusted core funding as secured to December 2026 and requested in the variation agreement to continue PATREC to December 2028, end dates of large external grants funds, likelihood of continuation of the NCRIS-funded AURIN WA Node and project opportunities beyond the iMOVE CRC.

Core subscription funds for both programs have been secured to December 2026 with a variation to extend PATREC with CPI-adjusted core funding for a further period of two years to December 2028, in process.

Table 8: Core funding subscription as secured to December 2026 and as per upcoming variation agreement to extend PATREC to December 2028

Program	Traditonal program			Climate action program			Total		
Year	**2026**	**2027**	**2028**	**2026**	**2027**	**2028**	**2026**	**2027**	**2028**
Curtin University	$109,407	$113,564	$117,880	$36,250	$36,250	$36,250	$145,657	$149,814	$154,130
University of Western Australia	$109,407	$113,564	$117,880	$36,250	$36,250	$36,250	$145,657	$149,814	$154,130
Department of Transport	$97,251	$100,946	$104,782	$83,000	$83,000	$83,000	$180,251	$183,946	$187,782
WA Planning Commission	$97,251	$100,946	$104,782	$83,000	$83,000	$83,000	$180,251	$183,946	$187,782
Main Roads Western Australia	$145,876	$151,419	$157,173	$124,000	$124,000	$124,000	$269,876	$275,419	$281,173
TOTAL	**$559,191**	$580,440	$602,497	**$362,500**	**$362,500**	**$362,500**	**$921,691**	**$942,940**	**$964,997**

With the last round of iMOVE projects currently in process and due to end by December 2026, no further iMOVE project income is budgeted for 2027 and 2028. Major external research grants (Safe Paths, AEA) unless extensions are obtained, are due for completion by mid-2027. The current AURIN WA Node round of funding ends in mid-2027 but a 12-month extension has been approved. A continuation of AURIN with supplementary funds from their 'challenge stream' is assumed given the strong indication from AURIN of continued, next round, NCRIS funding.

Additional funding contributed by PATREC collaborating partners over the last number of years has primarily been driven by iMOVE-leveraged external projects. With iMOVE ending, alternative ways to attract external projects from collaborating partners as well as from a wider range of government agencies and others will be necessary. The climate action program offers opportunities to attract funding from allied government agencies including e.g. DWER, particularly in relation to applications using the Climate Science Initiative downscaled data. With the PTA participating in PATREC at Board, Research Advisory and project steering committee levels, there are possibilities of undertaking research projects in response to PTA needs. The securing of Ports WA commitment to the Future Freight CRC offers opportunities for PATREC research relating to the CRC if it is successful or separately, directly through PATREC, if not.

Total annual income is budgeted from $3.7 million in 2026 driven by two large external grants, to $2.4 in 2028, lower than the 2025 budget ($2.7 million) due to the end of two large external grants and the iMOVE CRC in 2027.

PATREC office expenditure is kept low between $350k - $390k per annum. Administrative support has been increased since 2025 due to the increase in FTE (from 0.6 to 0.8 FTE) required to support the large external grants.

Research project expenditure is high in 2026 when the bulk of the large external grants will be undertaken, reducing in 2027 when one of the grants is completed mid-year, and again in 2028 when both have been completed. PATREC Research Fellow expenditure is down from 2025 due to a resignation, there being no intention to fill the position.

Total expenditure per annum is consistently higher than income but the confirmed significant carry-over of $1,419,214 from 2025 due to upfront grant payments and delayed expenditure due to recruitment delays will result in positive annual balances between $100k - $300k.

Table 9: Three-year budget estimate (2026-2028)

PATREC Budget 2026 - 2028	Budget 2026	Budget 2027	Budget 2028
INCOME			
Traditional (WA gov core)	340,377	353,311	366,737
Traditional (WA uni core)	218,814	227,129	235,760
Traditional (iMOVE projects core)	400,000	0	0
Traditional (external)	2,000,000	1,400,000	1,000,000
Climate action (WA gov core)	290,000	290,000	290,000
Climate action (WA uni core)	72,500	72,500	72,500
Climate action (iMOVE projects core)	250,000	0	0
Climate action (external)	150,000	300,000	400,000
Total Income	**3,721,691**	**2,642,940**	**2,364,997**
EXPENDITURE			
PATREC OFFICE	**352,534**	**371,770**	**389,053**
Director (0.4)	110,000	120,000	128,000
Program Leader CA (0.4 FTE)	90,000	95,000	100,000
Administrative support (0.8FTE)	120,000	123,000	126,000
Board Chair Stipend	32,534	33,770	35,053
RESEARCH PROJECTS	**4,495,000**	**2,420,000**	**2,000,000**
Research Co-ordination (Dir. 0.6)	170,000	180,000	190,000
Research Co-ordination (CA Prog. Lead. 0.6)	135,000	140,000	150,000
iMOVE participation & add. Project contrib.	650,000	0	0
PATREC Research Fellow	240,000	250,000	260,000
Researcher Assistants, Services, Expenses - trad.	3,000,000	1,500,000	1,000,000
Researcher Assistants, Services, Expenses - CA	300,000	350,000	400,000
Total Expenditure	**4,847,534**	**2,791,770**	**2,389,053**
YTD BALANCE	-1,125,843	-148,830	-24,057
Balance Brought Forward	1,419,214	293,371	144,541
CLOSING BALANCE (incl Balance B/F)	**293,371**	**144,541**	**120,484**

9.3. Management and operations

9.3.1. PATREC Board

The PATREC Board comprises a senior representative of each of the collaborating parties and a Chair who is independent of all Parties. Reece Waldock continued as the Independent Chair of the Board. Board membership in 2024 remained relatively stable (Table 9). The PATREC Director is an ex officio member of the Board. The PRAC Chair and PTA (Peter Jones) are also invited to Board meetings as non-voting members. At the end of 2024, it was agreed that Alan Colegate would replace Peter Woronzow as Main Roads' member and the new Chair of the WAPC would replace David Caddy in 2025.

Table 10: Current PATREC Board members

2026 Board members
Adjunct Prof Reece Waldock AM, Independent Chair
Ms Emma Cole, Chair, Western Australian Planning Commission
Mr Alan Colegate, A/Executive Director Strategy and Communications, Main Roads Western Australia
Mr Steve Beyer, Director, Transport Sustainability and Strategic Projects, Department of Transport and Major Infrastructure
Prof Dora Marinova, Professor of Sustainability, Curtin University
Prof Amanda Davies, Head, School of Social Sciences, The University of Western Australia
Mr Ian Duncan, Executive Manager, Infrastructure, WALGA
Mr Peter Jones, Executive Director, Transperth, Regional & School Bus Services (non-voting)

9.3.2. PATREC Research Advisory Committees (RAC)

PATREC has two established RACs - PRAC to provide oversight of the traditional program of research and CARAC for the climate action program. RACs will continue to be the vehicle for strengthening coordination amongst the PATREC partners in relation to the identification, planning, prioritisation, conducting, progress monitoring and promotion of core funded applied research projects. The objectives as encapsulated in the Terms of Reference are to:

- maintain an element of formality and rigour to the research project identification, selection, support, monitoring and dissemination process;
- enhance communication amongst partners; and
- advise the Board on project level matters, allowing the Board to focus on strategic matters.

Further, RAC members will continue to support the Director in the activities of research project planning, execution and progress monitoring and communication.

RACs will continue to meet three times a year, each time two – three weeks in advance of a Board meeting.

Current members are indicated in Tables 7 (PRAC) and 8 (CARAC). Representation comprises two members from each partner organisation with a Chair and Deputy selected from government representatives from that group. Membership is reviewed and approved by the Board annually.

Table 11: Current PRAC members

Name	Organisation
Ryan Falconer (Chair)	Department of Transport and Major Infrastructure
Steve Atkinson (Deputy Chair)	Main Roads WA
Sue Hellyer	Department of Transport and Major Infrastructure
Cory Ross	Main Roads WA
Tanvir Asgar	Department of Planning, Land & Heritage
Andrew Wilkinson	Department of Planning, Land & Heritage
Kerry Job	Public Transport Authority
Tele Tan	Curtin University
Courtney Babb	Curtin University
Doina Olaru	The University of Western Australia
Brett Smith	The University of Western Australia
Negar Nili	WALGA

Table 12: Current Climate Action Research Advisory Committee (CARAC) members

Member	Position/Organisation
Steve Beyer (Chair)	Director Transport Sustainability and Strategic Projects, Department of Transport and Major Infrastructure
Sam Wilkinson	Principal Policy Officer, State EV Strategy, Climate Change Division, Strategic Policy, Department of Water and Environmental Regulation
Helen McGettigan	Director Planning and Strategy (Energy, Climate Change and Sustainability), Infrastructure WA
John Clifton	Manager Strategy and Innovation, DevelopmentWA
Louis Bettini	Principal Advisor Sustainability, Strategy and Communications Directorate, Main Roads WA
Ryan Falconer	Director Transport Insights, Urban Mobility, Department of Transport and Major Infrastructure
Gemma Habens	Climate Policy Manager, Strategy and Engagement, Department of Planning, Lands and Heritage
Andrea Down	Rail Planning Coordinator, Infrastructure Planning and Land Services, Public Transport Authority
Dora Marinova	Professor of Sustainability, Curtin University Sustainability Policy Institute, Curtin University
Bill Grace	Adjunct Professor, Australian Urban Design Research Centre, UWA

9.3.3. Project selection process

The established project approval process will be continued for selecting projects which are funded wholly or in part by PATREC core funds. This time round, however, the process will be opened to accept proposals from associated government agencies (e.g. PTA, DWER, DevelopmentWA) in addition to PATREC collaborating partners. In those cases, however, projects will need to be funded by those agencies i.e. not using core funds, unless a collaboration is formed with a collaborating partner in which case some core funds could be contributed to the project (Figure 1). The process includes a pitch session for government/agency proposers to explain their project ideas to researchers and respond to questions, as well as to provide an opportunity to identify potential collaboration opportunities amongst researchers.

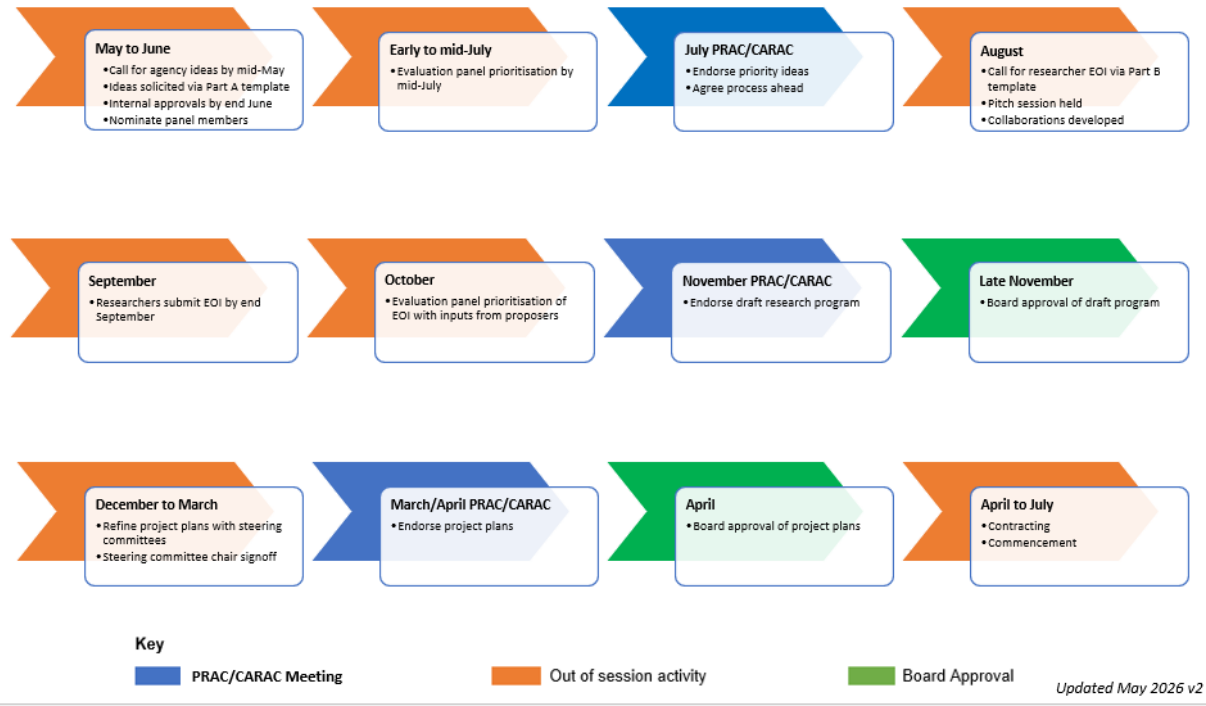

Figure 1: Formal project selection process (every two years)

The selection criteria to be applied include:

- Level of collaborative development of the idea amongst agencies
- Potential for co-contribution from other (non-core) funding sources
- Balance of benefits across agencies
- Alignment with the current PATREC Strategic Plan, especially research focus areas

9.3.4. Project management

Once projects are underway, Leaders will report three times a year on progress against milestones to PRAC and the Board. The reporting requirements are not onerous but sufficient to enable the Director and PRAC to identify whether the project is on track or if there are issues requiring attention. A reporting template comprising 3-4 questions on progress is available and the need for regular reporting included as a requirement in the project plan or contract.

9.3.5. Key Performance Indicators (KPIs)

KPIs remain largely consistent with the previous plan. Peer-reviewed books chapters and conference papers published have been combined since publication in both these formats have declined. Conference papers now tend to only be presented at conferences (included as an impact indicator) and published in journals rather than in proceedings. Number of books edited has been removed as an indicator as this is a rare activity amongst PATREC colleagues and unlikely to be repeated as was the case with Boomtown and Beyond. If such activities were to again occur, the indicator would be reinstated. In 2024, reporting on two additional KPIs commenced in response to the Board's 7 December 2023 decision to include KPIs relating to return on investment (ROI) to universities and some form of qualitative measure of impact. Academic ROI and number of positive impact statements from project close-out reports are now included as KPIs.

Table 8: Key Performance Indicators

Key Performance Indicators	
Academic Performance Indicators	
Number of journal papers published	
Number of peer-reviewed book chapters/conference papers published	
Number of PhD candidates attracted, retained and graduated	
Value ($) of external research funding secured (through PATREC account)	
Academic Return on Investment (ROI)	
Policy Impact Performance Indicators	
Number of high impact, policy-informing projects/sub-projects completed	
Number of substantive Technical Reports/Working Papers accepted/published	
Number of news articles published	
Number of presentations at PATREC and other connection events	
Number of connection events arranged and held	
Number of short courses, unit contributions presented	
Number of positive impact statements from project close-out reports	
Stakeholder (academic and policy) satisfaction indicator (qualitative)	
1	PATREC research outcomes are useful for my work needs
2	Interaction amongst PATREC partners is good
3	PATREC research provides good value for money
4	PATREC government and university partners understand each other's needs
5	Involvement with PATREC has advanced my knowledge
6	Involvement with PATREC has extended by networks
7	PATREC has been successful in bridging the gap between research and policy
8	Overall I am satisfied with PATREC's performance

9.4. Risks in delivering on the Plan

The major risks identified in delivering on the plan are:

- Human resource availability;
- Human resource capability;
- Designing and implementing a viable financial model to ensure sustainable funding flows back into PATREC; and
- Maintaining active engagement of industry partners.

10. BUSINESS PLAN 2026

10.1. Background and purpose

According to the 2016 Collaborative Agreement, Business Plans will be presented to the Board at the last meeting of each calendar year to direct business for the following year. For the years when Strategic Plans are due, the Business Plan for the first year is included in the Strategic Plan.

The purpose of this Business Plan 2026 is to:

- outline the research project program for 2026;
- provide a working budget for 2026;
- outline the human resource plan for 2026; and
- set key performance indicator targets for achievement in 2026.

10.2. Achievements in relation to previous Plan (2025)

Completed 2023-25 core program (traditional and climate action) projects:

- Evaluation of road safety treatments - road safety trial design and evaluation using video analytics
- Impacts of e-rideables on the transport task
- Micromobility and freight – exploring opportunities in WA
- Transport mode choice development using PATHS data
- Sustainable last km food and beverage delivery system - food and beverages
- Automated intersection parameter measurement using aerial photography and computer vision – pilot
- Feasibility of battery-electric school bus services in WA: Scaling up the transition (Dept of Education school buses)

Initiated, selected, approved and commenced the 2025-27 core program of research comprising 9 projects, including re-commencing, fast-track and replacement (of withdrawn) projects (traditional and climate action programs)

Climate action program:

- Recruitment process run (2-rounds) to appoint a Research Infrastructure Lead for the AURIN WA Node (Curtin) with potential to transition in the medium term to the PATREC@Curtin Program Leader role. No suitable candidate was found, necessitating an alternative plan to be pursued in 2026
- CA Strategic Plan approved

External projects completed:

- Machine learning and multi-objective optimisation models for enhanced road maintenance investment decision making – extension (MR, UWA)
- Improving roundabout modelling using drone video analytics extension (MR, UWA)
- Application of Biochar Waste in Pavement Design (MR, UWA)
- Freight route priority trial evaluation (MR, Curtin)
- ARC Linkage Infrastructure, Equipment and Facilities 2024 round 1 (LIEF24): National Cycling Data and Analysis Platform (NCDAP) (UWA)

External project commenced and progressed: National Critical Research Infrastructure Strategy (NCRIS), AURIN WA Node to support CA in transport and land use planning research (UWA, Curtin)

External opportunities progressed:

- Future Freight CRC – participation of Ports WA secured
- Awarded - Safe Paths – enhancing active transport infrastructure through video analytics and community reporting (National Road Safety Action Grants Program, MR, City of Stirling, UWA)
- Awarded - RoadSense Analytics – AI-enabled traffic intelligence (Australia's Economic Accelerator (AEA) Innovate, MR, Surveytech, Stech cameras, UWA)

2 PATREC Research Forums held to showcase completed projects with around 60 attendees at each:

- PATREC Climate Action Research Forum held on 1 May 2025, with 5 projects presented
- PATREC Research Forum (traditional program) held on 29 October 2025, with 5 projects presented

Conducted an internal review of PATREC collaborative funding model:

- In response to feedback from university partners received during the process of extending the PATREC collaboration agreement to December 2026, that the funding circumstances for universities had changed substantially since the PATREC collaboration agreement was signed in 2016 and there is a need to consider the real cost of research
- The Director, with the support of the Chair, conducted a series of discussions with government and university partners as well as similar research organisations to understand the range of perspectives and options
- It was agreed that the learnings be further discussed as part of the strategic planning (2026-28) and variation agreement (to extend PATREC to December 2028) processes.

10.3. Planned core research project activity 2026 – both programs

Complete core projects from the 2025-27 core research programs – these projects need to have been completed by December 2026 as the last round of iMOVE projects:

- Enhanced Vehicle Detection at Traffic Signals and Smart Freeways (re-commenced the last remaining project of 2019-2021 program of research (MR, UWA)
- Assessing the efficacy of video analytics for comprehensive active transport (DTMI, MR UWA)
- Roundabout safety review using drone video analytics (MR, UWA)
- Preparing WA to deploy automated on-road freight vehicles (DTMI, MR, UWA, Curtin)
- A satellite imagery-informed deep learning approach to estimate and forecast Perth's dwelling yields (DPLH, UWA)
- Take up rates – future dwelling capacity and yield forecasts in higher density or infill areas (DPLH, Curtin)
- Low-carbon transit-oriented development precincts (DPLH, UWA)
- Evidence-based climate adaptation strategies for Perth's Primary Network for Active Transport (MR, DTMI, DPLH, UWA)
- Mapping the circular economy of WA – the case for transport infrastructure from a system-wide perspective (DTMI, Curtin)

Commence the process to initiate, select and approve the 2027-28 core research program in mid-2026 accounting for context changes, including:

- No further leverage from the iMOVE CRC
- iMOVE CRC projects enjoyed a waiver on infrastructure charges (to cover university administrative overheads etc.), not necessarily the case for PATREC projects (raised as part of the internal review)

Effectively, with reduced core funds for research projects, alternatives need to be considered including:

- Consider using core to provide half the project funding with top-ups from beneficiary government agencies, partners as well as others
- Do fewer, higher budget projects

Complete the selection process for, and commence, two CA projects to use the unused CA program funding previously allocated to Curtin for the CA program leader (not progressed). Consider involving Murdoch researchers in the CA program given strong competency in this area. This will be used as an opportunity to extend an invitation to Murdoch (again) to join PATREC, at least the climate action program, as a collaborating partner.

10.4. Planned external research project activity 2026

External projects already secured/under negotiation for 2026 will be completed or progressed, including:

- Risky driver behaviour detection - for completion (MR, Curtin)
- AURIN WA Node to support climate action in transport and land use planning research, National Critical Research Infrastructure Strategy (NCRIS (UWA, Curtin, DEED, Uni Melbourne) – progressed – end date extended to June 2028
- Safe Paths – enhancing active transport infrastructure through video analytics and community reporting, National Road Safety Action Grants Program (MR, City of Stirling, UWA, Commonwealth) – progressed – end date June 2027
- RoadSense Analytics – AI-enabled traffic intelligence, Australia's Economic Accelerator (AEA) Innovate (MR, Surveytech, Stech cameras, UWA) – progressed – end date 2027

Continue pursuing opportunities, including in relation to:

- Future Freight CRC
- PortsWA
- AURIN "Challenge Area" funding streams:
    - Housing Systems, Feasibility and Delivery
    - Future Mobility Systems
    - Energy Systems and the Transition to Net Zero

10.5. Planned communication activity

- Continue to be responsive in accepting invitations to present at events or as part of university courses e.g. Director invited to speak at Property Council WA Breakfast Event on 31 March 2026: Connected Perth - Where Transit Meets Opportunity - how TODs can unlock housing supply and deliver sustainable growth
- Continue to present project outcomes upon project completion
- Hold at least two PATREC Research Forums potentially highlighting:
    - Research of early career researchers involved in PATREC research
    - Outcomes of external projects
    - PATREC government partner knowledge gaps and priorities, possibly linked to the "pitch session" where government project ideas for the core 2027-28 research program are explained to research community
    - External keynote speakers
    - Use of AI in planning
- Consider planning a more formal PATREC 'symposium' for 2027, with an open call for papers to generate a broader range of submission and cross-sector attendance/interest and reinforce the preeminent role of PATREC in urban related research in WA.

- Annual John Taplin Memorial Lecture: 18 March 2026. Urban Transport Planning, Retrospective and Prospective: an Interplay of policy, academic disciplines and methodology, Prof. Peter Jones, OBE. Professor of Transport and Sustainable Development, Centre for Transport Studies, UCL. Given John was the DG Transport at some stage and also UWA Professor for many years, closely linked with PATREC, the possibility of securing some level of ongoing sponsorship for this annual event will be investigated.
- Professional PATREC website redesign with enhanced layout, simplified updating capability and streamlined LinkedIn connections: The current website evolved in an ad-hoc fashion, through a number of iterations with a range of different researchers involved as a sideline favour to PATREC and/or as part of research projects requiring use of the website in some way. It has now got to the point that it is unstable, difficult to update and not fit-for-purpose. While the main purpose of the website is as a repository of PATREC project outputs, it is also important to indicate PATREC project activity, governance arrangements and news items. While it is not necessary to be overly elaborate, it needs to be up to date (easily updateable) and look professional. To this end, a professional designer will be appointed to redesign the website with the capability of easy updating by non-professionals and connecting to LinkedIn for wider dissemination potential ($10,000 budget).

10.6. Planned human resource and governance activities

In addition to the usual project-specific casual and fixed term appointments and renewals, a key HR activity will be the recruitment of the AURIN WA Node Lead at Curtin. This position is externally funded but with the right appointment, offers the potential for the appointee to transition over time to also undertake the envisaged PATREC@Curtin leadership role to building stronger collaborations between different discipline areas at Curtin and between Curtin and UWA, to respond to PATREC research needs. Drawing in Urban Planning expertise to strengthen PATREC's land use research capability to supporting WAPC and DPLH, in the climate action as well as the more traditional PATREC programs of research as well as drive business development in these areas.

A variation agreement will be presented to the partners to extend PATREC to December 2028, with associated subscription payments for the period. It will be determined and proposed to the Board if a new agreement is required to replace the current 2016 agreement which is currently varied biennially to extend the period and core funding for PATREC. This could potentially address the matter of recovery of the real cost of research and including Murdoch and others e.g. PTA in the collaboration.

More generally, universities have provided feedback that involving early- and mid-career researchers (EMCR) in projects, with mentoring from more senior researchers and the opportunity for direct project-level engagement with government policy and operational officers and decision-makers, would be highly beneficial in building the researcher pipeline, particularly for those interest in applied research focussed on real-world research questions. Some forms of involvement could be through project-related industry internships and fellowships. Best practice in more formally and deliberately involving EMCR in PATREC projects will be investigated as part of the 2027-29 project selection process, such as including an EOI evaluation criterion of inclusion of EMCR, as well as including a PATREC KPI to track EMCR involvement in addition to PhDs.

10.7. Budget 2026

The budget for 2026 (Table 9) has been extracted from the three-year 2026-28 budget as presented earlier in section 9.2.

Table 9: Budget 2026

PATREC Budget	Budget 2026
INCOME	
Traditional (WA gov core)	340,377
Traditional (WA uni core)	218,814
Traditional (iMOVE projects core)	400,000
Traditional (external)	2,000,000
Climate action (WA gov core)	290,000
Climate action (WA uni core)	72,500
Climate action (iMOVE projects core)	250,000
Climate action (external)	150,000
Total Income	**3,721,691**
EXPENDITURE	
PATREC OFFICE	**352,534**
Director (0.4)	110,000
Program Leader CA (0.4 FTE)	90,000
Administrative support (0.8FTE)	120,000
Board Chair Stipend	32,534
RESEARCH PROJECTS	**4,495,000**
Research Co-ordination (Dir. 0.6)	170,000
Research Co-ordination (CA Prog. Lead. 0.6)	135,000
iMOVE participation & add. Project contrib.	650,000
PATREC Research Fellow	240,000
Researcher Assistants, Services, Expenses - trad.	3,000,000
Researcher Assistants, Services, Expenses - CA	300,000
Total Expenditure	**4,847,534**
YTD BALANCE	-1,125,843
Balance Brought Forward	1,419,214
CLOSING BALANCE (incl Balance B/F)	**293,371**

10.8. Key Performance Indicator Targets 2026

Performance indicator targets are set for 2026 on the basis of KPI performance over the last three years as well as outcomes envisaged from the 2026 plan of work, as described in preceding sections 10.3 – 10.7.

Table 10: Key Performance Indicator Targets 2026

Key Performance Indicators	Target 2026
Academic Performance Indicators	
Number of journal papers published	8
Number of peer-reviewed book chapters/conference papers published	0
Number of PhD candidates attracted, retained and graduated	4
Value ($) of external research funding secured (through PATREC account)	$2,800,000
Academic Return on Investment (ROI) – 3-year rolling (2024-26)	6:1
Policy Impact Performance Indicators	
Number of high impact, policy-informing projects/sub-projects completed	10
Number of substantive Technical Reports/software tools accepted/published	10
Number of news articles published	10
Number of presentations at PATREC and other connection events	20
Number of connection events arranged and held	5
Number of short courses, unit contributions presented	2
Number of positive impact statements from project close-out reports	10
Stakeholder (academic and policy) satisfaction indicator (qualitative)	***85%***

ANNEXURE A: KPI ACHIEVEMENTS 2023-2025

Performance Indicator	2023	2024	2025	Total	Average
Number of journal papers published	5	7	8	20	7
Number of post graduate research students attracted, retained and/or graduated (PATREC staff only/direct PATREC project involvement)	4	3	5	4 graduated 3 attracted and retained	4
Value ($) of external research funding secured [all non-core income]	$1,618k	$1,378k	$3,412k	$6,408k	$2.1M
University ROI (3-yr rolling 23-25)					6.4
Number of high impact, policy-informing projects completed	4	12	10	26	9
Number of substantive Technical Reports/ software tools completed	4	12	12	28	9
Number of PATREC Perspectives/iMOVE news articles published	9	7	8	24	8
Number of presentations at PATREC and other connection events (including conference presentations not published)	27	11	30	68	23
Number of connection events arranged and held	5	6	4	15	5
Number of short courses, unit contributions presented	0	5	1	5	2
Project impact statements (qualitative)	2	9	6	17	6
Stakeholder (academic and policy) satisfaction indicator	80%	93%	86%	n/a	86%

ANNEXURE B: TECHNICAL REPORTS COMPLETED 2023-2025

Project (core, external)	Participants ($)	Completion date
Identifying opportunities to address transport disadvantage in Perth (core)	iMOVE, DoT, UWA, Curtin ($99,294)	2023
Integrated IoT, computer vision and machine learning technologies for smarter bridge health monitoring and prediction (core, external - Main Roads)	iMOVE, UWA, Main Roads, Curtin ($270,407)	2023
Australian Transport Research Cloud - AURIN/Australian Research Data Commons. PATREC contribution: ADAPT Accessibility Tool (external)	Uni Melbourne (AURIN), UWA, Curtin ($450k)	2023
AURIN national transport domain specialist contribution (external - NCRIS)	Uni Melbourne (AURIN), UWA ($98k)	2023
Machine learning models for road maintenance investment decision making (core)	Main Roads, UWA ($114,000)	2024
Planning for a Sustainable Last Kilometre Freight Delivery System for the Food and Beverage Sector in Greater Perth (core)	iMOVE, UWA, Main Roads, DPLH ($88,000)	2024
Transport Environment and Kids… 15 Years On (core)	iMOVE, DoT, UWA ($100,000)	2024
Realtime model to estimate delay at traffic signals (core)	iMOVE, Main Roads, UWA ($106,000)	2024
Feasibility of battery-electric buses for regional school bus services, Stage 1 (core, external – PTA, DoT)	iMOVE, DoT, PTA, UWA ($230,000)	2024
Mapping the Circular Economy of WA: Monitoring the contributions of circularity towards achieving Net Zero (core, external - DoT)	iMOVE, DoT, Curtin ($300,000)	2024
Accounting for carbon in the planning for new residential suburbs (core, external - DPLH)	iMOVE, DoT, UWA (AUDRC), DPLH ($150,000)	2024
AI-assisted Model Calibration for Real-time Traffic Simulation (external)	iMOVE, MRWA, Aimsun, UWA ($400k)	2024
Improved Roundabout Modelling using Drone Video analytics (external) – Aimsun part	iMOVE, MRWA, UWA, Aimsun) ($392k)	2024
Developing a low-powered edge camera system for pedestrian and cyclist surveys (external)	Innovation Connection/Metrocount ($100k)	2024
Optimising video analytics for traffic data collection and calibration incorporating fixed camera videos (external)	MRWA, iMOVE, UWA ($200k)	2024
Biofuels - Evaluation of Hydrotreated Vegetable Oil (HVO) renewable diesel trial - independent evaluation of pilot project (core)	DoT, Curtin ($38,694)	2025
Perth freight route priority system evaluation trial (external)	iMOVE, Main Roads, Curtin	2025
Machine learning and multi-objective optimisation models for enhanced road maintenance investment decision making – extension (core)	Main Roads, UWA ($35k)	2025
Improved roundabout modelling using drone video analytics extension (core – original was external) – SIDRA part	iMOVE, MRWA, UWA, Aimsun ($89,322)	2025
Feasibility of battery-electric school bus services in WA: Scaling up the transition (core)	iMOVE, DTMI, DOE ($130k)	2025

Impacts of e-rideables on the transport task (core)	iMOVE, DTMI, UWA, Curtin ($98k)	2025
A tour-based mode choice model using revealed and stated preference data (core)	iMOVE, DTMI, UWA ($85k)	2025
Micromobility and freight – exploring opportunities in WA (core)	iMOVE, DTMI, Curtin ($85k)	2025
Evaluation of road safety treatments - trial design and evaluation using video analytics (core)	iMOVE, MRWA, UWA ($161k)	2025
Pilot - Automated intersection parameter measurement (core)	MRWA, UWA ($30k)	2025
National Cycling Data and Analysis Platform (NCDAP) (external)	ARC LIEF (UNSW-led), UWA ($30k) (Curtin participated independently)	2025
Application of biochar waste in pavement design (external)	iMOVE, MRWA, UWA ($278k)	2025