MONASH University

ACCIDENT RESEARCH CENTRE

2024 ANNUAL REPORT MUARC

MONASH UNIVERSITY ACCIDENT RESEARCH CENTRE

"MUARC's research profile continues to excel with major projects being conducted across Australia and internationally"

Professor Stuart Newstead
Director, Monash University Accident Research Centre

The Monash University Accident Research Centre acknowledges the people of the Kulin Nations, on whose land we study and work. We pay our respects to their Elders, past and present.

FOREWORD

The Monash University Accident Research Centre (MUARC) is a transdisciplinary research institute with a reputation across Australia and globally for excellence in safety science and injury prevention research. MUARC's work strongly aligns to the University's commitment, through *Impact 2030*, to address the challenges of the age by leveraging its staff expertise and their local, national and international collaborations. I am pleased to introduce the Centre's 2024 Annual Report which highlights their impact-focused research, education and research training.

MUARC continues to contribute to societal-wellbeing through evidence-based approaches to improving human outcomes: enhancing community resilience to disasters; addressing behaviours on the road; and using data to inform pathways to reduce trauma. For MUARC, this is achieved through collaborations across academia, government, and industry, producing scientifically rigorous research in formats that are accessible and actionable. In today's fast-paced and ever-changing society, the ability to translate timely, evidence-based insights into policy and practice is more crucial than ever.

With the World Health Organization (WHO)'s commitments to reducing road trauma through its Decade of Action Plan, and a more sustainable future through the Sustainable Development Goals, MUARC's ongoing collaboration with WHO partners and research used in WHO publications, now is truly the time to embrace the excellent rigorous research MUARC can provide.

The people of MUARC are its greatest asset and integral to its world-leading research. With over 70 staff, affiliates and PhD students, the Centre brings together a diverse range of expertise into a collaborative environment, which enhances the outcomes and impact of their work. Through programs such as their Seeding Grants and Peter Vulcan Best Paper Awards, MUARC acknowledges and supports their staff's academic success, and through active Wellbeing and Environment committees, they create a welcoming and inclusive workplace for everyone.

I welcome our fellow academics, stakeholders, future students, and contributors to explore this annual report as a testament to the value an impact-focused institute can have over the course of a year, both within academia, and across governments, intergovernmental agencies and our diverse community.

Professor Mike Ryan
Pro Vice-Chancellor Research
Chair, MUARC Steering Council

DIRECTOR'S MESSAGE

I am pleased to present the 2024 Annual Report for the Monash University Accident Research Centre. The report highlights MUARC's ongoing focus on excellence in research, research training and education in the injury prevention and safety science domains, leveraging the synergies between these activities to maximise the opportunities and benefits from its work.

This annual report underlines MUARC's key objective of working to achieve real world impact in reducing the burden of injury globally, through providing a strong evidence base from which effective policy and practice can be developed. MUARC's work aligns closely with the broader objectives of the Monash University *Impact 2030* strategy, addressing the global challenges of climate change, geopolitical security and thriving communities.

Local and global concerns about worsening injury trends in a number of key areas including road transport and disasters saw demand for MUARC research and expertise grow strongly in 2024. Research income to the Centre was over $7million, growth of over 30% compared to recent years.

Of particular note was MUARC's success in receiving five Category 1 National Road Safety Action Grants from the Commonwealth Government, valued at over $1.5million and to be delivered over the next 2 years. Tender success for MUARC in over 70% of submissions also highlights the esteem in which our researchers and their broad experience are held.

MUARC's road safety related research profile continues to excel with major projects being conducted across Australia and internationally, particularly in the areas of driving with dementia, automated enforcement evaluation and strategic modelling for road safety optimisation.

Impact from this program has been evidenced through numerous mentions of MUARC in state and national road safety strategies and evidence from public inquiries, and implementation of policy including Australian mandates for autonomous emergency braking and acoustic vehicle alerting systems for electric vehicles.

The National Road Safety Partnership Program, hosted by MUARC, continues to be a model for research translation for impact in workplace driving through work like the National Truck Accident Research Centre report.

Beyond road safety, the Victorian Injury Surveillance Unit's Injury Atlas, data request service, and Hazard reports provide valuable evidence on broader injury trends in hospital presentations and admissions in Victoria, whilst the Monash University Disaster Resilience Initiative's work is informing fire prevention in the Middle East and exploring the important issue of how to quantify the burden of people being displaced from their communities after disasters. Across the media, MUARC's work reached nearly 1.3 billion people with a media placement value of over $16 million.

To ensure MUARC's ongoing strength and alignment with Monash University's new Institutes and Centres policy, significant progress has been made in transforming MUARC's governance structure. This has included the appointment of an external representative to the MUARC Management Committee and, more significantly, the formation of the MUARC Steering Council. We are pleased to have high level representation from across Monash University on the Steering Council to guide MUARC's future direction.

In consultation with MUARC staff, the last step in progress is the formation of a new Advisory Council to provide broad advice to the Centre on meeting its strategic objectives. The Advisory Council will be operational by mid-2025.

In parallel, MUARC has been working to strengthen its ties with the faculties of Monash University, and building a strategic alliance with the other similar Monash University institutes in MSDI and ISCRR.

Finally, to strengthen ties with past students, from both graduate research and professional education programs, the MUARC Academy was launched in September, providing a platform for contact and collaboration. It will encourage continual learning and engagement with the latest research developments and translation. All these activities will strengthen MUARC's position for the future.

MUARC's highly qualified and diversely skilled staff and students are its greatest asset and strength. In 2024, we welcomed Dr Jasmine Proud, Runzhe Gao and Dr Le Pham to our research staff enhancing MUARC's capabilities in engineering and biostatistics. We also welcomed Peter Grzic to help build MUARC's education offerings in disaster resilience. Ellana Christakakis joined us from University Marketing and Communications to coordinate the delivery of MUARC's ambitious communications strategy focused on building impact with our stakeholders and the broader community and connecting MUARC throughout the broader Monash community. Dr Jennifer Rivera Gonzalez also joined MUARC in a full-time capacity to support the NRSPP and work on a range of research projects.

On the reverse side of the ledger we farewelled Revathi Nuggehalli Krishna, Laurie Budd and Fareed Kaviani who all left MUARC to take up other opportunities, all having made significant contributions to the work of the Centre.

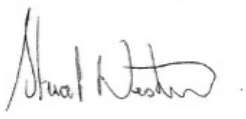
I would like to offer particular thanks to MUARC Adjunct and Emeritus staff for the contribution they continue to make. We were particularly pleased to welcome Professor Claes Tingvall as an Emeritus appointment through MUARC, Claes being a long-time international thought-leader in road safety who will help to develop and challenge the Centre's future research agenda.

We celebrated the success of our staff in 2024 in their career progression and achievements. Casey Rampollard was promoted to Research Fellow Level A whilst Dr Brendan Lawrence, Dr Hayley McDonald and Dr Jasmine Proud were promoted to Research Fellow Level B.

Outstanding career success was achieved by Associate Professor Sjaan Koppel who was awarded the prestigious Women in Road Safety Award from the Australian College of Road Safety, Jerome Carslake who was shortlisted for a Monash University Professional Staff Excellence Award, Dr Angelo D'Elia who was awarded the Peter Vulcan Prize for best MUARC research paper and Dr Jason Kearney who was awarded the MUARC best student paper with Dr Hayley McDonald also highly commended.

In our graduate student program we were proud to celebrate the conferral of PhDs for Dr Jessica Truong, Dr Michael Green, Dr Mohammad Ibrahim and Dr Jason Kearney and look forward to seeing their future career success. Replenishing the PhD pool, we welcomed Hayley Russell, Peter Divjakinja, Lerdmanus (Wave) Bumrungsup and Helen Zahos commencing their PhD candidatures across a wide range of injury prevention topics. As testament to the PhD student experience, MUARC was the chosen destination for three international visiting PhD students.

We look forward to continued success and growth in 2025.



Stuart Newstead
Director

2024 HIGHLIGHTS

71% SUCCESS RATE FROM FUNDING APPLICATIONS

$7M RESEARCH INCOME

87% OF INCOME HERDC CATEGORY 2 AND 3

18 FUNDING ORGANISATIONS, INCLUDING 7 KEY PARTNERS

1 MUARC'S BASELINE RESEARCH PROGRAM IDENTIFIED AS A PRIORITY IN THE VICTORIAN GOVERNMENT ROAD SAFETY ACTION PLAN

38 STAFF

19 PHD STUDENTS

3 ACCREDITED POSTGRADUATE COURSEWORK UNITS

1 GRADUATE CERTIFICATE ROAD SAFETY

OUR PURPOSE

Through excellence in injury prevention research and translation, we support, challenge and engage citizens, communities, governments and industry to eliminate injury from all causes.

The Monash University Accident Research Centre (MUARC) was established in 1987 and has built a strong reputation for excellence in safety science **research**, **research training** and **education**, both professional and academic. MUARC is a part of a global university, and we are proud of our 37 year legacy of research, which continues to influence policy and practice to drive change and **make a difference**.

MUARC's research spans road and transport safety, workplace safety, and injury prevention in the home and community. The influence of our work is evident through our academic journal publications, research reports, references in government policies, extensive stakeholder engagement, student satisfaction and media presence. MUARC remains committed to advancing societally-relevant and forward-looking research and innovation, guided by the active engagement of our governance bodies, Monash University's *Impact 2030*, and our communities of local, national, regional and international partners and stakeholders.

With a multidisciplinary team of more than 50 researchers and postgraduate students, MUARC's distinctive strength lies in the multifaceted expertise of our people to conduct research and make it accessible to academics, government officials and the broader community. Situated within Monash University, the number two University in Australia, our diverse talent pool enables us to tackle complex problems comprehensively, from proficient project design and thorough program evaluation, to meticulous data analysis and scenario modelling, to evidence-based policy and practice recommendations. We are equally committed to training the next generation of safety science leaders and collaborating with academics across Monash University and the globe to achieve our vision of a society free from preventable injuries.

MUARC aligns with Monash University's mission to tackle pressing challenges of the age: climate change, geopolitical security, and thriving communities. By leveraging our expertise and resources, we aim to drive meaningful change and inform policies and interventions to the incidence of injury in Australia and internationally.

MUARC is a beacon of excellence in safety science and injury prevention research and education. As a global leader in safety science and injury prevention, MUARC continues to push the boundaries of research and innovation. Guided by collaboration, curiosity, and a clear sense of purpose, we remain dedicated to building safer, healthier communities for all.

OUR WHY

INJURY PREVENTION

Of the 4.4 million injury-related deaths globally each year, unintentional injuries take the lives of 3.16 million people and violence-related injuries kill 1.25 million people. Roughly 1 in 3 deaths result from road traffic crashes, while falls account for over 684,000 deaths.[1]

In Australia, injury is a major cause of preventable death and disability and the leading cause of death among people under 45.[2] Transport injuries account for10% of injury deaths.[3] In 2022–23, the leading causes of injury hospitalisations were falls, contact with objects and transport.[4]

ROAD SAFETY

In 2024, 1269 people died on Australian roads.[5]

The WHO Decade of Action for Road Safety 2021-2030, and the Victorian Road Safety Strategy call for a reduction in road traffic deaths and injuries by at least 50% by 2030.[6,7] The Australian Federal Government's National Road Safety Strategy 2021-2030 targets Vision Zero: eliminating road deaths and serious injuries by 2050.[8] The Victorian Government's Road Safety Action Plan emphases using research and data to guide road safety improvements, and reaffirms its commitment to partnering with MUARC to achieve these outcomes.[9]

WORKPLACE SAFETY

In 2023, there were 200 worker fatalities in Australia, 95% men. Australia's current work-related injury rate is 3.5%, roughly one-third the global rate of 12.1%.

Vehicle incidents are the leading cause of worker fatalities (42%), followed by Falls from a height (15%).

Claims for mental health conditions are increasing (11% of serious claims) with median time lost from work more than five times that recorded across all injuries/diseases.[10]

Safe Work Australia has set targets of a 30% reduction in worker fatalities and 20% reduction in serious claims by 2033.[11]

HOME AND COMMUNITY

In 2023, 399 large-scale events impacted over 93 million people globally.[12] In Australia, disasters currently cost the economy $38 billion per year,[13] with up to 41% of people experiencing a disaster in 2023.[14]

Australia's International Development Policy and Humanitarian Policy commits Australia to build regional resilience by supporting partner governments and communities to lead their own climate adaptation and disaster risk reduction efforts.[15]

References: https://www.monash.edu/muarc/annual-report/home/sources

OUR EXPERTISE

MUARC's greatest asset is its people - a passionate, multi-disciplinary team of experts and emerging researchers, who are deeply committed to making a difference. Our staff and students bring together world-class industry experience, combining scientific rigour with practical insight to address the most pressing safety challenges of our time.

At the heart of our approach is the MUARC model: a collaborative, impact-focused framework that integrates research, education and stakeholder engagement. We work in close partnership with government, industry and community organisations to co-design solutions that are evidence based and actionable. This model enables us to drive meaningful, measurable change, shaping policies, improving systems and saving lives.

THE MUARC MODEL

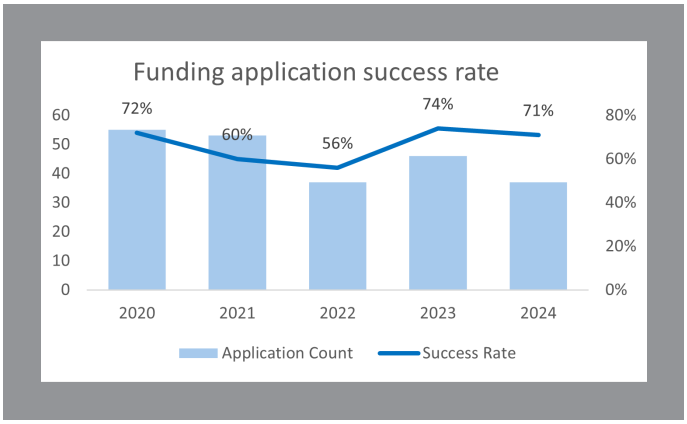
UNDERSTAND STAKEHOLDER BUSINESS THROUGH BUILDING A WORKING RELATIONSHIP

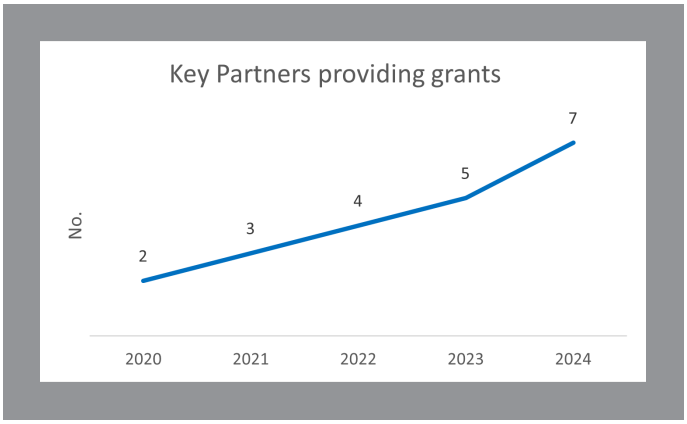
FORMULATE RESEARCH THAT BEST SUPPORTS STAKEHOLDER NEEDS AND OBJECTIVES

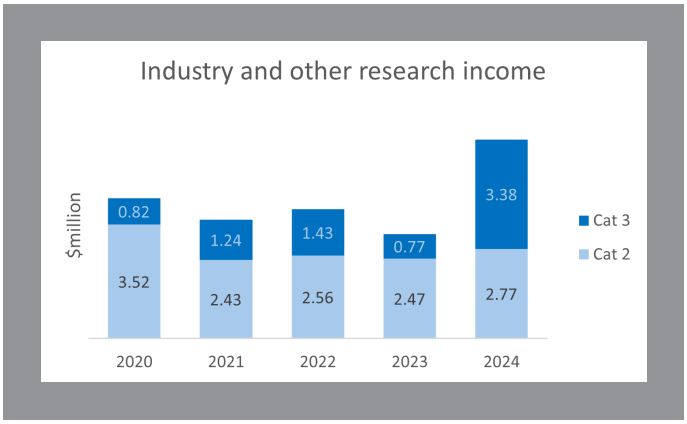
UNDERTAKE HIGH QUALITY RESEARCH

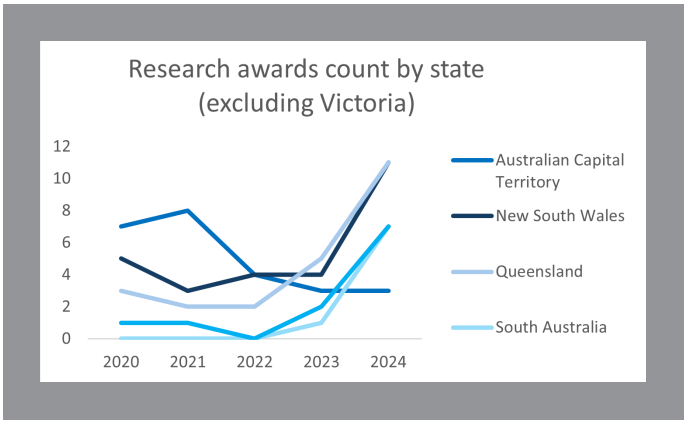
ASSIST WITH TRANSLATION OF RESEARCH OUTCOMES TO ACHIEVE IMPACT

A selection of key indicators of our expertise, success of the MUARC model, and growing reach of our research are shown below.









*Key Partner: An organisation providing $500k or more at least once in the previous five-year period, with funding also being given in the reference year.

OUR IMPACT

Impact 2030 commits Monash University to a path driven by our purpose, which is to create understanding and innovation in collaboration with others – locally, nationally and internationally – and to address the three global challenges of the age. Our commitment to delivering global impact is critically dependent on connecting communities and industries to our education and research. By working collaboratively and effectively with our partners, MUARC provides evidence-based recommendations to inform injury prevention across many settings.

We make our research accessible, with a commitment to help the community and policy makers understand safety, and translate our research for the greater good.

MUARC in the media

1.33k	1.28 billion	$16.2 million
MEDIA HITS	AUDIENCE REACH	WORTH OF MEDIA EXPOSURE

Sharing our knowledge

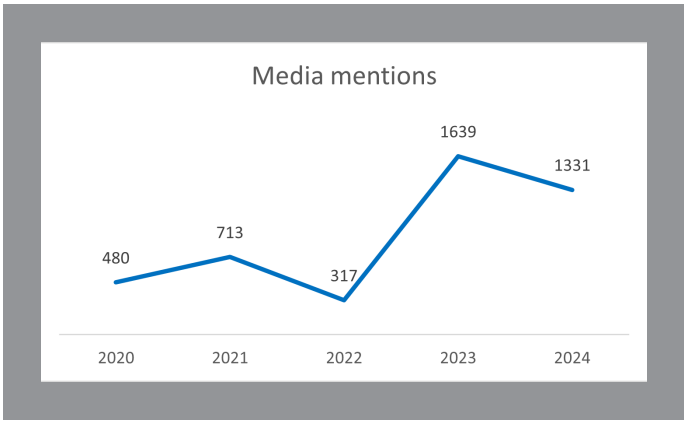
44 ACADEMIC JOURNAL PAPERS

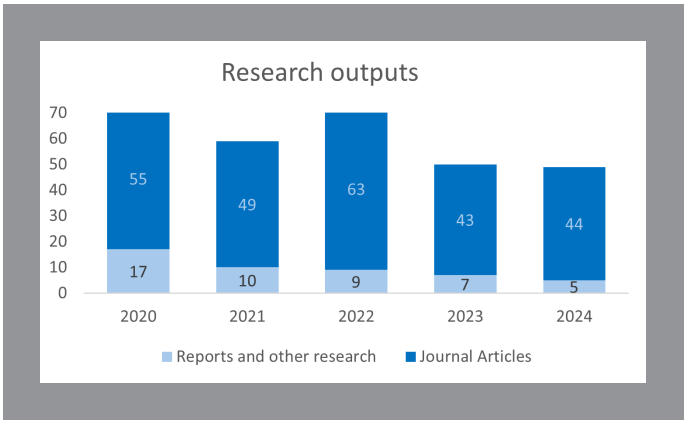
5 MUARC RESEARCH REPORTS

2 HAZARD PUBLICATIONS

3 INSIGHT E-NEWSLETTERS

14 CONFERENCES ATTENDED ACROSS AUSTRALIA AND INTERNATIONALLY WITH PRESENTATIONS FROM MORE THAN HALF OUR RESEARCH STAFF





RESEARCH INFORMING POLICY AND PRACTICE

In April, the Federal Government announced the introduction of a new Australian Design Rule (ADR) to make electric vehicles safer. MUARC's submission and research were cited multiple times in the consultation report. Fitting Acoustic Vehicle Alerting Systems (AVAS) into electric vehicles produces a safety alert or sound when the vehicle is travelling at low speeds. The new ADR is expected to avoid around 68 fatalities, 2,675 serious injuries and 2,962 minor injuries by 2060 and is estimated it will save the Australian community $208 million.

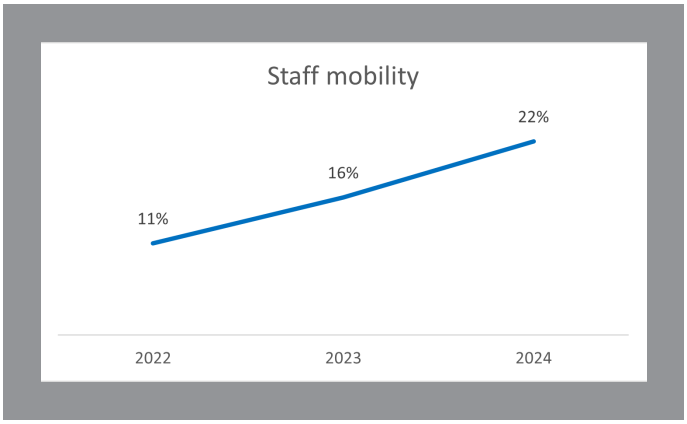
In May, the final report into the Victorian Government *Inquiry into the impact of road safety behaviours on vulnerable road users* was released. MUARC's expertise was strongly referenced throughout the report, with 23 mentions, and recognition as Victoria's peak safety science and injury prevention research agency. The report makes 56 recommendations including creating a road user hierarchy to prioritise the safety of vulnerable road users, ensuring main roads have pedestrian crossings near schools, shops and public transport stops, prioritising road treatments in regional areas and improving road safety data.

Internationally, MUARC research was referenced in seven policy documents and government advisory reports from the United States, Sweden, Finland, the European Union, as well as WorldBank and the World Health Organization.

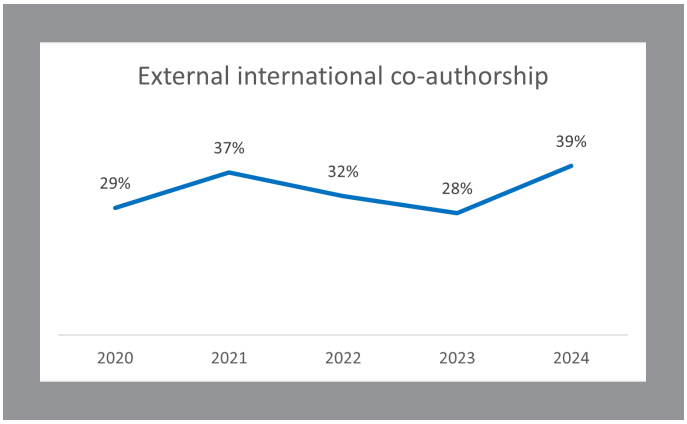
INTERNATIONAL

MUARC has a proud history of building collaborative networks internationally and providing safety advice to low-income nations who need it the most, and the Centre is proud to be a WHO Collaborating Centre for Violence and Injury Prevention.

In 2024, we welcomed a range of international visitors to our Centre including academic Dr Helen Wells (Keele University, UK), Director of the International Roads Policing Academic Network, and three PhD students on exchange, Mohammed Yasir (Italy), Marvin Heine (Germany), and Hengyan Pan (China). In December, we showcased our simulator facilities and research capabilities to a delegation of East Javan Senior Civil Servants (Indonesia). Additionally, MUARC provides our staff the opportunity to travel internationally to share their research at conferences and at other institutes and Universities, encouraging collaboration and forming strong academic networks.



International travel ("Staff mobility") in 2024 included to New Zealand, Europe (Germany, UK, Sweden, Belgium, Portugal, Italy, Norway, Spain), Saudi Arabia, North America (USA, Canada) and Asia (India, South Korea)



The strength of our international connections can be showcased by 39% of research publications in 2024 having international co-authors.

CONTRIBUTION TO THE UN SDGS

At MUARC, we recognise the significance of the United Nations Sustainable Development Goals (SDGs) in shaping global sustainable development agendas by 2030, as endorsed by the United Nations General Assembly. Monash University's ESG Statement has embedded a broad commitment to the SDGs and been a signatory to the 'Universities commitment to the SDGs' charter since December 2016.

In road safety, we address global priorities to reduce deaths and injuries (SDG 3.6), support the development of quality, safe, and resilient transport infrastructure (SDG 9.1), and provide research that supports inclusive systems that reduce inequalities (SDG 10.3). Our work promotes accessible and safe transport for all, especially for vulnerable road users including children, women, older people, and people with disabilities (SDG 11.2).

In injury prevention, we contribute to efforts to end preventable deaths of children (SDG 3.2), reduce violence and aggression on roads (SDG 16.1), and protect workers through research into safe and secure working environments (SDG 8.8). Our research also supports the understanding of safety of new electric vehicle technologies (SDG 7.A), and strengthens health systems' capacity for early warning and risk management (SDG 3.d).

Our work in disaster resilience and emergency response builds the capacity of communities to prepare for and respond to climate-related and environmental hazards (SDGs 1.5, 13.1, 13.2, 13.3). We support sustainable forest and land management to reduce fire risk and promote resilience (SDGs 15.2, 15.B), while contributing to national and global frameworks for disaster risk reduction (SDG 3.d).

Through education and capacity-building, we empower the next generation of safety professionals (SDG 4.7), foster global citizenship, and promote a culture of non-violence (SDG 16.1). Our programs also improve awareness and institutional capacity on climate change adaptation and mitigation (SDG 13.3), contributing to lasting change. We also collaborate with partners around the world to build system-wide capacity in developing countries, supporting national implementation of all SDGs through knowledge sharing and policy support (SDG 17.9).

RESEARCH INFRASTRUCTURE

Quality assurance

At MUARC we believe that excellence and quality are paramount through all stages of research, industry engagement and collaborations. To achieve this, MUARC is part of the Monash Platform Quality Management System (PQMS) that complies with the requirements of ISO 9001:2015 Quality Management Systems.

This certification enables the highest level of quality and confidence in the services we provide, ensuring user satisfaction and supporting research excellence. Monash University has developed a Quality Framework for implementation and maintenance of the PQMS so that it is fully integrated into all working practices, and that it continually helps to improve the quality of our services as we fulfil our users' requirements.

Simulation facilities

MUARC has a long history of undertaking cutting-edge projects using a unique range of driving simulators, and possesses a STISIM 100WS driving simulator, and full car, truck, motorbike, and bicycle vehicle simulators with technology to measure driver physiology and behavioural response. The facilities include usability laboratories, rest room, ventilated study room for use in drug-behaviour studies, and participant debriefing areas. Simulator projects range from evaluating infrastructure design, vehicle automation, and in-vehicle technologies to driver responses to fatigue and distraction.

Large dataset expertise

MUARC specialises in analysing, linking, and drawing meaningful insights from large, complex datasets, including hospital, insurance, crash, and licensing data. We are experienced in handling sensitive information with rigorous data protection procedures to ensure security and confidentiality. Additionally, all research involving human participants undergoes ethical review and approval by the Monash University Human Research Ethics Committee. A selection of our available research data is highlighted here.

The **Injury Atlas** of Victoria is a free online tool which allows users to explore unintentional injury hospital admissions data from Victoria. Developed by Dr Himalaya Singh in the Victorian Injury Surveillance Unit (VISU), there is a dedicated injury atlas for sports injury, falls injury and transport injury, as well as an overall unintentional injury atlas, for the years 2010/11 onward. Injury Atlas users can filter by demographics, geographical regions and injury characteristics. The de-identified data is supplied by the Victorian Department of Health (DH).

The **Enhanced Crash Investigation Study (ECIS)** collected nearly 1900 data points on each of the 400 crashes. This information was used as the basis for determining the factors that contributed to the crash occurring, as well as understanding how injuries occur. The full ECIS database contains 3460 variables, including crash reconstruction analysis, detailed injury information and health data, as well as safety countermeasures for each identified crash contributing factor and injury causation risk factor.

Through MUARC's **Vehicle Safety Research Group (VSRG)**, road crash data is used to produce the flagship Used Car Safety Ratings, a prominent source of vehicle safety information for the used car market, complementing ANCAP's new vehicle ratings. The dataset is updated annually and currently contains data on 9.4 million vehicles and around 2.6 million injured road users involved in police-reported road crashes across Australia and New Zealand dating back to 1987. Through collaboration with Redbook, the crash data is linked with vehicle specification and technology fitment data. The rich data sources assembled and enhanced by MUARC, along with our staff expertise in data analysis, allows us to provide the most relevant and accurate safety ratings. We can also analyse past patterns, forecast future trends, and investigate topics of interest, including: primary safety; the effectiveness of new vehicle technologies; and cross-sectional or longitudinal vehicle safety performance of the fleet.

RESEARCH INFRASTRUCTURE

Naturalistic Driving Study Databases

MUARC is internationally recognised as a global leader in naturalistic driving study (NDS) methodology and analysis. Widely regarded as the 'gold standard' for understanding real-world driving behaviour, NDS enables the unobtrusive monitoring of drivers during routine trips and safety-critical events. MUARC leads and collaborates on four major NDS projects, contributing to one of the most comprehensive and diverse collections of naturalistic driving data globally. Each dataset offers unique insights into specific driver populations and key periods across the driving lifecycle.

Ozcandrive

A landmark eight-year longitudinal study examining the driving behaviour of older adults, conducted in collaboration with research partners in Canada and the United States (US). Funded by the Australian Research Council (ARC) Linkage Project and the Transport Accident Commission (TAC), Ozcandrive represents the most extensive naturalistic dataset globally focused on older drivers. The study provides critical evidence to support policy and practice aimed at promoting safe and sustainable mobility in later life.

Children in Cars study

A short-term international study exploring in-vehicle interactions between drivers and child occupants during two weeks of everyday driving. Conducted in collaboration with researchers from the US, Canada, and Sweden, and supported by an ARC Linkage Project, this study produced the only known dataset capturing naturalistic observations of drivers travelling with young children. The findings offer valuable insights into restraint use, driver distraction, and child passenger safety, informing the design of interventions, policy, and consumer products.

Australian Naturalistic Driving Study (ANDS)

One of the largest and most comprehensive naturalistic driving studies undertaken in Australia, ANDS involved four months of continuous data collection to capture real-world driving behaviours across diverse conditions and jurisdictions. The project was delivered in partnership with the University of New South Wales (UNSW), the Centre for Automotive Safety Research (CASR), and the Centre for Accident Research and Road Safety – Queensland (CARRS-Q), and co-funded by the ARC (Linkage and LIEF schemes). Government collaborators included VicRoads, the TAC, the Centre for Road Safety (NSW), the Motor Accident Commission (SA), and the WA Office of Road Safety. ANDS provides a nationally representative dataset that enables detailed analysis of driver performance, risk factors, and behaviour across Australian states and territories - supporting evidence-based approaches to road safety policy and regulation.

Young Australian Naturalistic Driving Study (YANDS)

A targeted study focusing on the high-risk initial months of independent driving among young novice drivers. Conducted in collaboration with UNSW, the Western Australian Centre for Road Safety Research, CARRS-Q, and the Virginia Tech Transportation Institute (VTTI), and funded by the Road Safety Commission WA and the ARC, YANDS is the first Australian naturalistic driving dataset to capture real-world behaviour during the critical early licensure period. These findings provide essential evidence to inform the development of novice driver education, licensing policy, and enforcement strategies.

2024 HIGHLIGHTS: RESEARCH

BEHAVIOURAL SCIENCE

ADVANCING SAFE MOBILITY ACROSS TRANSPORT, WORKPLACES, HOMES, AND COMMUNITIES

Led by Associate Professor Sjaan Koppel, the Behavioural Science team applies innovative, transdisciplinary expertise to understand complex human behaviour and develop practical, evidence-based safety solutions. Their work spans all transport modes, as well as safety in workplaces, homes, and communities. Guided by national safety priorities and the United Nations Sustainable Development Goals, the team translates research into policies and practices that promote safer environments and enhance well-being at every level of society.

Recognised nationally as Australia's leading research group focused on the safe mobility of older adults, people with medical conditions, and children, the team had a highly impactful 2024.

A major highlight was a collaborative analysis of naturalistic driving data from the Young Australian Naturalistic Driving Study (YANDS) and the Australian Naturalistic Driving Study (ANDS). Conducted in partnership with the University of New South Wales, the Western Australian Centre for Road Safety Research, the Centre for Accident Research and Road Safety – Queensland (CARRS-Q), and the Virginia Tech Transportation Institute, the study examined non-driving task engagement among young (17–18 years) and experienced (25–62 years) drivers. Findings revealed that young drivers were distracted for 58.4% of their driving time, compared to 45.3% for experienced drivers. Funded by the Road Safety Commission WA and the Australian Research Council (ARC), the research provides critical evidence to inform behavioural interventions that reduce distraction-related crash risk.

The team also contributed to the NTARC Major Incident Investigation Report, identifying risk factors in the heavy vehicle sector and supporting industry engagement through webinars and targeted safety initiatives. In collaboration with the National Road Safety Partnership Program (NRSPP) and Gallagher, the team conducted a risk maturity gap analysis for Hireup's grey fleet, providing recommendations to strengthen its safety management system. Additionally, a study led by Dr Hayley McDonald and funded by the ACT Government investigated road safety issues around Canberra's light rail network.

In the workplace road safety domain, the team contributed to a Baseline Research Program study exploring how a strong organisational safety culture can foster safer road behaviours, providing practical insights for improving work-related road safety in both the light commercial and gig economy sectors.

A significant milestone was the promotion of Dr Hayley McDonald to Level B Research Fellow, recognising her leadership in young driver research, her success in securing research funding, and her contribution to policy influence. The team also invested in research capacity building, mentoring Honours students who investigated topics including AI in road safety, vehicle automation, and child road user safety. Monash Data Science interns contributed by examining the role of weather in heavy vehicle crashes.

Two international PhD students—from Italy and China—joined the team to explore sustainable transport and occupational road safety, and co-supervised candidate Dr Kathie Pawluk De-Toledo was awarded her PhD for her research on post-pandemic urban travel behaviour, offering important insights for future transport planning.

Across 2024, the team co-authored 19 peer-reviewed manuscripts through national and international collaborations with researchers throughout Australia, the United Arab Emirates, the United States, Italy, France, and China, spanning studies on child restraint use and injury severity, young driver behaviour, NDS data, automated vehicle takeovers, and psychological risk factors in transport safety.

With expertise spanning questionnaire development, neuropsychological assessments, NDS methodologies, longitudinal research, scientometric analysis, and systematic reviews, the Behavioural Science team delivers rigorous, data-driven insights. By combining behavioural science, psychology, and transport safety, and working closely with government, industry, and academic partners—particularly through the NRSPP—they continue to shape safer systems and reduce injury risk across multiple sectors.

2024 HIGHLIGHTS: RESEARCH

EMERGENCY SERVICES RESEARCH

RESEARCH AND EVALUATION OF INJURY PREVENTION AND MANAGEMENT WITHIN THE EMERGENCY SERVICES WORKFORCE

Led by Associate Professor Carlyn Muir, the Emergency Services Research team's public health experience and use of systems approaches enables them to examine safety for emergency services professionals.

The team covers a diverse range of injury and violence prevention topics that focus on improving outcomes in complex safety-critical environments. Drawing on applied research expertise in public health, psychology, paramedicine and data analysis, the team collaborates extensively with emergency service organisations and other stakeholders to ensure research is aligned with real-world needs and supports the development of effective, actionable strategies. Research areas include occupational safety and wellbeing of emergency service workers, emergency vehicle safety, the role of emergency services in improving public health outcomes, and community safety. Significant partnerships and long-term data linkage programs have been forged with a number of Australian state fire, ambulance and police agencies.

In 2024, the team secured funding for multiple projects focused on emergency services and occupational safety research. Ongoing collaborations included work with the NSW Rural Fire Service, Iowa State University, Fire and Rescue NSW, the Victorian Department of Transport and Planning, Victorian Country Fire Authority, the Australasian Fire and Emergency Service Authorities Council (AFAC), and the Transport Accident Commission.

The team's expertise was in high demand throughout the year. Highlights include delivering a workshop on emergency vehicle safety at the Australasian Road Safety Conference, presenting to the Australasian Fire and Emergency Service Authorities Council (AFAC) Fire Community Safety Group, and contributing to the Emergency Driver Educators Network Conference.

Working with Dr Amanda Stephens from the Human Factors and Sustainable Safety team, they also ran training workshops for the Department of Energy, Environment and Climate Action and the Ministerial Chauffeur service on managing stress and fatigue while driving. The team's work with Fire and Rescue NSW *'Measuring fire prevention and preparedness to inform community risk reduction'* was a finalist for the Research Impact Award at the Resilient Australia National Awards in Canberra.

A standout collaboration with MUARC's Traffic Engineering and Vehicle Safety team investigated risks to rural firefighting vehicles from falling trees and limbs in NSW, resulting in the development of a tailored vehicle performance testing program. Additional collaborations included working with the Monash University Disaster Resilience Initiative for research with King Khalid University to prevent forest fires and evaluate their impact on the environment in Saudi Arabia.

The team maintained its strong commitment to student supervision, celebrating the graduation of two PhD and one Honours student, while four additional students successfully completed milestones.

Associate Professor Muir was appointed to several national and international leadership roles during the year. She was appointed to the Road Safety Camera Commissioner Expert Reference Group by the Minister for Police for a three-year term, and joined special interest groups focused on Emergency Driver Educators and Roads Policing.

The team is recognised across Australia for its expertise in research tailored to the needs of partner organisations. Their in-depth understanding of the unique challenges faced by the industry and strength in stakeholder collaboration and network development, makes their work industry-leading and highly sought-after.

2024 HIGHLIGHTS: RESEARCH

HUMAN FACTORS AND SUSTAINABLE SAFETY

EXPLORING THE INTERFACE BETWEEN PEOPLE AND TECHNOLOGY WITHIN COMPLEX AND DYNAMIC ENVIRONMENTS

Led by Professor Jennie Oxley, the Human Factors and Sustainable Safety team uses a human factors approach to explore the interface between people and technology within complex and dynamic environments, focusing on understanding the system surrounding the individual, and the factors that support and constrain safety behaviour.

The team's research extends to the safety of people at home, at work and the land transport environment with a focus on identifying practicable and feasible solutions to help organisations, regulatory agencies and government bodies address their safety needs. This includes cutting edge research into the influence of worker fatigue and driver aggression on road safety.

In 2024, the team made significant progress across a suite of behavioural and systems-focused projects. A key achievement was Dr Amanda Stephens' work on a 'Managing Fatigue' project funded by the Australian Automobile Association, which delivered 12 tailored behaviour change programs to six industry partners, helping to improve workforce wellbeing and safety. They also led a scoping study into aggressive driving, laying essential groundwork for future strategies to address this under-recognised contributor to road trauma. Amanda's aggressive driving research was featured in the New York Times, and she featured on various radio stations in Australia and Canada.

Another milestone was Dr Kristie Young's work on a community sentiment study for the TAC exploring the use of Passive Alcohol Sensors (PAS), identifying key human factors considerations for implementation. In collaboration with the Queensland Department of Transport and Main Roads, the team also co-led a major review of the state's Learner Driver Program, generating actionable insights to enhance safety outcomes for novice drivers.

In a growing area of research, the team secured seed funding for a collaborative project with the University of Gustave Eiffel (France), titled *'The Move to Autonomous Driving: Staying in the Loop When Tired, Angry or Anxious'*. This study examines how emotional states affect the transition to and from autonomous driving systems, contributing valuable insights to the evolving conversation on automation and human oversight.

They worked with a broad network of partners, within Australia including CFA, Ambulance Victoria, Austroads, TAC, TMR Queensland, as well as with the UK Road Safety Trust, delivering research that translates into real-world safety improvements.

In 2024, the team were proud to see three of their co-supervised PhD students graduate: Dr Corina Crisan, Jennifer Rivera-Gonzalez, and Dr Doha Alhashmi. They also hosted Honours student, Rachel Crotty, who investigated driver's self-reported anxiety and cognitive load during self-driving compared to regular driving conditions using MUARC's driving simulator. Throughout the year, the team also hosted a number of undergraduate psychology students, providing them with real-world research experiences.

The team's global leadership in road user behaviour research is evidenced by SciVal data (2014–2023), which ranked them number one worldwide for research output on driver behaviour, transport safety, and traffic accidents. The team draws on research expertise in human factors, using a variety of methods to understand systems under investigation, including on-road testing, driving simulation, surveys, crash investigations, vehicle performance testing, participatory ergonomics design, structured interviews, stakeholder consultation and human factors methods, such as cognitive task analysis, and interface and usability assessment.

2024 HIGHLIGHTS: RESEARCH

INJURY ANALYSIS AND DATA

USING DATA TO ENHANCE PUBLIC SAFETY THROUGH PROGRAM EVALUATION, STRATEGY MODELLING AND EXPERT ADVICE

Led by Professor Stuart Newstead, the Injury Analysis and Data team uses statistical analysis methodologies on large and complex datasets to evaluate programs, model safety strategies and analyse the impact of new vehicle fitments.

The team's expertise is highly multidisciplinary with fundamental training including statistics, data science, mechanical and civil engineering, criminology and psychology, all key disciplines in the safety sciences. Their work focuses primarily on road safety research with a long history of contributing to public safety through program evaluation and modelling.

In 2024, the team expanded its research into automated enforcement, evaluating programs across Queensland, New South Wales, the ACT and Victoria. This comparative approach is helping jurisdictions understand best-practice applications of enforcement technologies. In the licensing space, research funded by the Baseline Research Program, provided the evidence base on licensing-related risk factors to guide the development of effective policy on access to heavy vehicle driver licensing for optimum road safety outcomes.

They delivered two significant projects evaluating vehicle safety technologies over the year. The first examined the applicability of implementing Europe's General Safety Regulation in Australia and New Zealand to maximise local safety benefits. The second used real-world crash data linked to high-level injury outcomes to evaluate the effectiveness of driver knee airbags to reduce injury in real-world crashes, with research presented at an international academic conference.

A major public-facing milestone was the release of the 2024 Used Car Safety Ratings, which received significant national media coverage for its emphasis on crash avoidance and vehicle aggressivity. The team's modelling of road safety strategies continues to inform key government priorities, while research on the National Heavy Vehicle Driver Competency Framework is guiding improvements in licensing standards.

Their work in road safety strategy and trends modelling continues to inform strategic road safety activity at both the state and national level. By identifying the impacts of factors such as population growth and economic circumstances, the team can provide a basis against which countermeasures can be assessed to meet road safety targets, guiding strategic road safety action.

PhD candidate Jessica Truong completed her thesis on strategies to eliminate serious road trauma in Victoria. 2024 collaborators included Professor Mike Keall (New Zealand) on safety rating methodologies, and Professor Teresa Senserrick (WA) and Associate Professor Lyndel Bates (NSW) on the evaluation of Queensland's Graduated Licensing System.

The Injury Analysis and Data team has a notable and unique strength in the successful delivery of data-focused, highly analytical research across all injury prevention domains. With expertise in a wide range of research designs and analytical techniques, along with extensive knowledge of key safety data resources, the team has the capacity and capability to deliver high quality research outcomes over a wide range of projects. Areas of specific research expertise include evaluation science, data system design, risk analysis, strategic modelling, survey analysis and statistical epidemiology.

MONASH UNIVERSITY DISASTER RESILIENCE INITIATIVE

ENABLING COMMUNITY AND COUNTRY RESILIENCE THROUGH COLLABORATION AND INCLUSION

Led by Associate Professor Jonathan Abrahams, the Monash University Disaster Resilience Initiative (MUDRI) delivers education, research and projects that develop capacities and aim to strengthen emergency management, health systems, and community development, to reduce risks and build resilience to disasters, climate change, and other societal disruptions. MUDRI's work lies at the intersection of the Monash University's *Impact 2030* global challenges of thriving communities, climate change and geopolitical security.

The team's multidisciplinary expertise spans emergency risk management, public health, climate adaptation, humanitarian action, and social science systems. The team co-develop, deliver and evaluate evidence-based projects that address real-world challenges and opportunities that have substantial effects on people, nature and the environment, infrastructure and other valued assets at local, national, regional and global levels. MUDRI is an implementing partner in Fire to Flourish and their collaborations extend across Monash University faculties and institutes in Australia and Malaysia, the World Health Organization headquarters and regional offices, Anglia Ruskin University (UK), and national partnerships with Emergency Management Victoria, the Red Cross, Gender and Disaster Australia, and several Australian universities.

In 2024, the team delivered several key projects with national and global impact. In partnership with King Khalid University, the team developed a strategic framework for forest fire management in Saudi Arabia, culminating in a community-focused presentation at COP16 in Riyadh. The project provides a comprehensive roadmap for strengthening systems to manage the risks of forest fires, with an emphasis on community programs to reduce the incidence of fires in recreational and farming areas.

Domestically, the team co-authored a significant report with Fire to Flourish, *'Internally Displaced People: 2019–2020 Bushfire, an iterative analysis'*, proposing actionable steps to better support displaced Australians, submitted to the National Emergency Management Agency.

Other major collaborations included work with Monash University's HumaniSE Lab to improve the inclusivity of early warning tools like VicEmergency, and collaborations on Mental Health and Psychosocial Support (MHPSS) with Monash's School of Psychology and the University of Melbourne, that have focused on MHPSS preparedness and workforce capability development.

The team's work was supported by a diverse funding base, including King Khalid University, the National Emergency Management Agency, philanthropic partners of Fire to Flourish, and Monash University's Incubator Program. The team were successful in attracting the highly competitive and collaborative Monash Incubator Program Boost funding to lead a multi-campus initiative on resilient hospitals and health care facilities in the Asia-Pacific region.

MUDRI builds the capacities of current and future multidisciplinary workforces through their practice-oriented educational programs for national and international students and participants. In 2024, this included the delivery of two accredited Masters-level units and approval to update their offerings in 2025 to focus on disaster risk management, humanitarian action, community resilience and climate change adaptation. The team invests further in youth through the NHRA Disaster Challenge, and several students from these units also took up opportunities to extend their learning by taking internships and capstone projects with Associate Professor Abrahams.

The Monash University Disaster Resilience Initiative team's distinct strength lies in bridging academic and practical experience - delivering applied, systems-focused research that addresses real-world challenges while educating the next generation of disaster resilience professionals. With extensive local, national and international networks the team can bring together collaborators with experience, expertise and local knowledge. A key asset of the team is their substantial policy and practitioner experience, providing a strong understanding of the practical realities of systems, workforces and communities, and producing collaborative outputs that are usable and impactful, enabling safer, sustainable and resilient communities in Australia, the Asia-Pacific Region and worldwide.

2024 HIGHLIGHTS: RESEARCH

MENTAL HEALTH, IMPAIRMENT AND INJURY

INVESTIGATING THE IMPACT OF MENTAL HEALTH AND IMPAIRMENT ON ROAD SAFETY AND WELLBEING

Led by Associate Professor Michael Fitzharris, the Mental Health, Impairment and Injury team's psychology expertise underpins their research into the factors associated with being injured and subsequent recovery. The team is focused on the use of technology and the adoption of policy and regulations aimed at improving the safety and wellbeing of society. The team also has a prominent role in the conduct of MUARC's research in regulation and in-depth crash investigation research.

The team's regulatory research supports evidence-based policies including how to best manage drug-driving recidivism and the regulation of Event Data Recorders, demonstrating their expertise in tackling complex safety challenges head-on. They adopt a mixed-method, co-designed approach when undertaking research and have expertise in qualitative and quantitative methods, including economic methods.The team uses complex datasets, including crash and compensation data, when undertaking its work.

With a strong focus on evaluation research, the team provides evaluations of mental health leadership and psychological safety programs delivered by prominent insurers and program providers, as well as looking at the impact of all forms of impairment on road and workplace safety. They have strong expertise in mental health as well as impairment associated with alcohol, illicit drugs, prescription medication (including medical cannabis), and drowsiness.

A successful year, 2024 saw the team deliver high-impact research with national recognition. A standout achievement was the development of the National Road Safety Research Catalogue, supported by the Office of Road Safety through the Department of Infrastructure, Transport, Regional Development, Communications and the Arts (DICTRA). This landmark project mapped over 1,500 government-funded road safety projects since 2018 and assessed their alignment with the National Road Safety Strategy and Action Plan, providing a valuable tool to inform future funding and strategy. The team also completed a report on the uses of Event Data Recorders to inform potential future regulation, and multiple reports that examined the safety of Transurban roads across Australia.

Led by Dr Sara Liu, the team secured a prestigious National Road Safety Action Grant in partnership with Vision Australia. Through this co-designed project, the team will investigate the experience of the blind and low-vision community in the road environment, examine impacts of road safety hazards on independence and mental health, and examine ways to improve mobility.

The team's research is highly valued as reflected by invitations to present at a national Roads Australia summit and to attend and participate at the NSW Road Safety Forum, the NSW Drug Summit, and as a panellist at the co-sponsored Transurban-TAC occupant safety forum. Internationally, the team presented its research at the Lisbon Addictions conference in Portugal, represented MUARC at the Global NCAP meeting in Munich, while collaborators at Seeing Machines presented research at the Driver Distraction Conference in Michigan. The team also presented its work and continued collaborations in Italy, the UK and Germany.

The team's collaborative reach in 2024 included partners such as the Burnet Institute, Howden Insurance, KPMG, RecLink, Seeing Machines and Transurban, as well as the Office of Road Safety and Vehicle Safety Standards divisions of DITRCA, reflecting the breadth and relevance of their research.

The Mental Health, Impairment and Injury team are experts at combining data-driven analysis with clinician-researcher insights. Their work bridges research and practice to improve safety outcomes, influence regulatory policy, and support better mental health and wellbeing in transport, workplace and the community.

2024 HIGHLIGHTS: RESEARCH

TRAFFIC ENGINEERING AND VEHICLE SAFETY

USING MODELLING AND STRATEGY EVALUATION TO HELP ROAD SAFETY STAKEHOLDERS REDUCE FATAL AND SERIOUS ROAD TRAUMA ACROSS THE WORLD

Led by Associate Professor David Logan, the Traffic Engineering and Vehicle Safety team's engineering background provides a unique lens when researching the cornerstones of road safety: safe vehicles, safe roads, and roadsides. Expertise includes road safety strategy modelling and development, road safety infrastructure, and light and heavy vehicle safety, including automated vehicles.

The team translates research into practice and collaborate extensively with government and industry partners. Contributing to key road safety strategies in Australia, their work builds on the Safe System and Vision Zero road safety philosophies.

In 2024, the team delivered a range of impactful projects. Notably, working with the TAC Road Safety team to conduct 16 in-depth investigations into fatal crashes as part of the Safe System Crash Investigation Program pilot. Findings were shared with Victorian stakeholders and local councils to guide localised safety improvements.

Internationally, the team supported Anglo American's procurement of safer light vehicles across operations in Africa and South America - regions where safety standards can be difficult to meet - helping protect workers and raise awareness of safer vehicle technologies.

Domestically, their evaluation of New South Wales' Pedestrian Protection Program highlighted the program's success with a 45% reduction in pedestrian fatalities and serious injuries following signal modifications at intersections. They also contributed safety recommendations to the Office of the Chief Investigator (Transport Safety) following the 2023 Exford bus crash.

A standout collaboration with MUARC's Emergency Services Research team investigated risks to rural firefighting vehicles from falling trees and limbs in NSW, resulting in the development of a tailored vehicle performance testing program.

They are a frequent collaborator with other MUARC teams, sharing their engineering expertise to contribute to a diverse range of safety and injury prevention projects, and with Monash university colleagues within the Monash Institute for Transport Studies and the Faculty of IT. Their work was supported by diverse funding sources, including TAC, the Australian Automobile Association, the Queensland Department of Transport and Main Roads, Austroads, and Anglo American.

The Traffic Engineering and Vehicle Safety team draws on research expertise in civil, mechanical and transport engineering to conduct world-class research which works towards the elimination of death and serious injury on Australian roads through the provision of robust, evidence-based findings.

2024 HIGHLIGHTS: RESEARCH

VICTORIAN INJURY SURVEILLANCE UNIT

PROVIDING ACCESS TO QUALITY INJURY SURVEILLANCE DATA TO INFORM POLICY, STIMULATE RESEARCH AND EVALUATE PREVENTION STRATEGIES

Led by Associate Professor Janneke Berecki-Gisolf, the Victorian Injury Surveillance Unit (VISU) has been analysing, interpreting and disseminating Victorian data on injury deaths, hospital admissions and emergency department presentations across the state, nationally and internationally for more than 25 years.

Injury surveillance data are recorded on three separate datasets:

- Cause Of Death Unit Record File (COD URF-Deaths)
- Victorian Admitted Episodes Dataset (VAED: hospital admissions)
- Victorian Emergency Minimum Dataset (VEMD: Emergency Department presentations)

Injury surveillance data is extracted and analysed by VISU. This critical information is provided to around 250 organisations and agencies each year, including the Commonwealth, state and local government departments and agencies, health and injury prevention organisations, media, business and industry, education institutes, research groups and the community. Data is used to underpin government injury prevention policies, stimulate research and to develop and evaluate prevention strategies and measures. These include community awareness initiatives and education, legislative and regulatory changes and safety-related environmental, equipment and product design improvements.

Hazard magazine

Hazard is a bi-annual publication produced since 1988. A cornerstone of the team's work, it explores major and emerging issues in injury prevention. Hazard presents data on injury causes, severity, trends and risk factors, complemented by expert commentary and evidence-based prevention recommendations. In 2024, two Hazard magazines were published, one investigating micromobility-related injuries (including e-bikes and scooters) and the second on hospital falls.

The team's impact in 2024 was reflected in both research outputs and public engagement. The team contributed to nine peer-reviewed publications, delivered three oral presentations at the Australasian Injury Prevention Network Conference in New Zealand, and saw significant growth in media citations, driven by its data request service and Injury Atlas, connecting the community to real-world injury data.

In 2024, the team also collaborated across Australia on vital injury prevention projects. Collaborations include with Victoria's South East Public Health Unit to examine regional differences in fall-related hospital admissions, and with Life Saving Victoria and Dr Amy Peden looking into hospital-admitted drowning injury.

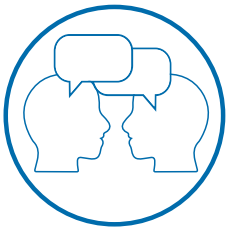
The team has contributed to collaborative federal grants including: an MRFF was awarded for a collaborative project led by UNSW on emergency department injury surveillance; and an NHMRC grant collaborating with the Monash Addiction Research Centre on pharmaceutical poisoning. A major highlight of 2024 was securing a National Road Safety Action Grant for the National Occupational Road Transport Injury Surveillance System, a collaborative project co-led with Associate Professor Sjaan Koppel.

Internationally, the team is working with colleagues in the United States on a project comparing emergency department presentation data between Illinois and Victoria.

Funded by the Victorian Government, the team continues to deliver high-quality, impactful research that shapes injury prevention efforts in Victoria and beyond.

The Victorian Injury Surveillance Unit skills and expertise includes biostatistics, epidemiology, medicine, psychology, and abundant hands-on experience and expertise related to data management and health data analysis and interpretation. Team members hold advisory and executive committee positions including Safety Standards Australia's Committee for Trampoline Parks Facilities, the National Injury Surveillance Advisory Committee, the Cross Jurisdictional Injury Group, and the Kidsafe Victoria Advisory Group.

2024 HIGHLIGHTS: EDUCATION



EDUCATION

MUARC's Education programs are designed to inspire and develop the next generation of injury prevention leaders and professionals. Delivered by an internationally renowned, multidisciplinary teaching team, MUARC offers both accredited education leading to the award of a degree, and professional education which provides professional development courses for government and industry. Whether through degree programs or bespoke professional development, the Centre is committed to equip participants with the knowledge, tools and confidence to make meaningful change in injury prevention and safety.

ACCREDITED EDUCATION

Graduate Certificate of Road Safety

This course provided students with the knowledge, tools and frameworks to implement innovative responses to road safety challenges. Focused on evidence-based approaches to road safety and the importance of road safety management and leadership, the course develops practical skills and provides tools to assist practitioners in delivering evidence-based and effective road safety interventions. The 2024 graduating class included road safety practitioners from both government and non-government organisations.

Postgraduate Coursework units

The following units were offered to Monash University postgraduate students within the Faculty of Arts in 2024.

APG5619 - Community resilience and disaster risk reduction
Led by Associate Professor Jonathan Abrahams, this unit enabled students to critically analyse major developments in policies and practices in disaster risk reduction and to apply multiple social, environmental, psychological and other lenses to program design and implementation to strengthen community resilience.

APG5140 - Guiding principles for professionals engaged in disasters and humanitarian crises
Led by Associate Professor Jonathan Abrahams, this unit adopted multi-disciplinary approaches to the study of disaster risk management and humanitarian action, and helped prepare students for professional roles in these fields.

APG5075 - Using Data to Understand Family Violence
Led by Associate Professor Carlyn Muir, in partnership with Associate Professor Lyndal Bugeja from the Department of Forensic Medicine, the unit was offered as part of the Graduate Certificate of Family Violence Prevention, and focused on leveraging data and evidence to inform and improve responses to family violence.

PROFESSIONAL EDUCATION

MUARC works with industry and government to design and deliver customised learning experiences that reflect the unique challenges and needs of different workforces. With a shared commitment to eliminating death and serious injury and improving wellbeing, MUARC's professional education programs provide practical, relevant and research-informed learning to support lasting impact.

MUARC Academy

Launched in October at the 2024 Australasian Road Safety Conference, the MUARC Academy brings together the Centre's professional development offerings under one banner. It provides a gateway for professionals to access MUARC's academic depth and applied expertise across injury and safety science. The Academy is designed to empower practitioners and leaders through targeted, engaging learning experiences, positioning MUARC as a global leader in safety science education.

Regulating Emotional Driving and Reducing Aggressive Driving eLearning courses

In a first for MUARC, 2024 saw the launch of the Centre's inaugural eLearning courses, *Regulating Emotional Driving and Reducing Aggressive Driving*. Developed by MUARC researchers with decades of expertise in driver behaviour and emotion regulation, the courses are designed for organisations with employees who undertake work-related driving, and for individuals to enrol. The programs help participants recognise and manage anger and aggression behind the wheel, identify personal triggers, and adopt strategies to support safer driving outcomes - contributing to both road safety and workforce wellbeing.

2024 HIGHLIGHTS: GRADUATE RESEARCH

GRADUATE RESEARCH TRAINING

The graduate research program continued to provide a vibrant research environment for MUARC's PhD, Masters and Honours/vacation students in 2024. Our graduate students undertake transformative and interdisciplinary research that is at the forefront of finding sustainable, social, economic, environmental and technical solutions to eliminating injury. Students have the opportunity to study with the world's leading injury prevention specialists.

MUARC offers three prestigious scholarships; Peter Vulcan Scholarship, John Lane Memorial Scholarship and Tom Triggs Memorial scholarship, valued at $40,000 per annum, to the next generation of injury prevention and safety science researchers. MUARC also welcomes international PhD students, including co-supervising students in the Monash-IITB India program, as well as annually hosting students from partner universities.

MUARC's graduate research program is coordinated by Professor Jennie Oxley and Associate Professor Sjaan Koppel. The administration of the program and ongoing student support is provided by Ms Samantha Bailey. Together, the team has nurtured MUARC students through their Graduate Research journey for more than a decade.

In 2024, MUARC welcomed four new PhD students to our graduate research program: Hayley Russell, Peter Divjakinja, Lerdmanus Bumrungsup and Helen Zahos. Coming to MUARC from both Australia and internationally, each brings their experience and passion to their unique research projects. We were also fortunate to host visiting PhD students Mohammed Yasir (Italy), Marvin Heine (Germany) and welcome Hengyan Pan (China).

Student details

- 19 MUARC-ENROLLED PHD STUDENTS
- 15 DOMESTIC STUDENTS
- 4 INTERNATIONAL STUDENTS
- 12 FEMALE STUDENTS
- 7 MALE STUDENTS
- 6 NON-MUARC ENROLLED PHD STUDENTS
- 3 VISITING PHD STUDENTS

MUARC-enrolled PhD completions (2024)

Dr Jessica Truong - Planning and designing a Safe System - How to move Victoria to zero road deaths and serious injuries by 2050

Dr Michael Green - Translating Theory to Practice: The Safe System Approach

Dr Mohammad Ibrahim - Modal Choice, Modal Shift and Transport Safety

Dr Jason Kearney - Occupational injury among paramedics: Examining the distribution and determinants of paramedic work-related injury

MUARC co-supervised PhD completions (2024)

Dr Kathie Pawluk De-Toledo - Urban travel behaviour changes during the COVID-19 pandemic and their permanency post-pandemic

Dr Ha Anh Nguyen - Exploring the Safety Performance of Bus Companies with/without Bus Vehicle Ownership

Dr Kelvin Taylor - The GIG economy: The impact of changing employment trends on safety and injury in the GIG economy

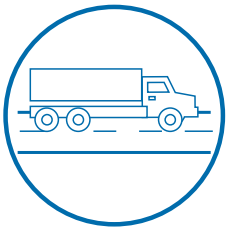
Dr Doha Hassan Alhashmi - Safe return to driving after sustaining road traffic injuries: Driver assessment and rehabilitation in Saudi Arabia

Coursework research students

MUARC also supports coursework students to experience academic research and collaboration with industry through a range of research programs. Coordinated by Dr Amanda Stephens, the program welcomed 21 students across the year, who had the opportunity to work closely with, and be supported by, our research staff. We are particularly proud of our four psychology honours students completing with first-class results: Rachel Crotty, Muawiya Mahomed, Yazna Boskny, and Wen Loh.

- 4 HONOURS STUDENTS
- 2 WORK-INTEGRATED LEARNING STUDENTS
- 2 INDEPENDENT RESEARCH PROJECT STUDENTS
- 3 INDUSTRY EXPERIENCE INTERNS
- 10 VACATION RESEARCH PROGRAM STUDENTS

2024 HIGHLIGHTS: ENTERPRISING



NATIONAL ROAD SAFETY PARTNERSHIP PROGRAM

NRSPP
NATIONAL ROAD SAFETY
PARTNERSHIP
PROGRAM

15 VIDEOS VIA THE NRSPP YOUTUBE CHANNEL

8 QUICK FACT FACTSHEETS

16 NEW TOOLBOX TALKS

4 CASE STUDIES

8 BLOGS

9 WEBINARS

1 WORKPLACE TRANSPORT SAFETY CAMPAIGNS

The National Road Safety Partnership Program (NRSPP) provides a collaborative platform to support Australian businesses to develop positive road safety cultures. It's about saving lives without the red tape. It supports organisations in reducing road trauma through knowledge-sharing, evidence-based strategies, and peer-to-peer learning. Today, over 150 partner organisations are part of NRSPP, including major brands such as BHP, Optus, Toll, Transurban and Nestlé. With a firm focus on practical resources, peer learning and sector-wide collaboration, the NRSPP continues to play a vital role in driving down work-related road trauma across Australia.

In 2024, the NRSPP continued NTARC2.0, a collaborative partnership with NTI and MUARC aimed at improving safety in the heavy vehicle workplace by understanding, acknowledging, and proactively improving the key hazards in the trucking industry. Through analysis of truck insurance claim data, the team produced the Major Incident Investigation Report 2024, which highlighted the key hazards for truck drivers and the transport industry in the past year.

Another key achievement was the evolution of the NRSPP's Utilities Forum 2.0 Benchmarking Scheme, a world-first initiative focused on workplace road safety risk mitigation, with participation from ten utility companies across Australia. The benchmarking scheme helps to identify the leading factors that contribute to crashes, and the actions businesses can take for real improvement. With changes to Environmental, Social and Governance (ESG) reporting due for introduction to Australia in 2025, consistent metrics and standards are needed to address safety as part of an organisation's Social response. As an industry-wide benchmarking standard, the scheme enables ESG reporting standards and metrics comparatively measurable across the industry.

In 2024, the NRSPP released the final Heavy Vehicle Toolbox Talk (TBT),a multi-year project funded by the National Heavy Vehicle Regulator. The project involved a collaborative development process designed to address identified issues with workplace safety messaging, and make it easy for managers to facilitate an engaging TBT session with their drivers. With a total of 23 Heavy Vehicle TBTs, and demonstrated success of the project, the team has secured further funding to translate 13 talks into the top three languages spoken by Non-English Speaking Background drivers.

The year's organisational road safety campaign, 'Are You Roadworthy?', focused on ensuring all drivers are fit for duty in all ways. Evidence-based research was used to guide the campaign which encouraged drivers to self-assess not just their vehicle's roadworthiness but also their own mental, emotional and physical wellbeing before driving. The package includes 27 resources for workplaces including fact sheets, videos and self-assessment checklists. The NRSPP also hosts a range of webinars across the year, with the most impactful being the powerful webinar 'Your Life Changes in an Instant', highlighting the devastating impact of road trauma through the lens of Australia's worst crash.

Other highlights include being awarded a Commonwealth Grant to create resources to support Australian businesses to strengthen their road safety culture and supporting the development and release of the VSRG's 2024 Used Car Safety Ratings, a key consumer guide for fleet and personal vehicle safety.

Collaboration remains central to the NRSPP's model - the Heavy Vehicle and Light Vehicle Toolbox Talk Working Groups brought together partners from some of the largest corporations in Australia, government, local councils, and the energy sector. Other forums, like the Grey Fleet Working Group and the Retail and Grocery Safety Forum (run in partnership with EY), united stakeholders from banking, healthcare, utilities, and supermarkets across Australia and New Zealand.

NRSPP's core funding comes from seven public sector organisations across Australia that are involved in transport safety, road regulation, or injury insurance and recovery. Special project funding comes from Commonwealth grants and Australian organisations as well as generous in-kind support from its broad network of industry partners.

Led by Director Jerome Carslake, an expert in workplace road safety and program delivery, the NRSPP is a small, nimble, and agile team. Ensuring strong ties to the rigours of its university partnership, the Program is overseen by Academic Lead, Associate Professor Sjaan Koppel. Whilst the program includes many competitors, the insights and knowledge once shared from one partner could save lives in another partner and each time highlighting, road safety is simply good business – it pays its way in the long term.

OUR EMERITI AND ADJUNCT STAFF

Each MUARC Emeriti is invaluable to the ongoing success of the Centre, freely giving their time to advance our research and supervise our students. We thank them all for their time and dedication to our cause.

In April, MUARC was delighted to have our Emeriti share their career stories with our staff and students at an onsite event, providing an opportunity for our next generation of safety scientists to hear about the history or MUARC and the impact our research has had on the safety landscape. We also welcomed back the Founding Director of MUARC, Peter Vulcan AM, who was instrumental in the creation of MUARC in 1987, and notwithstanding his retirement over 25 years ago, continues to advocate for road safety.

L to R: Professor Emeritus Brian Fildes, Professor Emeritus Max Cameron, Professor Peter Vulcan AM, Professor Emerita Jude Charlton AM, Professor Emeritus Frank Archer

Welcome Professor Emeritus Claes Tingvall

This year, we were pleased to assist Adjunct Professor Claes Tingvall with his nomination to Emeritus Professor, which was conferred by the Vice-Chancellor of Monash University on 01 January 2025.

For close to four decades, Claes' mission has been to reduce road fatalities and serious injuries. He led the launch of Sweden's Vision Zero initiative during his tenure as Traffic Safety Director at the Swedish Transport Administration during the early 1990s, and in 1998 he introduced Vision Zero to Australia during his time serving as the Director of MUARC. This innovative and ethical approach challenged conventional thinking and played a pivotal role in revolutionising the way the world thinks about road safety management and implementation. Since departing the Directorship role and returning to Sweden over two decades ago, Professor Tingvall has continued to be actively engaged with MUARC as an Adjunct, contributing to research projects, co-authoring MUARC reports and mentoring staff. A world-leading expert in road safety, Professor Tingvall has developed safety standards with EuroNCAP, ISO certification working groups, and the FIA. We look forward to continuing our collaborations with our newest Emeritus Professor.

MUARC Adjuncts

MUARC recognises the important contributions our adjuncts make to our Centre. Through research collaborations and publications, mentoring, strategic direction, supervision of PhD students and assisting with our internal awards and staff development each person contributes their expertise to the growth of our centre.

Professor Clare Anderson
Dr Joseph Cuthbertson
Dr Gavan Lintern
Dr Debra Parkinson
Dr Dianne Sheppard
Professor Peter Vulcan
Dr Ben Beccari
Mr William Leonard
Associate Professor Andrew McIntosh
Dr Fiona Roberts
Dr Karen Stephan
Dr Deanne Bird
Professor Astrid Linder
Dr Steve O'Hern
Dr Giovanni Savino
Dr Renee StLouis

MUARC congratulates Dr Debra Parkinson, Adjunct Research Fellow, on receiving a prestigious 2024 Monash University Fellowship for her leadership in gender and disaster resilience. As Executive Director of Gender and Disaster Australia, Dr Parkinson has shaped national guidelines, influenced emergency management policy, and led groundbreaking research on the gendered impacts of disasters. Her collaboration with the Monash University Disaster Resilience Initiative has strengthened education and research in this critical field, with her work driving lasting change across Australia's emergency management landscape.

ACHIEVEMENTS

MUARC AWARDS

Best paper

2024 Peter Vulcan Best Paper Award – Researcher
Dr Angelo D'Elia for his paper titled *"Evaluation of the effectiveness of daytime running lights (DRLs)"* published in the Journal of Safety Research.

2024 Peter Vulcan Best Paper Award – Student
Dr Hayley McDonald for her paper *"Personality, perceptions, and behavior: A study of speeding amongst drivers in Victoria, Australia"* published during her PhD candidature in the Journal of Safety Research.

Seeding grants

The MUARC Seeding Grants support early-stage research projects, helping academics develop high-quality applications for competitive national and international funding. This year, two projects were selected:

Dr Amanda Stephens and Dr Kristie Young received a Seeding Grant for their project **"The move to autonomous driving: staying in the loop when tried, angry or anxious."** This research explores the impact of emotional and cognitive states on drivers' ability to interact with autonomous vehicles, aiming to improve safety in this rapidly evolving field.

Dr Suzanne Cross and Associate Professor Jonathan Abrahams were awarded a Seeding Grant for their project **"Strengthening emergency preparedness and community resilience in residential care settings."** This important work focuses on improving emergency preparedness and resilience in residential care environments, particularly in the context of vulnerable populations.

MONASH UNIVERSITY AWARDS

Professional Staff Excellence Award - Shortlist, Jerome Carslake
Under Jerome's leadership, the NRSPP has greatly advanced road safety and occupational health, becoming a key coordinator for national work-related road safety efforts. His initiatives have promoted safe driving, mental health awareness, and ergonomic improvements. Jerome's leadership has earned the NRSPP recognition in the National Road Safety Strategic Plan and prestigious awards, including a Commonwealth-funded grant and the Prince Michael Award for Promoting Occupational Health Initiatives. His dedication has significantly impacted the Monash community, fostering a safety culture and enhancing the overall quality of life for staff, students, and the broader community.

2025 Incubator Boost Grant, Associate Professor Jonathan Abrahams
Jonathan led a multi-disciplinary team to secure $75,000 in funding for their innovative project 'Asia-Pacific resilient hospitals and health facilities initiative'. The project draws on significant experience and capabilities of Monash, WHO and partners in leadership, professional and academic roles. In building capacities and partnerships across Asia Pacific, the project aims to create a template and resources for more resilient health infrastructure in the region, responding to the increasing impact of disasters on communities.

NATIONAL AND INTERNATIONAL AWARDS

Australasian College of Road Safety Women in Road Safety Award 2024, Associate Professor Sjaan Koppel
Sjaan was presented the award at the 2024 ACRS Road Safety Conference. This accolade recognises her outstanding commitment and contributions to reducing road trauma through active involvement, leadership and high quality research.

International Safety Media Awards for 2024, National Road Safety Partnership Program
The NRSPP organisational campaign, 'Respect Traffic Controllers', was honoured with third place at the international awards presented at the Safety 2024 Conference in Delhi. This accolade highlights the importance of creating evidence-based safety messaging through a collaborative approach between those with lived-experience and experts in design.

CULTURE

MUARC Wellbeing Committee

Led by Wellbeing Champion, Angelo D'Elia, MUARC's Wellbeing Committee members volunteer their time to organise initiatives to promote staff and student wellbeing and foster a supportive and inclusive environment within our building. With over twenty social events throughout the year and weekly connection events, we are proud to share a few highlights from 2024:

International Day of Women and Girls in Science - this provided a platform for women to share their personal experiences and professional insights. Discussions highlighted the pivotal role of women who offered support during challenging times, those who forged a path into Directorship roles, and the many whose leadership, though not always captured by formal University metrics, is deeply recognised by the PhD students they mentor and guide through their academic journeys.

Pot luck luncheon - this event celebrated the rich cultural diversity of our staff and students, while also showcasing their culinary talents. A shared lunch featured an impressive selection of favourite sweet and savoury dishes, with highlights from Brazil, Italy, Greece, Sri Lanka and some traditional Aussie fare.

BrickMasters team building - back by popular demand, MUARC staff and students worked together in teams to battle-it-out for the glory of being crowned this year's BRICK MASTER! Using Lego, the team's used their creativity and problem solving skills to create themed masterpieces. In 2024 Casey, Ellana, Fletcher, Kristie and Sankha took home the winning team prize.

MUARC Wellbeing Committee 2024: Angelo D'Elia, Casey Rampollard, Ellana Christakakis, Fletcher Howell, Inam Ahmad, Jess Fimmel, Samantha Bailey

MUARC Sustainability Committee

Led by Christine Mulvihill, MUARC's sustainability committee has a proud history of active engagement with environmental initiatives within MUARC and as part of the broader University. In 2024, MUARC's Sustainability team achieved Platinum Accreditation in the Monash University Green Impact program. This recognition reflects the collective efforts of our staff and students to implement practical, positive changes within the workplace and local community that reduce our environmental impact - from energy conservation and waste reduction strategies to sustainable purchasing and community engagement.

MUARC Sustainability Committee 2024: Christine Mulvihill, Angelo D'Elia, Fletcher Howell, Hayley McDonald, Jess Fimmel, Kristie Young, Samantha Bailey, Sjaan Koppel, Trevor Allen

MUARC Health, Safety, Wellbeing & Environment (HSWE) Committee

Led by Chair, Associate Professor David Logan, the committee plays an important role in promoting and facilitating cooperation between staff, students and management in the formulation and implementation of occupational health and safety procedures and programs within MUARC. Members ensure a best practice and continuous improvement approach is adopted by the Centre, and the committee facilitates the annual staff and student consultative forums to ensure the needs of our entire community are addressed.

MUARC HSWE Committee 2024: David Logan, Angelo D'Elia, Casey Rampollard, Christine Mulvihill, Fletcher Howell, Margaret Rendell (Monash University OHS), Samantha Bailey, Sankha Gamage, Stuart Newstead

MUARC Early Career Research network

In partnership with the Monash Sustainable Development Institute's ECR network, Dr Hayley McDonald coordinates the MUARC ECR network to support and develop our newest academic researchers. Each year the network distributes professional development opportunities, provides networking opportunities and facilitates senior researcher mentoring.

MUARC Visiting Academic Seminar Series

Throughout the year MUARC welcomes academics and industry professionals to visit our Centre and share their knowledge and experiences with our staff and students. We would like to thank the following people for their talks in 2024:

- Dr Milad Haghani, University of New South Wales
- Mr Mark Russell and the TAC Passive Alcohol Sensor Car
- Dr Helen Welles, Keele University (UK)
- Mr Marvin Heine, Humboldt University (Germany)
- Professor Teresa Senserrick, Western Australian Centre for Road Safety Research

THE MUARC STAFF TEAM

as at 01 March 2025

Research Team Leads

Assoc Prof Carlyn Muir

Assoc Prof David Logan

Assoc Prof Janneke Berecki-Gisolf

Professor Jennie Oxley

Assoc Prof Jonathan Abrahams

Assoc Prof Michael Fitzharris

Assoc Prof Sjaan Koppel

Professor Stuart Newstead

Senior Research Fellows

Dr Amanda Stephens

Dr Kristie Young

Research Fellows

Dr Angela Batson

Dr Angelo D'Elia

Dr Brendan Lawrence

Ms Casey Rampollard

Ms Christine Mulvihill

Dr Hayley McDonald

Dr Jasmine Proud

Dr Jason Kearney

Dr Jennifer Rivera Gonzalez

Ms Rachel Crotty

Ms Runzhe Gao

Dr Sara Liu

Dr Suzanne Cross

Dr Trevor Allen

Dr Xin Zou

Professional Research Staff

Mr David Oeng

Mr Ehsan Rezaeidarzi

Dr Himal Singh

Ms Iniya Arularasu

Dr Jane Hayman

Dr Le Pham

Centre Support Staff

Ms Ellana Christakakis,
Senior Communications and Public Relations Coordinator

Ms Jess Fimmel,
Operations Manager

Mr John Gilbert,
Senior Manager Risk and Resilience

Ms Lesley Rees,
Education Manager

Ms Peggy Hum-Teo,
Senior Research and Finance Coordinator

Mr Peter Grzic,
Sessional Academic - APG5619, APG5140

Ms Samantha Bailey,
Graduate Research and Project Support Coordinator

Mr Sankha Gamage,
Executive Officer

NRSPP Director

Mr Jerome Carslake

NRSPP Interns

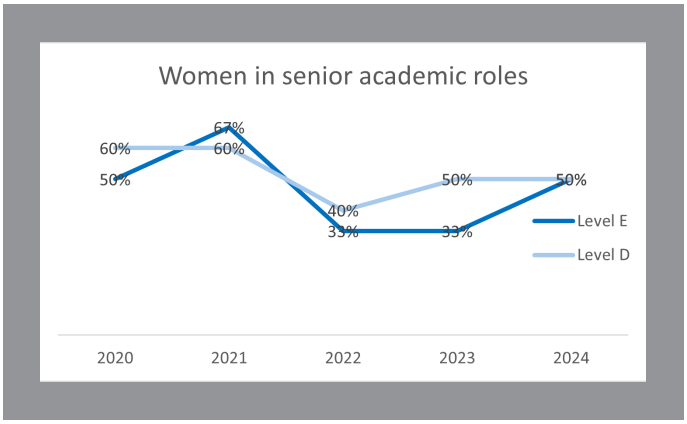
Students, Bachelor of Design (Communication Design) (Honours), Swinburne University of Technology

Ms Safiye Keskin

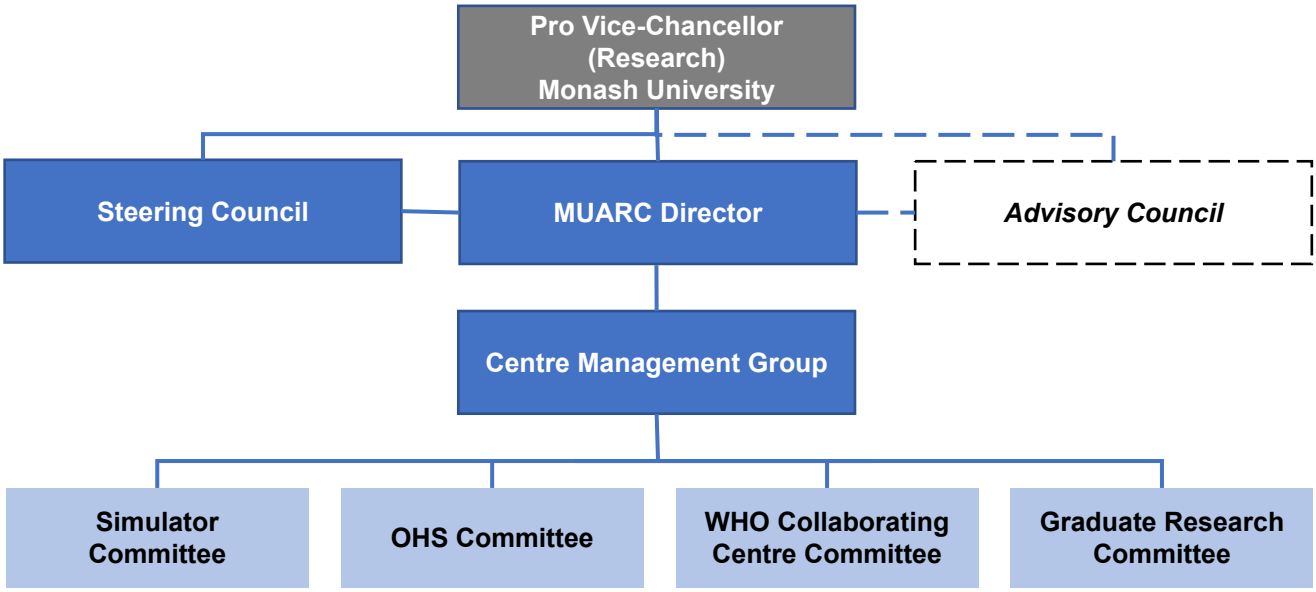
Ms Christine Vong

NTARC partner

Mr Adam Gibson



GOVERNANCE



MUARC CENTRE MANAGEMENT GROUP

Professor Stuart Newstead
Director MUARC, Associate Director Injury Analysis and Data

Professor Jennie Oxley
Deputy Director MUARC, ADGR, Associate Director Human Factors and Sustainable Safety

Assoc Prof Carlyn Muir
Associate Director Emergency Services Research, Associate Director Education

Assoc Prof David Logan
Associate Director Traffic Engineering and Vehicle Safety

Assoc Prof Janneke Berecki-Gisolf
Director Victorian Injury Surveillance Unit Director

Assoc Prof Jonathan Abrahams
Director Monash University Disaster Resilience Initiative

Assoc Prof Michael Fitzharris
Associate Director Mental Health, Impairment and Injury

Assoc Prof Sjaan Koppel
Associate Director Behavioural Science

Ms Jessica Fimmel
Operations Manager

Ms Peggy Hum-Teo
Senior Research and Finance Coordinator

Ms Michelle Armstrong
Chief Operations Officer, MSDI

We extend our thanks to Michelle Armstrong, from the Monash Sustainable Development Institute, for her valued contribution as an external member of our Centre Management Group. In 2024 her insights and perspective have been greatly appreciated as we continue to strengthen our governance. We look forward to welcoming Lisa Hutton to the position in 2025.

Acknowledging our MUARC Steering Council

We warmly thank the members of our inaugural MUARC Steering Council, established in 2024. Drawn from across the expertise at Monash University, we are grateful for their willingness to contribute their time and expertise to the oversight and development of the Centre.

Professor Melissa Miles, *Acting Pro Vice-Chancellor (Research) (Chair)*

Professor Stuart Newstead, *Director, MUARC*

Professor Tony Capon, *Director, Monash Sustainable Development Institute*

Professor James Whisstock, *Deputy Dean Research, Faculty of Medicine, Nursing and Health Sciences*

Ms Holly Cooper, *Deputy Director, Government Relations*

THE YEAR AHEAD

Looking ahead to 2025, MUARC's research teams will continue to drive innovation and impact across a wide range of road safety, injury prevention and resilience priorities.

The Behavioural Science team will progress research into dementia and driving, collaborate with the Insurance Institute for Highway Safety (US) on seatbelt use in pregnancy, and partner with the University of Melbourne to measure Australia's road safety culture. With a continued focus on workplace road safety and shifting perceptions of heavy vehicle drivers, the team will contribute to a stronger, evidence-based understanding of road safety culture.

The Emergency Services Research team will continue working with the fire services on supporting fleet safety during fire operations, work with emergency services to support safety when responding in high-speed road environments, and work on a range of data linkage projects to support decision-making in complex environments.

The Human Factors and Sustainable Safety team will oversee the national rollout and evaluation of the RAD, RED and AAA fatigue programs, and deliver new Human Factors Integration Guidelines to embed distraction-aware design principles in Australian transport systems. The team will also complete the Queensland learner driver review, progress dementia-and-driving research, and support PhD work focused on motorcyclist safety.

The Injury Analysis and Data team will embark on several new projects with the Transport Accident Commission (TAC), including statistical modelling of injury severity and the development of real-time serious injury indicators. The team will also deliver a major evaluation of NSW's Automated Enforcement Program and complete the Queensland Graduated Licensing Scheme (GLS) evaluation, providing key insights to strengthen novice driver safety.

The Monash University Disaster Resilience Initiative will deliver new projects exploring the enablers of community resilience and the power of storytelling to support recovery and long-term change, both as part of the Fire to Flourish program. The team will also lead the development of a national partnership to strengthen the resilience of hospitals and residential care settings, and continue to expand its international education and research collaborations across Monash campuses in Australia, Malaysia and Indonesia.

The Mental Health, Impairment and Injury team will collaborate with Vision Australia to better understand road safety hazards experienced by people who are blind or have low vision. In addition to publishing and presenting their work, the team will contribute to the public conversation on drug-driving, including the role of medical cannabis.

The Traffic Engineering and Vehicle Safety team will continue its work to develop a conceptual Rollover and Falling Object Protection System for off-road firefighting trucks, with the aim of improving safety for emergency service personnel operating in hazardous environments.

The Victorian Injury Surveillance Unit will publish its next Hazard report, focusing on injuries in women across different life stages. The team will also commence work on the new National Occupational Road Transport Injury Surveillance System, building on its longstanding contribution to national injury data and prevention.

The National Road Safety Partnership Program will celebrate its 10+1-year milestone in 2025 with the launch of a new website and new partnerships, including with new international partners. The team will enhance the impact of their Toolbox Talks through a new collaboration with Safe Teams and introduce a grey fleet tool to support safer work-related travel.

Education will deliver its reimagined Road Safety Management Leadership Program, launching a new blended format that combines an online learning journey with an immersive in-person Masterclass. Developed in partnership with Monash Business School, the program supports senior leaders in tackling road safety challenges through integrated training in management, science, and leadership.

The Centre's postgraduate coursework units, delivered through the Monash University Faculty of Arts, will be refreshed in 2025 to further strengthen their focus on disaster resilience and humanitarian response. Building on the success of the 2024 offerings, the updated units will continue to equip students with practical frameworks and multidisciplinary insights for real-world impact.

In 2025, MUARC will welcome new domestic and international PhD students into its Graduate Research Training program, further expanding the Centre's research capabilities. A new joint PhD initiative with Monash University Malaysia will commence, strengthening international collaboration in road safety research and training.

Across the Centre, we will continue to support our staff and students in pursuing excellence in their research and studies through a variety of wellbeing and staff development activities. We also look forward to the continued guidance of our Steering Council and the establishment of our Advisory Council, which will help ensure we deliver impactful research in the areas that matter most.

MUARC

STATEMENT OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST DECEMBER 2024

	Notes	$000's	$000's
INCOME			
Research			
Australian Research Council		-	
Commonwealth Government - Others		529	
State and Local Government		2,515	
Competitive Non Commonwealth		-	
Industry Australia		318	
Industry International		3,650	
Total Research			7,011
Commonwealth Government Research Support Program			921
Commercial			704
Other income			344
Monash contribution	1		2,889
Total Income			**11,869**
EXPENDITURE			
Salaries and Related Expenditure		5,384	
Financial and Administration	2	66	
Student Related		165	
Infrastructure Related		181	
Central Support Services – Overhead Costs	1	2,889	
Other Operating Expenditure		1,452	
Total Expenditure			**10,136**
NET BALANCE FOR THE YEAR			**1,733**
OPENING BALANCE AS AT 01 JANUARY 2024			**6,355**
CLOSING BALANCE AS AT 31 DECEMBER 2024			**8,088**

Notes:

1. The University has provided a transfer of funds to cover the Central Support Services - Overhead Costs
2. Includes payments to consultants
3. We have received $29,175.40 and expended $36,776.41 in the MUARC Donations Fund, which consists of both donations and court fines ordered to be paid to MUARC. The $36,776.41 expenditure from court fines was utilised to cover a shortfall in the research fund. Additionally, we have received $417,471.10 and expended $123,600 in the MUARC Interest Fund, with $120,000 allocated to student scholarships and $3,600 toward the MUARC Foundation Graduate Certificate Scholarship. These funds are invested in the Non-Capital Protected Trust Account (Common Fund). This investment is reported as a non-current asset in Monash University's annual report.

The Institute's Statement of Income and Expenditure has been certified to be in accordance with the University's Accounting and Financial Reporting System by the Office of the Chief Financial Officer and Senior Vice-President. Where required as a condition of funding grants, accounts will be audited by independent external auditors. The Institute's accounts have been subjected to Government audit as part of the University's annual accounts for the calendar year 2024.

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Manager, Research and Revenue Accounting Services
Office of the Chief Financial Officer and Senior Vice-President
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Professor Stuart Newstead
Director, Monash University Accident Research Centre

MONASH University

FURTHER INFORMATION

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