



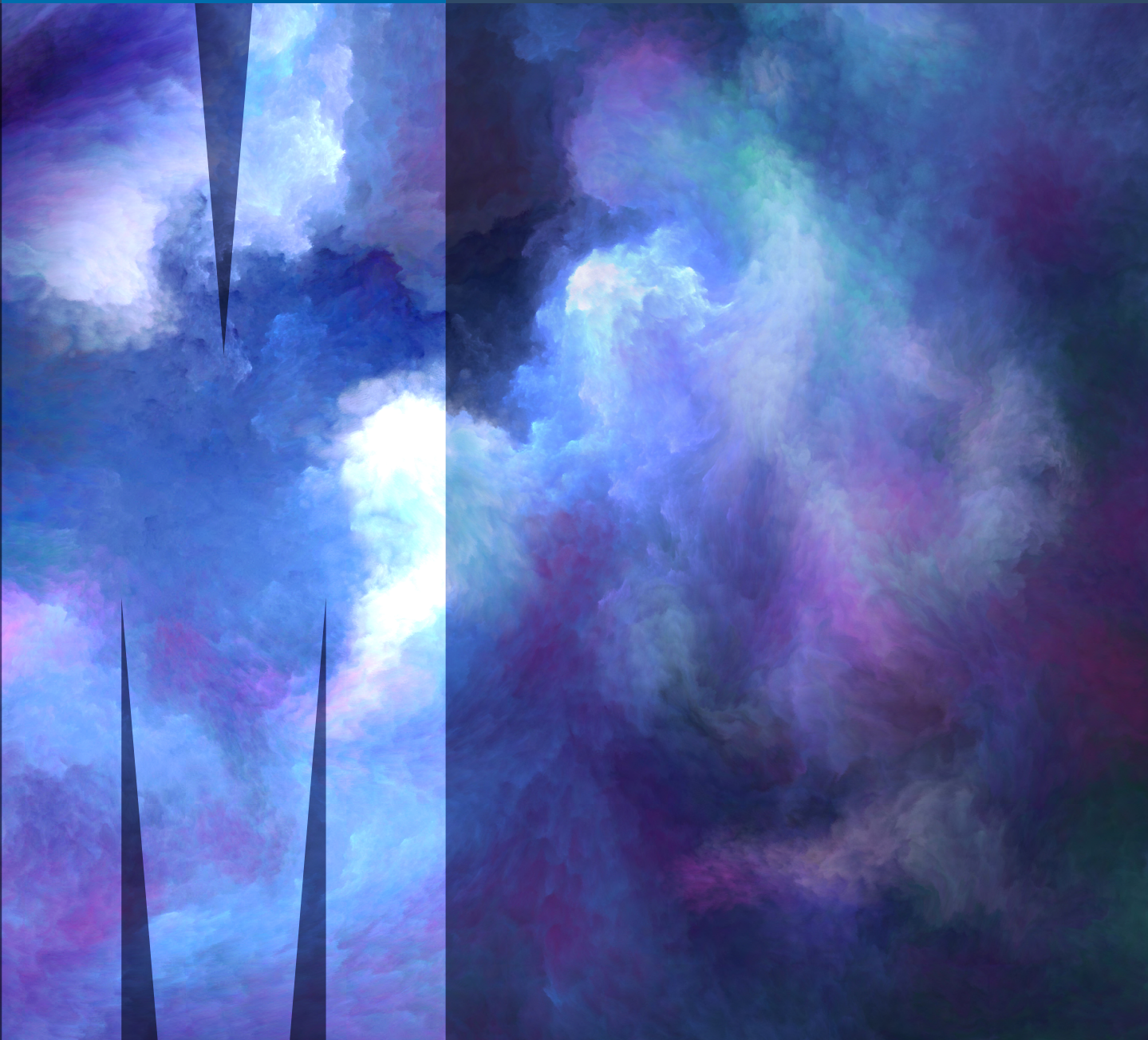
MONASH
University

ACCIDENT
RESEARCH
CENTRE

2023
ANNUAL REPORT

MUARC

MONASH UNIVERSITY ACCIDENT RESEARCH CENTRE



“Whilst MUARC is well known for its excellence in road safety research, a strategic goal of the Centre is to boost its activities and profile in injury prevention research in other domains and the Centre continued to build these areas in 2023.”

Professor Stuart Newstead
Director, MUARC

DIRECTOR'S MESSAGE

I have great pleasure in presenting the 2023 Annual Report for the Monash University Accident Research Centre. The world in 2023 is a significantly different place compared to four years earlier. Notable for MUARC has been a change in the injury prevention landscape presenting a range of new challenges and opportunities for the work of the Centre and its role in addressing the three global challenges guiding Monash University's *Impact2030*.

Many in the Australian and international communities hoped 2023 would be a return to normality after the upheaval of events over the previous three years. Despite this hope, circumstances were far from normal with record low unemployment, high inflation, housing shortages and a significantly increased cost of living. Combining these factors with increasing global conflict, political uncertainty, and climate-related disasters, the Australian Institute for Health and Welfare estimates that the rate of severe psychological stress in the community has not diminished since the pandemic, remaining significantly higher than pre-pandemic levels, particularly for those aged 18-24.

These factors have had an impact on the injury prevention landscape and required new knowledge to identify the changed risk factors and new approaches in safety science to address them. MUARC's focus on injury prevention and safety science to address these challenges has become increasingly relevant.

Despite the National Road Safety Strategy aiming for a 50 per cent reduction in road fatalities by 2030, the year 2023 saw 1266 people killed, the highest number since 2016. Victoria was a significant contributor to the total, recording 295 deaths in 2023, a 22% increase on 2022 and the highest number in 15 years.

MUARC research has had significant impact in assisting government agencies to understand these trends and their key drivers and formulating new approaches to reducing future road trauma. Notable MUARC research has focused on key critical areas such as impaired and distracted driving, effectiveness and optimisation of police enforcement practices, reducing angry and aggressive driving and improving focus in workplace driving, mental health impacts on driving, heavy vehicle driver licensing and safety, vulnerable road user and public transport safety and vehicle safety performance and regulation. Details of the highlights of this research can be found in the following team reports.

A coalescence of much of this knowledge came together in MUARC's submission to the Victorian Parliament's 2023 road safety inquiry. The impact of this submission is evidenced by our research being referenced 29 times throughout the inquiry report, far more than any other submission, with MUARC being acknowledged as "Victoria's peak safety science and injury prevention research agency" in the report.

Whilst MUARC is well known for its excellence in road safety research, a strategic goal of the Centre is to boost its activities and profile in injury prevention research in other domains and the Centre continued to build these areas in 2023.

The Victorian Injury Surveillance Unit (VISU) continued to expand its focus across a broad range of injury settings including occupation violence in healthcare settings and hospital presentations and admissions from food allergies, knife-stabbings, dog-bites, and fireworks. Increasingly, the VISU Injury Atlas is being utilised by the public to explore a wide range of injury topics.

Relating to the Monash *Impact2030* challenge of climate change, the Monash University Disaster Resilience Initiative (MUDRI) team worked on a major project investigating the displacement of people following natural disasters, and commenced a major international project on bushfire prevention in the Middle East. Locally, climate and social context change-related impacts on the safety of local emergency services has also become a strong research focus for the Centre.

Other important strategic goals for MUARC are to increase our connections across the broader university, nationally and internationally to ensure research excellence and to increase impact. MUARC has forged a range of new and enhanced connections across Monash with mutual benefits and potential. These include the School of Public Health and Preventive Medicine, the Humanise Lab, Turner Institute, Civil Engineering, FIT, the Data Futures Institute, MSDI and Fire to Flourish.

We were very pleased to be able to increase our involvement with university undergraduate student projects across the faculties providing experience in real world research application through formulating and co-supervising projects for six Honours students from psychology and engineering, three Bachelor of Applied Data Science interns and five summer vacation students.

In addition, MUARC continued teaching three postgraduate course units and once again ran its highly successful Graduate Certificate of Road Safety. Planning to further expand MUARC's professional education portfolio is well progressed.

Each year, MUARC offers graduate research students opportunities to study at our Centre, and we congratulate the six hardworking students who completed their PhDs in 2023, a big accomplishment considering their candidature included the COVID-19 period and associated lockdowns.

Nationally, MUARC commenced new partnerships with Emergency Management Victoria, the National Emergency Management Agency and NTI, the latter commencing an exciting new data sharing and research partnership between the National Road Safety Partnership Program hosted by MUARC and Australia's largest heavy vehicle insurer. MUARC's national standing was also reinforced through two visits by the Commonwealth Government Assistant Minister for Road Safety, Senator the Hon. Carol Brown.

Continued on page 2...

The post pandemic international stage also continued to open up to MUARC with visits from a range of international guests including delegations from the Indonesian police, Vietnamese Ministry of Transport and AIP Foundation and Road Transport and Safety Agency Zambia. MUARC continued its role as a World Health Organization Collaborating Centre. Academic visitors to the Centre included Professors Andrew Morris and Ashliegh Filtness from Loughborough to progress a joint study on dementia and driving, Dr Christophe Jallais and Dr Alexandra Forte from Université Gustave Eiffel to work on a collaborative project on driving anxiety and inattentive driving, and PhD candidate Nazish Shabir from the Lahore College for Women University in Pakistan.

In line with the strategic focus of Monash University, MUARC's core goal is to achieve research impact. This is achieved through our close working relationships with our local and international research partners. MUARC's impact and the broad public relevance of our work is no more evident through our large media profile.

In 2023, MUARC achieved an equivalent value of over \$34M in media exposure and is proud to be able to represent the focus of Monash University and its strategic objectives in this way.

Foundations of MUARC's success are built on the dedication and hard work of its staff and I acknowledge the contribution each staff member has made to the success of the Centre. This year we celebrated the well-deserved promotions of Dr Carlyn Muir to Associate Professor and Dr Sara Liu to Research Fellow, Level B.

We also said farewell to Voula Stathakis, Michael Scibilia, Connor Mai and Dr Di Shephard who all left to pursue other opportunities. We thank them all for their contribution and wish them well in their future careers. We also welcomed a new administrative team to MUARC. Jess Fimmel has commenced in the new role of Operations Manager and Sankha Gamage in the new role of Executive Officer. Both Jess and Sankha are already making valuable contributions to the Centre, helping to guide its strategic directions.

After a 33 year career at MUARC, Professor Max Cameron, a foundational member of MUARC, retired. Max's contribution to MUARC has been immense, developing and leading MUARC's Injury Analysis and Data team and the suite of expertise they have become internationally acclaimed for in areas such as program evaluation, police enforcement research, economic analysis, enforcement strategy modelling and vehicle safety assessment.

As a direct beneficiary of Max's mentorship, I offer my sincerest thanks for his contribution to MUARC and safety science. I am pleased that Max has accepted the title of Emeritus Professor and will continue his valuable association with MUARC along with MUARC's other highly valued Emeriti.

Professor Stuart Newstead
Director,
Monash University Accident Research Centre

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 reputation for excellence in safety science **research**, **research training** and **education**, both professional and academic. MUARC is a part of a global university with a 35+ year legacy of research which influences policy and practice to drive change and **make a difference**.

The scope of MUARC's work encompasses **road and transport** safety, injury prevention in the **home and community**, and **workplace** safety. The impact of the work we undertake at MUARC can be viewed through our academic journal publications, research reports, references in government policies, extensive stakeholder engagement, student satisfaction and media presence. MUARC looks forward to building on our track record and 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 over 50 researchers and postgraduate students, MUARC's distinctive strength lies in its multifaceted skill set to conduct research and make it accessible to academics, government officials and the broader community. Situated within Monash University, 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, and to educating the next generation of safety science leaders and practitioners.

MUARC aligns fully with Monash University on its commitment to addressing 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 reduce the incidence of injury in Australia and internationally.

MUARC stands as a beacon of excellence in safety science and injury prevention research and education. Through our collaborative efforts and cutting-edge methodologies, we are dedicated to making tangible contributions towards creating safer environments globally. With a steadfast commitment to innovation and impact, we continue to push the boundaries of knowledge in our quest to prevent injuries and save lives.

OUR WHY

INJURY PREVENTION

Globally

Each year 3.16 million people die from preventable injuries; 1 in 3 of these deaths results from road traffic crashes.

Tens of millions more people suffer non-fatal injuries each year placing a burden on the health care system and impacting their wellbeing and healthy-life years.¹

Australia

Injury is the leading cause of death among people aged 1 to 44 years.²

In 2020-2021, injuries caused 13,900 deaths.

In 2021-2022, injuries resulted in 538,000 hospitalisations, accounting for 7.6% of health expenditure.³

Preventable deaths numbered 8,786 in 2022 in Australia.

ROAD AND TRANSPORT SAFETY

In 2023, 1,270 people tragically lost their lives on Australian roads.⁴

Transport injuries account for 11% of hospitalisations and 10% of deaths annually in Australia.⁵

HOME AND COMMUNITY SAFETY

During the 2019-20 bushfires almost one third of Australians were living in a LGA impacted by a bushfire event. In 2022 around 70% of Australians were living in a LGA impacted by a flooding event.

Disasters cost the Australian community \$38 Billion every year on average. However, for every \$1.00 invested in resilience activities there is a \$9.60 return on investment.⁶

WORKPLACE SAFETY

In 2022, there were 195 worker fatalities due to traumatic injuries sustained in the course of a work-related activity.

Work-related mental health conditions are rising, with time off work in these cases more than four times longer than for other injuries.⁷

Sources:

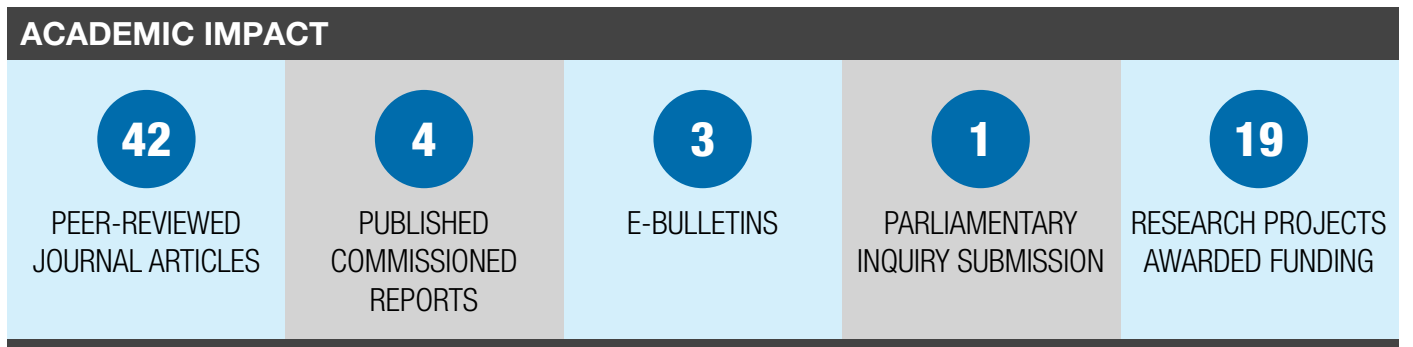
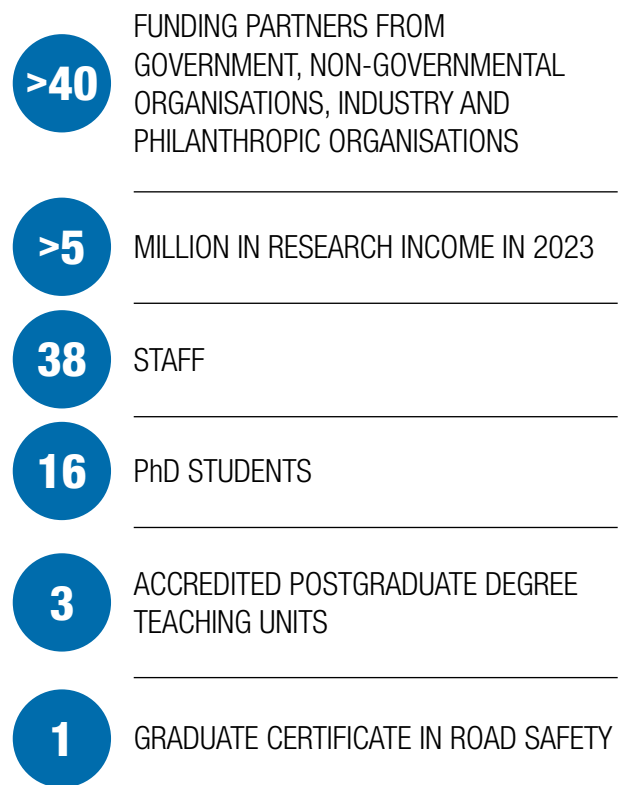
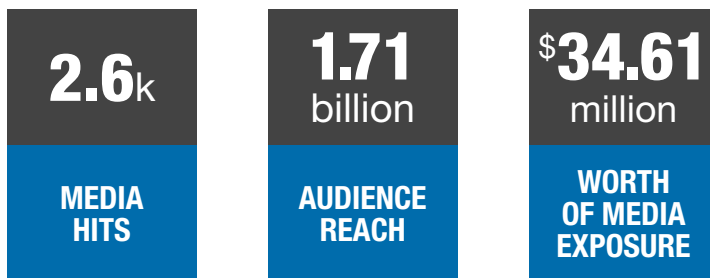
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3. <https://www.aihw.gov.au/reports/injury/injury-in-australia/>
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OUR IMPACT

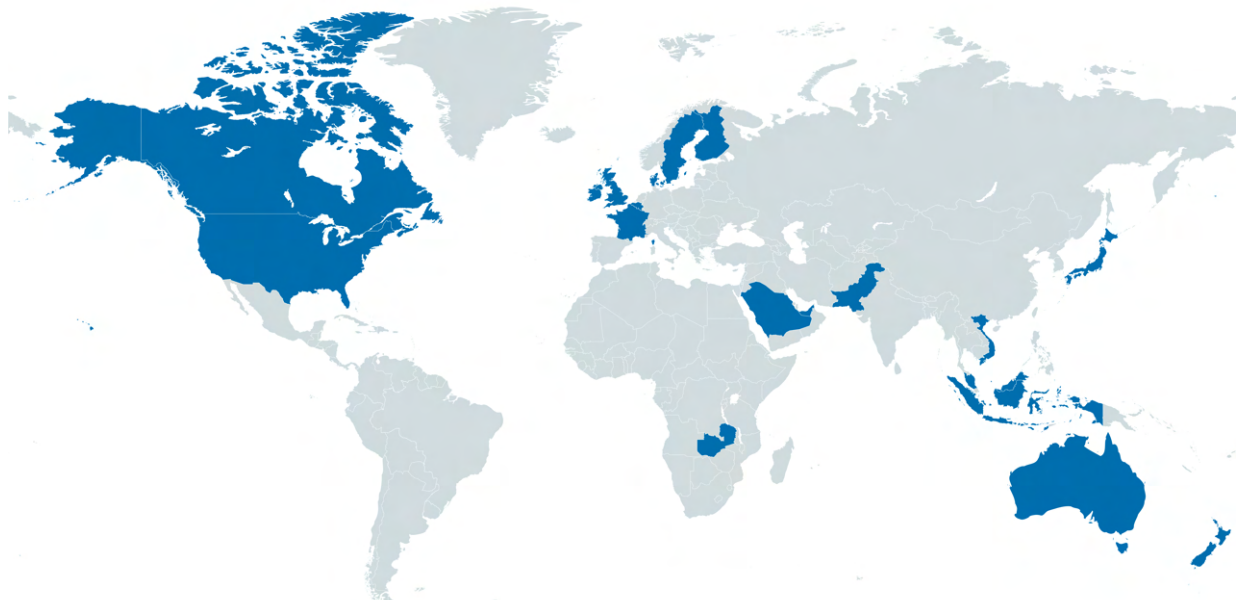
Impact 2030 commits Monash to a path driven by our purpose, which is to create understanding and innovation in collaboration with others – locally, nationally and internationally – and to address the three global challenges of the age.

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.



SHARING KNOWLEDGE GLOBALLY



INTERNATIONAL

MUARC has a proud history of building collaborative networks internationally and providing safety advice to low-income nations who need it most. Since 2005, MUARC has been contributing to the World Health Organization (WHO)'s call to action to address the global burden of injury, through its role as a WHO Collaborating Centre (WHO CC) for Violence and Injury Prevention. In 2023, MUARC commenced work on a continued designation as a WHO CC and maintained an ongoing contribution to the network through Associate Professor Carlyn Muir's active participation in the Executive Network.

Highlights from MUARC's international work in 2023 include:

- Professor Jennie Oxley providing expert advice on the structure and content of the TEACH VIP-3 curriculum on Violence and Injury Prevention by the WHO Safety and Mobility unit.
- Ongoing collaboration between Associate Professor Jonathan Abrahams and David Meddings, WHO Geneva, to raise awareness of drowning prevention.
- 90-minute WHO webinar on eMETS for road safety investment exploring the benefits of road safety strategy modelling in Low-and-Middle-Income Countries.

MUARC welcomed a number of international researchers and delegates in 2023. In September the Education team delivered a course to researchers and police from Indonesia. In November, MUARC welcomed a delegation from the Ministry of Transportation Vietnam and AIP Foundation to discuss translation of research into policy and practice and MUARC's current research on road safety management, motorcyclist safety and pedestrian safety. Additionally, a representative from the Road Transport and Safety Agency, Zambia, visited MUARC to discuss road safety issues.

In November, MUARC hosted Dr Christophe Jallais and Dr Alexandra Forte from Université Gustave Eiffel. The visiting academics are working on the 'Driving Anxiety and Inattentive Driving' study together with Dr Amanda Stephens. Additionally, MUARC welcomed PhD candidate Nazish Shabir from the Lahore College for Women University in Pakistan for a short exchange.

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. We understand the important role our research can play in guiding evidence-based policy and practise for people, planet and prosperity.

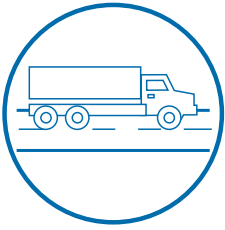
Our research supports these goals by:

- Addressing road safety priorities to decrease deaths and injuries (SDG 3.6), ensuring safe infrastructure (SDG 9.1) and supporting vulnerable transport users (SDG 11.2);
- Providing data-led reviews into preventable deaths and injuries in children (SDG 3.2);
- Strengthening the resilience and capacity of communities to respond to disasters (SDG 3d; SDG 13.1) and manage bushfire-risk forests (SDG 15.2); and
- Providing support to developing countries to build their safe system capabilities (SDG 17.9)

Our education also aims to share this knowledge with the next generation of safety professionals (SDG 4.7), reduce the impact of disasters (SDG 13.3) and address violence (16.1).



2023 HIGHLIGHTS: ENTERPRISING



NATIONAL ROAD SAFETY PARTNERSHIP PROGRAM

The National Road Safety Partnership Program (NRSPP) offers a collaborative network for Australian organisations to build and implement effective road safety strategies in the workplace. Industry partners within the NRSPP recognise road safety not as a competitive advantage, but as a shared advantage. The program provides organisations evidence-based road safety resources tailored to fit their individual operations, resulting in improved business productivity through less time and money lost through safety incidents.

NRSPP is built on its partnerships, and in 2023, Austroads released the Transport Suicide Prevention Report containing guidelines to help prevent road transport suicide, which was led by NRSPP and involved over 100 partners. The past year also saw the expansion of the partnership network with nine new partners signing up from across Australia and New Zealand including ENGIE, WomenCAN and NatRoad.

NRSPP also announced a new collaborative partnership with NTI – NTARC2.0. For over two decades, the National Truck Accident Research Centre (NTARC) Major Accident Report has provided an independent snapshot for industry and policy makers based on their claims data. The next report is due for delivery in 2024.

NRSPP is committed to creating easily accessible safety content for transport workers. These are produced in a variety of formats to support differing workplace needs. In 2023, the NRSPP signed a reciprocal membership agreement with the Global Road Safety Partnership (GRSP) to help facilitate the flow and expand the reach of content between the two programmes. A longer-term goal will be the translation of NRSPP content into other languages to further support GRSP's mission.

In 2023, NRSPP published:

- 123 INFORMATIVE INSTAGRAM POSTS
- 87 VIDEOS VIA THE NRSPP YOUTUBE CHANNEL
- 19 QUICK FACT FACTSHEETS
- 14 NEW TOOLBOX TALKS
- 9 BLOGS
- 6 WEBINARS
- 2 TRANSPORT WORKPLACE SAFETY CAMPAIGNS

Within the framework of its strategic involvement, the NRSPP takes a pivotal role in several esteemed judging panels. These include *Re:act* in Victoria and Western Australia, the Traffic Management Association of Australia's prestigious *Traffic Management Company of the Year*, and the *Brake Australasian Fleet Champions Awards*.

The NRSPP is led by Director Jerome Carslake. Jerome has an extensive knowledge of workplace road safety management, program delivery and collaborative solution development. Jerome is Chair of the Construction Logistics and Community Safety – Australia (CLOCS-A) Steering Group. Jerome frequently provides expert commentary for the media, appearing on Channel 7's *Sunrise*, the *Drive* podcast and in *Fleet Auto News*. Jerome also shares NRSPP's work at industry conferences and through the *Sharing Roads Safety course*.

NRSPP
NATIONAL ROAD SAFETY

**PARTNERSHIP
PROGRAM**

2023 HIGHLIGHTS: RESEARCH



VICTORIAN INJURY SURVEILLANCE UNIT

High-quality injury surveillance data is crucial to informing injury preventing strategies and promoting safety. 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.

VISU provides this critical information to around 250 organisations and agencies each year, including Commonwealth, state and local government departments, health and injury prevention organisations, media, business and industry, education institutes, research groups and the community. Additionally, VISU maintains the Victorian Injury Atlas, to make complex research data available to the broader community in an accessible format.

In 2023, VISU released E-Bulletins 26 and 27, summarising the analysis of unintentional hospital-treated injury data and injury-related death data, and its final COVID-19 E-Bulletin.

The team also produced two new Hazard publications. Edition 90 provided an in-depth epidemiological overview of occupational violence and aggression injuries sustained by Victorian workers in healthcare settings, and Edition 91 provided an overview of food allergies resulting in hospital treatment or death in Victoria.

VISU also made significant contributions to the Victorian Parliament *Inquiry into the impact of road safety behaviours on vulnerable road users*. This included supplying requested transport injury statistics, providing an in-depth report on Victorian transport injury statistics before, during, and after the COVID-19 pandemic, and providing evidence in-person at the Public Hearing on 08 August.

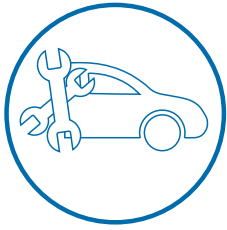
VISU receives ongoing media coverage regarding reports and statistics, and in 2023 reached an audience of 955 million, with an Advertising Value Equivalency of \$8.9million. This included coverage of injuries related to e-scooters, knife-stabbings, dog-bites, bus crashes, and fireworks.

The VISU team is led by its Director, Associate Professor Janneke Berecki-Gisolf. Janneke has a background in epidemiology, has published over 50 research articles cited more than 2.5k times, and actively gives back to the research and safety community through her committee involvement. Her advisory and executive committee positions support includes 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.

Over the past year, Janneke has also participated as a panel member for the *COVID-19's impact on falls, sedentary behaviour, and deconditioning in older adults*' forum, hosted by the Rehabilitation, Ageing and Independent Living (RAIL) Research Centre and been a guest lecturer on *'Using data for evidence-based decision making in road safety'* for the MUARC Graduate Certificate course.

Janneke's 2023 peer-reviewed paper titled *'Trends in mortality outcomes of hospital-admitted injury in Victoria, Australia 2001–2021'* has been downloaded over 688 times since publication.

2023 HIGHLIGHTS: RESEARCH



TRAFFIC ENGINEERING AND VEHICLE SAFETY

The Traffic Engineering and Vehicle Safety (TEVS) team focuses on various aspects of road safety, including strategy development, infrastructure evaluation, and road safety modelling.

The team translates research into practical solutions and collaborates extensively with government and industry partners. Contributing to key road safety strategies in Australia, the team's work builds upon the Safe System and Vision Zero road safety philosophies.

In 2023, TEVS made significant contributions to the academic landscape. The team's commitment to the next generation of researchers through its PhD offerings resulted in publications from current students and recent graduates on a diverse range of road safety topics including: bicycle-vehicle conflicts at intersections; transport modal choice and shift; and wire rope safety barriers. Ongoing collaborations with the Monash Institute of Transport Studies in Civil Engineering also resulted in publishing novel research on tram and bicycle safety.

Collaborating with a multidisciplinary team of researchers from across the Centre, the TEVS team embarked on a project aimed at improving heavy vehicle visibility around pedestrians and cyclists.

TEVS researchers were also commissioned to prepare reports for the Office of the Chief Investigator, Transport Safety, in response to the Exford school bus crash. These reports encompassed a thorough scan review of bus safety and an investigation into the outcomes of the Exford bus crash, providing invaluable insights for enhancing bus safety nationwide.

The TEVS team is led by Associate Professor David Logan. David has a PhD in mechanical engineering and since joining MUARC in 2001 has developed his expertise in road safety strategy modelling. He is an expert advisor to governments and industry partners and in 2023 assisted the TAC on their new ad campaign 'Unseen' due to launch in 2024, and is a part of the *Safe System Crash Investigation Program*, a pioneering pilot program aimed at enhancing our understanding of fatal crashes on Victorian roads.

As part of his commitment to safety knowledge dissemination beyond academia, David delivered a lecture on 'The Management of Speed' to representatives from the Indonesian Police. He was also frequently called on by the media as an expert safety advisor including on: safety infrastructure in the CBD following the Bourke St tragedy on September 8; traffic congestion in Melbourne's Western suburbs; the trauma impacts of larger vehicles in Australia; and truck blind spot safety.

2023 HIGHLIGHTS: RESEARCH



INJURY ANALYSIS AND DATA

The Injury Analysis and Data (IAD) team have specialist training in the fields of numerical and behavioural sciences, and are skilled in the management, analysis and presentation of accident and injury data to produce real-world benefits.

Their work focuses primarily on road safety research with a long history of contributing to public safety through program evaluation and modelling.

For the 27th year, the team analysed the data behind the popular Used Car Safety Ratings, an initiative funded by nine government road safety and injury insurance authorities across Australia and New Zealand, and featured on the Transport Accident Commission's public awareness 'How Safe is Your Car?' website. The 2023 ratings were revamped to provide a comprehensive rating system encompassing not only occupant protection, but also collision partner protection, and crash avoidance measures.

In addition to the ratings in 2023, two other research publications garnered strong media attention. The first, a peer-reviewed article on new vehicle technology, demonstrated the effectiveness of daytime running lights in reducing crash risk for light vehicles in non-night-time multi-vehicle crashes by 8.8%. The second, a report on the impact of COVID-19 pandemic restrictions in Victoria on road trauma outcomes, highlighted the impact of increased risk taking behaviour by drivers during the lockdowns.

The IAD team is renowned for its comprehensive assessments of road safety programs. In 2023, evaluations included: the effectiveness of the NSW *Pedestrian Protection Program* at high-risk intersections; the benefits of Distracted Driver and Seatbelt cameras in Victoria; and the influence of the Queensland *Camera Detected Offence Program* on meeting road safety objectives.

In other research, the team built upon their previous analysis of licensing-related factors predicting poor safety outcomes for heavy vehicle drivers after qualifying for a heavy vehicle licence endorsement in Victoria to demonstrate the national applicability of the findings. They also analysed the pharmacoepidemiology of medicinal cannabis use amongst Australians who hold a drivers licence and investigated patients' awareness, attitudes and behaviours in relation to driving after taking medicinal cannabis.

Pivotal research was presented at the 2023 Australasian Road Safety Conference, demonstrating the impact of lane keep assist systems in reducing lane departure crash events, ultimately influencing the development of Australian Design Rule 107 mandating such systems in new light vehicles.

The IAD team is led by Professor Stuart Newstead. With a PhD in Applied Statistics and accredited by the Statistics Society of Australia, Stuart and his team of research statisticians use methodological based skills to perform experimental design and sample size estimation, design and analysis of surveys, high level statistical analysis including economic analysis, as well as database design, management, analysis, and linkage. Stuart is regularly contacted by the media for expert commentary on all aspects of vehicle and road safety in Australia.

2023 HIGHLIGHTS: RESEARCH



BEHAVIOURAL SAFETY SCIENCE

The Behavioural Safety Science (BSS) team uses innovative and interdisciplinary expertise to study human behaviour and to identify solutions for safety in all modes of transport, in workplaces, as well as homes and communities. The team is recognised as the leading research group in Australia focused on the safe mobility of ageing road users, individuals with medical conditions and child road users.

Throughout 2023, the BSS team has actively pursued research and funding opportunities pertaining to emerging transport modes, with a particular focus on vulnerable road users. Work highlights included: evaluation of the 'Safe Seats, Safe Kids' program; a pre-learner licence course review; as well as an evaluation of illegal driving behaviour in the ACT.

Ensuring their work continues to drive innovation and collaboration in the research landscape, in 2023, the team had 17 academic papers published, and led two international symposiums and workshops in Denmark and Australia. Their paper, *'Key factors associated with parents' illegal engagement with their smartphones while driving their children'*, attracted significant media attention, and encouraged community reflection on road safety with children.

The team takes a collaborative approach to its work with connections across the globe, and 2023 reflects the ongoing commitment of the BSS team to advance road safety, disseminate knowledge, and foster collaboration within the global community. In particular, they have a strong focus on training the next generation of researchers, from undergraduate Data Science and Psychology interns, through to Psychology honours students and PhD student supervision both within Australia, and through collaboration with Monash-IITB and other international universities.

Working in partnership with the National Road Safety Partner Program (NRSPP), the BSS team finalised a program of research which identified "best practices" to improve workplace road safety culture for light commercial vehicle drivers, as well as those engaged in gig or on-demand work.

The BSS team is led by Associate Professor Sjaan Koppel, who began her research journey with a PhD in Psychophysiology. Today, she and the team use behavioural science techniques to identify safety solutions, including questionnaires, neuropsychological assessments, interactive driving simulations, on-road driving assessments and naturalistic driving study methodologies. Sjaan is an active contributor to the road safety community including as: a member of Australasian College of Road Safety Executive Council and Scientific Program chair of the upcoming ASRC2024 conference; Associate Editor for the Traffic Injury Prevention journal; President-Elect of the Advancement of Automotive Medicine (AAAM), as well as an invited member on a number of international foundation committees.

2023 HIGHLIGHTS: RESEARCH



HUMAN FACTORS AND SUSTAINABLE SAFETY

The Human Factors and Sustainable Safety (HFSS) group explores 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.

In 2023, HFSS' work included the development of an effective screening test to identify individuals in the early stages of dementia who are unfit to drive. The project was a partnership with Loughborough University and funded by the UK Road Safety Trust.

With a commitment to education and knowledge dissemination, the HFSS team has been developing the Reducing Aggressive Driving program, slated for online launch in 2024. They also worked closely with Melbourne Water to develop their *'Mind on the Drive'* campaign, raising awareness around workplace fatalities related to vehicle collisions and how to encourage safer driving outcomes.

In 2023, the community and media exhibited interest in understanding the link between driver behaviour and emotional state. In January, Dr Amanda Stephen's article *'Why do people tailgate? A psychology expert explains what's behind this common (and annoying) driving habit'* published in *The Conversation* had 419k reads, and was reprinted by news outlets across the world. Throughout the year, Amanda continued her contribution through podcasts and a range of Australian print and radio media as an expert of aggressive driving.

MUARC has a long history of undertaking cutting-edge projects using a unique range of driving simulators, and possesses full car, truck, motorbike, and cycle vehicle simulators. The facilities include usability laboratories, a rest room and participant debriefing areas. Simulator projects range from evaluating infrastructure design, vehicle automation, and in-vehicle technologies to driver responses to fatigue and distraction. The team secured funding for new software on the larger simulators in 2023, and has been working on updating the system to deliver a new range of simulator projects in 2024.

The HFSS team is led by Professor Jennie Oxley. Jennie is an internationally renowned academic in injury prevention research, and holds leadership roles across the safety community including on the Standards Australia Committee (bicycles and bicycle accessories), Amber Community Research and Evaluation Committee, Chair of the AAAM Low and Middle Income Countries Special Interest Group, and the South Eastern Public Health Unit Falls Prevention Advisory Group. In 2023, she co-hosted the Road Safety & Speed Management Workshop at the Vision Zero Conference, Sweden.

The HFSS team includes two Senior Research Fellows, Dr Kristie Young and Dr Amanda Stephens.

Dr Kristie Young is an expert in distracted driving and is actively engaged in the safety community with involvement in editorial boards and the National Driver Distraction Working Group.

Dr Amanda Stephens' expertise on aggressive driving, emotion and fatigue is frequently sought by the media and workplaces. In 2023, she was invited to speak at numerous events including the Melbourne Magistrates on her work, and continues to contribute to the Road Safety Education Advisory Council.

2023 HIGHLIGHTS: RESEARCH



REGULATION AND IN-DEPTH CRASH INVESTIGATION

The Regulation and In-depth Crash Investigation research team focuses on all matters relating to regulation. This includes how decisions can be made, formulated and supported through evidence-based science. The team uses comprehensive in-depth crash data, hospital data, police data and compensation systems data to identify current and future safety concerns.

In 2023, the team successfully delivered the final reports from the *Enhanced Crash Investigation Study*, a multi-year multi-million-dollar in-depth investigation into serious trauma on Victorian roads funded by the Transport Accident Commission (TAC). Based on an extensive set of findings, the ECIS program identified a broad range of safety interventions that could be effective in reducing the number of people injured on our roads. Findings from the ECIS program were presented at the 27th International Technical Conference on the Enhanced Safety of Vehicles (ESV) in Yokohama and at the Trafinz conference in New Zealand.

The team's *Analysis of crashes on Transurban Road Assets* project involved a comprehensive analysis of crashes and their severity on Transurban assets and similar but publicly operated roads in Queensland, Victoria, and NSW for the period 2012-2022. Transurban commissioned this work as a way to enhance their understanding of crashes and identify ways to continuously improve the safety of their roads.

The team continued to advocate the federal government on the introduction of Acoustic Vehicle Alerting Systems (AVAS) for quiet electric vehicles as a way to improve the safety, mobility and independence of members of the blind and low vision community. This is an important initiative that the team has heavily invested in.

In 2023, the team continued its work in the area of driver impairment, including drowsy driving and drug-driving in particular. In a three-year program, the team has been examining ways to optimise the management of drug-driving offenders with a view towards reducing recidivism. This program is informed by the team's expertise in mental health, and how mental health shapes risky behaviour. The team conducted work to inform the government on the timeliness of issuing infringement notices for drug-driving, as well as considerations relating to medical cannabis and driving.

The team commenced a number of new programs, including mapping the road safety research landscape in Australia with funding from the federal Office of Road Safety, and the role of BAC limits in shaping drink-driving behaviour.

Reflecting the team's academic background – including clinical psychology, and subject matter expertise, the team is expanding its projects in the domain of *Mental Health, Impairment, and Injury*. While this continues to include all areas of driver behaviour, impaired driving and the role of regulation in managing these risks, new projects include the evaluation of mental health leadership and psychological safety programs delivered by prominent insurers and program providers.

The team is led by Associate Professor Michael Fitzharris. Michael is frequently called on by the Australian media as an expert in the areas of driver behaviour, including drug-driving, drink-driving, and speeding, and the prevalence and health impacts of road trauma. He routinely assesses grant and fellowship applications for various funding bodies, University awards, and regularly provides peer review services for numerous scientific journals.

2023 HIGHLIGHTS: RESEARCH



MONASH UNIVERSITY DISASTER RESILIENCE INITIATIVE

The Monash University Disaster Resilience Initiative (MUDRI) represents a dynamic convergence of the three Monash Global Challenges related to thriving communities, climate change and geopolitical security, bringing together diverse disaster resilience expertise across the university, and internationally.

MUDRI embodies a collaborative, multidisciplinary approach, drawing from a wealth of industry and academic experience in emergency risk management and disaster risk reduction, community resilience, climate change adaptation, humanitarian action, public health, mental health and psychosocial support, anthropology, and social sciences.

Exposure to extreme weather events, disease outbreaks, violence and other adversities, present an ever-increasing challenge for people and ecosystems worldwide. MUDRI collaborates with Monash partners, including the School of Public Health and Preventive Medicine, Humanise Lab and the Turner Institute, with Emergency Management Victoria, the National Emergency Management Agency and other local, state, national, and overseas governments, and leading regional and global agencies, such as the World Health Organization (WHO). MUDRI aims to build and transform systems that enable and support communities to strengthen resilience to these challenges.

In 2023, MUDRI made substantial progress on the project titled *Internal displacement: An iterative study of impacts of 2019-20 bushfires* by conducting qualitative analysis of the stories and lived experiences of people who endured displacement, and recovery practitioners across 38 Local Government Areas in four Australian jurisdictions as a result of the devastating fires. Crucial findings from the project will form a core part of the report, due in April 2024, and is designed to recommend improvements to support people experiencing displacement.

The team strengthened their collaboration with Fire to Flourish, Monash's five-year collaborative program, through participation in research and learning networks, workshops, submissions and co-organisation of webinars and forums.

MUDRI began providing advisory services to address forest fire risk management in Saudi Arabia. The project draws on Australia expertise and experience of bushfires and takes account of a range of risk factors including a changing climate and human behaviours.

A significant part of MUDRI's contribution to education and building the capacity of the future workforce are the two units in the Master of International Development Practice.

MUDRI raised awareness and visibility of their work through eight publications, five webinars, 16 conference papers, thought leadership and active participation in international and national networks and forums. Their work included travel to the Internal Displacement Monitoring Centre in Geneva and the Manchester Combined Authority to discuss data sharing in emergencies.

The team initiated research collaboration with WHO, University of New South Wales and lifesaving organisations on drowning prevention and presented at the World Conference for Drowning Prevention. This collaboration calls for joint action to prevent drowning in emergencies and disasters, strengthening collaboration between disaster risk management, drowning prevention, and climate and hydrometeorological communities.

MUDRI is led by its Director, Associate Professor Jonathan Abrahams. Jonathan brings many years of international, regional and national experience and extensive connections across the world to the team. Originally part of the World Health Organization, Jonathan maintains his connections by providing technical expertise to projects related to safe, sustainable hospitals, community protection and resilience, and research. In 2023, he made many contributions to the academic and community landscape as an invited speaker in national and international forums, Commonwealth roundtable participant and co-chair, and member of national and international disaster resilience working groups.

2023 HIGHLIGHTS: RESEARCH



EMERGENCY SERVICES RESEARCH

The Emergency Services Research (ESR) team touches on each of MUARC's research areas to guide emergency service organisations towards the safest possible conditions for those who are called upon during times of need, and community members who are affected. Significant partnerships have been forged from this research program including collaborations with the Country Fire Authority, NSW Rural Fire Service, Ambulance Victoria, the Department of Energy, Environment and Climate Action, and Victoria Police.

In 2023, the team achieved funding success from the NSW Rural Fire Service to use a systems approach to better understand NSW Rural Fire Service fleet safety and inform appropriate cabin protection for frontline vehicles.

The team also conducted an evaluation of a field intervention trial of Road Rule 79A (40km/h speed near emergency vehicles) and alternative flashing lights for Incident Response Vehicles. This trial provided valuable insights into driver behaviour in response to different lighting combinations, informing potential improvements in vehicle visibility and safety measures.

Translating research into practice, the team actively engaged with the community to promote safety awareness and best practices. Notable contributions include:

- Facilitating an Emergency Vehicle Safety Workshop at the Australasian Road Safety Conference.
- Delivering a session on Managing Emotions while Driving for Work at the Connect East Safety Day.
- Presenting on *The Journey to Safe System* at the Victoria Police forum to over 200 police stakeholders from around Australia.

Work by former PhD candidate, Dr Jason Kearney, into workplace injuries for paramedics and the burden they place on this vital service was highlighted in the media.

The ESR team is led by Associate Professor Carlyn Muir. Carlyn's qualifications in psychology and public health, experience in research and evaluation across the safety sciences, and strong collaborative networks across the emergency services create an expert on the cutting edge of research, policy and practice. Her work often involves the application of psychological and health theory to understand and influence behaviour within complex systems. In 2023 she received the Outstanding Paper Award in Traffic Law Enforcement from the Transportation Research Board for a collaborative work titled '*Can a racial justice frame overcome opposition to automated speed enforcement?*'. She also gave a keynote address for the Victorian Police Eastern Region single member station conference in Marysville.

2023 HIGHLIGHTS: GRADUATE RESEARCH



GRADUATE RESEARCH TRAINING

MUARC offers graduate research students the opportunity to study with the world's leading injury prevention and safety science specialists. The program offers quality learning through innovative and impactful research, and future career opportunities for students. Including extensive scholarship opportunities from Monash University, MUARC offers three prestigious scholarships 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 2023, the MUARC PhD and Masters Program accreditation was renewed through to 2030 by the Monash University Academic Board.

Student Snapshot

19	MUARC-ENROLLED PHD STUDENTS
17	DOMESTIC STUDENTS
2	INTERNATIONAL STUDENTS
12	FEMALE STUDENTS
11	MUARC CO-SUPERVISED PHD STUDENTS
1	VISITING PHD STUDENT

New PhD students

Paul Cull
Kamran Sobhanian
Zoe Thomas

MUARC-enrolled PhD completions

Dr Sujanie Peiris - "Assessing the compatibility between Australian roads and new vehicle technology"

Dr Aleks Natora - "An evidence-based and co-designed policy framework and systems approach to advance the public health approach to falls prevention among community dwelling adults"

Dr Thi Thu Le Pham - "Examination of intentional self-harm in Culturally And Linguistically Diverse (CALD) communities"

Dr Angela Batson - "Managing the health, safety, and wellbeing of ageing heavy vehicle drivers"

Dr Brendan Lawrence - "Urban road conditions and cyclist injury: A study in Melbourne, Australia"

MUARC co-supervised PhD completions

Dr Jennifer Rivera Gonzalez - "Safe Mobility and Safe Place: Creating liveable cities that accommodate movement and place"

Dr Xin Zou - "Modelling Public Perception and Acceptance of Autonomous Vehicles"

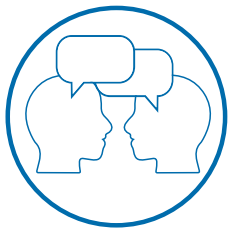
Dr Bodhi Weaver - "Behaviour-based safety approaches to workplace mental health: Investigating the role of Psychosocial Safety Behaviour (PSB) in psychosocial risk mitigation and participatory intervention design"

Undergraduate research and internships

MUARC also develops undergraduate students for a career in research. In 2023, the MUARC Honours program was coordinated by Dr Di Sheppard and Associate Professor Sjaan Koppel.

6	HONOURS STUDENTS
1	ENGINEERING FINAL YEAR PROGRAM STUDENT
3	BACHELOR OF APPLIED DATA SCIENCE INTERNS
5	SUMMER VACATION STUDENTS

2023 HIGHLIGHTS: EDUCATION



EDUCATION

MUARC's Education programs are designed to produce and support the next generation of injury prevention leaders and advocates. The Centre offers two streams - accredited education leading to the award of a degree, and professional education which provides professional development courses for government and industry. Our teaching team is internationally renowned, multidisciplinary, and committed to inspire practitioners through practical, hands-on and nuanced learning.

ACCREDITED EDUCATION

Graduate Certificate of Road Safety

This fully accredited postgraduate degree invites students representing industry, government and the emergency services. In 2023, MUARC graduated its class of 2022 with the teaching team highly impressed with the level of engagement from the students. The new cohort commenced mid-year and have enthusiastically embraced the curriculum.

To further develop the potential of the course, MUARC made the decision to move the degree to sit within a faculty's offering, and commenced negotiations to this effect. This change will provide additional support and new collaboration opportunities.

Postgraduate Coursework units

Two MUARC experts coordinate and teach into faculty-run postgraduate coursework units within the Faculty of Arts at Monash University. Masters students can choose from:

APG5075: *Using data to understand family violence* - Associate Professor Carlyn Muir

APG5140: *Guiding principles for professionals engaged in disasters and humanitarian crises* - Associate Professor Jonathan Abrahams

APG5619: *Community resilience and disaster risk reduction* - Associate Professor Jonathan Abrahams

PROFESSIONAL EDUCATION

MUARC works with industry and government across Australia and internationally to develop bespoke courses. While many organisations share the same dream of eliminating serious injuries, MUARC's Education team understands that workforces have specific needs when it comes to professional development. In 2023, the team worked on two programs.

Reducing Aggressive Driving eLearning

In partnership with Enterprise Education, Dr Amanda Stephens' Reducing Aggressive Driving program was selected as a pilot to be designed and delivered by the University's new learning solutions organisation, Guroo Learning. This is a commercial e-Learning program; the first of its kind to be offered by MUARC. The program has been designed for clients to better understand anger, aggression, and the risks associated with them while driving. Some of the learning outcomes extend to defining and assessing the road safety risk of angry and aggressive drivers, discussing the importance of regulating emotion while driving, and identifying personal triggers for anger and analysing them. The program is currently in the final phases of development and will soon be reviewed by industry ahead of its public release.

Indonesian Police Program in collaboration with Universitas Indonesia.

MUARC was pleased to host academics and Indonesian National Police studying at the Universitas Indonesia for a seven-day short course focused on evidence and best practice in road policing. The program, designed and delivered by Associate Professor Carlyn Muir, Eric Howard AM, and Jason Kearney, involved a series of evidence-based teachings from MUARC road safety experts, and our industry partners including Victoria Police, Fire Rescue Victoria, TAC, and Department of Transport and Planning (Vic). The program involved several site visits, practical demonstrations, and provided students with the opportunity to observe a live Victoria Police ADTV operation.

MUARC EMERITI

In celebrating the enduring legacy of MUARC, it is with great honour that we recognise the invaluable contributions of our Emeritus Professors. As pillars of knowledge and wisdom, these distinguished individuals have left an indelible mark on the academic landscape in the centre, shaping not only the minds of countless students but also the very fabric of MUARC's identity. MUARC thanks them for their ongoing contribution to the Centre in 2023.

Emeritus Professor Frank Archer

BMedSc MBBS DipEd BEd

Emeritus Professor Frank Archer worked closely with the MUDRI team as the Chief Investigator on the NRRRA-funded project, Internally displaced people: 2019-20 bushfires, an interactive analysis, which intends to identify IDPs and measure and capture their recovery and resettlement stories.

Emeritus Professor Brian Fildes

CertProdEng BSc(Hons) PhD

Emeritus Professor Brian Fildes was honoured with the prestigious Donald F. Huelke Lifetime Membership Award in 2023, in honour of his outstanding contribution to the AAAM organisation. Brian has been a significant long-time contributor to AAAM including past President of the organisation in 2011-12 and longstanding contributor to AAAM activities and conferences. Professor Brian Fildes is also a Visiting Professor at the Transport Safety Research Centre at Loughborough University in the UK. He co-authored Loughborough's evaluation of safety for older public transport users in the UK and continues to form collaborations between the organisations to enhance research into older driver safety. Brian also continues to supervise two MUARC PhD students.

Emerita Professor Jude Charlton AM

BEd MSc PhD

A former Director of MUARC, Jude continues to provide leadership in road safety through her contribution to the NRSPP's inaugural online course for Directors and Officers, which showcases the commitment to imparting expertise and fostering professional development within the industry. Jude works closely with the BSS team as well as in the strategic development of the Centre. She is an invited member of numerous advisory and working groups as well as serving on the editorial board of two international journals.

Emeritus Professor Max Cameron

BSc MSc PhD

In 2023 Professor Max Cameron transitioned to retirement after more than thirty years of service at MUARC. In recognition of his significant contributions to road safety, he was honoured with the title of Professor Emeritus by the Vice-Chancellor of Monash University. Max has been an integral senior researcher since joining the Centre in 1990 on secondment from VicRoads. Specialising in road crash data analysis and countermeasure evaluation, Max has published 110 papers and been the lead or key author of 250 reports to state, federal and international government departments and other organisations. Max developed the concept of the rating system behind the Used Car Safety Ratings, one of the most high-profile outputs from MUARC each year.

While MUARC will miss Max as one of our staff, we hope his retirement will allow him to balance life and his love for research, and we will continue to welcome his contributions to our mission.

ACHIEVEMENTS



MUARC AWARDS, ACHIEVEMENT AND RECOGNITION

STAFF AWARDS

AAAM A.J. Mirkin Service Award - Associate Professor Sjaan Koppel

Transport Research Board 2023 Outstanding Paper Award in Traffic Law Enforcement - Associate Professor Carlyn Muir

STUDENT AWARDS

Australasian Radiation Protection Society 2023 Conference Best Poster Award - Zoe Thomas, PhD candidate, "Adverse Effects from Cosmetic Use of non-Ionising Radiation"

ACRS 2023 Women in Road Safety Award - Jessica Truong, PhD candidate

MONASH INCUBATOR BUILD GRANTS

"Inclusive Early Warning Mobile Applications" - Associate Professor Jonathan Abrahams

"Map of MHPSS Capacities" - Associate Professor Jonathan Abrahams

PROMOTIONS

Dr Sara Liu - Research Fellow Level B
Dr Carlyn Muir - Associate Professor

MUARC AWARDS

Best Paper

Researcher - Amanda Stephens for 'Preliminary evidence of the efficacy of the Reducing Aggressive Driving (RAD) program' *Journal of Safety Research*

Student - Angela Batson for 'Pre-injury health status of truck drivers with a workers' compensation claim' *BMC Public Health*

Seeding grants

Dr Hayley McDonald
Dr Jason Kearney
Dr Revathi Nuggehalli Krishna

TEAM WORK

Inaugural MUARC Brick Master lego competition winning team: Fletcher Howell, Jason Kearney, Christine Mulvihill, Monika Yeomans, Mohammad Ibrahim.

STAFF EXPERTISE

Centre Director

Professor Stuart Newstead

Deputy Director

Professor Jennie Oxley

Centre Management Group

Assoc Prof Carlyn Muir, *Associate Director Education and Associate Director Research*

Assoc Prof David Logan, *Associate Director Research*

Assoc Prof Janneke Berecki-Gisolf, *Director, VISU*

Ms Jess Fimmel, *Operations Manager*

Assoc Prof Jonathan Abrahams, *Director, MUDRI*

Assoc Prof Michael Fitzharris, *Associate Director Research*

Ms Peggy Hum-Teo, *Senior Research and Finance Coordinator*

Assoc Prof Sjaan Koppel, *Associate Director Research*

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 Fareed Kaviani

Dr Hayley McDonald

Dr Jason Kearney

Dr Jennifer Rivera Gonzalez

Ms Laurie Budd

Dr Revathi Nuggehalli Krishna

Dr Sara Liu

Dr Suzanne Cross

Dr Trevor Allen

Dr Xin Zou

Professional Research Staff

Mr David Oeng

Mr Ehsan Rezaeidarzi

Dr Himel Singh

Ms Iniya Arularasu

Dr Jane Hayman

Dr Jasmine Proud

Dr Nebojsa Tomasevic

Ms Rachel Crotty

Centre Support Staff

Ms Ellana Christakakis, *Senior Communications and Public Relations Coordinator*

Ms Lesley Rees, *Education Manager*

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 Marama Amity

Ms Khyati Chandarana

STAFF GENDER DIVERSITY

WOMEN - ALL STAFF

62%

WOMEN - SENIOR LEADERSHIP

60%

THE YEAR AHEAD

In mid-2023, I embarked on a new journey with Monash University, stepping into the role of Operations Manager at MUARC. As I met with MUARC's senior researchers, those who have guided and led the work within this annual report, I felt inspired to have joined an organisation filled with people with an unwavering dedication to safety science and injury prevention, who share that knowledge within academia, industry and the wider community. Their passion is not merely a professional obligation but a heartfelt commitment to effecting positive change. While it may be their names you see at the pinnacle of their research fields, the reason you do so is the pillars of strength built below them by the support, dedication and hard work of all the researchers, students and support staff at MUARC.

The calibre of the staff and students drawn to MUARC by a common desire to contribute to work that makes a difference, provides the Centre with a unique multidisciplinary team that embodies diversity in thought and expertise. On a daily basis in the office corridors I speak with statisticians, psychologists, epidemiologists, behavioural scientists, engineers and physiologists. Being part of a centre which convenes leading safety science experts from around the world and fosters a culture of collaboration, presents an exceptional opportunity with significant potential for impactful contributions.

Here are some of the highlights the MUARC team look forward to in 2024.

Research

Our researchers have already secured a number of contracts and government grants for the year ahead, and previous funding partners are reaching out to us to perform work for them again. While the projects are too numerous to name here, I encourage you to look out for: our systematic review of 50 years of research on the relationship between impact speed and fatal/serious injury risk among road users; a new collaboration with Loughborough University for the development of a screening test for fitness to drive of people with dementia; and our evaluations of emerging crash avoidance technologies appearing in Australian vehicles.

Education

With a new Education Manager at MUARC, our Education portfolio is making strides in their offerings including updates to a flagship Road Safety Management Leadership Program later in the year, and the launch of the Reducing Aggressive Driving Program.

International

It's an honour to be recognised as a World Health Organization Collaborating Centre for Violence and Injury Prevention and the team is busy renewing our designation to ensure we continue to forge partnerships across the globe and deliver the latest in safety science expertise to those who need it most. I'm also excited for MUARC to host new international PhD students, with expressions of interest from Italy, the UK and China being assessed.

Enterprising

MUARC was built on an enterprising collaboration between key road safety partners in the Victorian government. Today we have a number of government and industry partners working closely with our researchers. In particular I'm keen to see the delivery of the inaugural NRSPP-NTI collaborative NTARC2.0 report aimed at improving the safety of the heavy vehicle sector in Australia.

Strategy and Governance

In late 2023 Monash University updated its Institutes and Centres Policy, providing us a refreshed structure to support the University in its goals. Firstly, we'll be reinstating our Steering Council to help guide us in our strategic planning, and later in the year, our Advisory Council. Integral to our strategy creation in 2024 will be the involvement of our staff and students; to create a Centre that is not only sustainable for years to come, and tackles our greatest challenges in safety, but that also supports and develops those who will shape our future.

Culture

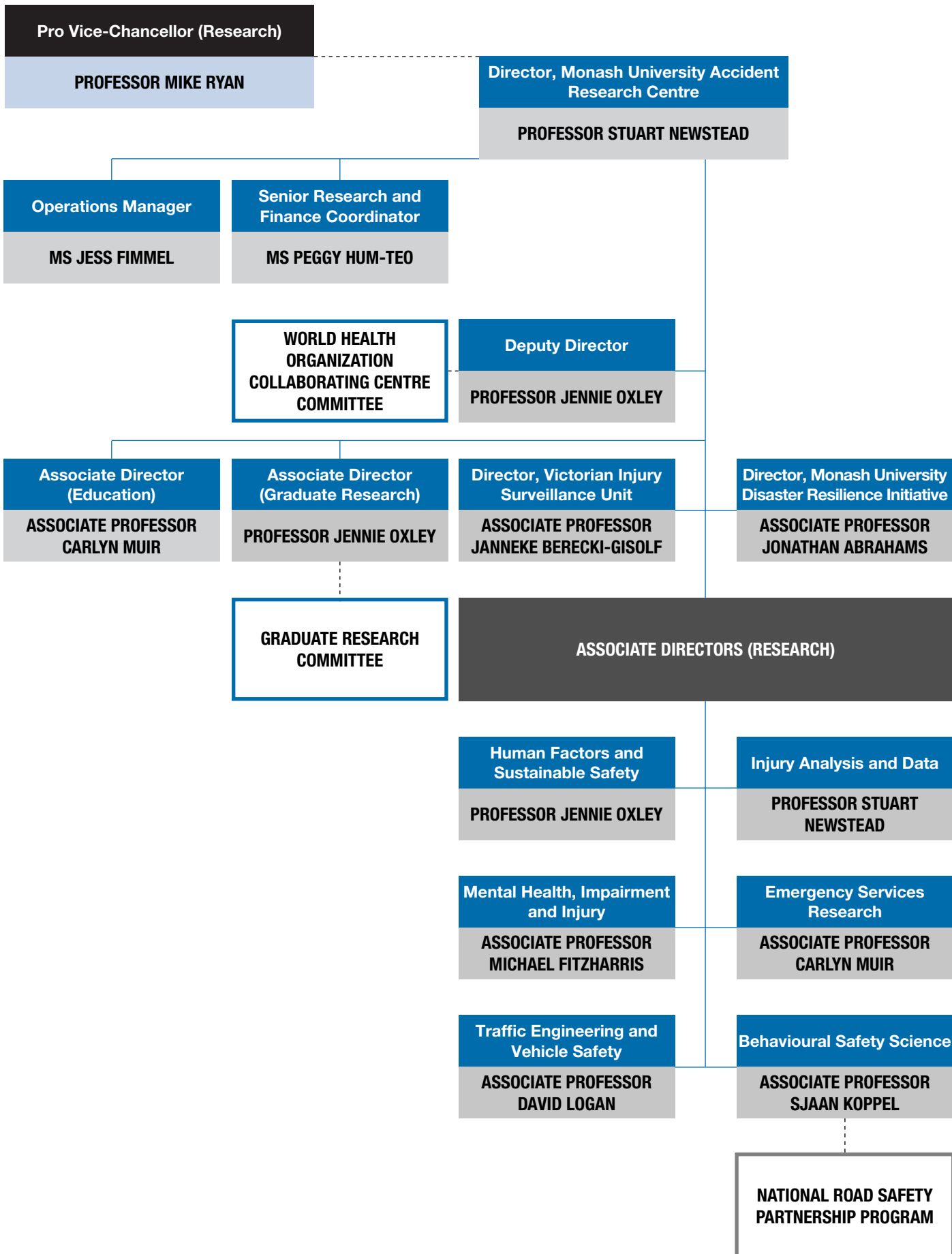
The year ahead is already filled with monthly Wellbeing activities, including the return of the highly anticipated Brick Masters lego team building. Beyond social connection, we encourage our staff to develop their skills further with short course and conference attendance funding available to everyone. I see 2024 as the year we celebrate our successes, be that of our women in research, the achievements of our Emeriti, or our students graduating - there is no greater warmth at work than the feeling of inclusivity and connection when one of our own succeeds.

In 2024, MUARC will continue to have impact and help create thriving communities within Australia and across the globe. Our work will be published in peer-reviewed journals, provide guidance to policy makers, be retold by the media to inform the public and start conversations, and importantly make a difference to lives across the world. As I envision the year ahead for MUARC, I am filled with a profound sense of admiration and gratitude for the privilege of being part of this extraordinary community. Together, we are not merely shaping the future - we are actively crafting a safer, more resilient world for generations to come.

Jessica Fimmel
Operations Manager,
Monash University Accident Research Centre

MUARC

CENTRE MANAGEMENT GROUP



STATEMENT OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST DECEMBER 2023

	Notes	\$000's	\$000's
INCOME			
Research			
Australian Research Council		-	
Commonwealth Government - Others		539	
State and Local Government		1,813	
Competitive Non Commonwealth		-	
Industry Australia		687	
Industry International		74	
Total Research			3,113
Commonwealth Government Research Support Program			1,118
Commercial			1,166
Other income			531
Monash contribution	1		2,994
Total Income			8,922
EXPENDITURE			
Salaries and Related Expenditure		5,121	
Financial and Administration	2	398	
Student Related		120	
Infrastructure Related		84	
Central Support Services – Overhead Costs	1	2,994	
Other Operating Expenditure		966	
Total Expenditure			9,683
NET BALANCE FOR THE YEAR			(761)
OPENING BALANCE AS AT 01 JANUARY 2023			7,116
CLOSING BALANCE AS AT 31 DECEMBER 2023			6,355

Notes:

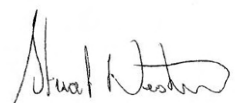
1. The University has provided a transfer of funds to cover the Central Support Services - Overhead Costs
2. Includes payments to consultants
3. We have received \$7,503.86 and expended \$3,600 in MUARC-Donations Fund, consisting of both donations and court fines ordered to be paid to MUARC. The \$3,600 expenditure from court fines was utilized to cover deficits in research fund. Additionally, we have received \$83,802.81 and expended \$155,425 in MUARC-Interest Fund, with the expenditure allocated to student scholarships. These funds are invested in the Non-Capital protected Trust Account (Common Fund). This investment is reported as a non current asset in the 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 2023.



Robert Halim

Manager, Research and Revenue Accounting Services
Office of the Chief Financial Officer and Senior Vice-President



Professor Stuart Newstead

Director
Monash University Accident Research Centre

FURTHER INFORMATION

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 MUARCResearch

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