Conference Abstracts

Updated: 2/12/2019

Abstracts:

"Transport Outcomes Framework (TOF)"

Time: 9:25am **Room:** Chancellor 1
Topic: Economic prosperity **Format:** Keynote

Presented by:

Richard Cross, *Policy Manager, Strategic Policy and Innovation, Ministry of Transport*
Richard is the manager of the Ministry's Strategic Policy and Innovation Team, which is responsible for developing high-level strategy and providing advice on cross-cutting transport issues, as well as developing policies related to new and emerging technologies. Richard has had held various roles in the Ministry working primarily in the aviation sector and on strategic policy issues.

Abstract:

To be supplied at later date for programming

"Using the transport outcomes framework to inform key policy initiatives"

Time: 9:40am **Room:** Chancellor 1
Topic: Economic prosperity **Format:** Keynote

Presented by:
Siobhan Routledge, *Director, Strategy and Investment, Ministry of Transport*

Bryn Gandy, *Deputy Chief Executive – Strategy & Investment, Ministry of Transport*
Bryn Gandy is responsible for advising on the government's overall investment in the transport system including through the National Land Transport Fund, policy on freight and heavy rail, urban development and environment, land transport revenue and funding, demand management, and transport innovation and technology.

Bryn is an experienced public service leader having worked in the defence, health, internal affairs, justice, and social and children's sectors.

Bryn joined the Ministry of Transport from the Ministry of Defence where he was Deputy Chief Executive, Strategy, Governance and People. He led that Ministry's transformation to improve its delivery of long-range strategy and policy advice, and to enable its delivery of a $20 billion capital programme. In prior roles, Bryn has led agency and sector policy and strategy initiatives, including an IPANZ Supreme Award winner for business transformation.

Bryn is committed to developing State sector people and leadership.

He was a public service Leadership Fellow in 2009 and has co-led the design and delivery of award-winning leadership programmes.

Abstract:
The Transport Outcomes Framework (ToF) establishes the groundwork for a strategic approach, by identifying what government is aiming to achieve through the transport system. This presentation will discuss how the ToF is used to inform and shape the Ministry of Transport's key policy projects.

"A Corridor for Wellbeing - the role of rail in the Hamilton-Auckland Corridor"

Time: 10:05am
Room: Chancellor 1
Topic: Inclusive access
Format: Keynote

Presented by:

David Shepherd, *Project Director - Commuter Rail, KiwiRail*
Applicant 1: David has worked with KiwiRail for 18 years in a variety of roles within Interislander, Scenic Trains and Commuter Rail. As the General Manager Metro for TranzMetro he led a team to achieve 93% customer satisfaction and On Time Performance of 95%. Maximising the 'Value of Rail' will necessitate increased provision of regional rail services and David is charged with delivering the Hamilton to Auckland Commuter Rail in mid 2020.

Gareth Fairweather, *Principal Adviser, Ministry of Transport*
As a Principal Adviser in the Ministry's Urban Development and Environment team, Gareth works to raise the profile and significance of transport in the Government's work on urban development, spatial planning and resource management, with a focus on supporting the Government's Urban Growth Agenda.

Abstract:

The Hamilton-Auckland Corridor is New Zealand's most significant transport corridor, connecting two of New Zealand's largest and fastest growing urban areas. Significant growth opportunities are clustered at either end, connected by a series of River Communities and natural, transport, marae and recreational networks. Work to improve the way this 'Corridor for Wellbeing' grows and develops is being taken forward by New Zealand's first urban growth partnership between the Government, local councils and mana whenua.

Central to this work is a recognition of the role of rail in improving access and transport choice, and stimulating growth. Against a backdrop of a fresh focus on the value of rail in New Zealand, this presentation outlines the Government's work to align rail investment with the objectives for the Corridor. It focusses on how the introduction and future evolution of intercity passenger rail will be key to the Corridor's future growth, prosperity and wellbeing.

"Work-related MVTC fatalities in NZ: occupational risks and opportunities to improve workplace road safety"

Time: 11:00am **Room:** Chancellor 1
Topic: Healthy and safe people **Format:** Paper

Presented by:
Rebbecca Lilley, *Senior Research Fellow, University of Otago*
Dr Rebbecca Lilley is a Senior Research Fellow in injury epidemiology at the Injury Prevention Research Unit, Dunedin School of Medicine at the University of Otago. Her current research interests focus on injury-related topics including pre-hospital care and trauma outcomes, access to emergency medical services, work-related injury, and the use of administrative data for injury surveillance. She is currently leading the Work-Related Fatal Injury Study funded by the Health Research Council of New Zealand.

Abstract:
Current priorities and strategies for road safety in New Zealand (NZ) are established without a good understanding of work-related motor vehicle traffic crash (MVTC) deaths. Identification of work-related MVTC has historically been limited by official data sources that lack identifying data on work-relatedness and purpose of journey for both the fatality and other involved vehicles Work-related MVTC cases for the period 2008-2014 involving a vehicle on a public road were identified using Coronial files and were classified as workers, bystanders or commuters. A total of 609 work-related MVTC fatalities occurred on public roads (161 workers, 157 commuters, and 291 bystanders). A considerable number of MVTC fatalities in NZ are work-related in nature indicating there is an opportunity to reduce the road toll through occupational and general road safety measures. To have a meaningful impact on fatalities involving working occupants of vehicles systems level interventions are needed.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C1-1100.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"Social Equity in Transport: Measuring equity using (Auckland) transport models"

Time: 11:00am
Room: Chancellor 2
Topic: Inclusive access
Format: Paper

Presented by:
John Davies, *Auckland Forecasting Centre Manager, Auckland Transport*
John Davies qualified as a civil engineer thirty years ago. He has construction, road design and twenty years of traffic engineering and transportation planning experience. As a specialist traffic and transportation engineer he has worked on a range of projects from traffic impact assessments, metropolitan level demand modelling and research projects, for private and public sectors. John currently manages the Auckland Forecasting Centre, which is responsible for land use and transport model development, regional demand forecasting and providing decision support to transport agencies in Auckland.

Abstract:
Although travel demand models regularly present accessibility and travel cost outputs, We have used the Auckland Macro Strategic Model to bundle a set of measures providing a snap shot of transport equity at a spatial level regionwide. Previously three of the four measures were "standard outputs" of the model but were not directly placed within the context of transport equity. A fourth has been added and all bundled into one theme. The four measures are largely based on public transport accessibility on the basis that car users do not usually suffer any transport related social inequity. The four measures or rules are access to PT services, minimum PT accessibility, accessibility by income groups and spatiality of the distribution. We will present these and show where changes are expected in future, identifying focus areas where levels of social justice are low and PT improvements should be targeted.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C2-1100.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"A national model of the impact of road traffic emissions on local air quality"

Time: 11:00am
Room: Chancellor 4
Topic: Environmental sustainability
Format: Paper

Presented by:
Ian Longley, *Principal Scientist - Air Quality, NIWA*
Ian is currently a Principal Scientist - Air Quality at National Institute of Water and Atmospheric Research (NIWA). Ian leads the programme "Impacts of AIr Pollutants". He has worked in air quality research at NIWA since 2007 before which he conducted research in at the University of Manchester. Ian is a specialist in air pollution exposure science and the air quality impact of the built environment.

Abstract:
The NZTA established a national air quality monitoring network in 2007, with coverage expanded to over 120 sites in 2010. By combining these data with other data from various research and screening campaigns observational data now exists for over 2000 sites. These data clearly indicate that roadside air quality in New Zealand is characterised by strong but highly localised contamination. These data have been used as the basis of a spatial model of long-term average concentrations of pollutants arising from road traffic emissions at the necessary high resolution (10m). The large observational dataset provides an unprecedented opportunity for model validation. The model has been released in the form of highly detailed maps of our major cities. The model has multiples uses, some of which will be covered in this presentation.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C4-1100.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Transport links to wellbeing and liveability*"

Time: 11:00am
Topic: Healthy and safe people
Room: Chancellor 6
Format: Paper

Presented by:
Jo Chang, *Principal Research Analyst, ANZ Transport Agency*
Jo Chang is a Principal Advisor in the Research and Evaluation Team. Jo joined the Agency in October, 2019. Jo comes from a background of undertaking research in human factors, ITS, micro-mobility, road safety and transport planning.

David Rees, *Synergia*

Abstract:
This paper will report on a project funded through the sector research programme. It directly addresses the transport sector's highest-level outcome. Research questions address transport impacts on individual or family wellbeing, how changes in transport affect wellbeing and community liveability, and the impacts of initiatives to change travel behaviours.

The research is innovative for the transport sector in that it combines a literature review with causal maps that link transport activities to improved outcomes for people, households, or communities. Causal maps will allow for teasing out interdependent factors linking different aspects of transport, such as cycling to wellbeing and community liveability. The maps will draw on recent literature and are being tested through stakeholder discussions.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C6-1100**.
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Impact of mandatory alcohol interlock sentencing law*"

Time: 11:20am
Topic: Healthy and safe people
Room: Chancellor 1
Format: Paper

Presented by:
Dylan Thomsen, *Principal Communications Adviser, NZ Automobile Association*
I am part of the AA's advocacy and policy team that acts as a voice for our Members' views and seeks ways that transport can be made better and safer.

Abstract:
The AA Research Foundation commissioned two reports into the first six months of data following alcohol interlocks becoming a mandatory sentence for certain drink drivers in July 2018.

The reports provide figures on what proportion of offenders who meet the criteria for an interlock were sentenced to one in court as well as how many of those sentenced to an interlock went on to the next stage in the system by applying for an interlock licence.

The research investigated whether different locations, offending type, ethnicity and gender had an impact on rates of interlock sentencing and also whether there were barriers reducing the likelihood of an offender completing the sentence as intended.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C1-1120.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Measuring Walking Access to Public Transport*"

Time: 11:20am
Topic: Inclusive access
Room: Chancellor 2
Format: Paper

Presented by:
Danielle Gatland, *Transport Planner, MRCagney*
I am a public transport planner and data scientist at MRCagney, where I bring together analysis and strategic objectives to tell the story of how projects might affect public spaces and travel options for people. I am motivated by the purpose of creating better places for people.

Abstract:
With the aim of improving access to the transport system, the New Zealand Transport Agency (NZTA) is working towards developing national transport access measures. MRCagney worked collaboratively with NZTA to develop and implement a methodology that focused on measuring access to public transport in the major cities of Auckland, Wellington and Christchurch.

The key output identified, for each city, is the proportion of the population within walking distance of frequent public transport. MRCagney created interactive maps to show the areas that do and do not have access to frequent public transport. These maps provide a range of insights, particularly into localised barriers and street geometries that reduce walking catchments for bus stops, and suburbs that do not have access to frequent public transport services at all.

The outputs for these three major cities were well received by NZTA and have been included in their reporting of national transport access measures.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C2-1120.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"Keeping it Real' - Fuel efficiency of New Zealand vehicles."

Time: 11:20am
Topic: Environmental sustainability
Room: Chancellor 4
Format: Paper

Presented by:
Jayne Metcalfe, *Senior Technical Specialist, Emission Impossible Ltd*
Jayne is a Director and Senior Air Quality Specialist at Emission Impossible Ltd, an air quality consultancy in Auckland. Jayne has degrees in chemical engineering and over 20 years' experience in air quality, including 13 years as an independent consultant and 9 years at the Auckland Regional Council. Jayne has been involved in vehicle emissions management, research and modelling for most of her career.

Abstract:
Research overseas has found that vehicles consume more fuel and emit more pollution under real-world driving conditions than their official "type-approval" values but the gap depends on the vehicles and local conditions. This presentation summarises finding from two recent real-world projects undertaken in New Zealand.

In the first, the NZ Transport Agency funded the development of a portable emissions monitoring system (PEMS) to test vehicles under typical New Zealand driving conditions. Thirty four vehicles, covering different duties, years of manufacture and countries of origin were tested in Auckland in early 2018.

The results were then used in an NZ Automobile Association research project to model the gap in real-world fuel consumption for the New Zealand light fleet.

The results suggest that, despite reported improvements in official fuel efficiency, there has been no actual improvement in the real-world fuel efficiency of light vehicles entering the fleet in the past decade.

Non-Presenting Authors:
Gerda Kushal, *Senior Technical Specialist, Emission Impossible Ltd*
Peter King, *Policy Research Manager, New Zealand Automobiel Association Inc*

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C4-1120.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Community exposure to noise from transport infrastructure*"

Time: 11:20am
Topic: Healthy and safe people
Room: Chancellor 6
Format: Paper

Presented by:

Darran Humpheson, *Senior Acoustics Specialist, Tonkin & Taylor Ltd*
Darran has 27 years' experience as an acoustic consultant. He started his career working for the UK Ministry of Defence working with the Royal Air Force as an aviation noise specialist. After 11 years, Darran moved on to private consultancy where he has been involved in a variety of projects ranging from transportation, commercial, infrastructure and providing advice and guidance to national and local governments. He has also been involved in a number of research projects assessing community response to different sources of transportation noise.

Michael Allan, *Applicant 1: Acoustics Team Leader - New Zealand, AECOM*
Michael is a noise and vibration engineer with more than 15 years experience working on complex transport infrastructure projects. He has gained diverse experience in airborne noise, ground-borne noise, and vibration across all modes of transport infrastructure.

Key recent infrastructure projects Michael has worked on include includes the Auckland City Rail Link, Melbourne Metro, WestConnex, Pacific and Princes Highway Upgrades, Level Crossing Removal Project, Singapore Circle Line Stage 6, Jakarta North-South MRT, Sydney Metro, Canberra Light Rail, Gold Coast Light Rail Stage 2, and the Epping to Chatswood Rail Line.

Abstract:

The World Health Organisation's Environmental Noise Guidelines identify that noise is one of the most important environmental risks to health, and a growing concern amongst the public. Through a range of detailed studies, sufficient evidence is available to quantify the burden of disease from environmental noise for cardiovascular disease, cognitive impairment in children, sleep disturbance, and annoyance.

AECOM in collaboration with New Zealand Transport Agency undertook a noise mapping exercise for all of New Zealand. The study has produced a quantitate estimation of population noise exposures for discrete regions throughout the country.

Another study commissioned by the NZTA explored the levels of annoyance experienced by three Auckland communities. The study examined people's reactions to prevailing levels of noise along existing transport routes. The findings suggest that New Zealanders are less tolerant of transport noise than other places, where similar studies have been conducted.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C6-1120.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Predicting Crashes from Harsh Braking*"

Time: 11:40am
Topic: Healthy and safe people
Room: Chancellor 1
Format: Paper

Presented by:
Gareth Robins, *Director of Analytics, EROAD*
Gareth Robins is the Director of Analytics at EROAD, his work focuses on the use of GPS data to fuel a new wave of transportation research from dynamic risk modelling and crash prediction to fair cost allocation of maintenance funds and performance measures.

Gareth has lived the analytics life for 15 years and has worked in New Zealand, Australia, and the United States. Gareth is a member of the US Transportation Research Board and an active participant in the Freight Transportation Data and Trucking Research committees, and the PACTRANS Technology Transfer committee.

Abstract:
A key component of Vision Zero is identifying and understanding the user attributes that contribute to the incidence of deaths and serious injury in road crashes. As traditional observational methods reach their limits, results should inevitably stagnate, and we have to look toward new techniques to address a large number of traffic-related crashes.

In this study, we used several geospatial and machine learning techniques to determine the similarities between crashes from the CAS dataset and vehicle's harsh-braking from EROAD, a regulatory telematics company. When applied to the New Zealand road network, results in a targeted list of locations that may be susceptible to experiencing crashes.

By utilising this approach, road-controlling-authorities can test the efficacy of their interventions through a faster feedback loop, experimenting with more cost-effective solutions.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C1-1140.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Reducing transport disadvantages: Insights from investigating a scheme to make public transport more affordable*"

Time: 11:40am
Topic: Inclusive access
Room: Chancellor 2
Format: Paper

Presented by:

Nick Potter, *Senior Adviser, Strategic Policy and Innovation, Ministry of Transport*
Nick's role at the Ministry of Transport focuses on strategy and foresight. He led the development of the transport outcomes framework in 2018, and previously led the writing of the Public Transport 2045 scenarios. He is currently involved in cross-government work to reduce transport emissions. In 2019, Nick led an investigation with government agencies and councils to reduce the costs of public transport for low-income households. He will be sharing some insights from that investigation at the conference.

Abstract:

Extensive international research shows that people who lack affordable access to transport experience 'transport disadvantages'. They have more difficulty accessing goods, services, and opportunities that are available to others, which are fundamental for well-being and participating in society. To deliver the outcome of 'Inclusive Access', we need to address the needs of transport disadvantaged communities.

In 2019, the Ministry of Transport collaborated with other government agencies and councils to investigate a scheme to make public transport more affordable for Community Services Card holders. We explored the links between transport affordability and well-being, and developed some innovative modelling. This presentation will highlight some key insights from the investigation. It will also highlight a need for more research on transport-disadvantaged communities in New Zealand.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C2-1140.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Real-world fuel economy of heavy trucks*"

Time: 11:40am
Topic: Environmental sustainability
Room: Chancellor 4
Format: Paper

Presented by:
Haobo Wang, *Principal Data Analyst,*
Haobo obtained PhD in Environmental Science in 2002 from the University of Auckland. He joined the Ministry of Transport in 2007. The main areas he has been working at MoT include research and modelling on transport emissions and fuel consumption, air travel modelling, and vehicle fleet statistics. He has published more than ten research papers in international journals and presented at a number of international conferences.

Abstract:
Heavy trucks emit nearly a quarter of road transport's CO2 emissions and their emissions are expected to become more important due to their lower rate of electrification. A better understanding of their real-world fuel economy is key to estimating their emissions. We analyse emissions using litres per km or per tonne-km; the latter is more useful for estimating emission savings of shifting road freight to other modes.

This study analysed datasets from EROAD, which included fuel use and travel for different weights of truck. We have estimated fuel economy against trucks' age and weight band. We have also estimated an average load factor for different weight classes using weigh-in-motion data and explored a new approach to estimating fuel economy in terms of L/tonne-km. We will also present what we believe are New Zealand's first comparable estimates of heavy truck, rail, and coastal shipping emissions per tonne-kilometre.

Non-Presenting Authors:
Iain McGlinchy, *Principal Analyst,*
Ralph Samuelson, *Principal Analyst, Interim Climate Change Committee*

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C4-1140.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"Healthy Future Mobility"

Time: 11:40am
Topic: Healthy and safe people
Room: Chancellor 6
Format: Paper

Presented by:

Hamish Mackie, *Director, Mackie Research*

Hamish is co-director of Mackie Research and has 22 years of research and consultancy experience in various areas of human factors and ergonomics, with the last 14 years spent mostly in the transport sector. As a certified Human Factors professional, all of Hamish's work has the underlying theme of more human focused systems and he has a particular focus on road safety and sustainable transport.

Abstract:

While future transport pathways are uncertain, there are immediate, achievable opportunities that could be seized to maximise personal, social, economic, and environmental well-being, to create more equitable outcomes for New Zealanders. Healthy Future Mobility was a research programme funded by the Ministry of Business, Innovation and Employment (MBIE) set up in response to these issues. The aim was to explore better ways of moving around cities and towns, with particular attention to solutions that are good for health. The programme included four interconnected strands of research: Shaping Cities for Youth; Active School Travel; Future of the Bike; and Growing Niche Innovations. The research was highly connected with stakeholders who have responsibility for planning and delivering New Zealand's urban transport and land use systems. Finally, a synthesis workstream identified the most promising opportunities for healthy future mobility. This presentation will outline the programme, key research outcomes, and implications for transport investment.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C6-1140.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Modelling New Zealand Road Deaths & Hospitalisations*"

Time: 12:00pm
Topic: Healthy and safe people
Room: Chancellor 1
Format: Paper

Presented by:

Ernest Albuquerque, *Principal Advisor, NZTA*
Ernie is a Principal Advisor in the Research and Evaluation Team. Ernest has been with the Agency since 2006.

Colin Morrison, *Principal Advisor, NZTA*
Since joining LTSA in 2001, Colin has built relationships with key partners in road safety, strengthening a collaborative approach to data and research, producing specialist reports and leading in how analysis is applied across the Agency through investment, strategy, policy and programmes. Current work includes the development of a macro level integrated road safety intervention logic model.

Abstract:

New Zealand is developing an integrated road safety intervention logic model. This paper describes a core component of this wider strategic research: a baseline model that extrapolates New Zealand road deaths to 2025. The baseline will provide context to what the NZ Transport Agency is trying to achieve.

Several time-series models were investigated; these produced a range of forecasts of road deaths in the New Zealand context.

In the final modelling an Autoregressive integrated moving average (ARIMA) model and two differing autoregressive distributed lag (ARDL) models were developed. A preferred model was identified and used to forecast.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C1-1200.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*The determinants of used car prices in New Zealand*"

Time: 12:00pm **Room:** Chancellor 2
Topic: Inclusive access **Format:** Paper

Presented by:
Bryce Hartell, *Adviser, Ministry of Transport*
An adviser in the economics team at the Ministry of Transport. Previously worked as an analyst at Statistics New Zealand, and as a Senior Lecturer at the Ara Institute of Canterbury (formerly known as the Christchurch Polytechnic Institute of Technology).

Abstract:
The Ministry of Transport works on a range of policies that have the potential to impact the supply, demand, and subsequently price, of both new and used vehicles. To better understand some of these market forces, we examine a large sample of used car listings and, using multiple regression analysis, identify and quantify the vehicle characteristics that influence the market price.

Non-Presenting Authors:
Danny Tsai, *Senior Data Analyst, Ministry of Transport*
Sina Mashinchi, *Adviser, Ministry of Transport*

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C2-1200.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"Long, Linear and Important: Land Transport Corridors as Biodiversity Assets"

Time: 12:00pm
Topic: Environmental sustainability
Room: Chancellor 4
Format: Paper

Presented by:

Carol Bannock, *Environmental Specialist, NZTA*

Carol Bannock is a terrestrial ecologist with over sixteen years of experience working on highway projects, both road construction and operation and maintenance contracts. She now works as a senior environmental specialist with the New Zealand Transport Agency. Carol is passionate about road ecology, with particular interest in managing negative ecological effects and seeking ways to manage road corridors to benefit indigenous biodiversity.

Abstract:

New Zealand's indigenous biodiversity is declining. While the land transport sector affects biodiversity and strives to manage its negative effects there are also strong opportunities for New Zealand's land transport network to become an important national biodiversity asset. By recognising and maintaining and/or enhancing indigenous biodiversity values within the transport corridor we can contribute to the wellbeing and liveability of people and other species. This directly connects and supports the environmental and sustainability outcome of the Transport Outcome Framework. This presentation shall discuss why our long, linear transport corridors are so important to biodiversity, how they can be managed to support biodiversity values while contributing to the well-being of people and what we need in order to do this. It touches on challenges and overseas experiences and provides examples of how improving biodiversity can be considered in planning and designing new assets and introduced into the existing network.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C4-1200.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*National walking and cycling trends*"

Time: 12:00pm **Room:** Chancellor 6
Topic: Inclusive access **Format:** Paper

Presented by:

Claire Pascoe, *Lead Advisor Urban Mobility, NZTA*

Claire Pascoe is the Lead Advisor Urban Mobility at the New Zealand Transport Agency. She provides technical expertise and leadership in how to provide people with genuine options for getting around our towns and cities and make them healthier places to be

Abstract:

The NZ Transport Agency is able to tell some new stories about walking and cycling in New Zealand, with its recently built national dashboard collating data from counters all around the country. This session will present some of the insights into trends over the last few years, regional comparisons and what we can tell so far about our significant increase in investment. It will also include a summary of results from our national attitudes and perceptions survey, to identify what people have been feeling, as well as doing.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C6-1200.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"NZTA presents new (bilingual) child restraint installation video resources"

Time: 12:20pm
Topic: Healthy and safe people
Room: Chancellor 3
Format: Poster

Presented by:
Craig Waterworth, *Senior Education Advisor, NZTA*
I work as a senior education advisor at NZTA, focused on the areas of child restraints, senior driver safety and medication related substance impairment. My professional background is in adult education, health promotion and public health nursing, and I have a Masters degree in social research methods. I am passionate about reducing the rate of deaths and serious injuries on Aotearoa/New Zealand roads, and tackling inequalities. I have worked in a broad range of settings including higher education, public health and occupational health. I'm also a science fiction and fantasy fan, and I love being creative in my free time.

Abstract:
On average more than 1 child under the age of 14 dies every month as a car passenger on our roads. The correct installation of child restraints plays a critical role in preventing the deaths and serious injuries of children. Around 90% of parents use child restraints, but around 80% are not installed correctly. Child restraints can be challenging to install, and parents/carers have many questions around the correct use of child restraints. NZTA, in partnership with the child restraint technician group, has created a series of online videos which demonstrate correct installation techniques and answer commonly asked questions. Most of these videos are presented bilingually in Te Reo, and subtitles are also provided. This poster explains how to use the videos and promotes awareness and use of these freely available online resources with the aim of increasing road safety for pēpi and tamaraki.

Remember! You can vote for this Poster via Sli.do. This is **Poster #1**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Reporting on the new NZ Transport Outcomes Framework*"

Time: 12:20pm
Topic: Inclusive access
Room: Chancellor 3
Format: Poster

Presented by:

Judy Li, *Principal Adviser, Ministry of Transport*

Judy Li is a Principal Advisor Evaluation at Ministry of Transport. With a background in public health, she has extensive experience in programme and policy evaluation. Her current projects include the development of Transport Outcomes Framework indicators and the performance and outcomes framework for the new road safety strategy.

Kirill Kruger, *Adviser, Ministry of Transport*

Kirill Kruger is an Adviser with the Ministry of Transport's Strategic Policy and Innovation team, which works to help shape the future of the New Zealand transport system. His recent work includes the indicators for the Transport Outcomes Framework and a vision for drone integration in New Zealand.

Abstract:

The Ministry of Transport released its Transport Outcomes Framework at last year's Transport Knowledge Conference. As part of the wider implementation work, the Ministry has been working to develop a robust set of indicators to track the state and performance of the New Zealand transport system. This has involved ongoing engagement with internal and external stakeholders, and desk research of international and national research. The final set of 37 indicators is multi-modal (road, rail, maritime, aviation, public transport, active modes) and includes between 4 and 10 indicators for each of the five outcomes. The indicators will be introduced in phases based on data availability, with 31 expected to be reported on in 2018/19 (for at least some modes). This poster presents the final set of indicators and outlines the Ministry's next steps as we move into implementation including development of the first online report (to be released early 2020).

Non-Presenting Authors:

Jane Godfrey, *Senior Adviser Evaluation, Ministry of Transport*

Remember! You can vote for this Poster via Sli.do. This is **Poster #2**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function

"Reporting on the Government Policy Statement (GPS) on land transport 2018"

Time: 12:20pm **Room:** Chancellor 3
Topic: Economic prosperity **Format:** Poster

Presented by:

Jane Godfrey, *Senior Adviser Evaluation, Ministry of Transport*

Jane has been at the Ministry of Transport since January 2018 where she has worked on evaluations of the graduated driver licensing system and the Public Transport Operating Model, and the development of performance metrics and reporting frameworks for both the Government Policy Statement (GPS) on land transport 2018 and the Transport Outcomes Framework. She has a PhD in tourism sociology from the University of Technology Sydney and is completing a graduate certificate in evaluation at the University of Melbourne.

Danielle Bassan, *Senior Adviser Investment, Ministry of Transport*

Danielle is a Senior Adviser in the Investment team in the Ministry of Transport, focusing on strengthening reporting on the Government Policy on Land Transport (GPS) and developing GPS 2021. Danielle has previously worked across the public and private sector to improve public services within the UK, most recently having worked as a Senior Adviser within the Infrastructure and Projects Authority. Her role included working on the National Infrastructure and Construction Pipeline, and improving business case assessment of infrastructure domestically and through the G20.

Abstract:

GPS 2018 was released in June 2018 with a set of draft measures developed around the 33 short-term results the Government expects to see within 3-6 years. Since then, the Ministry has worked with relevant agencies to develop and refine these measures, including how new data sources will be incorporated as they become available. This has been particularly important around developing and identifying measures for aspects of GPS 2018 that historically have not been well captured and/or reported on (e.g. accessibility, environmental impacts). The final set of 82 measures – a combination of input, output and outcome measures – will form the basis of the Ministry's GPS reporting going forward. This poster presents the final GPS 2018 measures and outlines the Ministry's next steps as we move into the implementation stage including development of the first annual report (to be released early 2020).

Remember! You can vote for this Poster via Sli.do. This is **Poster #3**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Measurement and modelling of local walkability*"

Time: 12:20pm **Room:** Chancellor 3
Topic: Inclusive access **Format:** Poster

Presented by:
Shrividya Ravi, *Senior Data Analyst, Ministry of Transport*
Shrividya is a Senior Data Analyst with the Ministry of Transport. She has previously worked in academia, tech startups and consulting. A believer in the power of data and algorithms, she is committed to leveraging them towards better services for the public good. Shrividya is a strong proponent of building with open data and open source software and is a proud member of various FOSS movements.

Abstract:
The convenience of the built environment is key to enabling active transport modes like walking. The 'walkability' due to the built environment can be measured objectively with metrics like 'closeness to amenities' (jobs, schools, cafes etc.) The popular metric, Walkscore, approximates closeness with distances appropriate for pedestrian mobility. However, in hilly cities like Wellington, a better representation of closeness is travel time.

This analysis examines a simple approximation of walkability in Wellington: travel time to council playgrounds. Playgrounds are located for accessibility by the local population - making them an ideal public amenity that should encourage visits by active transport. A 2015 survey by Wellington City Council found that 41% of trips to playgrounds are made on foot. However, our statistical modelling shows that the hilly topography of many Wellington suburbs is a limiting factor for converting more playground trips to walking.

Remember! You can vote for this Poster via Sli.do. This is **Poster #4**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"EV Tourism in Regional New Zealand: What do we need to know?"

Time: 12:20pm
Topic: Environmental sustainability
Room: Chancellor 3
Format: Poster

Presented by:

Helen Fitt, *Postdoctoral Fellow, Lincoln University*

Helen is currently a postdoctoral fellow working at Lincoln University's Centre for Excellence in Sustainable Tourism. Helen is interested in the influence that transport technologies have on social and cultural aspects of mobility. Her current key project explores the current and potential use of electric vehicles in regional tourism. Previous research has included a project focused on the implications of automated vehicles for older people and ageing populations, a project exploring emerging use of electric scooters, and a project considering how social meanings (including stereotypes and social norms) influence transport practices

Shannon Page, *Lecturer, Lincoln University*

Abstract:

Electric vehicles (EVs) are increasingly popular and have been the focus of recent government policy initiatives. Tourism provides a particularly fascinating case study for a transition to EVs but has been the subject of little EV research. This poster connects with all five core outcomes of the Transport Outcomes Framework. EVs offer potential for greater environmental sustainability and reductions in harmful pollution, however, tourism's geographic dispersal and highly differentiated peaks and troughs in demand create challenges for infrastructural resilience. Simultaneously, changes in tourist travel behaviour, due to vehicle charging requirements, have potential to impact regional economic prosperity; while unequal access to EVs and charging facilities could influence the distribution of costs and benefits from a shift to EVs. This interactive poster raises important questions about the electrification of tourism transport and asks the audience to identify the key dynamics we need to understand to facilitate an effective transition.

Remember! You can vote for this Poster via Sli.do. This is **Poster #5**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Transport technologies: Attitudes from people in the New Zealand Household Travel Survey*"

Time: 12:20pm **Room:** Chancellor 3
Topic: Inclusive access **Format:** Poster

Presented by:
Jennifer McSaveney, *Adviser, Ministry of Transport*
I have been a scientist at the Ministry of Transport since 2008. My areas of interest include the New Zealand Household Travel Survey, road safety, surveying, and transport and society.

Abstract:
People's attitudes affect their travel patterns choices and vice versa. As follow up from the Household Travel Survey, in November 2018 we surveyed 731 people on their attitudes and recent experiences around a range of transport technologies such as self driving cars, e-scooters and passenger drones. This poster presents some of the high level results.

Results from earlier transport technology attitudes surveys in 2016 and 2017 are available at:

https://www.transport.govt.nz/mot-resources/household-travel-survey/panels/attitudes-to-transport-technologies/

Non-Presenting Authors:
Sina Mashinchi, *Adviser, Ministry of Transport*

Remember! You can vote for this Poster via Sli.do. This is **Poster #6**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Women's Cycling Workshops: building inclusive, liveable communities, one new cyclist at a time.*"

Time: 12:20pm **Room:** Chancellor 3
Topic: Inclusive access **Format:** Poster

Presented by:
Tessa Coppard, *Pedal Ready Coordinator, Greater Wellington Regional Council*
As part of the Travel Choice team at GWRC I coordinate the Pedal Ready programme, working in schools across the Wellington region. Pedal Ready also delivers cycle skills for adults at community events and in workplaces. I am also the coordinator for ReBicycle Ekerua, a registered charity upcycling donated bikes and distributing them to anyone in need.

Abstract:
With the help of non-profit agencies and Greater Wellington councils, former refugee and migrant women are getting on bikes for the first time to increase their transport options.

ReBicyle Ekerua who "upcycle" donated second-hand bikes, and Wellington Accessible Cycle Care who teach bike mechanic skills teamed up with Greater Wellington Regional Council to encourage women to learn to cycle, and give them access to their own set of wheels.

ReBicycle Ekerua has fixed up and given away over 800 bikes, providing people new to New Zealand or on low incomes with a cheap and accessible form of transport. Women from other cultures often haven't had the opportunity to ride a bike. The workshops aim to empower them and help them integrate into the Kiwi way of life. The free workshops were run from August to November 2019 in Newtown and Naenae.

Remember! You can vote for this Poster via Sli.do. This is **Poster #8**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*The importance of the local school environment in encouraging healthy school travel*"

Time: 12:20pm
Topic: Inclusive access
Room: Chancellor 3
Format: Poster

Presented by:
Emma McCone, *Graduate Adviser, Ministry of Transport*
I am a new Graduate Adviser at the Ministry of Transport, currently working in the Demand Management and Revenue team. I started almost immediately after submitting my Master of Science thesis, majoring in Geography at the University of Canterbury. My thesis explored the relationship between active school travel and the built environment, furthering my interest in the broad determinants of transport mode choice. I'm interested in the external influences and outcomes related to transport, in particular minority groups, such as woman's experience in the transport environment.

Abstract:
School travel is a major aspect of a young person's everyday activity. The relationship between the built environment that youth experience on their way to and from school, influences a number of factors including their development, health and wellbeing.

This study focusses on the community of Aranui, a relatively low income suburb in Christchurch. It pays particular attention to Haeata Community Campus, a state school opened in 2017 following the closure of local schools after the Christchurch earthquakes,

This research explores the importance of the local environment in encouraging active school travel. Geospatial analysis, survey software Maptionnaire, and statistical models are combined to examine the local environment and travel behaviour.

Key findings suggest that distance to school and parental control are the most significant predictors of active transport in the study sample. To see increased active transport uptake, the built environment should be walkable and safe, with accessible cycling infrastructure.

Remember! You can vote for this Poster via Sli.do. This is **Poster #7**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Transport practices, mobility needs and cessation planning: New Zealand Prospective Older Adult Transport and Health Study (NZPATHS)*"

Time: 12:20pm
Topic: Healthy and safe people
Room: Chancellor 3
Format: Poster

Presented by:

Rebecca Brookland, *Senior Research Fellow, University of Otago*

Rebecca Brookland is a Senior Research Fellow, Department of Preventive and Social Medicine, University of Otago. She specialises in transport, mobility and health research with a focus on applied research to improve public health through the provision of accessible, safe and sustainable transport. Dr Brookland's main research areas are road safety and access, driver licence and transport policy, and injury epidemiology. She is Principal Investigator of NZPATHS (New Zealand Prospective Older Adult Transport and Health Study: HRC, 2018-2022), and a co-investigator on several young driver projects.

Helen Owen, *Assistant Research Fellow, University of Otago*

I am early career public health researcher, working in the Department of Preventive and Social Medicine in both Assistant Research Fellow and Post-doctoral Fellow roles. Since completing a PhD in Psychology in December 2016, I have undertaken projects on human factors, strategic management in general practices, and perceptions of integrated care and staff experiences of health care providers. More recently, I am the Assistant Research Fellow/Study Coordinator of the Prospective Older Adult Transport and Health Study (NZPATHS), supervised by Dr Rebecca Brookland (PI). I am exploring older adults' driving behaviour, cessation planning, mobility and health.

Abstract:

The NZ Prospective Older Adult Transport and Health Study (NZPATHS) is a prospective cohort study of 1181 older drivers and 675 family members, recruited and interviewed in 2016-17 (baseline), with two follow-ups (2019, 2021). At baseline, older drivers (15% Māori, 65-96 years, 47% women) reported their current transport practices and planning for driving cessation. Regardless of trip purpose, driver age or gender, the private car was the usual transport mode, with 94% using a private car at least weekly. Almost half of drivers had not thought about the possibility of driving cessation; 43% had considered it but made no plans; and 10% had plans. Along with an ageing population, NZ has a rapidly increasing older driver population, and programmes and services that encourage older drivers to use other transport modes need to be developed, so older adults can continue to meet their transport needs should they stop driving.

Funding: NZ Health Research Council (HRC15/261: HRC18/345)

Non-Presenting Authors:

Jennie Connor, *Chair in Preventive and Social Medicine, University of Otago*
Ngaire Kerse, *Professor of General Practice and Primary Care, University of Auckland*
Dr Joanne Taylor, *Senior Lecturer, School of Psychology, Massey University*
Dr Sue Crengle, *Associate Professor, University of Otago*
Professor Jean Shope, *Professor Emerita, University of Michigan*
Dr Claire Cameron, *Senior Research Fellow, University of Otago*
Dr Ari Samaranayaka, *Senior Research Fellow, University of Otago*
Professor Martin Connolly, *Professor, University of Auckland*

Remember! You can vote for this Poster via Sli.do. This is **Poster #10**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Assessing the impact of gross emitting vehicles*"

Time: 12:20pm
Topic: Environmental Sustainability
Room: Chancellor 3
Format: Poster

Presented by:

Sharon Atkins, *Principal Environmental Specialist, NZTA*

Sharon is a Principal Environmental Specialist at the New Zealand Transport Agency. She is an environmental scientist and Certified Air Quality Professional with over 20 years of experience working in the UK and NZ in the field of environmental management, in particular air quality and noise. She is currently chair of the Transport Knowledge Hub Environment -Emissions Group and committee member of the Transport Special Interest Group of the Clean Air Society of Australia and NZ.

Abstract:

"Road-side vehicle emission monitoring using a remote sensing device (RSD) technology is recognised internationally as a useful, cost-effective method of collecting large amounts of real-world vehicle emission data. Since 2003 there have been five RSD campaigns in New Zealand, the last campaign undertaken in Auckland in 2015. At present, there are 120,000+ data points in the RSD database; this project analyses the 2015 data, which has about 40,000 valid vehicle emission measurements. Integrating the information from the RSD database on gross emitting vehicles with data contained in the Motor Vehicle Register (including vehicle age, mileage, engine size, and emissions control), provides a powerful analysis tool. This allows us to investigate:

- How many gross emitting vehicles are there likely to be in New Zealand?
- How long do they stay in the vehicle fleet?
- How far do they travel each year?
- What is their impact on total emissions?"

Remember! You can vote for this Poster via Sli.do. This is **Poster #9**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"What if transport was an urgent public health matter?"

Time: 1:35pm
Topic: Healthy and safe people
Room: Chancellor 1
Format: Keynote

Presented by:
Alistair Woodward, *Professor of Epidemiology and Biostatistics, University of Auckland*
I am a public health researcher, a medical specialist, with broad interests in transport and health. I have worked on causes and control of road crash injury, health effects of active transport, the future of the bicycle, the effects of re-designing suburban streets on safety and travel mode, and the co-benefits of low carbon policies.

Abstract:
High-level strategy and planning documents are unambiguous. Transport is an urgent public health matter – the GPS 2018-2022 says, for example "Reversing New Zealand's current trauma trends requires a transport system that is designed for people, and one that considers their safety as the top priority". But does transport really prioritise health in this way? We compare decision-making in the land transport and health sectors, point to critical differences in the levels at which decisions are taken and the ways in which public consultation is framed, and conclude that health and safety on the road requires a national approach akin to health and safety in the workplace.

"*Evaluation of the New Zealand Graduated Driver Licensing System*"

Time: 2:00pm
Topic: Healthy and safe people
Room: Chancellor 1
Format: Paper

Presented by:
Aaron Schiff, *Director, Schiff Consulting*
Aaron Schiff is an independent economist and data scientist. He uses data analysis and visualisation, statistical models and economics to help government and private sector clients with policy and business problems. He has a PhD in economics from the University of Auckland and 15 years of experience as a consultant.

Jane Godfrey, *Senior Adviser Evaluation, Ministry of Transport*
Jane has been at the Ministry of Transport since January 2018 where she has worked on evaluations of the graduated driver licensing system and the Public Transport Operating Model, and the development of performance metrics and reporting frameworks for both the Government Policy Statement (GPS) on land transport 2018 and the Transport Outcomes Framework. She has a PhD in tourism sociology from the University of Technology Sydney and is completing a graduate certificate in evaluation at the University of Melbourne.

Abstract:
In 1987, New Zealand introduced a graduated driver licensing system (GDLS) to improve the safety of young (novice) drivers. Since then, there have been several rounds of changes to the GDLS however these have not been systematically evaluated. In 2018 the Ministry commissioned Aaron Schiff of Schiff Consulting to evaluate (1) the effectiveness of the current licensing system for both Class 1 drivers and Class 6 motorcyclists, and, (2) the impact of recent changes to the system, including rebalancing the penalties regime for licensing breaches in 2009, increasing the minimum age for obtaining a learner licence from 15 to 16 years in 2011, strengthening the restricted test in 2012, and the introduction of the Competency Based Training and Assessment system for obtaining restricted and full motorcycle licences in 2012. This presentation outlines the findings from this evaluation and the Ministry's next steps.

Non-Presenting Authors:
Matthew Stone, *Adviser, Mobility & Safety, Ministry of Transport*

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C1-200.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Understanding barriers to accessing social and economic opportunities in Aotearoa*"

Time: 2:00pm
Topic: Inclusive access
Room: Chancellor 2
Format: Paper

Presented by:

Kane Swift, *Adviser - Economics, Ministry of Transport*
Kane is an adviser in the Ministry of Transport's Economics team where his main work includes vehicle emissions, transport revenue and investment, and access.

Anna Jackson, *Principal Advisor, NZTA*
Anna Jackson built her career in customer insight in the UK, working both in research agencies and clientside insight functions, before moving to New Zealand and into the public sector. She joined the New Zealand Transport Agency in 2018 where she is a Principal Advisor in the Insight and Performance team.

Abstract:
The Ministry of Transport undertook a project to investigate what access is and why it is important, which informed the Transport Outcomes Framework's definition of inclusive as "Enabling all people to participate in society through access to social and economic opportunities such as work, education and healthcare". The projects other ideas were that access can be provided via transport, land-use and digital connectivity, but that providing infrastructure itself is not always enough as there can be financial, knowledge and psychological barriers to access. It also views access as being linked to the other transport outcomes, transport poverty, physical and mental wellbeing, however there needs to be more work done on how the Ministry quantifies and values access in order to properly incorporate impacts on access into policy development.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C2-200.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Inter-island Resilient Connection Project (iReX)*"

Time: 2:00pm **Room:** Chancellor 4
Topic: Economic prosperity **Format:** Paper

Presented by:

Mark Stocks, *iReX Integration Manager, KiwiRail*

I am the Integration Manager in the iReX project ensuring that the main work streams are integrated into the rest of the KiwiRail business. I have a background in civil engineer and previous worked as the Tunnels Design Manager for the NCTIR project.

Abstract:

The Cook Straight ferry services are a continuation of the both SH1 and the main trunk rail line, connecting our communities and supporting our economy. To ensure this ongoing link KiwiRail is purchasing two new large rail enabled ships to replace its aging fleet. To enable the larger capacity ships the project also includes updating the terminals at Wellington and Picton as well as wider transport improvements. The purpose of the project is to "Transform Cook Straight assets and operations to provide Great Journeys and secure freight connection for a Better NZ". The project is currently carrying out preliminary designs and is focused on delivering resilient and effective ships, terminals, systems and associated infrastructure that enable reliable on-timer performance, positive environmental, economic and commercial outcome, and unlocking a better customer experience for the future.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C4-200.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Update of the National Freight Demands Study*"

Time: 2:00pm **Room:** Chancellor 6
Topic: Economic prosperity **Format:** Paper

Presented by:

Richard Paling, *Director, Richard Paling Consulting*
Transport economist with almost 40 years involvement in the analysis, planning and economic and financial evaluation of transport projects and business case development. This covers almost all modes of public and private transport and combines experience in New Zealand, the UK and overseas to provide the background for comprehensive assessment of scheme impacts. Has undertaken the development and application of innovative approaches to transport planning and assessment in a number of areas including freight and economic development,

Murray King, *Director, Murray King & Francis Small Consultancy*
Based in Wellington, Murray is an independent consultant specialising in transport. He has had nearly 50 years' experience in land transport, including rail, ferries, trucking, and buses. He is particularly interested in rail and road law, economics, freight movements, safety, heritage, and environmental impact. He was one of the authors of the 2008, 2014, and 2019 *National Freight Demand Studies*, and of a number of other reports on transport, particularly freight.

Abstract:

It is becoming increasingly recognised that the results of the NFDS undertaken for 2014 are becoming outdated with the growth of the freight sector and the changes in transport patterns that have resulted both as the industry has developed and in response to major events like the Kaikoura earthquake. As a result the MoT commissioned an update covering the period from 2017/18. This is now designed to be an input into the MoT Freight model and so is in a slightly different form to earlier NFDSs. IN addition to updating the earlier work, the opportunity was taken to investigate the use of GPS data supplied by EROAD for this project. A series of forecasts was also undertaken for a number of supply driven commodities. The presentation will set out the main findings from this work,

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C6-200.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Rangatahi Māori perspectives on and experiences with Graduated Driver Licensing in New Zealand*"

Time: 2:20pm
Topic: Inclusive access
Room: Chancellor 1
Format: Paper

Presented by:
Vanessa Beanland, *Senior Lecturer, University of Otago*
I am a Senior Lecturer in Psychology at the University of Otago. I have been conducting research in transport safety for over 8 years, focusing on road user behaviour including inattention and distraction, risk and hazard perception, vulnerable road users, and rail level crossing safety. Prior to moving to NZ in 2018, I worked at Monash University Accident Research Centre, the University of the Sunshine Coast Centre for Human Factors and Sociotechnical Systems, and The Australian National University.

Abstract:
Little research has examined the experiences of Māori drivers, but some evidence suggests that young Māori are less likely to progress through the graduated driver licensing system (GDLS) and more likely to drive unlicensed. We conducted five focus groups in the South Island to explore the experiences of rangatahi Māori (aged 15-24) with GDLS. Discussions were transcribed and coded to identify themes including barriers or facilitators to licensure/progression and attitudes towards unlicensed driving. Pūtea (money) and resources emerged as key barriers or facilitators, e.g. paying for tests and petrol, and having access to a registered roadworthy vehicle. Confidence (e.g. anxiety about test-taking and/or driving) and having an appropriate, sympathetic licensed supervisor were also frequently mentioned. Unlicensed driving was perceived as normalised in some (especially rural) areas and considered justifiable if there was no acceptable alternative (e.g. emergencies, being a sober driver, collecting siblings from school when parents couldn't).

Non-Presenting Authors:
Yvonne Mitchell, *Undergraduate Research Student, University of Otago*

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C1-220.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"Inclusive Streetscapes: Perspectives of Disabled People and Older Citizens challenge mainstream approaches to consultation"

Time: 2:20pm **Room:** Chancellor 2
Topic: Inclusive access **Format:** Paper

Presented by:
Shanthi Ameratunga, *Professor of Public Health Health, University of Auckland*
I am a paediatrician and public health physician, and a Professor of Public Health. My research focuses on approaches to addressing inequities in health and wellbeing through addressing social and structural determinants of health

Abstract:
This community-based participatory research study explored perspectives of disabled people and older residents in Auckland on how transport systems influenced their lived experiences and aspirations for wellbeing and meaningful social participation. Using approaches consistent with Kaupapa Māori Research and Talanga Pacific methodologies, 62 qualitative interviews using go-along and Photovoice methods conducted with Maori, Pacific, Chinese and NZ European community participants. A complementary strand surveyed and interviewed transport professionals. The 'lived experiences' of disabled and/or older people of diverse cultures, social and geographical contexts, provide critical insights regarding how transport systems can enable or challenge community and personal wellbeing. The findings highlight the need for more robust processes engaging disadvantaged communities to address prevalent structural injustices in transport. The study also identifies the imperative to design transport infrastructure and processes that are accessible to communities that are differently challenged by the built environment and less heard in mainstream consultation approaches.

Non-Presenting Authors:
Anneka Anderson, *Senior Lecturer in Maori Health, School of Population Health*
Bridget Burdett, *Principal Researcher, MR Cagney Pty Ltd*
Julie Spray, *Honorary Postdoctoral Research Fellow, University of Auckland*
Professor Janine Wiles, Associate Professor, School of Population Health
Professor Karen Witten, *Professor of Public Health, Massey University*
Dr Malakai Peiris-John, *Senior Lecturer, University of Auckland*
Dr Roshini Peiris-John, *Senior Lecturer, University of Auckland*
Julie Wade, Cultural Liaison, *Te Kupenga Hauora Maori, University of Auckland*
Dr Esther Willing, *Lecturer in Maori Health, University of Otago*

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C2-220.** Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"Using Remote Monitoring to allow safe running of trains post the Kaikorua Earthquake"

Time: 2:20pm **Room:** Chancellor 4
Topic: Resilience and security **Format:** Paper

Presented by:
Daniel Headifen, *Programme Manager, KiwiRail*
I am a Chartered Civil Engineer in New Zealand and the United Kingdom. I have been working in the rail transport industry for the last 20 years in a variety of operational, technical and project roles. I am currently a Programme Manager for KiwiRail involved in some of the large current and upcoming rail improvement projects.

Zeb Paterson, *Engineering Geologist, Engeo*
Zeb is an engineering geologist with the engineering and environmental consultancy Engeo. Since the November 2016 Kaikoura Earthquake, he has been on secondment to the North Canterbury Transport Infrastructure Recovery (NCTIR) alliance. Here he has been a key member of the alliance team and has assisted with numerous sections of the recovery works including the development of remote monitoring processes and designs for the Main North Line railway as well as Trigger Action Response Plans (TARPs) and operational controls for it.

Abstract:
The 2016 Kaikoura Earthquake disconnected New Zealand's transport system. There was an immediate need to reopen it as quickly and safely possible. KiwiRail and the NCTIR alliance saw the opportunity to utilise remote monitoring devices on slopes that were either still been worked on, or had a decreased level of stability compared to prior to the earthquake, so as to provide a suitable risk level for safely running trains.

The scale increase in use of slope remote monitoring had many challenges and this presentation reflects on successes and lessons learnt from them. It also shows how the remote monitoring devices integrated with the other operational controls, how the complexity of this was made manageable and how these were progressively replaced with more resilient measures as the project developed. Finally, it demonstrates how KiwiRail has utilised the methods developed in other parts of the network outside of the earthquake project.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C4-220.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*The Green Freight Project*"

Time: 2:20pm **Room:** Chancellor 6
Topic: Environmental sustainability **Format:** Paper

Presented by:
Lucia Sobiecki, *Adviser, Ministry of Transport*
I am an adviser in the Strategic Policy and Innovation team at the Ministry of Transport.

Abstract:
This presentation will provide an overview of the Ministry of Transport's Green Freight Project. The Green Freight Project explores the potential of alternative fuels (including electricity, hydrogen and biofuels) to reduce GHG emissions from road freight. The project aims to understand the barriers facing the road freight industry from transitioning to alternative fuels, and to develop ideas to help overcome these barriers in the New Zealand context. As part of the project, we have investigated the challenges and opportunities of each alternative fuel, including their state of technological development, the infrastructure required to support them, and their impact on GHG emissions over their full life cycle. Reducing GHG emissions from road freight is vital for achieving New Zealand's GHG emissions targets and reducing the impact of climate change. There are also significant co-benefits that could come from the transition, including cleaner air and fostering innovation and job creation.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C6-220.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Exploring the role of passengers for safer driving*"

Time: 2:40pm **Room:** Chancellor 1
Topic: Healthy and safe people **Format:** Paper

Presented by:
Nicola Starkey, *Associate Dean Research, Division Arts, Law, Psychology and Social Sciences,, University of Waikato*
Nicola is a Professor in the School fo Psychology and Associate Dean Research for the Division of Arts, Law, Psychology and Social Sciences at the University of Waikato. She has been carrying out transport-related research for over ten years as part of the Transport Research Group (TRG). Nicola's main focus is to carry out research that provides practical solutions to transport problems.

Abstract:
Approximately a third of car trips in NZ involve one or more passengers but apart from young drivers, we know little about how the presence of a passenger helps or hinders safety. Epidemiological studies suggest that for those over 25 years of age, driving with a passenger has a lower crash risk than driving alone. To explore the mechanisms underlying this, we conducted a series of studies to investigate passenger behaviour and driver-passenger interactions. Drivers' reported that activities carried out by passengers were helpful, (e.g., navigation, adjusting the radio) but they did not appreciate being told how to drive. Passengers also looked out for traffic or hazards, or conversed about the journey, effectively increasing the driver's task focus and situation awareness. By understanding how passengers can contribute to safer journeys we can provide that information to drivers at risk, such as those very early or late in their driving careers.

Non-Presenting Authors:
Samuel Charlton, *Professor in Psychology, University of Waikato*

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C1-240.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"Pedalling gender? Framing gender disparities in cycling within overall differences in sustainable travel in NZ."

Time: 2:40pm
Topic: Environmental sustainability
Room: Chancellor 2
Format: Paper

Presented by:
Caroline Shaw, *Senior Lecturer, University of Otago Wellington*
Caroline Shaw is a medical doctor with specialist qualification in public health medicine and a PhD in epidemiology. She works in the Department of Public Health, University of Otago Wellington. She teaches post graduate environmental health, undergraduate medicine and and she researches in the area of transport policy, climate change and health.

Abstract:
Women are less likely to cycle for transport than men in NZ. This is one example of differences in women's and men's travel patterns. These differences are important when we think both about how to increase cycling and the broader transformation to a low carbon land transport system. This presentation will cover the results of an analysis of the household travel survey by gender, which looked at differences between men and women in relation to their overall travel patterns and whether they were regular cyclists. It showed there are substantial existing differences in patterns of travel between men and women, including their carbon emissions. These differences between genders are retained whether people are cyclists or not; suggesting that broader social processes are key to understanding existing transport patterns and how we might change them to become more environmentally sustainable and healthier. This research was funded through a Lotteries Health Grant.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C2-240.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Seismic exposure and impacts across New Zealand transport networks*"

Time: 2:40pm
Topic: Resilience and security
Room: Chancellor 4
Format: Paper

Presented by:
Amelia Lin, *PhD Candidate, University of Auckland*
PhD Candidate at the University of Auckland with a BSc and MSc degree in Civil Engineering from the Technische Universitaet Berlin. The research looks at seismic exposure and impacts across New Zealand infrastructure networks; this includes the estimation of liquefaction and landslide probability using geospatial models and the assessment of social and economic impact following disrupted infrastructure services.

Abstract:
New Zealand transport networks are exposed to a range of natural hazards including earthquakes and earthquake triggered liquefaction and landslides. Using recently developed geospatial models, seismic exposure was estimated across the State Highway and rail network for an Alpine Fault earthquake scenario. In addition, the results were linked to freight movement in order to quantify economic impact, indicating that a network section with high exposure (e.g. State Highway 6) does not necessarily lead to significant economic consequences, and vice versa. Despite limitations within the geospatial models, the approach can help identify critical infrastructure sections for one or multiple earthquake scenarios, and support decision making processes regarding infrastructure investment as well as emergency planning. Further research needs to include other factors for network criticality (e.g. daily traffic flow) and to consider network relationships (e.g. co-location).

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C4-240.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Emerging Technologies in Rolling Stock Propulsion*"

Time: 2:40pm
Topic: Environmental sustainability
Room: Chancellor 6
Format: Paper

Presented by:
Alan Hill, *Rolling Stock Asset Services, KiwiRail*
Alan Hill celebrates 37 years' service in the rail Industry.

He began his career at Hutt Workshops where he completed his Fitting and Turning Trade.

In 2002 Alan was appointed Maintenance Delivery Manager for the South Island wagon fleet and went on to manage the 100+ maintenance staff and Rolling Stock in the South Island, including Hillside workshops.

Alan is currently charged with defining the future of the Rolling Stock Assets Services business unit. He will build and lead the Future State Team and develop a comprehensive, customer focussed approach for the future of KiwiRail Rolling stock team.

Abstract:
KiwiRail has a unique role to play in enabling New Zealand's carbon reduction goals; as a State Owned Enterprise and leader in the transport industry we have both a responsibility and an opportunity to drive reduction in transport emissions through introduction of new operational technology. There are several emerging technologies in rolling stock propulsion such as hybrid combustion–battery setups, pure battery operation and even the potential of hydrogen fuel-cells providing true carbon-zero propulsion. Each of these options has pros and cons, and it is important that we consider the potential technology development pathways in the context of our asset purchasing cycles, alongside other options such as further electrification of the network.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C6-240.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"How NZSAR is using data to reduce harm in the search and rescue sector"

Time: 3:30pm
Topic: Healthy and safe people
Room: Chancellor 1
Format: Paper

Presented by:
Jeff Lean, *Data Analyst and Assurance Coordinator, New Zealand Search and Rescue*
I spent 14 years in the Australian Army working in geospatial intelligence and, more recently, three years at MBIE working in oil and gas reporting. I have extensive experience with R programming and an interest in geospatial analysis, optimisation, and data visualisation.

Abstract:
The New Zealand Search and Rescue (NZSAR) community provides search and rescue services throughout the New Zealand region and seeks to reduce the need for those services though a range of prevention strategies. The ability to target those strategies needs reliable data and robust analysis.

The NZSAR sector collects data on incidents, equipment, workforce demographics, and funding for SAR activities. This data is being used by the NZSAR Secretariat to inform analyses of prevention activities, supply and demand for SAR activities, workforce continuity, and future funding.

SARdonyx is a brand new data system that seeks to unify the data collection across all SAR agencies. SARdonyx will eventually act as a single point of truth for all SAR-related data and will be used for a variety of tasks including analysis of historical incident trends and building prevention strategies to minimise harm from future incidents.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C1-330.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Behavioural based segmentation of International Visitors - through a transport lens*"

Time: 3:30pm **Room:** Chancellor 2
Topic: Economic prosperity **Format:** Paper

Presented by:

Carol Christie, *Senior Insights Specialist, NZ Transport Agency*

Carol is a customer insights developer, specialising in the transport sector. She has worked on a broad range of major infrastructure projects, business cases, behaviour change and modal insights studies at Auckland Transport, research agency side for Transport for London and currently for the New Zealand Transport Agency. She enjoys bringing New Zealanders to the forefront of transport planning, design and marketing, where-ever and however they move.

Abstract:

International tourism is New Zealand's largest export industry. New Zealand is a 'fly-drive destination' which can put pressure on infrastructure, the experience of international travellers and New Zealanders. The International Visitor Foundational Insights Research is creating a transport-based segmentation of MBIE's International Visitor Survey data. It identified core parameters of mobility level and whether self-driving. Secondary differentiating factors are visit purpose, length of stay and mode. Paymark data enriches these segments with additional behavioral insights and illustrations of tourist flows. Each of the key international tourist segments are being explored through qualitative in-depth interviews. This research provides deep understanding of visitor needs, motivations and behaviour as they experience the land transport system. Insights will contribute to tourist dispersal, improving visitor flow, enhancing journeys, encouraging public transport and active modes, improving safety, retaining liveable communities, attracting the right visitor mix and improving transport connections.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C2-330.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Asset Management Data Standard – game changer to create a more resilient transport network*"

Time: 3:30pm **Room:** Chancellor 4
Topic: Resilience and security **Format:** Paper

Presented by:
Myles Lind, *Digital Engineering, NZTA*
Myles is a chartered engineer with over 20 years managing public infrastructure. He has worked across New Zealand as well as in the United Kingdom. Myles is a member of the Institute of Directors and is the current President of the Institute of Public Works Engineering Australasia in New Zealand.

Abstract:
Our ability to manage risk and resilience of the transport network depends on the quality of data we use for decision-making about our land transport assets.

The Transport Agency is working to bring the practice of asset management into the digital age, revolutionising our ability to collaborate when collecting, exchanging, analysing and using all types of asset management information.

Sharing transport asset data within and between organisations will become easier and means decision makers will be able to access and use confidently all relevant information wherever they are, whenever they want it, whoever has provided it.

The Asset Management Data Standard project will establish 'common language' the infrastructure sector can share. It will provide a national suite of specifications for defining and describing land transport assets, their location and performance so that emerging technologies can enable and analyse data that is accurate, complete, accessible and (re)usable.

Non-Presenting Authors:
Stephen Clarke, *Principal Advisor: Digital Engineering for Transport, NZTA/REG*

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C4-330.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Transport funding and the myth of the declining revenue stream*"

Time: 3:30pm
Topic: Economic prosperity
Room: Chancellor 6
Format: Paper

Presented by:

Iain McGlinchy, *Principal Adviser, Ministry of Transport*

Iain has been a Principal Adviser at the New Zealand Ministry of Transport since 2005. He has been in the Ministry's Demand Management and Revenue team since the start of 2019, but has worked in many areas over his career. He has been responsible for developing policies on a wide range of transport issues including in the areas of environment, electric vehicles, road safety, technology and transport revenue. He is recognised for his knowledge about the New Zealand vehicle fleet and is regularly asked to speak to groups and conferences about the vehicle fleet.

Abstract:

The New Zealand land transport system relies on a predictable and stable stream of revenue to enable it to deliver on its goals of improving wellbeing and liveability. Traditionally revenue used to fund the transport system has come primarily from fuel taxes on petrol and distance-based road user charges (RUC) paid by owners of diesel vehicles. However, changing patterns of fuel efficiency and new transport fuels such as electricity and hydrogen, along with new types of mobility, such as electric bicycles, are affecting revenue streams. This presentation will look at the effects of some of these changes on future revenue projections. In particular it will look at the myth of declining revenue due to improved vehicle fuel efficiency and the rise of electric vehicles.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C6-330.**

Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"Using road markings in innovative ways"

Time: 3:50pm
Topic: Healthy and safe people
Room: Chancellor 1
Format: Paper

Presented by:
Samuel Charlton, *Professor of Psychology, Transport Research Group, University of Waikato*
Samuel has over 30 years' experience of research work in applied cognitive psychology. Among other things, Samuel is interested in driving as skilled behaviour, and how it can inform theory development in attention, decision-making, and automaticity of performance. Samuel is internationally recognised as a leader in the areas of driving simulation and driver behaviour research and is Editor in Chief of the Elsevier journal Traffic Psychology and Behaviour.

Abstract:
In several recent experiments we have examined how road markings can be used in innovative ways to improve the safety and efficiency of rural roads. In order to achieve the safe and appropriate speeds identified by the NZ Speed Management Guide, road controlling authorities need to find an effective way of communicating those speeds to drivers. We have shown how road markings can be used to improve compliance with speed limits by affecting drivers' perceptions of risk, their sense of speed, or directly as a continuously present reminder of the limit. Previously we have shown that road markings are effective as warnings in advance of horizontal or vertical curves, but our recent findings also demonstrate that systematically applying road markings to indicate specific speed limits may be a useful way to improve speed limit compliance. This work is a part of our on-going work developing self-explaining roads for everyday driving.

Non-Presenting Authors:
Nicola Starkey, *Professor of Psychology, University of Waikato*

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C1-350.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*So what do you think? Attitudes from people in the New Zealand Household Travel Survey*"

Time: 3:50pm
Topic: Inclusive access
Room: Chancellor 2
Format: Paper

Presented by:
Jennifer McSaveney, *Senior data analyst, Ministry of Transport*
I have been a scientist at the Ministry of Transport since 2008. My areas of interest include the New Zealand Household Travel Survey, road safety, surveying, and transport and society.

Abstract:
People's attitudes affect their travel patterns choices and vice versa. As follow up from the Household Travel Survey, we have surveyed a willing subset of participants on a range of topics, from transport technologies such as self driving cars, e-scooters and passenger drones, to their active transport use and road safety attitudes. Let's take a tour of some of the results and see what we have discovered, after a brief update of where the Household Travel Survey is at.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C2-350.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"The Life of a Road through a Data Lens"

Time: 3:50pm **Room:** Chancellor 4
Topic: Economic prosperity **Format:** Paper

Presented by:
Gareth Robins, *Director of Analytics, EROAD*

Gareth Robins is the Director of Analytics at EROAD, his work focuses on the use of GPS data to fuel a new wave of transportation research from dynamic risk modelling and crash prediction to fair cost allocation of maintenance funds and performance measures.
Gareth has lived the analytics life for 15 years and has worked in New Zealand, Australia, and the United States. Gareth is a member of the US Transportation Research Board and an active participant in the Freight Transportation Data and Trucking Research committees, and the PACTRANS Technology Transfer committee.

Abstract:
We create our roads following years-long processes of planning and engineering design, and as our society grows, we expect more and more out of our infrastructure. Our roads were created and built with the community in mind. Their job is to deliver users safely and efficiently from A to B. Therefore; we need to know more than just vehicle counts; we need context about the users and how they are using the road. We are fortunate to now have access to many data-collection technologies, but how do we ensure they are fit for purpose and cost-effective and how can they be fused and used effectively at each stage of the road lifecycle? This paper sets out the data and analytics suited to each stage of the road lifecycle. We present the pitfalls and opportunities of each method and the need for standards, particularly in the application of performance measures.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C4-350.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Improving Data Quality to Support Sector-Wide Initiatives*"

Time: 3:50pm **Room:** Chancellor 6
Topic: Economic prosperity **Format:** Paper

Presented by:

ANDREW MCKILLOP, *REG PROGRAMME MANAGER, REG*

Andrew joined the NZ Transport Agency in 2005. In recent years his role has focused on leading the Road Efficiency Group, an industry partnership responsible for developing and implementing tools and philosophy to drive more effective and more customer focused transport system delivery. The REG programme is underpinned by the One Network Road Classification.

Andrew previously worked in local government and has a vast range of experience in asset and network management, including leading safety and CBD revitalisation programmes.

Abstract:

REG is a collaborative initiative between Local Government New Zealand, Road Controlling Authorities (RCAs) of New Zealand, and the Transport Agency.

REG has set an expectation that all Road Controlling Authorities need to have robust data that is appropriate for the complexity of the decision-making required. Quality data is critical. Data underpins the fabric of the business case approach, the future asset management data standard and Digital Engineering for Transport project, as well as evolving ONRC into the One Network Framework.

Over the past three years REG has been reporting annually on the quality of data in the transport sector. This work has two key focus areas, improving data quality throughout the sector and changing the culture by allowing decision makers to understand the value of good quality data.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C6-350**.
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*On-road motorcycle crashes: collaborative research to enhance our evidence base and improve safety*"

Time: 4:10pm
Topic: Healthy and safe people
Room: Chancellor 1
Format: Paper

Presented by:
Kaye Clark, *Principal Advisor, NZ Transport Agency*
Kaye is a Principal Advisor in the Safety, Health and Environment Group at NZTA. Previously she was the Agency's Hamilton Highway Manager responsible for operating 2,500km of highways within the Waikato and Bay of Plenty region. Kaye has held engineering and management positions in local government, giving her a unique perspective on the challenges facing road controlling authorities. Kaye sits on the University of Auckland Civil and Environmental Engineering Advisory Board and the Board of Engineering NZ. She is a member of the Institute of Public Works Engineering Australasia, NZ Institute of Directors and is a Fellow of Engineering NZ.

Abstract:
The NZ Transport Agency and Midland Trauma System are finalising collaborative research aimed at enhancing our policy evidence base on motorcycle crashes. Together we have linked Crash Analysis System (CAS) and hospital data, explored the cost of acute health care, looked at where and when motorcyclists crashed and through riders' own stories explored their approach to risk taking and decision making. We confirmed an under-reporting rate of 18 percent in Police casualty reports, identifying an important group of riders with injuries severe enough to warrant hospitalisation who are not included in our evidence base. Four groups of riders emerged who need further consideration for on-going education, awareness raising and injury prevention; weekday commuters, weekend recreational riders, young motorcyclists and older female pillion passengers. To reduce deaths and injuries in these vulnerable road user groups we must develop targeted safety messages delivered in ways unique to each group profile.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C1-410.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Access in Transport Appraisal*"

Time: 4:10pm
Topic: Inclusive Access
Room: Chancellor 2
Format: Paper

Presented by:

Sandy Fong, *Principal Advisor, Domain Strategy, Ministry of Transport*
Sandy's main area of responsibility is the ongoing development and implementation of the Transport Evidence Base covering data and research to improve transport decision making. Prior to the Ministry Sandy had related roles at the NZ Transport Agency and what is now WSP Research.

Abstract:

Transport appraisal has historically relied heavily on cost benefit analysis that focuses on travel time savings as a measure of accessibility gains. This travel time focus results in fast modes such as car travel benefiting more than other modes with significant distributional impacts. Moving away from a travel time focus towards the wider concept of access is considered as a conceptually better approach.

This presentation provides an overview of a recent International Forum Roundtable that explore approaches to incorporating accessibility impacts in transport appraisals, including conceptual merits and practical feasibility, implications for transport policy development, modelling and appraisal processes.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C2-410.** Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Rail Bridge Resilience Data*"

Time: 4:10pm **Room:** Chancellor 4
Topic: Resilience and security **Format:** Paper

Presented by:
Michael Keenan, *Senior Structures Engineer, KiwiRail*
Mike Keenan is responsible for engineering oversight of KiwiRail's bridge assets. He has been working on bridge maintenance and renewal of the rail network in New Zealand for the past ten years. He holds an NZCE(mech) and BEngTech(civil). Outside of work Mike enjoys outdoor adventure, in particular tramping and trail running.

Rudolph Kotze, *Professional Head Structures, KiwiRail*
Rudolph Kotze is the Engineering Services Professional Head Structures at KiwiRail and he is responsible for technical standards and the asset management strategy for KiwiRail's structures.
He has been involved in bridge and structures design and asset management for over 30 years, working in various technical and management roles in South Africa, New Zealand and Australia.

Abstract:
KiwiRail manages a wide range of rail assets, including approximately 1700 bridges within resource and investment constraints.

The challenge for asset managers is to ensure that the most appropriate projects are identified, prioritised and included in approved annual business plans.

The prioritisation of bridge upgrades and renewals needs to consider risk factors associated with condition, loading and environmental impacts such as earthquakes. These risks are then measured against customer requirements.

This presentation focuses on the KiwiRail bridge health index method which assigns, to individual structures, a score based on selected risk factors. The goal is to produce an evidence based data set which makes transparent a bridges potential impact on resilience.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C4-410.**
Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.

"*Air transport subsidies in regional development: A systematic review and meta-regression analysis*"

Time: 4:10pm
Topic: Inclusive access
Room: Chancellor 6
Format: Paper

Presented by:

Hanjun Wu, *PhD student, Massey University*
I am currently doing my PhD project, which is titled "investigating the impacts of air transport subsidies on regional development and wellbeing", in School of Aviation, Massey University.

Yi-Hsin Lin, *Associate Professor, National Taichung University of Science and Technology Taiwan*
Yi-Hsin Lin is Associate Professor of the Department of Business Administration, National Taichung University of Science and Technology, Taiwan. Her research interests include the transportation and tourism management and she has published numerous scholarly articles.

Thanh Ngo, *Lecturer, Massey University*
My research focuses on efficiency and productivity evaluation in the fields of aviation and transportation economics using econometric approaches. I also have an interest in exploring how environmentally friendly and customer-oriented practices can lead to sustainable growth in aviation.

Kan Tsui, *Associate Professor, Massey University*
I am a prolific researcher with 20 highly ranked papers and two book chapters in aviation and tourism. My research involves development and application of state-of-the-art techniques and methodology to investigate and analyse the contemporary issues related to the air transport industry and the dynamics of air transport policy, as well as tourism.

Abstract:

Essential services such as hospital treatment and education are often limited at small and remote regions, therefore those regions need to rely on air transport to connect with larger communities. Air transport development can also contribute to the regional economic and wellbeing development, therefore many governments (e.g. Australia, EU countries and the US) have invested substantially to support the regional air connectivity. This research aims to systematically review and synthesise the results of prior literature concerning air transport subsidies in regional growth. It can then summary empirical results to answer the call for NZ government to allocate dedicated funding to its isolated airports, as recently raised by the NZ Airports Association in 2017, as well as laying the groundwork for future governmental transport policy changes in NZ.

Remember! You can vote for this Paper via Sli.do using this Paper's individual code: **C6-410.** Voting closes at 4:30pm on Thursday 5th December and the winner announced during the post conference networking function.