



THE UNIVERSITY OF
SYDNEY
—
Business School



MONASH
University

Key Centre Annual Report 2017

The Commonwealth Key Centre
of Teaching and Research
in Transport Management

Institute of Transport Studies
Monash University

<https://www.monash.edu/engineering/its>

Institute of Transport and Logistics Studies
The University of Sydney

<http://sydney.edu.au/business/itls>

Institute of Transport and Logistics Studies
The University of Sydney
NSW 2006

April 2018

Centres Coordinator
Australian Research Council
GPO Box 2702
Canberra ACT 2601

Dear Centres Coordinator,

I hereby present to you, in accordance with the Australian Research Council's requirements for continued Key Centre status, the report of the proceedings and outputs for the Commonwealth Key Centre of Teaching and Research in Transport Management (established 1995) for the year ended 31 December 2017.

A handwritten signature in black ink, appearing to read 'D Hensher', is positioned above a thin horizontal line.

Professor David Hensher

Key Centre Director
Director, Institute of Transport and Logistics Studies

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Constitution

The primary object of the Key Centre is to undertake graduate teaching, executive programs, grant and contract research and development in the fields of transport, logistics, and supply chain management studies.

The work of the Key Centre also has the following objectives:

- To provide a focus for University work in areas of transport and logistics management and to establish an ambience attractive to those committed to excellence in graduate transport, logistics and supply chain management programs and research.
- To collaborate, to the fullest extent possible, with other parties having an interest in transport, logistics and supply chain management studies and its applications.
- To offer specialised training courses, workshops, short courses and seminars on topics of interest in the area of transport, logistics and supply chain management.
- To seed the development, in Australia, of innovative ideas in transport, logistics and supply chain policy and professional practice in which the Key Centre plays a role.

These objectives are achieved by the Key Centre through:

- developing and offering graduate transport and logistics management programs, industry programs, certificates, executive programs and short courses;
- bringing high quality transport, logistics and supply chain management programs to people outside Sydney and Melbourne (both nationally and globally), as well as widening the offerings of courses within Melbourne and Sydney, through access to courses provided by both ITLS-Sydney and Monash ITS;
- contributing to Australia's growing participation in the Asia Pacific region in a leadership role in transport, logistics and supply chain management;
- widening the range of courses available for middle level professional managers in critical areas of transport, logistics and supply chain management not currently served;
- equipping managers in all disciplines (i.e., engineering, economics, planning), the small business sector and local government to succeed in the face of technological, economic and institutional change;
- building on the recognised need for stronger links between education of engineers, planners, policy analysts and managers in transport, logistics and supply chain management;
- undertaking research to develop state-of-the-art management practices and technical methods; and
- transferring the knowledge developed through research to client groups through the Key Centre's publications, workshops, conferences, seminars, and by participation in networks of transport, logistics and supply chain stakeholders.

Teaching and Learning

Award Programs

Undergraduate

In 2017 the Monash Institute of Transport Studies continued to deliver transport units in the Bachelor of Engineering program on both the Australian (Clayton) and Malaysian (Kuala Lumpur) campuses. This involves over 1,000 enrolments in two core units (CIV2282 Transport and Traffic Engineering and CIV3282 Road Engineering) and two final year electives (CIV4283 Transport Planning and CIV4284 Traffic Systems). Those units are part of undergraduate civil engineering degrees co-accredited under both the Australian and Malaysian Engineering Education Accreditation Systems. The delivery of those units requires close collaboration between the academic staff on difference campuses to ensure that students achieve the same learning outcomes regardless of the campus where they study.

The number of Undergraduate students studying at the Institute of Transport and Logistics Studies at the University of Sydney (ITLS-Sydney) grew in 2017 with 48 students taking ITLS2000 Managing Food and Beverage Supply Chains. Plans are progressing to expand the undergraduate offerings over the next few years.

Postgraduate Coursework

The Master of Transport and Master of Traffic degrees offered by Monash ITS were merged into a single Master of Transport and Traffic degree in 2017. That Master's degree, which is offered on-line, is structured round five core units and electives. A number of those units are also offered as part of a transport specialisation in the Master of Advanced Engineering, a rapidly growing on-campus program, taught on the Clayton campus. Monash ITS also offers a Master of Transportation Systems degree in conjunction with South East University in China. That program is delivered at the Suzhou campus and an opportunity is available for those students to complete the first semester of their Monash University studies on the Clayton campus before returning to Suzhou for the final semester. As a result of the number of strong applications received for the available places in that program, arrangements were made in 2016 to lift the existing quota of 40 students in that course to 45 in 2017.

In 2017 ITLS-Sydney continued to offer an articulated postgraduate coursework program in Logistics Management and in Transport Management (Masters, Graduate Diploma and Graduate Certificate). Student numbers grew by 35 percent over the previous year. In addition, it delivered, through the University of Sydney Business School, three specialisations (majors) in the Master of Commerce in: Logistics and Supply Chain Management; Aviation and Maritime Logistics and Management; and Infrastructure and Transport Management. In 2017 ITLS-Sydney continued to offer an articulated postgraduate coursework program in Logistics and Supply Chain Management (Masters, Graduate Diploma and Graduate Certificate). In addition, it delivered, through the University of Sydney Business School, three specialisations (majors) in the Master of Commerce in: Logistics and Supply Chain Management; Aviation and Maritime Logistics and Management; and Infrastructure and Transport Management. ITLS-Sydney also admitted the last cohort of Master of Transport Management students in 2017 in preparation for a move to a multi faculty Master of Transport. The Master of Transport Management was a successful although niche degree offering essential training to the transport industry over the last 20 years. ITLS-Sydney will still be involved in teaching Transport Management in the Master of Commerce and is currently working with the Faculties of IT and Engineering, and Architecture and Planning on an interdisciplinary Masters of Transport.

In 2017 ITLS-Sydney's work placement program made available, on a competitive basis, to Masters students specialising in transport, logistics, supply chain and/or infrastructure

management, placements with: BCR, Caltex, Coca-Cola, ComfortDelGro Corporation, Forest Coach lines, QantasLink, RB (Reckitt Benckiser).

Postgraduate Research

The Key Centre has the largest higher degrees by research program in the transport and/or logistics field in Australia. In 2017, 9 PhD students graduated from our doctoral programs, with 55 PhD students continuing enrolments.

Enrolments

Degree	Enrolments
Institute of Transport Studies, Monash University	
Doctor/Master of Philosophy	22
Master of Advanced Engineering (Transport)	40
Master of Transport and Traffic	29
Master of Traffic	4
Master of Transport	21
Master of Transport Systems	40
Institute of Transport and Logistics Studies, University of Sydney	
Doctor/Master of Philosophy	27
Master of Commerce	
Aviation and Maritime Management and Logistics	66
Infrastructure and Transport Management	22
Logistics and Supply Chain Management	185
Master of Logistics Management	1
Master of Logistics and Supply Chain Management	127
Masters of Transport Management	32
Graduate Diploma in Logistics Management	1
Graduate Diploma in Logistics and Supply Chain Management	13
Graduate Diploma in Transport Management	2
Graduate Certificate in Logistics Management	3
Graduate Certificate in Logistics and Supply Chain Management	8
Graduate Certificate in Transport Management	6

Unit of study	Enrolments
Institute of Transport Studies, Monash University	
Undergraduate:	
Traffic and Transport Engineering (CIV2282) (Clayton and Malaysia Campuses)	390
Road Engineering (CIV3283) (Clayton and Malaysia Campuses)	313
Transport Planning (CIV4283)	156
Traffic Systems (CIV4284) (Clayton and Malaysia Campuses)	225
Postgraduate:	
Advanced Traffic Engineering (CIV5301)	26
Traffic Engineering and Management (CIV5302)	29
Quantitative Methods (CIV5303)	12
Intelligent Transport Systems (CIV5304)	34
Travel Demand Modelling (CIV5305)	14
Road Safety Engineering (CIV5306)	15
Transport and Traffic Data (CIV5309)	20
Planning Urban Transport Systems (CIV5314)	29

Transport Economics (CIV5315)	11
Fundamentals of Urban Public Transport (CIV5316)	11
Intelligent Transport Systems: Eng. and Management (CIV5318)	39
Quantitative Methods (CIV5319)	39
Case Studies in Transportation Systems (CIV5320)	40
Modelling Transportation Systems (CIV5406)	39
Sustainable Transport Systems Planning (CIV5321)	40
Urban Public Transportation Systems (CIV5322)	40
Institute of Transport and Logistics Studies, University of Sydney	
Undergraduate:	
Managing Food & Beverage Supply Chains (ITLS2000)	48
Postgraduate:	
Foundations of Supply Chain Management (ITLS5000)	266
Transport & Infrastructure Foundations (ITLS5100)	73
Quantitative Logistics & Transport (ITLS5200)	164
Supply Chain Planning and Design (ITLS6002)	149
Contemporary Procurement (ITLS6003)	148
Supply Chain Visibility (ITLS6004)	64
Disaster Relief Operations (ITLS6007)	46
Production and Operations Management (ITLS6008)	107
Logistics & Supply Chain Project (ITLS6090)	58
Global Freight Logistics Management (ITLS6101)	123
Strategic Transport Planning (ITLS6102)	22
Sustainable Transport Policy (ITLS6103)	18
Traffic & Mobility Management (ITLS6105)	19
Infrastructure Appraisal (ITLS6106)	15
Applied GIS and Spatial Data Analytics (ITLS6107)	211
Transport & Infrastructure Systems (ITLS6190)	6
Maritime Management & Logistics (ITLS6300)	43
Ports Management (ITLS6301)	33
Airline Strategy & Supply Chains (ITLS6400)	59
Airport Management (ITLS6401)	61
Cases in Global Transport & Logistics (ITLS6403)	25
Decision Making on Mega Projects (ITLS6500)	24
Infrastructure Financing (ITLS6501)	47
Research Case Study 1 (ITLS6900)	3

Professional Development

Safety Management Course for Bus Operators

The Safety Management Course for Bus Operators (SMC), introduced in 2011, was established by Monash ITS in consultation with Transport Safety Victoria (TSV) to provide bus operators with the appropriate skills to offer bus services which meet regulatory and compliance requirements in Victoria. The course comprises of two subjects namely Introduction to Bus Safety and Safety Risk Management for Bus Operators. To maintain the integrity and the relevance of the course, ITS-Monash staff work closely with Transport Safety Victoria and the Bus Association of Victoria (BusVic). In 2017 the course attracted 120 enrolments.

Transport Management Course for Bus Operators

The Transport Management Course for Bus Operators (TMC), launched by Monash ITS in 2012, provides potential bus service contractors with business management skills appropriate to the industry. Its an essential requirement for all service bids by Victorian bus companies. The course incorporates the two subjects from the Safety Management Course for Bus Operators (mentioned above) along with two additional subjects: Financial Management for Bus Operators and Business Development for Bus Operators. In 2017 the course attracted 3 enrolments.

Bus and Coach Accreditation Scheme Online Training Course

The Bus and Coach Operator Accreditation Scheme Online Training Course attracted 260 enrolments in 2017, bringing the total participants to 1,923 since the course was established at ITLS-Sydney in 2007. This online course is approved by Transport for NSW as meeting the accreditation requirement of competency to operate bus and coach services; to meet the requirement of being competent applicants must pass the course examination. The course includes four modules: i) Accreditation; ii) Management Information System; iii) Vehicle Maintenance Management System; and iv) Safety Management Systems. The training is delivered through online learning materials including notes, case studies, online quizzes, and a discussion board.

Bus and Coach Accreditation Scheme Intensive Training Course

The Institute of Transport and Logistics Studies (ITLS), together with Bus NSW, trialled an intensive classroom-based training course covering the training material which is the pre-requisite to become an accredited bus operator under the Passenger Transport Act 1990. The BOAS Intensive Training Course covered the same materials and assessment as the BOAS Online Training Course in a classroom setting.

The course was held over three days in November 2017 at the University of Sydney in Darlington, Sydney. Overwhelming interest was received for this Intensive course and confirmed 86 students in its first year of running.

Certificate of Transport Management

The Certificate of Transport Management program (including the Certificate of Transport Management Refresher) had a total of 45 enrolments in 2017, with participants from the bus industry and their suppliers (from NSW and interstate). The program at ITLS-Sydney is recognised as an important industry qualification for middle and senior management, and an excellent opportunity for career development. Participants are introduced to the latest developments in the industry and provided with knowledge and skills in management, planning and policy areas central to the success of the bus and coach industry, to operators, suppliers

and consultants. The four day program includes presentations by industry representatives, specialist consultants and academic experts, designed to develop practical skills for the industry, as well as interactive exercises. The networking benefits are an important aspect of the program. The course content is reinforced by four assignments completed after the course. The Certificate of Transport Management is supported by Transport for NSW, the State Transit Authority, BusNSW, and private operators.

Discrete Choice Analysis: Models, Estimation and Applications

Almost without exception, everything human beings undertake involves a choice. In recent years there has been a growing interest in the development and application of quantitative statistical methods to study choices made by individuals or groups with the purpose of gaining a better understanding both of how choices are made and of forecasting future choice responses. Courses in discrete choice modelling and choice experiment design have been offered by ITLS-Sydney since 2006, and are presented by world experts in the field: Professors David Hensher, Professor William Greene and Professor Michiel Bliemer, and Dr Andrew Collins. The week long introductory course held in June 2017 attracted 32 enrolments from 5 countries. An abridged version of the course was also offered in November 2017 in London, UK by Professor Michiel Bliemer in partnership with Honorary Professor Stephane Hess (University of Leeds, UK).

Community Transport: Knowing your costs

The aim of this course was to help community transport operators to better understand the costs of providing community transport services and to better understand how to make financial decisions. Understanding costs will help operators plan for the future. The course benefited managers and other staff of community transport organisations who make decisions about vehicle purchases, user donations, vehicle hire out rates to other organisations and general pricing policies. The Board of Management of community transport organisations who make decisions about strategic directions also benefited. The course is based on the Knowing your costs module in the long-running Certificate of Transport Management program for bus operators, but with content tailored to community transport operators. The course was held over one and a half days in February 2017 at the University of Sydney in the CBD, Sydney and attracted 45 participants.

The Network Planning Training Course for Transport for NSW

This tailored course for Transport for NSW staff was held in February 2017 at the Business School Campus in Sydney CBD. Instructed by Professor Corinne Mulley, Chair of Public Transport and with 24 participants, the objectives of this one-day course were to obtain a better understanding of the principles, purpose and economics of network planning, in conjunction with recognising key issues and understanding the market and its users.

Indonesian Workshop on Transport Development Planning and Policy

ITLS delivered a short course in Sydney over five days to 21 participants from Indonesia to learn more about Transport Development in Sydney. The course covered topics such as demand for Transport and Logistics Services, maritime Intermodal Freight, The major transport policy challenges – productivity growth, congestion, energy security, environmental, safety, personal health, social exclusion and Air transport management. The workshop included field trips to Bus/Rail Control Station and Container Terminal in Botany.

Student Awards

The Key Centre recognises the achievements of its students and alumni through industry and government sponsored prizes that are presented at annual award ceremonies, where our students and alumni join with our Board members, industry partners, and the sponsors of prizes to celebrate the success of our students.

ITS-Monash's award ceremony was held as part of the 2017 Ogden Transport Lecture; prizes were awarded to:

- Daniel Gray - VicRoads Prize for highest average mark in coursework Masters units;
- Long Truong - ARRB-Monash Prize for excellence in postgraduate research in transport;
- Jason Blackman - BusVic Award for the best overall performance in the Transport Management Course for Bus Operators;
- Duncan Reid - Transport Safety Victoria Award for the best overall performance in the Safety Management Course for Bus Operators;
- Nathan Shiells - Dyson Group Award for best performance in Safety Management Course, Subject 5101: Introduction to Bus Safety;
- Michael Sturgeon - Crown Coaches Award for the best performance in the Safety Management Course, Subject 5102 Safety Risk Management for Bus Operators;
- Mark Jenkinson - Driver Group Award for the best performance in the Transport Management Course, Subject 5103 Financial Managements for Bus Operations;
- Laurelle Bland - Ventura Group Award for best performance in Transport Management Course, Subject 5104: Business Development for Bus Operators.

ITLS-Sydney's 2017 Awards Presentation Evening was presided over by Dr Alastair Stone, Chair of the Board of Advice. The guest speaker was Ms Amanda O'Brien, Chairwoman, Supply Chain and Logistics Association of Australia (SCLAA). Prizes were awarded to:

- Mr Kristian Kirk - Chartered Institute of Logistics and Transport's Sir Hudson Fysh Award for the highest academic achievement in the Master of Transport Management;
- Mr Steven Dawe - GS1 Australia Prize for the highest academic achievement in the Supply Chain Visibility unit of study (ITLS6004);
- Ms Chenli Pan - Mrs Ma Ching Prize to an international student for the highest academic achievement in a transport, infrastructure and/or logistics and supply chain management specialisation in the Master of Commerce;
- Mr Steven Dawe - Supply Chain & Logistics Association of Australia Award for Excellence for the highest academic achievement in the Master of Logistics and Supply Chain Management;
- Mr Collins Teyes - Institute of Transport and Logistics Studies Prize for excellence in postgraduate research in transport, logistics or supply chain management;
- Mr David Isbel -BusNSW prize for best overall performance in the Certificate of Transport Management.

Other Awards

- Angelo Loutas, KK Chain, Stephen Tofler, Andrew Wall (Monash ITS special Awards for enhancing Transport Education at Monash University)

Research and Consultancy

FUNDING AWARDED IN 2017

Australian Research Council Discovery Project Grants

Business location decisions (2017-2019, AU\$310,000)

Professor David A Hensher

This project aims to develop a forecasting model system for economic planning that integrates business (re-) location and co-location choices. Improved transport infrastructure connects places and can influence the location of businesses. This project will use forecasting models to quantify the drivers of firm location decisions linked to an integrated strategic transport and land use modelling system. This project expects to provide guidance for transport investment that brings gains in productivity to industry and the economy and wellbeing to individuals and society.

Australian Research Council Discovery Early Career Award

Understanding and preventing road deaths using coronial recommendations (2017-2020, AU\$327,900)

Dr Marilyn Johnson

Fatal road crashes are sudden, unexpected and violent. Each fatality has a lasting impact resulting in immeasurable emotional costs and a financial burden in excess of \$3.8 billion per year. This study is a systematic analysis of coronial death investigations of fatal road crashes in Australia using public health and road safety theoretical frameworks. Intended outcomes will contribute to our understanding of fatal road crashes including new insights into pre-crash social factors (e.g. alcohol/drug use and dependence, unemployment, age), the utility and impact of coronial recommendations on road safety policy and practice, and preventing deaths on Australian roads.

Understanding the automobility decisions of Australian millennials (2015-2019, AU\$373,500)

Dr Alexa Delbosc

The aim of this project is to understand the complexity of decision-making around driver licensing and car travel of Australian millennials. The historical growth in car use is coming to an end as young adults are becoming less likely to get a licence and drive cars. The millennial generation is poised between two key life stages - the first opportunity to get a driving licence and the transition into adulthood. Understanding how millennials navigate these key mobility transitions could significantly reduce road deaths and injuries, road congestion and greenhouse gas emissions.

Other External Research Grants and Contracts

Arup Network Operating plans Concept of Operations AustRoads (2016-2017, \$80,000)

Dr Alexa Delbosc & Prof Geoff Rose

Literature review into the use of Network Operation Plans in Australasia.

Millennial Mobility Panel Study - TAC Survey Collaboration, Transport Accident Commission

(2017, \$39,000)

Dr Alexa Delbosc

Expanding the scope of the Millennial Mobility Panel Study to include regional Victorian young adults.

Jiangsu Industrial Technology Research Institute

(2016-2019, 4Million RMB (\$760,000))

Dr Inhi Kim, Professor Terry Liu from SEU, Professor Yifan Dai from THU

Collaborative Model of Green Travel in Intelligent City Integration platform

National Natural Science Foundation of China (2016-2020, 620,000 RMB (\$117,000))

Dr. Yadan Yan from Zhengzhou University, Dr. Inhi Kim

The traffic operational reliability analysis and optimization design of connection lines between motorways and urban roads

Rail CRC

(2017-2010, \$41,029)

Dr. Inhi Kim

Short-term rail passenger flow forecasting application

Provision of Smartphone Application Which Infers Travel Pattern

(2016-2017, SGD \$70,000)

Dr Adrian Ellison, Dr Richard Ellison

The Institute of Transport and Logistics Studies (ITLS) at The University of Sydney proposes to modify its existing Android and Apple iOS compatible person-tracking smartphone application (app) for the Land Transport Authority. This app has been used for an 800-person, 3-year study on travel behaviour. To-date, data have been collected from several countries including Singapore, Australia, the United Kingdom and the United States.

Centre of Excellence in Bus Rapid Transit development (BRT+)

(2017-2022, AU\$457,164)

Professor David A Hensher, Professor Rico Merkert, Dr. Chinh Quoc Ho, Dr. Richard B. Ellison

Wen Liu <http://www.brt.cl/>

Volvo Research and Education Foundations, Sweden

Bus Rapid Transit is a Centre of Excellence (CoE) for Bus Rapid Transit (BRT) studies implemented in Santiago, Chile, and financed by the Volvo Research and Educational Foundations. This CoE was established in May of 2010 and is working as a consortium of five institutions: Pontificia Universidad Católica de Chile, Massachusetts Institute of Technology, University of Pretoria, The University of Sydney, and World Resources Institute Ross Center for Sustainable Cities. The main goal of the CoE is to develop a new framework for planning, design, financing, implementation and operation of BRT in different urban areas, giving clear guidelines to decision makers on when and how BRT projects can effectively enhance mobility and meet accessibility needs. These guidelines will be a major milestone to change the way decision makers address investment and design plans for configuring urban mobility systems. An essential goal of the CoE is to identify elements which are transferable between existing and prospective BRT systems and elements that are project site specific.

ITT LLDC Research Development Project

(2017, AU\$15,000)

Associate Professor Xiaowen Fu

Industry Partner Contribution, International Think Tank for Landlocked Developing Countries, Mongolia

iMOVE Co-operative Research Centre (CRC)

(2017-2026)

The Federal Government has granted a group of nearly fifty leading industry and research organisations known as the iMOVE Co-operative Research Centre (CRC), a total of \$55 million over ten years to explore intelligent transport systems including self-drive vehicles. Key members of the iMOVE CRC include the University of Sydney Business School's internationally respected Institute of Transport and Logistics Studies (ITLS) and the University of Sydney's Faculty of Engineering and IT.

**Demand responsive transport pilot evaluation
(2017–2018, \$19,000)**

Professor Corinne Mulley

TfNSW is currently examining new flexible transport options to meet the specific needs of communities living in rural and regional NSW. At present, three separate flexible transport pilots are in different stages of implementation. These pilots will establish whether flexible transport is effective and if the operational model can be applied across NSW. To establish whether the flexible transport pilots are effective, they need to be evaluated.

**Bus Industry Confederation Senior Fellow in Sustainable Land Transport Bus Industry Confederation, Australia
(2017-18, AU\$23,000)**

Professor John Stanley

This project is now in its 9th year. The current focus is on developing improved integrated land use transport planning approaches for Australian cities, to improve their productivity, increase social inclusion and lower their environmental footprint. Four policy papers are currently being produced each year to document this research, encompassing land use transport planning strategies and policy directions, governance arrangements, funding models and bus service contracting arrangements. Research building on the idea that our cities should be developed as a series of 20-minute neighbourhoods has been of particular interest to the major political parties, which have now both adopted 30 minute variants of this approach. The vital role that needs to be played by the middle suburbs of our cities in coming years has emerged strongly from the research. The research recognizes the way that structural economic changes are affecting economic and social outcomes in our cities and it proposes proactive land use transport planning responses to support productivity growth and the better sharing of benefits from this growth among residents across the entire metropolitan area. A book is being published by Edward Elgar incorporating much of the work from this Fellowship, with complementary research from Associate Professor Janet Stanley and Professor Roz Hansen from University of Melbourne.

Consulting

International Comparison of Australia's Freight and Supply Chain Performance and Productivity

(2017, AU\$30,000)

Professor Michael G.H. Bell

Consultancy Grant, Department of Infrastructure and Regional Development, Australia

University Research Grants

Engineering Discovery Seed Fund

(2017, \$29,780)

Dr. Kun An

Sustainable charging infrastructure deployment for electric vehicles

Supporting older people and their transport independence

(2017, AU\$35,000)

Dr Claudine Moutou and Dr. Geoffrey Tilden Clifton

Business School - Industry Partnership Grant.

**Expanding the potential of SmartRoads to improve road network performance
Monash Infrastructure
(2017, \$40,000)**

Dr Alexa Delbosc, Professor Amrik Sohal

Project to review and strengthen the use of multimodal Network Operation Plans in Australia and overseas.

**ITT LLDC Research Development Project
(2017, AU\$27,238)**

Associate Professor Xiaowen Fu

Business School - Industry Partnership Grant, International Think Tank for Landlocked Developing Countries (Mongolia)

In 2015, the University of Sydney and the International Think Tank for Landlocked Developing Countries (LLDC) forged a Memorandum of Understanding (MOU) to explore collaborative opportunities in research and other activities to develop and exchange knowledge regarding the unique issues faced by landlocked developing countries. In line with this, the Principal Investigator will lead the development of a research agenda focused on LLDCs, and will administer a cross-disciplinary research project aimed at stimulating research in this emerging area. The umbrella research project explores specific sub-research projects are related to:

- (1) Transport and access issues of LLDCs;
- (2) Trade and economic development issues of LLDCs;
- (3) Technology and connectivity issues of LLDCs

**Mobility as a Service (MaaS): identifying the right business model for Australia
(2017, \$19,000)**

Professor David Hensher, Professor Corinne Mulley, Dr Chinh Quoc Ho

Business School – Pilot Research Grant

This project aims to identify a viable business model that MaaS providers in Australia should follow to allow a large-scale adoption of MaaS to significantly shift individual choices towards the most sustainable transport option.

**A feasibility study of the Future of Private Transport in Australia: Impacts of AVs on urban transport systems
(2017, \$8,000)**

Professor Geoff Rose, Professor Hai Vu, Dr Alexa Delbosc, Long Truong

This project developed a conceptual framework for characterising the impacts of Autonomous Vehicles (AVs) on urban transport systems, used that model to characterize research to date and undertook a series of exploratory studies as initial research into areas where there could be scope for further research.

Engagement

Public Lectures and Seminars

Leadership and Policy Seminar Series

Established in 2003, the ITLS-Sydney Leadership and Policy Seminar Series benefits from leading national and international experts (CEOs, Visiting Professors etc.) speaking on topical transport and logistics issues relevant to business and academia. The seminar series attracts a broad audience from industry, government and academia as well as our own faculty and research students. The seminar conveners are Professor Rico Merkert and Dr Jyotirmoyee Bhattacharjya. The following presentations were given in 2017:

What do we know about value uplift and what sort of uplift do we see in Australia?

7 March 2017

Professor Corinne Mulley, ITLS-Sydney

New avenues of sustainable SCM

28 March 2017

Associate Professor Tarkan Tan, School of Industrial Engineering at Eindhoven University of Technology TU/e

The role of ICT in global logistics and supply chains within the context of DB Schenker

11 April 2017

Charlie Macdonald, CIO Schenker Australia

Future Directions for Global Aviation: the Qantas View

3 May 2017

Gareth Evans, CEO, Qantas International and Freight

Impacts of the OBOR on ports in Asia and Australia

9 May 2017

Professor Paul Tae-Woo Lee, School of Business IT and Logistics and Leader of the One Belt One Road Research (OBOR) Lab in RMIT University

How the Digital Transformation is impacting leadership and business models

23 May 2017

Federico A. Bettini, CEO, Aizoon Australia

Location-Based Analytics for Smarter Planning: Evidence from Maryland

31 May 2017

Governor Martin O'Malley, Maryland

Factors affecting the development of electric vehicle-based car-sharing schemes

27 June 2017

Professor John Nelson, Chair of Transport Studies in the School of Engineering at the University of Aberdeen and is Director of the Centre for Transport Research (CTR)

Social exclusion: the roles of mobility and bridging social capital in regional Australia

28 July 2017

Professor John Stanley, Adjunct Professor at the Institute of Transport and Logistics Studies and a former Deputy Chair of Australia's National Road and Associate Professor Janet Stanley, Principal Research Fellow - Urban Social Resilience at the Melbourne Sustainable Society Institute

What can we learn from econometric analysis of ship performance data?

11 August 2017

Professor Roar Ådland, Norwegian School of Economics

The End of Traffic and the Future of Access: A Roadmap for the New Transport Landscape

19 September 2017

Professor David Levinson, School of Civil Engineering at the University of Sydney

Getting Freight Right in a Changing Economy

4 October 2017

Michael Kilgariff, Managing Director of the Australian Logistics Council

Road Reform - Our Closing Window of Opportunity

31 October 2017

Phil Davies, CEO Infrastructure Australia

Challenges Facing China's Air Policy Makers and Effects of their Choice on Asian Airline Market Development: Focus on Inevitability of Liberal LCC Policy and What it means to Asian and Global Airline Markets

21 November 2017

Professor Tae Oum, The University of British Columbia

Cassandra curse for modellers: making true predictions and getting people to listen to them

28 November 2018

Professor Stephane Hess, ITS, University of Leeds, UK

Does Santa Claus really have such a difficult job?

12 December 2017

John Allen, Director Horizon inventory

Ogden Transport Lecture

ITS-Monash's Ogden Transport Lecture is a free public lecture initiated in 2001 to recognise the key role which Ken Ogden played in the formation and development of the transport program at Monash University.

Public Transport in Toronto: What can we learn from the last 20 years?

29 June 2017

Professor Eric Miller, University of Toronto, Canada

Transport Research Workshop

Updating the Beijing Strategic Transport Model

7 – 9 November 2017

Dr Chinh Ho, Dr Richard Ellison, Beijing Transport Institute

Committees

- **Dr Kun An**
United States Transportation Research Board Committees: Transportation Network Modelling TRB - ADB30 (Friend)
- **Dr Matthew Beck**
United States Transportation Research Board Committees: Stated Response (Chair), Travel Survey Methods, Traveller Behaviour and Values
- **Professor Michael Bell**
International Symposium on Transport Network Reliability International Scientific Committee (Chair); International Symposium on Transportation and Traffic Theory Scientific Committee (Past Chair, Member); Member of International Advisory Committee, Hong Kong Society for Transport Studies (HKSTS)
- **Professor Michiel Bliemer**
International Scientific Committee of the Dynamic Traffic Assignment Conference; United States Transportation Research Board Committees: Network Modelling, Survey Methods
- **Dr Geoffrey Clifton**
Australian Timetable Association (Convenor, Sydney Branch)
- **Professor Graham Currie**
United States Transportation Research Board Committees: International Light Rail Transit Developments (Chair), Light Rail Transit (Vice Chair), Public Transportation Planning and Development, Conference Organising Committee - National Streetcar and Light Rail Conference, New Jersey USA; Track Chair - Public Transport - Australasian Transport Research Forum
- **Dr Alexa Delbosc**
United States Transportation Research Board Committees: Social and Economic Factors of Transportation, Traveller Behaviour and Values; Australasian Transport Research Forum Scientific Committee
- **Professor Behnam Fahimnia**
International Conference on Industrial and Systems Engineering Scientific Committee; International Conference on Industrial Engineering and Operations Management Scientific Committee; International Conference on Logistics and Maritime Systems Scientific Committee; Sydney Supply Chain Workshop Scientific Committee; Board Member, IEEE Technology & Engineering Management Society, United States
- **Associate Professor Xiaowen Fu**
Editorial board: Transportation Research - Part B, Part E (both are tier 4 journals), Vice President (Research) of the Air Transport Research Society (ATRS), Vice President (Research) of the Institute for Aviation (UK), Founding chair of the Maritime Economy and Policy stream of the World Transport Convention.
- **Professor Stephen Greaves**
Travel Survey Conference International Steering Committee; Australasian Transport Research Forum Conference Organising Committee; United States Transportation Research Board Committees: Air Quality, New Technologies in Travel Surveys
- **Dr Chris De Gruyter**
United States Transportation Research Board (TRB) Standing Committee on Transportation Demand Management: Member; Australasian Transport Research Forum (ATRF) Scientific Committee: Member; Australian Institute of Traffic Planning and Management (AITPM), Victorian Branch: Committee Member

- **Professor David Hensher**
Transport for NSW: Advisory Panel on the Long Term Transport Master Plan, Benchmarking Program Panel; Infrastructure Australia reference panel on public transport; Advisory Board, Institute of Transport and Logistics Studies (Africa), South Africa; International Conference Series on Competition and Ownership in Land Passenger Transport, International Steering Committee (Chair)
- **Dr Chinh Ho**
Permanent Scientific and Technical Committee, Cooperation for Urban Mobility in the Developing World; Advisory Panel of the Beijing Transport Research Institute; Advisory Panel of the Sydney Household Travel Survey Review
- **Dr Marilyn Johnson**
Amy Gillett Foundation Research and Policy Committee, Australian Injury Prevention Network (National Executive Committee), Australasian College of Road Safety (National Executive Committee, Victorian Chapter Deputy Chair), Australasian Road Safety Conference (Organising Committee, Scientific Committee), Melbourne Metro Rail Authority Public Engagement and Influence Working Group, METEC Driver Training Centre Board, Road Safety Education Scientific Advisory Committee
- **Dr Inhi Kim**
United States Transportation Research Board Committees: Highway/Rail Grade Crossings TRB- AHB60 (Standing)
- **Martin Locke**
Board member, Infrastructure Partnerships Australia, Australia.
- **Professor Rico Merkert**
United States Transportation Research Board Committees: Air Cargo, Aviation Economics, Light Commercial and General Aviation (GARN)
- **Professor Corinne Mulley**
Executive Board, World Symposium of Transport and Land Use Research (Chair); NSW Premier's University Government Business Forum; NSW Premier's Council for Active Living, Workplace Travel Planning Group; Global Aviation Research Network (GARN)
- **Professor Geoff Rose**
Australasian Transport Research Forum: National Executive Committee and Chair Scientific Committee for the 2017 ATRF Conference; World Conference on Transport Research (Local Area Representative); United States Transportation Research Board Committees: Transportation Demand Management, Emerging Vehicles and Low Speed Transportation
- **Dr Meead Saberi**
Young member of the United States Transportation Research Board Committee on Traffic Flow Theory and Characteristics; Program committee member of the 2016 Intelligent Transportation Systems (ITS) World Congress, Melbourne, Australia; Scientific committee member of the 1st Symposium on Management of Future Motorway and Urban Traffic Systems (MFTS 2016), Greece; Theme leader in the World Symposium on Transport and Land Use Research, Brisbane, Australia.; Monash University Faculty of Engineering representative in the university Early Career Researchers (ECR) committee
- **Professor John Kenneth Stanley**
Member, Advisory Committee, Institute of Transport Studies, Monash University, Australia, 1995 - present.
- **Dr Susilawati Susilawati**

United States Transportation Research Board Committees: Geographic Information Science and Applications (Friend); United States Transportation Research Board Committees: Urban Transportation Data and Information Systems (Friend); Indonesia: International Symposium on Transportation Studies for Developing Countries

- **Professor Hai L. Vu**

United States Transportation Research Board Committees: Artificial Intelligence and Advanced Computing Applications: ABJ70 (Friend)

Awards

- **Associate Professor Matthew John Beck**
Wayne Lonergan Award for Outstanding Teaching, Business School, University of Sydney, Australia, 2017.
- **Professor Michiel C.J. Bliemer**
Dean's Citation for Teaching S2 2017, University of Sydney Business School, Australia, 2017.
For ITLS6105 Traffic and Mobility Management
Research Excellence Award, University of Sydney Business School, Australia, 2017.
- **Dr. Geoffrey Tilden Clifton**
Dean's Citation for Teaching, University of Sydney Business School, Australia, 2017.
For ITLS5200 Quantitative Logistics and Transport for Semester 1 2017
- **Dr. Andrew T Collins**
Dean's Citation for Teaching S1 2017, University of Sydney Business School, Australia, 2017.
For ITLS6002 Supply Chain Planning and Design
- **Professor Graham Currie**
Elected to the Academy of Technology Science and Engineering, 2017
- **Professor Graham Currie and Dr Alexa Delbosc**
Dean's Award for Research Impact 2017
Vice Chancellor's Award for Research Impact (Economic and Social) 2017
Australian Road Research Board Research Impact Award 2017
- **Professor Graham Currie and Dr Chris De Gruyter**
John H Taplin Prize for Best Paper at the Australasian Transport Research Forum 2017
- **Professor Behnam Fahimnia**
Dean's Citation for Teaching S1 2017, University of Sydney Business School, 2017. For ITLS6090 Logistics and Supply Chain Project
Letter of Appreciation from the Vice-Chancellor of The University of Sydney, recognising significant research contribution and external funding success, The University of Sydney
Dean's Teaching Citation Award, recognising significant teaching impact in Semester 2 2017, The University of Sydney Business School
University of Sydney Publication Award, recognising significant contributions to the university's research output, The University of Sydney
- **Associate Professor Xiaowen Fu**
Dean's Citation for Teaching S1 2017, University of Sydney Business School, Australia, 2017. For ITLS6401 Airport Management
- **Professor Stephen P Greaves**
Dean's Citation for Teaching S2 2017, University of Sydney Business School, Australia, 2017.
For BUSS7901 Research Design

Media

- **Dr Kun An**

SBS TV, 12 Dec 2017.

Overseas driver license conversion in Victoria

- **Associate Professor Matthew John Beck**

Triple J Hack (Radio), 4 July 2017.

Matthew Beck was interviewed on triple j Hack about cycling.

Sydney Business Insights (Internet), 27 April 2017.

Sydney Business Insights republished an article by Matthew Beck and Michiel Bliemer about congestion in major cities.

Mashable (US), Yahoo! (UK, India) (Internet), 24 March 2017.

Mashable (US) and Yahoo! (UK, India) quoted Dr Matthew Beck from the Institute of Transport and Logistics about a formula for predicting how open cities are to ride-sharing.

Sydney Business Insights (Internet), 28 March 2017.

Dr Matthew Beck authored an article for Sydney Business Connect, that was republished in Sydney Business Insights, about whether autonomous vehicles can become appealing to a mainstream audience.

ABC News Sydney (TV), 14 February 2017.

ABC News Sydney interviewed Dr Matthew Beck about the Federal Auditor General's report on the funding of the WestConnex Motorway.

- **Professor Michael G.H. Bell**

ITLS Thinking Outside the Box, 12 July 2017.

“The high cost of housing and how to reduce it “Argues that better access to housing from jobs increases the elasticity of demand for housing, which reduces its cost (to rent or buy).

ITLS Thinking Outside the Box, 28 June 2017.

“Shrinking supply chains, greater welfare?” Argues that recent technological developments (Industry 4.0), by making production more mobile, offer a wider range of employment opportunities to residents thereby improving their welfare.

ABC Radio National (Radio), 2 March 2017.

ABC Radio National interviewed Professor Michael Bell about the economics of ports in Australia.

Sunshine Coast Daily (Newspaper), 21 February 2017.

Sunshine Coast Daily reported on new research that recommends companies should focus on identifying weak links in their supply chain to ensure networks are less susceptible to disruption. Professor Michael Bell and Dr Supun Perera was quoted.

- **Professor Michiel C.J. Bliemer**

Eco-Business (Internet), 13 October 2017.

Eco-Business quoted Michiel Bliemer on the pros and cons of WestConnex and alternative transport options, such as the City of Sydney's recommendations to accelerate public transport plans and remove fees to access the airport by train.

ITLS Thinking Outside the Box (Other), 3 October 2017.

While it is recognised through numerous inquiries and research related activities that road pricing reform is necessary if we are ever to tame traffic congestion to acceptable levels, and the theory is well established on how to price travel under congested conditions, the challenge has always been on how to get started in a way that can demonstrate the merits of a reform scheme without having to have a total system implementation.

AAP, news.com.au, Yahoo!, SBS News, The Australian (Internet), 3 October 2017.
Professor Michiel Bliemer was quoted about a proposed congestion tax in an AAP article syndicated on Yahoo!, SBS News, The Australian, and various other Australian outlets.

Sydney Business Insights (Internet), 27 April 2017.
Sydney Business Insights republished an article by Matthew Beck and Michiel Bliemer about congestion in major cities.

ABC Radio (Sydney) (Radio), 21 March 2017.
Professor Michiel Bliemer was interviewed on ABC Radio Sydney about the history of Australian road tolls and whether tolling has relieved traffic congestion.

- **Dr. Geoffrey Tilden Clifton**

Daily Telegraph (Newspaper), Australia, 13 December 2017.
Quoted regarding disruption on Sydney Trains network.

ABC Radio Sydney (Radio), Australia, 12 December 2017.
Interview regarding disruption to evening peak services on Sydney's rail networks.

ABC TV News Sydney (TV), Australia, 12 December 2017.
Interview regarding disruption on Sydney's train network

2SER (Radio), Australia, 6 December 2017.
Radio interview discussing the impacts of the new train timetable and discussing the reasons for the change.

ABC Radio South Australia (Radio), Australia, 14 November 2017.
Interviewed on Drive show regarding new measures to counter fare evasion in Adelaide, including fare gates and more ticket inspectors.

ABC Radio South East NSW (Radio), Australia, 16 October 2017.
Interviewed regarding IPART's recommendations that regional bus fares be reduced, operations made more efficient and flexible transport services introduced

The Wire (Radio), Australia, 16 October 2017.
Interviewed regarding the release of new carpooling apps.

SBS Online (Internet), Australia, 3 October 2017.
Quoted regarding feasibility of congestion charging and road user charges for Australia.

C91.3FM (Radio), Australia, 27 September 2017.
Interviewed regarding WSROC's proposal to build a new train line linking the Hawkesbury to Badgers Creek and Campbelltown.

Sydney Morning Herald (Newspaper), Australia, 31 August 2017.
Quoted regarding strong growth in public transport patronage into Sydney's CBD.
<http://www.smh.com.au/nsw/sydney-commuters-opt-for-buses-trains-over-cars-in-travelling-to-cbd-20170830-gy757x.html>

Sydney Morning Herald (Newspaper), Australia, 17 August 2017.
Quoted regarding strong growth in rail passenger numbers in Sydney.

City Hub (Newspaper), Australia, 6 July 2017.
Quoted regarding the impact of light rail construction on nearby businesses.

ABC Radio (Radio), Australia, 13 June 2017.
Interviewed regarding proposed new roads in Western and Southern Sydney.

Daily Telegraph (Newspaper), Australia, 8 June 2017.
Extensively quoted regarding link between housing affordability and long commuting times:
<http://www.dailytelegraph.com.au/business/work/australian-crawl-fourhour-commute-for-workers-wanting-to-own-a-home/news-story/08d1190d5eb2ac75fe6335a1201f6fb6>
This article was syndicated to The Herald Sun and news.com.au

ABC News (TV), Australia, 26 May 2017.
Interviewed regarding on demand bus services and franchising of Inner Western Sydney bus services.

The Guardian (Newspaper), Australia, 23 May 2017.
Quoted regarding franchising of Inner Western Sydney bus services

Xinhua (Newspaper), Christmas Island, 26 April 2017.
Quoted by Xinhua's English language news agency about Transport for NSW refusing to support a draft plan to create thousands of new homes in Sydney's northern beaches. This article was syndicated by China.org (China), Sina (China) and Asia Pacific Daily (Hong Kong).

Xinhua (Newspaper), Christmas Island, 20 April 2017.
Quoted by Xinhua's English language news agency about the risk of overcrowding at Sydney train stations. This article was syndicated by Yahoo! (India), Business Standard (India) and Asia Pacific Daily (Hong Kong).

ABC News (TV), Australia, 12 April 2017.
Interviewed on ABC NSW's 7:00 PM news bulletin regarding Auditor-General's report on Sydney's future rail network capacity and concerns that capacity will not be sufficient for demand during the next decade.

2GB (Radio), Australia, 5 January 2017.
Interview with '2GB's The Alan Jones Breakfast Show with Chris Smith' regarding traffic congestion in Sydney and possible solutions.

2UE (Radio), Australia, 5 January 2017.
Interview with '2UE's Summer Breakfast with Murray Olds & Deb Knight' regarding traffic congestion in Sydney and possible solutions.

Daily Mail Australia (Newspaper), Australia, 5 January 2017.
Quoted regarding Sydney's congested roads

<http://www.dailymail.co.uk/news/article-4089058/Australia-s-worst-roads-revealed-new-Austroroads-report.html>

Sydney Morning Herald (Newspaper), Australia, 5 January 2017.
The Sydney Morning Herald quoted Dr Geoffrey Clifton about road projects in NSW, Sydney's growing population and the issue of road pricing.

Yahoo7 News (Internet), Australia, 5 January 2017.
Quoted regarding future levels of traffic congestion in Sydney.

<https://au.news.yahoo.com/nsw/a/33721558/sydney-boasts-slowest-roads-in-australia-and-new-zealand/#page1>

- **Professor Behnam Fahimnia**

ITLS Thinking Outside the Box (Other), 1 December 2017.

The growing interest of supply chain stakeholders (e.g., customers, governments, and non-governmental organisations) in sustainable practices have made organisations start rethinking the design of their supply chains by considering a set of environmental and social performance measures.

- **Associate Professor Xiaowen Fu**

Radio Television Hong Kong, 23 May 2017.

Interview on Airline Restructuring,

- **Professor Stephen P Greaves**

The Conversation (Internet), 7 September 2017.

Professor Stephen Greaves and Christopher Standen wrote about how small investment in cycling infrastructure, combined with less punitive policing, would enable more Australians to escape daily traffic congestion in The Conversation.

2SER FM (Radio), 3 September 2017.

Professor Stephen Greaves was interviewed on 2SER FM about a new dockless bike sharing app, which was launched by a Sydney-based company.

Post Today (Internet), 7 May 2017.

Post Today (Thailand) quoted Stephen Greaves from the Institute of Transport and Logistics Studies about traffic in Indonesia.

Daily Telegraph, Herald Sun, Courier Mail, Gold Coast Bulletin (Newspaper), 2 May 2017.

Professor Stephen Greaves was quoted in the Daily Telegraph, Herald Sun, Courier Mail, Gold Coast Bulletin and syndicated articles about urban planning lessons Australian cities can take on from Jakarta, Indonesia.

The Sydney Morning Herald, Age and Canberra Times (Newspaper), 13 February 2017.

The Sydney Morning Herald, Age and Canberra Times published an article authored by Professor Stephen Greaves about Sydney's traffic congestion during peak times such as the beginning of the school term.

- **Professor David A Hensher**

Campus Morning Mail and eGlobal Travel Media (Internet), 19 October 2017.

Campus Morning Mail and eGlobal Travel Media reported Professor David Hensher has reached a research record of 40,000 Google Scholar citations.

Australian Financial Review (Newspaper), 18 October 2017.

Australian Financial Review mentioned Professor David Hensher in an article on Airport Link, Brisbane's airport toll road.

Roads Online (Internet), 16 October 2017.

Roads Online mentioned Professor David Hensher will speak at the Annual NSW Major Projects Conference.

ITLS Thinking Outside the Box (Other), 3 October 2017.

While it is recognised through numerous inquiries and research related activities that road pricing reform is necessary if we are ever to tame traffic congestion to acceptable levels,

and the theory is well established on how to price travel under congested conditions, the challenge has always been on how to get started in a way that can demonstrate the merits of a reform scheme without having to have a total system implementation.

HuffPost Australia, Wheels Magazine, and ITWire (Internet), 25 September 2017.
HuffPost Australia, Wheels Magazine, and ITWire reported on research from the Institute of Transport and Logistic Studies into Australia's attitudes towards self-driving cars, which would contribute to traffic congestion on roads. Professor David Hensher was quoted.

HuffPost Australia, Wheels Magazine, ITWire, The Register (UK), WOW (US) (Internet), 25 September 2017.

HuffPost Australia, Wheels Magazine, ITWire, The Register (UK) and WOW (US) reported on research from the Business School into Australia's attitudes towards self-driving cars, which would contribute to traffic congestion on roads. Professor David Hensher from the Institute of Transport and Logistic Studies was quoted.

The Register (UK) and WOW (US) (Internet), 25 September 2017.

The Register (UK) and WOW (US) reported on research from the Business School into Australia's attitudes towards self-driving cars, which would contribute to traffic congestion on roads. Professor David Hensher from the Institute of Transport and Logistic Studies was quoted.

Illawarra Mercury (Newspaper), 18 September 2017.

Illawarra Mercury quoted Professor David Hensher from the Business School about whether people would pay the toll on the new F6 extension between Sydney and Illawarra.

ITLS Thinking Outside the Box (Other), 31 August 2017.

Mobility as a Service (MaaS) is talked about a lot as the new approach to delivering transport services that are better tailored to the needs of travellers than the existing modal services that, with exceptions, do not allow switching between all possible modes.

Sydney Morning Herald (Newspaper), 29 July 2017.

Professor David Hensher was quoted in the Sydney Morning Herald about the increase in toll roads around Sydney.

2UE Sydney, 2GB and ABC Radio (Radio), 11 July 2017.

Professor David Hensher was interviewed on 2UE Sydney and 2GB about different ways to operate toll roads. ABC Radio Sydney mentioned Professor Hensher was quoted in the Daily Telegraph about the topic

The Daily Telegraph (Newspaper), 11 July 2017.

The Daily Telegraph quoted Professor David Hensher on toll roads in Sydney and whether drivers are prepared to pay more if time savings were guaranteed.

The Daily Telegraph (Newspaper), 10 July 2017.

The Daily Telegraph quoted Professor David Hensher on the number of toll roads in Sydney and whether road users should be compensated if journey time is not what is promised.

Urban Melbourne (Internet), 16 June 2017.

Urban Melbourne republished an article from The Conversation by John Stanley and David Hensher about why estimations of public transport savings from competitive tendering are too high.

The Conversation (Internet), 6 June 2017.

The Conversation published an article about competitive tendering in the public transport sector and whether savings are realistic. The article was co-authored by Professor David Hensher and Adjunct Professor John Stanley.

2ser 107.3 (Radio), 24 May 2017.

Professor David Hensher was interviewed by 2SER about his forecasts of motorists' negative responses to the additional road tolls planned as part of the Westconnex initiative infrastructure.

Canberra Times (Newspaper), 22 May 2017.

Professor David Hensher was quoted in an article by the Canberra Times on the WestConnex project and the various factors to consider when implementing a road toll charge.

ABC Radio National (Radio), 18 May 2017.

Professor David Hensher was interviewed on Radio National about the potential benefits of road pricing for traffic congestion.

The Daily Telegraph, Manly Daily (Newspaper), 8 May 2017.

The Daily Telegraph and the Manly Daily mentioned that Professor David Hensher will feature at an upcoming forum on rapid bus transport.

Business Day (Internet), 21 April 2017.

Professor David Hensher was quoted by Business Day (South Africa) about alternatives to e-tolls to fund road construction in South Africa.

Daily Telegraph, Courier Mail, Gold Coast Bulletin and NT News (Newspaper), 30 March 2017.

Professor David Hensher was quoted in Transport and Logistics News, the Daily Telegraph, Courier Mail, Gold Coast Bulletin and NT News about an ITLS study which has found less than 50 percent of Australians consider roads to be relatively safe.

ABC Mid North Coast (Internet), 27 March 2017.

ABC Mid North Coast interviewed Professor David Hensher about the results of the Transport Opinion Survey regarding Australians' perceptions of road safety.

CIO (Magazine), Australia, 12 March 2017.

The Federal Government has earmarked \$55 million over 10 years to explore intelligent transport systems, including self-drive vehicles, in a bid to improve traffic movement.

- **Dr. Chinh Quoc Ho**

2SM Sydney (Radio), 22 September 2017.

2SM Sydney interviewed Dr Chinh Ho about research into Australia's attitudes towards self-driving cars, which would contribute to traffic congestion.

- **Martin Locke**

Sydney Morning Herald (Newspaper), 20 November 2017.

Sydney Morning Herald quoted Adjunct Professor Martin Locke from the Institute of Transport and Logistics Studies about the NSW Government's plans to introduce free car registration for motorists who spend more than \$25 a week on toll roads. The article was syndicated across Fairfax Media online.

- **Professor Rico Merkert**

Sydney Morning Herald (Newspaper), 9 September 2017.

Sydney Morning Herald quoted Professor Rico Merkert on changes to Qantas's long haul flights. The article was syndicated across Fairfax media.

The Sydney Morning Herald (Newspaper), 28 August 2017.

The Sydney Morning Herald quoted Professor Rico Merkert on Qantas' recent strong financial performance. The article was syndicated across Fairfax media.

The New Daily (Internet), 15 June 2017.

Professor Rico Merkert was quoted by The New Daily about the introduction of 'Google Flights' into Australia.

The Australian (Newspaper), 21 April 2017.

The Australian published an opinion piece by Professor Rico Merkert about the essential role of regional airlines in the tourism and aviation industry.

Australian Financial Review (Newspaper), 7 April 2017.

Professor Rico Merkert was quoted in the Australian Financial Review about Qantas' potential non-stop flights from Sydney to London.

The Sydney Morning Herald, Age, Canberra Times, The Guardian and Daily Mail (Newspaper), 7 April 2017.

The Sydney Morning Herald, Age, and Canberra Times quoted Professor Rico Merkert about aircraft capable of flying non-stop commercial flights from Sydney to London.

Fortune, 6 April 2017.

Professor Rico Merkert was quoted by Fortune about aircraft capable of flying non-stop commercial flights from Sydney to London.

Guardian (UK), Telegraph (UK), Reuters (Canada, US), Yahoo! (US, Canada, India, Singapore), MSN (US), CNBC (US), The Business Times (Singapore) and Times of India (Newspaper), 6 April 2017.

Guardian (UK), Telegraph (UK), Reuters (Canada, US), Yahoo! (US, Canada, India, Singapore), MSN (US), CNBC (US), The Business Times (Singapore) and Times of India quoted Professor Rico Merkert from the Business School about aircraft capable of flying non-stop commercial flights from Sydney to London.

The New Daily (Internet), 22 March 2017.

The New Daily interviewed Professor Rico Merkert on the merits of banning laptops on flights.

ABC Coffs Coast (Radio), Australia, 16 February 2017.

Professor Rico Merkert was interviewed on ABC Coffs Coast about the importance of Grafton regional airport for the region.

The Rakyat Post (Malaysia), Indian Express, India, Gulf Times, UAE, CNBC, Malang Today, Indonesia, The New Paper, Singapore and NASDAQ, USA (Internet), 3 February 2017.

The Rakyat Post (Malaysia), Indian Express, India, Gulf Times, UAE, CNBC, Malang Today, Indonesia, The New Paper, Singapore and NASDAQ, USA quoted Professor Rico Merkert about airline Tigerair Australia ceasing flights to Indonesia.

- **Professor Corinne Mulley**

6PR Perth (Radio), 14 November 2017.

6PR Perth interviewed Professor Corinne Mulley from Business School about the Ellenbrook Rail Line project in WA. ABC Newcastle also interviewed Professor Mulley about using homeowner levies to fund infrastructure projects.

ITLS Thinking Outside the Box (Other), 31 July 2017.

Doesn't everyone think that sharing is a good idea especially for everyone else? Of course there is always an element of 'I know that if everyone else shares I won't have to'.

Scimex (Internet), 30 May 2017.

Scimex mentioned research by The University of Sydney Business School about how property value rises when new public transport systems are launched. Professor Corrinne Mulley was quoted.

Sydney Morning Herald (Newspaper), 26 May 2017.

Professor Corinne Mulley was interviewed by the Sydney Morning Herald about the NSW Transport Minister Andrew Constance's vision for an on-demand, Uber-style bus operation in Sydney's inner-west.

Sydney Business Insights (Internet), 7 April 2017.

Sydney Business Insights republished an article written by Corinne Mulley about whether public transport will keep pace with Australia's capital cities' rapidly growing populations.

- **Christopher Standen**

The Conversation (Internet), 7 September 2017.

Professor Stephen Greaves and Christopher Standen wrote about how small investment in cycling infrastructure, combined with less punitive policing, would enable more Australians to escape daily traffic congestion in The Conversation.

Australian Financial Review (Newspaper), Australia, 19 January 2017.

The Australian Financial Review quoted Christopher Standen, PhD candidate, about the NSW Government's transport and infrastructure agenda in light of the Premier's retirement.

* **Thinking Outside the Box – an ITLS-Sydney initiative**

While academic publications and reports are a very important outlet for high quality research including debates on themes with a rich policy and strategic value beyond theory, methods and evidence, there is room for a series of short poignant commentaries on themes that are of broad community interest. These short pieces focus on topics of currency that are likely to be challenging and controversial – hence the titling of the series Thinking Outside the Box. It has all the elements of critical thinking and the challenge of change.

Centre Outputs



Australian Government
Australian Research Council

ARC Centres of Excellence

Centre Outputs and Detailed Income and Expenditure
Report
(CODIE)

Centre Name:	ARC Centre of Excellence...
Centre ID: (eg CE1100006)	NO95/08214
Calendar Year Reported:	2017
Centre Admin. Organisation:	The University of Sydney

CENTRE OUTPUTS AND DETAILED INCOME AND EXPENDITURE REPORT (CODIE) GUIDE

CODIE data from individual Centres is for use within the ARC and will not be published. Consolidated figures may be published, used for evaluation purposes or to promote the overall achievements and/or outcomes of the ARC Centres.

The ARC is interested in tracking the development of the Centre as a focal point for research and as an attractive destination for high-quality researchers. The Outputs categories align Centre outputs with the outputs of other ARC schemes.

Reporting requirements

- Centres **receiving** ARC centre funding must submit a completed CODIE (Certification, Outputs, Income, Expenditure, In kind, Personnel and Other ARC grants worksheets) along with five (5) copies of the Annual Report
- Centres **no longer receiving** ARC centre funding, but retaining their title, must submit a completed Outputs worksheet only from this CODIE along with one (1) copy of the Annual Report.

To be noted when completing the CODIE:

- The CODIE is NOT a balance sheet. The total income does not necessarily have to balance the total expenditure.
- Headings should not be modified. New headings must only be entered under the "Other" category.
- Leave blank any rows that are not applicable to your Centre.
- New rows may be added to tables if more entries are required.
- All data must be for the 2017 calendar year ONLY.
- Insert Centre Details on sheet 1 (Title Page) before completing the remainder of the CODIE. These details will auto-fill across the worksheet.
- Example worksheets are provided. Please note the data in these examples are illustrative only and do not represent indicative amounts.

Submitting your CODIE (due by 31 March each year)

To submit your CODIE please:

1. Check the Centre name below is correct.
2. Print this page and sign the Certification below.
3. Print one (1) copy of each worksheet.
4. Post this with the signed Certification page and five (5) paper copies (one for Centres no longer receiving ARC Centre funding) of the Centre's Annual Report to:

Centres Coordinator
Australian Research Council
GPO Box 2702
Canberra ACT 2601

5. [Email an electronic copy of this file to centres@arc.gov.au](mailto:centres@arc.gov.au)

Certification

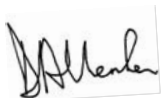
To be signed by an authorised officer of the Centre.

I hereby certify that the following sheets are an accurate representation of the outputs, income and expenditure of the: ARC Centre of Excellence...

covering the calendar year 2017 and that I am authorised to approve their submission.

Certified by:

Signature



Print Name

Professor David Hensher

Date

21.03.2018

Instructions

- Include outputs for ALL Centre activities (including those arising from Centre staff not named as CIs or PIs).
- Do not include any outputs from other ARC-funded projects or from work predominantly completed before commencement of the the Centre.
- If you are unable to differentiate between Centre outputs and outputs from other ARC-funded projects, these may be included in Column A. In these cases the (double counted) outputs should also be acknowledged in Column D.
- Include only 2017 accepted and in-print books/articles. Do not include outputs that were listed in the 2016 CODIE.

Code	Type of Output	A Number of Centre outputs	B Number of outputs in Column A that included overseas involvement (i)	C Number of outputs in Column A that involved personnel external to the Centre (ii)	D Number of outputs in Column A also attributed as outputs of other ARC Projects (iii)
A1	Book – authored research	2	0	0	0
A2	Book – authored other	0	0	0	0
A3	Book – edited	0	0	0	0
A4i	Book – revision/new edition	3	0	2	0
A4	Book – translation	0	0	0	0
B	Book chapter	4	0	0	0
C1	Journal article – articles in scholarly refereed journal	93	43	63	11
C2	Journal article – other contribution to refereed journal	2	0	0	0
C3	Journal article – non-refereed article	0	0	0	0
C4	Journal articles – letter or note	0	0	0	0
C5	Unpublished reports (including commercial consultancies)	3	1	1	0
D	Major review	0	0	0	0
E1	Conference – full written paper-refereed proceedings	68	20	26	3
E2	Conference – full written paper-non refereed proceedings	3	2	3	0
E3	Conference – extract of paper	0	0	0	0
E4i	Conference – edited volume of conference proceedings	0	0	0	0
E4	Conference – unpublished presentation	0	0	0	0
F	Audio-visual recording	0	0	0	0
G	Computer software (including digital maps, data, web outputs)	0	0	0	0
H	Designs	0	0	0	0
H2	Technical drawings	0	0	0	0
I	Patents - filed	0	0	0	0
I2	Patents - pending	0	0	0	0
J1i	Other creative works – major written or recorded work	0	0	0	0
J2i	Other creative works – minor written or recorded work	0	0	0	0
J3i	Other creative works – individual exhibition or original art	0	0	0	0
J4i	Other creative works – representation of original art	0	0	0	0
J1	Major creative works	0	0	0	0
J2	Creative work including in group exhibition, performance, recording or anthology	0	0	0	0
J3	Exhibition curatorship	0	0	0	0
K	Number of national collaborating institutions	2	0	0	0
L	Number of international collaborating institutions	7	0	0	0
M	Number of countries involved in collaboration	7	0	0	0
N	Number of countries from which international visitors originated	12	0	0	0
O	Number of international visitors	20	0	0	0
P	Number of overseas visits by Centre personnel	46	0	0	0
Q	Number of countries visited by Centre personnel	22	0	0	0
R1i	Training programs/teaching packages conducted	17	0	0	0
R1	Number of PhD students graduated	9	0	0	0
R2	Number of Masters students graduated	126	48	0	0
R3	Number of Honours students graduated	46	0	0	0
S1	Number of PhD students enrolled	55	10	0	0
S2	Number of Master students enrolled	566	440	0	0
S3	Number of Honours students enrolled	46	0	0	0
T	Number of early career researchers (within 5 years of PhD completion)	0	0	0	0

⁽ⁱ⁾ Outputs with overseas involvement - e.g. # journal articles with international co-authors, # international students enrolled/graduated

⁽ⁱⁱ⁾ Outputs with involvement from outside the Centre - e.g. # journal articles with co-authors not affiliated with the Centre

⁽ⁱⁱⁱ⁾ Outputs which have been attributed elsewhere in ARC reporting, - e.g. Linkage Project final reports