### Transport Research Institute, Edinburgh Napier

### 2008 HIGHLIGHTS

TRI began 2008 with a move to the Merchiston Campus of Edinburgh Napier University, and a relaunch of the TRI website at <a href="www.tri-napier.org">www.tri-napier.org</a>. The new website is frequently updated with project news, publications and staff activities.

The TRI Forum series was launched, with the aim of providing an opportunity to listen to and meet with industry experts, and to enter into discussion within the forum. The first forum took place in October on the subject of *Private Equity in Shipping and Ports*. Speakers at the forum were Ricardo Sanchez of the United Nations Economic Commission for Latin America and the Caribbean (UNECLAC), Neil Amner of Biggart Baillie and TRI's Professor Alf Baird. Further TRI Forums are scheduled for 2009.

The NMU project (Northern Maritime University) got underway in 2008. The project is funded through the EU's Interreg IVB North Sea Region Programme until the end of 2010. As part of the NMU project, TRI organised the European maritime education conference, held in Orkney in May.

Other projects that started in 2008 include STRATMOS (Strategic Motorway of the Sea demonstration), also funded through the Interreg IVB North Sea Region Programme.

Projects that concluded in 2008 include the EUfunded projects DIFFERENT and OPTIMUM 2, and the DfT-funded project HUSSAR.

In November, the Chair of TRI's Advisory Board, Dr David Quarmby, received the Honorary Degree of Doctor of Engineering.

#### STAFF NEWS

Following Professor Kevin Cullinane assuming the Directorship of TRI in April 2007, Professor Howard Kirby officially retired from Napier University in January 2008, and was appointed Emeritus Professor at TRI.

Mike Maher and Marcus Wigan were appointed Emeritus Professor.

In June Tom Rye was appointed Professor of Transport Policy & Mobility Management in the School of Engineering and the Built Environment.

Also in June, Dr James Cooper was appointed as TRI's Knowledge Transfer Coordinator.

Dr Yingen Ge left his position as Research Fellow in July to take up a role with David Simmons Consultancy.

Dr Chih-Wei Pai was appointed Research Assistant in November.

Yakov Boglev started as TRI's Projects Officer in April. Jenna Morrison left in June, replaced by new TRI Administrator Jill Napier, who started in July.

### STAFF ACTIVITIES IN 2008

Professor Kevin Cullinane was appointed to an EPSRC Advisory Committee on Shipping & the Environment and to the National Audit Office Advisory Committee investigating the Value for Money of the DfT's Maritime & Coastguard Agency. He was also appointed as Associate Editor of Transportation Research Part A: Policy & Practice, and was a member of the Programme Committees for the International Association of Maritime Economists Annual Conference in Dalian, the U.S. National Urban Freight Conference in Long Beach California, the International Symposium on Ship Operations, Management and Economics in Athens and the International Logistics & Shipping Conference in Taiwan. Closer to home, he was a member of the Steering and Programme Committees of the Scottish Transport Applications and Research (STAR) Conference in Glasgow. During the year, he was appointed as a Visiting Professor to the Copenhagen Business School and the University of Southern Denmark, as well as to a lifelong Visiting Professorship of Dalian Maritime University. He also served as a judge for the Regional Science Association International annual Dissertation Award and for the Supply Chain Asia Logistics Awards. Having completed terms as external examiner at Cardiff and Cranfield Universities, he accepted new appointments as external examiner to a joint department of Glasgow and Strathclyde Universities and to the Cass Business School at City University.

Professor Stephen Stradling was elected a Fellow of the Royal Society of Arts (FRSA), and was appointed Chair of Transform Scotland Trust and as a member of the Scottish Transport Minister's Expert Group on Developing a 10-year Road Safety Strategy for Scotland.

Professor Margaret Grieco was seconded from January to July as salaried Visiting Full Professor at the Institute for African Development, Cornell University, NY, USA. She was a member of the scientific committee for the Conference on Water and Sanitation in International Development and Disaster Relief at the University of Edinburgh in May, and was Series Editor for Ashgate Publications in the Transport and Society book series and the Voices in Development Management book series and was Series Editor for the Institute for African Development book series, Cambridge

Scholars Publications

Professor Tom Rye was an invited member of the jury for DG Environment's European Mobility Week Award 2008, he continued in his role as Chair of TRB's Parking Management Sub-committee (now a joint sub-committee of the Economics, Road Pricing and TDM Committees) and sits on the board of sustainable transport lobby group Transform Scotland, Edinburgh's Bike Station bike recycling charity, and is on the Living Streets Scotland Advisory Panel. In 2008 he was appointed to the Editorial Board of the Journal of Transport Policy.

Professor Alf Baird was a member of the Project Review Panel for the Norwegian Research Council, Oslo, and a member of the Peer Review College of the Danish Council for Strategic Research, Danish Ministry of Science, Copenhagen. He acted as a Specialist Advisor to the Tynwald (Isle of Man) Parliament Select Committee for investigation into ferry services to the Isle of Man.

Dr Wafaa Saleh was elected to chair the International Scientific Committee of the International Symposium of Travel Demand Management, has become a member of the International Scientific Committee of the International Symposium of Network Reliability, and continues to chair the Transport Track at the World Association of Sustainable Development (WASD). During the year she was appointed to an Honorary Professorship at the Egypt National Institute for Transport. She continued her teaching, research and PhD supervision activities in the fields of travel demand management, transport modelling, ITS, and the analysis and modelling of accidents.

Gordon Wilmsmeier was invited as advisor to the Ministry of Economics in El Salvador on National Logistics Strategy. He contributed to UNCTAD's Review of Maritime Transport 2009 – Regional Review on Latin America, and collaborated on a policy paper for the World Bank on Food and Logistics costs in Latin America. He gave an invited Seminar at the Naval School "Almirante Padilla", in Cartagena, Colombia.

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### **PROJECTS ACTIVE IN 2008**

Projects TRI researchers participated in during 2008 are listed below, with details of funding bodies and collaborating partners.

\* projects that started in 2008

#### **ECONOMICS, PLANNING AND POLICY**

DIFFERENT: User Reaction and Efficient
DIFFERENTiation of Charges and Tolls
(EU FP6, from May 2006 to June 2008).
Professor Christiane Bielefeldt, Professor Alf Baird,
Helen Condie and Gordon Wilmsmeier.
www.different-project.eu

This project, which finished in 2008, looked at the economic theory behind differentiated charging and at behavioural responses to differentiated charges. The project examined the current status of differentiated charging across all transport modes and included several case studies, looking at price differentiation and user reactions to differentiated prices in rail, air and maritime transport, in road transport in urban areas and on inter-urban motorways and for intermodal freight corridors. TRI was project co-ordinator in a 13-partner consortium.

\* Clyde Waterbus Study (Glasgow City Council, from February to April 2008).

Professor Alf Baird, Gordon Wilmsmeier and Professor Kevin Cullinane, with MVA.

This project covered the STAG Part 1 appraisal to investigate the scope for enhanced waterborne public transport services on the River Clyde. This study was commissioned to help take forward actions identified in the Strathclyde Partnership for Transport's Regional Transport Strategy (RTS) and Glasgow City Council's Local Transport Strategy. In particular, the RTS identified a Ports, Ferries and Airports Action Plan that included a specific action to, "research and, if appropriate, develop sustainable 'fast ferry'/waterbus services for commuters along the River Clyde, and safeguard jetties, including access routes".

\* Appraisal of the Ballycastle to Campbeltown Ferry (Scottish Government and Northern Ireland Executive, from April to October 2008). Professor Ron McQuaid, with MVA.

TRI's role in this project, which appraised the case for the re-introduction of the Ballycastle to Campbeltown ferry link, covered the economic activity and location impact (EALI) analysis. The analysis was designed to be consistent with Scottish Transport Appraisal Guidance (STAG) guidelines, while taking into account that the project crossed the two devolved administrations of Scotland and Northern Ireland.

Review of Concessionary Fares Guidance 2008 (Department for Transport, from December 2007 to January 2008). Professor Tom Rye.

TRI reviewed evidence and commented on draft

guidance from the Department for Transport (DfT), giving advice to local authorities on how to calculate reimbursement to bus operators for carrying concessionary bus passengers. TRI also reviewed and commented on the reimbursement tool developed by DfT for the use of local authorities

\* Edinburgh City Centre pre-STAG Study (City of Edinburgh Council, from October to December 2008). Professor Tom Rye.

TRI was subcontractor to Halcrow in this study, and facilitated workshops, developed objectives, generated options and sifted measures with the potential to improve the wider environment in Edinburgh city centre.

\* Quality Assurance, CIVITAS Vanguard, (Regional Environment Centre, Hungary, November 2008). Professor Tom Rye.

Professor Rye provided quality assurance of baseline questionnaires produced at the outset of this project that will provide dissemination and training support to cities involved in the EC DG TREN initiative CIVITAS III.

### TRAFFIC SAFETY

HUSSAR: High Unsafe Speed Accident Reduction (Department for Transport, October 2005 to July 2008).

Professor Stephen Stradling, Catriona O'Dolan, Dr Paul Broughton and Neale Kinnear, with Trinity College, Dublin.

This project produced a review of international literature on speeding car drivers from 1995 to 2006, conducted focus groups in England and Scotland with professional drivers and drivers who had completed a Speed Awareness Course, and designed and analysed a survey of the speeding behaviours and attitudes of 1,000 GB car drivers. Results differentiated opportunistic and reactive speeders and identified three clusters of drivers: just above half who rarely speed; a third who sometimes drive at 10 mph over the limit; and a small group of problem speeders who speed more often and to excess. Three Department for Transport Road Safety Research Reports (nos 92, 93 and 94) and several journal articles and conference papers were penned.

Rural Road Safety (Scottish Government, from January 2007 to February 2008). Professor Stephen Stradling, with TNS Social and TRL Ltd.

Rural road accidents account for fewer total casualties, but a significantly higher proportion of those killed and seriously injured in road accidents are in non-built-up areas. This project comprised: analysis of "STATS19" data and qualitative analysis of police accident reports of rural road collisions in Scotland; a short questionnaire to measure prevalence of driving on rural roads among different groups of drivers; a survey of 1,000 car drivers aged 17+ who drive on rural

roads; and qualitative research of groups of young, male drivers who drive on rural roads. The classification of car drivers into three speeder types found in the HUSSAR project was confirmed.

## MOBILITY MANAGEMENT AND TRAVEL PLANNING

MAX-SUCCESS: Successful Travel Awareness Campaigns and Mobility Management Strategies (EU FP6, from October 2006 to September 2009). Professor Tom Rye, Professor Stephen Stradling, Dr Michael Carreno and Catriona O'Dolan. Lead Partner: FGN-AMOR (Austria). www.max-success.eu

MAX-SUCCESS is an EU FP6 research project on mobility management and travel awareness with a project consortium consisting of 25 partners in 16 countries. One of its primary aims is to develop a 'toolkit' of standardized advice and guidance resources for practitioners in order to facilitate 'good practice' and enhance the quality of mobility management project evaluation across Europe. TRI partners are involved in several work streams within the project, including managing the quality control of all project outputs.

**OPTIMUM 2** (EU INTERREG IIIC Programme, from May 2004 to May 2008).

Dr Tom Rye and Michael Carreno, with SenterNovem (Netherlands).

www.optimum2.org/cookbook/

TRI is deputy manager of the evaluation strand of this four-year project, implementing mobility management measures at business parks and hospitals in nine locations in the UK and the Netherlands. The TRI research team is providing assistance to project partners in monitoring methodologies, project plan monitoring and data collation and analysis. TRI played a key role in putting together the OPTIMUM2 "cookbook", one of the final outputs of the project, which gives guidance to organisations wishing to implement mobility management.

**PARAMOUNT** (EU FP6, from February 2006 to December 2009).

Professor Tom Rye and Dr Michael Carreno.

TRI is a member of the PARAMOUNT consortium, building on the work carried out in PORTAL (FP5), in turning European transport research project results into teaching and training materials. TRI has also helped to run four training sessions for mid-career transport professionals from new member states, and to update and maintain the ELTIS website at www.eltis.org. TRI has played a key role in quality checking all clean urban transport case studies on the website and helping to double the number of case studies available, to well over 1200.

\* Expert Advisor on Sustainable Mobility to Manage Energy (EC DG TREN, from April to November 2008). Professor Tom Rye.

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Professor Rye was part of a group advising on the promotion of sustainable mobility to energy agencies around Europe. The group produced best practice guidance on smarter choices measures for use by energy management professionals.

## TRAFFIC PSYCHOLOGY AND TRAVEL BEHAVIOUR

Car Cultures in Scotland (Scottish Council Foundation, from February 2007 to February 2009).

Professor Stephen Stradling.

Car ownership in Scotland continues to increase, despite a growing policy focus on reducing car dependency and achieving modal shift. This project looks at our relationships with cars, our car cultures, to better understand our attachment to our cars and to address how current policy could better work to achieve modal shift.

# Evaluation of RIDE Diversion from Prosecution Project for P2W Riders Detected Speeding

(Lancashire County Council, from September 2007 to December 2009).

Professor Stephen Stradling, with Exeter University, Leeds Metropolitan University and Owl Research Ltd.

The aim of this project is to design and evaluate a diversion-from-prosecution course for Powered Two Wheeler (P2W) riders detected committing low-level speeding or other moving traffic offences. Self-reports of rider attitudes and behaviours will be compared before and after course attendance and with a control group of non-attendees.

\* Diagnosis of Intermediate Violators Detected Speeding (Lancashire County Council, from September 2008 to February 2009). Professor Stephen Stradling, with Sunderland University and Brain Box Research Ltd.

Recent research by Professor Stradling for the Department for Transport and the Scottish Government has identified three types of speeding drivers, who would benefit from different remediations to dissuade them from speeding. This project will classify those drivers detected speeding in Lancashire and attending a diversionary Speed Awareness Course in order to suggest targeted remedial material.

\* London Road Users' Attitudes to Speed and Speed Management (Transport for London, from October 2008 to June 2009).

Professor Stephen Stradling, with Faber Maunsell Ltd.

This project will review recent literature and will design, administer and analyse a large survey of Londoners' attitudes to and understanding of speed and speed management in the city, comparing the views of car drivers, P2W riders and pedestrians.

### TAXI STUDIES AND DEMAND-RESPONSIVE TRANSPORT

\* South Lanarkshire / Hamilton TOA: Investigation of the South Lanarkshire Tariff Review (Hamilton Taxi Operators' Association, January 2008). Dr James Cooper.

Hamilton Taxi Operators' Association (TOA) engaged TRI to undertake a review of the current Taxi Tariffs applied and proposed for South Lanarkshire, an authority area directly neighbouring Glasgow, The TOA considered there to be errors in the calculations applied by their council and had sought judicial review of the tariff by the Scottish Traffic Commissioner. TRI undertook a detailed review of the tariff concurring with the findings of the TOA and supporting the case to the Traffic Commissioner. The review found in favour of the TOA.

**T2E Transport to Employment** (April 2005 to October 2008).

Lead Partner: Dr James Cooper.

Project Partners: The Highland Council, European Social Fund, Working for Families, Scottish Government, Dumfries and Galloway Council, Scottish Enterprise.

T2E has developed and delivered transport services to people in rural areas, allowing access to employment where limited public transport options exist. The service is based on shared transport provision in small vehicles covering instances and times when there are no scheduled transport services available. TRI's involvement in T2E successfully concluded in October 2008. Operations continue under the T2E name in the Highlands.

### MARITIME TRANSPORT

\* NMU - Northern Maritime University (EU Interreg IVB North Sea Programme, from May 2008 to April 2010).

Professor Kevin Cullinane, Gordon Wilmsmeier and Professor Alf Baird.

www.nsr.nm-uni.eu/

The major objective of the Northern Maritime University project is to build up a strong transnational network of universities in the North Sea Region (NSR) to intensively and continuously integrate relevant stakeholders from the maritime business sector. The existing expertise of international partners in the NSR will be the basis for developing multidisciplinary and internationally oriented qualification offerings in maritime transport. TRI is the lead partner in the NMU consortium, which includes 10 partners from five countries in the North Sea Region.

\* STRATMOS - Strategic Motorway of the Sea Demonstration Project (EU Interreg IVB North Sea Programme, from April 2008 to March 2011). Professor Alf Baird and Gordon Wilmsmeier. www.stratmos.no

The objectives of the StratMoS project are to

promote and facilitate the shift of cargo from road to sea-based intermodal transport, and to improve accessibility within the North Sea Region by supporting the implementation of Motorway of the Sea (MoS) and related transport networks in an integrated logistical chain. The project currently comprises 27 partners in the North Sea Region, from Flanders in the south to northern Norway. The Murmansk, Arkhangelsk and Nenets regions are associated partners.

Advisor to Motorways of the Sea NORSHUKON Link International Tender Process (Shetland Development Trust, Zettrans, Sestrans and Moregruppen, Norway, from August 2007 to February 2008). Professor Alf Baird.

This project examined the feasibility of the introduction of a Ro-Ro ferry service between Zeebrugge, Rosyth and Norway, and advised on the best way to select an operator for the service through the tendering process.

EC Marco Polo Programme Application for the NORSHUKON Link Service (Shetland Development Trust, Zettrans, Sestrans and Moregruppen, Norway, from August 2007 to February 2008). Professor Alf Baird.

This project applied for EC start-up funding for the proposed NORSHUKON (Norway-Shetland-UK-Continent) Link ferry service.

\* Visioning Ireland's Maritime Economics Research Agenda (Irish Government Maritime Development Office, from February 2008 to October 2008). Professor Kevin Cullinane, with Professor John Mangan, University of Hull.

The main objective of this project was to determine Ireland's current research capacity in the field of maritime economics and to benchmark this capacity against that of the best international centres of excellence. The investigators were also tasked with identifying the key current and future research questions in the field and assessing not only what gaps exist in Ireland's expertise, but also what policies had been implemented internationally to develop capacity and how best to plug any gaps in Ireland's capability.

### OTHER PROJECTS ACTIVE IN 2008

Impacts of Traffic Heterogeneity on Roadside Air Pollution Concentration in Edinburgh Dr Wafaa Saleh and Dr Yingen Ge.

Modelling Road Tolling in Dynamic Traffic Assignment (DTA): Preliminary Scoping Dr Kathryn Stewart and Dr Yingen Ge.

Saturation flows modelling in development countries: A comparative analysis New Delhi and Edinburgh (Carnegie Trust for the Universities of Scotland).

Dr. Wafaa Saleh.

### PHD COMPLETIONS IN 2008

### Accident Severity of Heavy-Engined Motorbikes at T-Junctions

Chih Wei Pai, supervised by Dr Wafaa Saleh and Professor Mike Maher.

## Current Transformer Circuits for Power Electronics Applications

Neville McNeill, supervised by Dr Naren Gupta and Dr Charles Silverton.

Developing Management of Privatisation: An Empirical Study on the Barriers Hindering Implementation of the Programme in Saudi Arabia and a Proposed Efficient Model

Abdulrahman Buridi, supervised by Dr Naren Gupta and Dr Sam Wamuziri.

### Driving as You Feel: a psychological investigation of the novice driver problem

Neale Kinnear, supervised by Professor Stephen Stradling and Dr Cynthia McVey.

## Off-street Parking in City Centres: a Supply-side Analysis

Guido Ferilli, supervised by Professor Tom Rye and Professor Mike Maher.

#### Pattern Recognition for Automating Condition Monitoring of Wooden Railway Sleepers

Siril Yella, supervised by Dr Naren Gupta and Professor M. Dougherty.

#### **Quotidian Bus Journeys**

Allyson Noble, supervised by Professor Alison McCleery, Dr Jeni Harden and Professor Stephen Stradling.

Taxi licensing, regulation and control - establishing an optimal regime in the supply of taxis

James Cooper, supervised by Professor Margaret Grieco, Professor Ron McQuaid and Professor Kevin Cullinane.

#### **CURRENT PHD PROJECTS**

#### Driving Cycle Analysis of Motor bikes and its Impacts on the Environment

Ravindra Kumar, supervised by Dr Wafaa Saleh and Mr Colin Boswell.

### Modelling Behavioural Responses to Tolling by Microsimulation

Eva Martinez, supervised by Dr Kathryn Stewart and Dr Wafaa Saleh.

### Modelling of Driving Behaviour

Ahmed Al Zaidi, supervised by Dr Wafaa Saleh and Professor Kevin Cullinane.

Modelling Pedestrian Behaviour in Congested Areas in Saudi Arabia: Problems and Solutions Raed Al Ahmadi, supervised by Dr Wafaa Saleh and Dr Kathryn Stewart.

Modelling Trip Generation Using Logistic Analysis Shucheng Hu, supervised by Dr Wafaa Saleh and Professor Mike Maher.

## Pedestrian Accidents Analysis and Modelling in UAE: the Effective Way Forward

Khalfan Saeed Al Naqbi, supervised by Dr Wafaa Saleh and Professor Kevin Cullinane.

#### 2008 PUBLICATIONS

Papers and publications from TRI researchers during 2008 are listed below, starting with TRI members based at Edinburgh Napier University.

BAIRD, A. J. (2008). Re-defining Seaway Infrastructure: Impacts for Ports, Modal Shift and MoS Policy, in Musso, E. & Ghiara, H. [Eds.] Ports and Regional Economies, pp. 71-80. McGraw-Hill, Milan.

BAIRD, A. J. (2008). Global Strategic Management in Container Shipping, in Heidelhoff, C. & Pawlick, T. [Eds.] Handbook of Container Shipping Management, Part II. ISL, Bremen.

**BAIRD, A. J.** (2008). The Private Equity Merry-Go-Round. INTERFERRY 33rd Annual International Conference, Hong Kong, 5-7 October 2008. (Invited by Interferry, the worldwide association of ferry operators and suppliers).

BAIRD A. J. (2008). Future Business Trends for Ports and Shipping Lines. Shipping & Logistics Symposium, 28 November 2008, BEXCO Pusan. (Invited by Institute of Logistics and Networking, Pusan University).

BAIRD, A. J. (2008). Innovation in the Ferry Sector. Scottish Tourism: Going for Growth Conference, McKay Hannah Public Policy, Edinburgh, 29 January 2008.

BAIRD, A. J. (2008). NORSHUKON – Norway-Shetland-UK-Continent Ferry Service. Northern Maritime Corridor Conference (EC Interreg IIIB North Sea Region), Amsterdam, 3 June 2008.

BARDOUILLE, R., NDULO, M. & GRIECO, M. [Eds.], (2008). Africa's finances: the contribution of remittances. Cambridge Scholars Publishing.

**BROUGHTON**, P.S. (2008). Flow, task capability and Powered-Two-Wheeler (PTW) rider training. In Dorn, L. [Ed.] Driver Behaviour and Training, Volume III, pp. 415-424. Ashgate Publishing, Aldershot.

CARRENO, M., RYE, T. & STRADLING, S. (2008). MAXimizing SUCCESS: Applying psychological principles to enhance mobility management interventions. Paper presented at the 4th International Symposium on Travel Demand Management, Vienna, 16-18 July 2008.

CARRENO, M., STRADLING, S. & RYE, T. (2008). Is current UK street-auditing guidance good enough? Results from a series of 'whole journey' audits involving mobility-impaired pedestrians. WALK 21, Barcelona, 8-10 October 2008.

COLLINS, E. & STRADLING, S. (2008). Rural road safety – a question of speed? Scottish Transport Applications and Research (STAR) Conference, Glasgow, 24 April 2008. [Best paper in conference prize.]

COOPER, U., NELSON, J.D., WRIGHT, S.D. & COOPER, J.M. (2008). Achieving access to work, improved social inclusion and reducing rural access costs. Scottish Transport Applications and Research (STAR) Conference, Glasgow, 24 April 2008

COOPER, J. (2008). Applying Sensing and Monitoring: Policy Implications. Paper presented at the 87th Annual Meeting of the Transportation Research Board, Washington, D.C., 13-17 January 2008 (TRB session 129, paper 08-0738), to be published in the Transportation Research Record.

COOPER, J., NELSON, J.D., WRIGHT, S.D. & COOPER, U. (2008). Rural Access Gain, an economic and social analysis of access to work schemes in rural communities of Scotland. Sixth International Conference on Traffic and Transportation Studies (ICTTS), Nanning, China, 5-8 August 2008.

**CULLINANE, K.P.B.** (2008). The Governance of the Port of Hong Kong, in Reveley, J. & Tull, M. [Eds.] Port Privatization: The Asia-Pacific Experience. Edward Elgar, Cheltenham.

CULLINANE, K.P.B. & WANG, Y. (2008). Port Accessibility and the Impact on Container Logistics. International Conference on Shipping, Port and Logistics Management, Kainan University, Taiwan, 28-29 March 2008.

CULLINANE, K.P.B. (2008). Port Governance and Port Performance. Invited keynote speech, International Conference on Shipping, Port and Logistics Management, Kainan University, Taiwan, 28-29 March 2008.

CULLINANE, K.P.B. (2008). Port Competition in China. Invited keynote speech, Annual Conference of the International Association of Maritime Economists (IAME), Dalian, China, 2-4 April 2008.

**CULLINANE**, K.P.B. (2008). Developing an International MSc in Maritime Transport and Logistics. European Maritime Education and Training Conference, Kirkwall, Orkney, 30 May 2008.

GE, Y. & STEWART, K. (2008). Investigating Boundary Issues Arising from Congestion Charging in a Bottleneck Scenario. International Symposium on Dynamic Traffic Assignment (DTA08), Leuven, Belgium, 18-20 June 2008.

GONG, X., FIRTH, M. & CULLINANE, K. (2008). International Oligopoly and Stock Market Linkages: The Case of Global Airlines. Transportation Research Part E: Logistics and Transportation Review, 44 (4), pp. 621-636.

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- GORMLEY, M., FULLER, R., STRADLING, S., BROUGHTON, P., KINNEAR, N., O'DOLAN, C. & HANNIGAN, B. (2008). Interface between driver capability and task difficulty: influence of speeder type and accident culpability. International Conference on Traffic and Transport Psychology, Washington, D.C., 31 August 4 September 2008.
- **GRIECO**, M. & HINE, J. (2008). Stranded mobilities, human disasters: the interaction of mobility and social exclusion in crisis circumstances, in Bergmann, S. & Sager, R. [Eds.] The ethics of mobilities, pp. 65-71. Ashgate Publishing, Aldershot.
- GRIECO, M. (2008). Living Infrastructure: Replacing Children's Labour as a Source of Sanitation Services in Ghana. Proc. International Workshop on Water and Sanitation in International Development and Disaster Relief, Edinburgh, UK, 28-30 May 2008.
- ISON, S.G. & RYE, T. [Eds.] (2008). The Implementation and Effectiveness of Transport Demand Management Measures. Ashgate Publishing, Aldershot.
- ISON, S.G. & RYE, T. (2008). Role of Public Transport as a Transportation Demand Management Measure. Paper presented at the 87th Annual Meeting of the Transportation Research Board, Washington, D.C., 13-17 January 2008.
- ISON, S.G., FRANCIS, G., HUMPHREYS, I. & RYE, T. (2008). Airport Parking Management: Issues and Policies. Paper presented at the 87th Annual Meeting of the Transportation Research Board, Washington, D.C., 13-17 January 2008.
- JAIN, P, CULLINANE, S. & CULLINANE, K. (2008). The Impact of Governance Development Models on Urban Rail Efficiency. Transportation Research Part A: Policy and Practice, 42 (9), pp.1238-1250.
- KINNEAR, N., STRADLING, S. & MCVEY, C. (2008). Do we really drive by the seat of our pants? In Dorn, L. [Ed.] Driver Behaviour and Training Volume III, pp. 349-365. Ashgate Publishing, Aldershot.
- KINNEAR, N. KELLY S.W, STRADLING, S. & THOMSON, J.A. (2008). Do they not feel the fear? Exploring the novice driver problem. International Conference on Traffic & Transport Psychology, Washington D.C., 31 August 4 September 2008.
- KUMAR, R. & SALEH, W. (2008). Investigation of the driving cycle of motorcycles in Edinburgh - A Statistical theme. Paper presented at the 17th International Transport and Air Pollution Symposium, Grazer Congress, Austria, 16-17 June 2008.
- KUMAR, R. & SALEH, W. (2008). Investigation of the driving cycle of motorcycles in Edinburgh - A Simulation study. Proc. IFEH 2008, 10th World

Congress on Environmental Health Brisbane, Australia, 11-16 May 2008.

- MCNEILL N., GUPTA, N. K., BURROW, S., HOLLIDAY, D. & MELLOR, P. H. (2008). Application of reset voltage feedback for droop minimisation in the unidirectional current pulse transformer. IEEE Transactions on Power Electronics, 23 (2), pp. 591-599.
- MCNEILL, N. & GUPTA, N. K. (2008). Assessment of the error in the average current sensed by the unidirectional current pulse transformer. IET Circuits, Devices and Systems, 2 (2), pp. 265-276.
- MANGAN, J. & CULLINANE, K.P.B. (2008). Presenting the Challenge: An overview of issues and outcomes from an assessment of Irish research capacity, needs and opportunities in maritime research. Invited keynote speech, Irish Maritime Development Office Maritime Economics and Transport Research Workshop, Dublin, 28 April 2008.
- MÁRQUEZ, L., MARTÍNEZ, I., PÉREZ, E. and WILMSMEIER, G. (2008). Connectivity, Transport Costs and Maritime Trade. Proceedings of the XV Congreso Panamericano de Ingeneria de Transito y Transporte, Cartagena de Indias, Colombia, 14-17 September 2008.
- PAI, C-W. & SALEH, W. (2008). Exploring motorcyclist injury severity in approach-turn collisions at T-junctions: focusing on the effects of driver's failure to yield and junction control measures. Accident Analysis and Prevention, 40 (2), pp. 479-486.
- PAI, C-W. & SALEH, W. (2008). Modelling motorcyclist injury severity resulting from sideswipe collisions at T-junctions in the UK: new insights into the effects of manoeuvres. International Journal of Crashworthiness, 13 (1), pp. 89-98.
- PAI, C-W. & SALEH, W. (2008). An analysis of motorcyclist injury severity in angle crashes at T-junctions Focusing on the effects of motorists' right-of way violations, junction control measures, and manoeuvres. Paper presented at the 40th Annual UTSG conference, Southampton, 3-5 January 2008.
- RYE, T. & ISON, S.G. (2008). The European and Asian experience of implementing congestion charging: its applicability to the United States, in Richardson, H. W. & Chang-Hee, C. B. [Eds.] Road Congestion Pricing in Europe, Implications for the United States, pp. 272-292. Edward Elgar Publishing London.
- RYE, T. (2008). Mind the gap! The UK's record in international perspective, in Docherty, I. & Shaw J. [Eds.] Traffic jam Ten years of 'sustainable' transport in the UK. Policy Press, London.
- RYE, T. & CARRENO, M. (2008). Concessionary

- fares and bus operator reimbursement in Scotland and Wales: No better or no worse off? Transport Policy, 15 (4), pp. 242-250.
- RYE, T. & PLEVNIK, A. (2008). Integrating Mobility Management and Land Use Planning in the EU an analysis of the current situation. European Conference on Mobility Management, London, 4-6 June 2008.
- RYE, T. & CARRENO, M. (2008). Concessionary Fares: is the Scottish Government paying too much? Scottish Transport Applications and Research (STAR) Conference, Glasgow, 24 April 2008.
- RYE, T., YOUNG, E. & ISON, S.G. (2008). Using Land Use Planning Process to Secure Travel Plans. Paper presented at the 87th Annual Meeting of the Transportation Research Board, Washington, D.C., 13-17 January 2008.
- RYE, T., GAUNT, M. & ISON, S. (2008). Edinburgh's Congestion Charging Plans: An Analysis of Reasons for Non-Implementation. Transportation Planning and Technology, 31 (6), pp. 641-661.
- SALEH, W., WALKER, C & PAI, C-W. (2008). An Investigation of impacts VMS on safety on Scottish Trunk Roads. Paper presented at the 4th International Symposium on Travel Demand Management, Vienna, 16-18 July 2008.
- SÁNCHEZ, R., WILMSMEIER, G. & DOERR, O. (2008). Interport Competition in a Single Market: Lessons from the Central Chilean Port Range. International Conference on Shipping, Port and Logistics Management, Kainan University, Taiwan, 28-29 March 2008.
- SMITH, N. & WIGAN, M. R. (2008). Deciding when or if transport survey data should be updated. Paper presented at the 87th Annual Meeting of the Transportation Research Board, Washington, D.C., 13-17 January 2008.
- STRADLING, S.G. & ANABLE, J. (2008). 'Individual Travel Patterns'. Ch 11 in Knowles, R. D., Shaw, J. & Docherty, I. [Eds.] Transport Geographies: Mobilities, Flows and Spaces. Blackwell Publishers, Oxford.
- STRADLING, S.G., ANABLE, J., ANDERSON, T. & CRONBERG, A. (2008) 'Car use and climate change: do we practise what we preach?'. Ch 7 in Park, A., Curtice, J., Thomson, K., Phillips, M., Johnson, M. & Clery, E. [Eds.] British Social Attitudes: the 24th Report. Sage, London.
- STRADLING, S.G., COLLINS, E., EYNON, C. & McLEOD, P. (2008). Driver behaviour on rural roads in Scotland. Behavioural Research in Road Safety 2008, Eighteenth Seminar. Department for Transport, London.
- STRADLING, S.G. (2008). Attitudes to car use and the environment. Launch of British Social

### 6 TRI, Edinburgh Napier University

Attitudes 24th Report. Westminster, 22 January 2008

STRADLING, S.G. (2008). Traffic and transport psychology. Scottish Association of Teachers of Psychology Annual Meeting, Stirling University, 2 February 2008.

STRADLING, S.G. (2008). Driving on rural roads. AIRSO Scottish meeting, Napier University, 28 February 2008.

STRADLING, S.G. (2008). Changes in car use in Scotland: cutting down and slowing down. RoSPA 72nd Road Safety Congress, Glasgow, 25-27 February 2008.

STRADLING, S.G. (2008). The challenge to transport psychology: How to get the world to burn less fossil fuel. Invited keynote address, International Conference on Traffic and Transport Psychology, Washington, D.C., 31 August - 4 September 2008.

STRADLING, S.G. Meeting the challenge of travel behaviour change: why we need a Centre for Transport & Psychology. Keynote address, Centre for Transport & Psychology launch meeting. Bath, 8 September 2008.

STRADLING, S.G. (2008). Speed and young drivers. Cumbria Road Safety Conference, Bassenthwaite, 23 September 2008.

STRADLING, S.G. (2008). Why do drivers speed? ETSC Lecture / bfu-Forum 'Speed'. European Transport Safety Council / Swiss Council for Accident Prevention, Bern, 25 September 2008.

STRADLING, S.G. (2008). Young drivers – will they ever learn? Road Safety Wales Conference, RoSPA Wales, Cardiff, 30 September 2008.

STRADLING, S.G. (2008). Recent research on speeding drivers. Road Safety Congress, Road Safety Council of Northern Ireland, Belfast, 24 October 2008.

WANG, Y. & CULLINANE, K. (2008). Measuring Container Port Accessibility: An Application of the Principal Eigenvector Method (PEM). Maritime Economics and Logistics, 10 (1), pp. 75-89.

WIGAN, M. R. (2008). Improving Access to Transportation Documents: Roles of Repositories, Thesauri, Metadata, and Automated Keyword Generation. Paper presented at the 87th Annual Meeting of the Transportation Research Board, Washington, D.C., 13-17 January 2008.

WIGAN, M. R. (2008). Contestable evidence based policy - the role of information sharing and information governance in planning and transport. NECTAR Workshop, Rotterdam, 15-16 May 2008.

WIGAN, M. R. (2008). A remote marriage: the theory and practice of being apart and staying together, in Holland, S. [Ed.] Remote

Relationships in a Small World. Peter Lang Publishing, New York.

WIGAN, M. R. (2008). Transport modelling: barriers to sustainable policy analysis. European Transport Conference, Leiden, Netherlands, 6-8 October. 2008.

WILMSMEIER, G. & SÁNCHEZ, R. (2008). Interport Competition in a Single Market under Port Devolution: Lessons from the Southern Cone, in Wittig, W. & Prieser, C. [Eds.] The Human Elements at the Ship/Port Interface. Bremen, Germany.

WILMSMEIER, G. & SÁNCHEZ, R. (2008). Shipping networks in international containerized trade – Market evolution on the West Coast of South America, in Heidelhoff, C. & Pawlick, T. [Eds.] Handbook of Container Shipping Management, Part II. ISL, Bremen.

WILMSMEIER, G. & HOFFMANN, J. (2008). Liner Shipping Connectivity and Port Infrastructure as Determinants of Freight Rates in the Caribbean. Maritime Economics and Logistics, 10 (1), pp. 130-151.

WILMSMEIER, G. & SÁNCHEZ, R. (2008). Liner shipping networks, market concentration and market power: Evidence from the West Coast of South America. Proc. International Association of Maritime Economists (IAME) 2008 Conference, Dalian, China, 2-4 April 2008.

**WILMSMEIER**, **G**. (2008). A "Seabridge" across the Firth of Forth. Scottish Transport Review. Issue 40, June 2008.

**WILMSMEIER, G.** (2008). Review of Regional Developments: Latin America. Published in Review of Maritime Transport, 2008, Chapter 7. UNCTAD. Geneva, Switzerland.

WILMSMEIER, G. (2008). Infraestructura y Servicios de Transporte ferroviario vinculados a las Vías de Navegación fluvial en América del Sur - Un Análisis y Visión hacia un Desarrollo Sustentable. Serie No 124 de Recursos Naturales e Infraestructura. Santiago, Chile.

WRIGHT, S.D., NELSON, J.D., COOPER, J. & MURPHY, S. (2008). An economic analysis of the Transport to Employment (T2E) scheme in Highland Scotland using Social Return on Investment. Paper presented at the 87th Annual Meeting of the Transportation Research Board, Washington, D.C., 13-17 January 2008 (TRB session 702, paper 08-0729). to be published in the Transportation Research Record.

YELLA, S., GUPTA, N. K. & DOUGHERTY, M. (2008). Automating condition monitoring of wooden railway sleepers. EngineerIT Journal, October 2007, pp. 68-71.

YELLA, S., PASHA, S., DOUGHERTY, M. & GUPTA, N. K. (2008). Classifier fusion for

condition monitoring of wooden railway sleepers. EngineerIT Journal, May 2008, pp. 32-35.

YELLA, S., DOUGHERTY, M. S. & GUPTA, N. K. (2008). Data fusion for automating condition monitoring of wooden railway sleepers. Insight Journal of the British Institute of Non-Destructive Testing, 50 (7), pp. 356-363.

### SELECTED REPORTS

BIELEFELDT, C., CONDIE, H., MAHER, M., PERSIA, L., GIUSTINIANI, G., KNOCKAERT, J., BONSALL, P., TRETVIK, T. & MARTINO, A. (2008). The DIFFERENT Project: Results from Urban Case Studies, public document based on deliverable D9.1 of the DIFFERENT Project (EC FP6). Available on the DIFFERENT website at <a href="https://www.different-project.eu">www.different-project.eu</a>

FULLER, R., BATES, H., GORMLEY, M., HANNIGAN, B., STRADLING, S., BROUGHTON, P., KINNEAR, N. & O'DOLAN, C. (2008). The Conditions for Inappropriate High Speed: A Review of the Research Literature from 1995 to 2006. Road Safety Research Report No. 92. Department for Transport, London.

FULLER, R., HANNIGAN, B., BATES, H., GORMLEY, M., STRADLING, S., BROUGHTON, P., KINNEAR, N. & O'DOLAN, C. (2008). Understanding Inappropriate High Speed: A Qualitative Analysis. Road Safety Research Report No. 94. Department for Transport, London.

STRADLING, S., BROUGHTON, P., KINNEAR, N., O'DOLAN, C., FULLER, R., BATES, H., GORMLEY, M. & HANNIGAN, B. (2008). Understanding Inappropriate High Speed: A Quantitative Analysis. Road Safety Research Report No. 93. Department for Transport, London.

WILMSMEIER, G. (2008). Recommendations for Differentiated Charges in Shipping. Deliverable 6.2 of the DIFFERENT project, June 2008. Available on the DIFFERENT website at <a href="https://www.different-project.eu">www.different-project.eu</a>

**WILMSMEIER, G. & BAIRD, A.** (2008). Clyde Riverbus Study, for Glasgow City Council & Local Authority Partners.

WILMSMEIER, G. (2008). Determinación de la competitividad de la cadena logística en El Salvador. Advisory Report Ministry of Economics and Fondo Salvadoreno de Preinversión (FOSEP), San Salvador. El Salvador.

# TRI Members at the Transport Research Laboratory (TRL Scotland)

MCHALE, M. J., CARSWELL, I. & MILLAR, D. (2008). Performance of new asphalt surfacings in Scotland. Proceedings of 4th Eurasphalt & Eurobitume 4th Congress, Copenhagen, May 2008.

www.welcomehome.dk/Default.aspx?ID=865

### TRI, Edinburgh Napier University 7

NICHOLLS, J. C., MCHALE, M. J. & GRIFFITHS, R. D. (2008). Best practice guide for durability of asphalt pavements. Road Note (RN) 42. Transport Research Laboratory: Crowthorne.

NICHOLLS, J. C., MCHALE, M. J., GRIFFITHS, R. D., LOVEDAY, C. A., WILLIAMS, D. J., SOUTHWELL, C. D. & JAMES, D. J. (2008). Encouraging durability in the specification, manufacture and laying of asphalt pavements. Proceedings of 4th Eurasphalt and Eurobitume Congress, Copenhagen, May 2008. www.welcomehome.dk/Default.aspx?ID=865

SIMM J. D., WINTER, M. G. & WAITE, S. (2008). Design and specification of tyre bales in construction. Proceedings, Institution of Civil Engineers (Waste and Resource Management), 161 (WR2), pp. 67-76.

WILLWAY, T., BALDACHIN, L., REEVES, S., HARDING, MCHALE, M. J. & NUNN, M. (2008). The effects of climate change on highway pavements and how to minimise them. Published Project Report PPR184, Transport Research Laboratory: Crowthorne.

WINTER, M. G. (2008). Editorial. Quarterly Journal of Engineering Geology and Hydrogeology, 41 (1), pp. 3-4.

WINTER, M. G., MACGREGOR, L. & SHACKMAN, L. [Eds.] (2008). Scottish road network landslides study: implementation, 278pp. Transport Scotland Published Report Series. Edinburgh: Transport Scotland.

WINTER, M. G., MACGREGOR, F. & SHACKMAN, L. (2008). Scottish road network landslides study: implementation summary report, 32pp. Transport Scotland Published Report Series. Edinburgh: Transport Scotland.

WINTER, M. G., SHACKMAN, L. & MACGREGOR, F. (2008). Some aspects of landslide management and mitigation on the Scottish road network. TRL Annual Research Review 2007, pp. 30-39. Wokingham: Transport Research Laboratory.

WINTER, M. G. (2008). The use of lightweight tyre bales in the construction of foundations for roads over soft ground. Proceedings, 10th International Conference on Application of Advanced Technologies in Transportation, 15p., CD-Rom. Athens, Greece: National Technical University of Athens.

WINTER, M. G. (2008). Tyre bale foundations for roads on soft ground. Proceedings, Second BGA International Conference on Foundations, ICOF 2008 (Eds: Brown, M. J., Bransby, F. M., Brennan, A. J. & Knappett, J. A.), vol. 2, pp. 1437-1448. Bracknell: IHS BRE Press.

WINTER, M. G. & BROMHEAD, E. N. (2008). Societal willingness to accept landslide risk. Proceedings, First World Landslide Forum, Parallel Session Volume, pp. 685-688. Tokyo, Japan: United Nations University.

WINTER, M. G., DENT, J., DEMPSEY, P., MACGREGOR, F., MOTION, A. & SHACKMAN, L. (2008). Rainfall conditions leading to debris flow in Scotland. Proceedings, First World Landslide Forum, Parallel Session Volume, pp. 681-684. Tokyo, Japan: United Nations University.

WINTER, M. G., DENT, J., DEMPSEY, P., SHACKMAN, L. & MACGREGOR, F. (2008). The determination of rainfall conditions leading to debris flow. Geophysical Research Abstracts, Vol. 10, EGU2008-A-01920. EGU General Assembly, Vienna, April. (ISSN: 1029-7006.)

WINTER, M. G., MACGREGOR, F. & SHACKMAN, L. (2008). Climate change impacts on debris flow in Scotland. Proceedings, First World Landslide Forum, Parallel Session Volume, pp. 677-680. Tokyo, Japan: United Nations University.

WINTER, M. G., SHACKMAN, L. & MACGREGOR, F. (2008). Debris flow hazard assessment, ranking, management and mitigation in Scotland. Proceedings, 10th International Conference on Application of Advanced Technologies in Transportation, 14p., CD-Rom. Athens, Greece: National Technical University of Athens.

WINTER, M. G., SIMM, J. D. & WAITE, S. (2008). The British Standard Publicly Available Specification for tyre bales. Proceedings, 4th European Geosynthetics Conference, 55 and Paper No 010 on CD-Rom. International Geosynthetics Society, Edinburgh, September 2008.

WINTER, M. G., SIMM, J. D. & WATTS, G. R. A. (2008). The use of tyre bales with conventional forms of geosynthetics. Proceedings, 4th European Geosynthetics Conference, 55 and Paper No 009 on CD-Rom. International Geosynthetics Society, Edinburgh, September 2008.

# TRI Members at the University of Glasgow

**DOCHERTY**, I. (2008). Coming to terms with spatial change – transport and devolution in Britain. Géocarrefour 83 (2), pp. 151-161.

DOCHERTY, I. & MCKIERNAN, P. (2008). Scenario planning for the Edinburgh city region, Environment and Planning C: Government and Policy, 26 (5), pp. 982-997.

**DOCHERTY, I. & SHAW, J. [Eds]** (2008). Traffic Jam – Ten years of 'sustainable' transport in the UK. Policy Press, London.

KNOWLES, R., SHAW, J. & DOCHERTY, I. [Eds] (2008). Transport Geographies: Mobilities, Flows and Spaces. Blackwell, Oxford. ISBN 978-1-4051-5322-5/5323-2.

MACKINNON, D., SHAW, J. & DOCHERTY, I. (2008). Diverging Mobilities? Devolution, Power and Transport Policy in the UK. Elsevier, Oxford. ISBN: 978-0-08-045354-5.