

Wednesday 4 October

PLENARY SESSION

Aula Magna
0930 - 1100

Conference Opening

Pierluigi Coppola, Chair of the Board, Association for European Transport
Introduction to AET and ETC Conference arrangements
Welcome from Barcelona City Council

Keynote Address

Barcelona in the 25 years since the Olympic Games

Francesc Munoz

Director, Observatori de la Urbanització
Universitat Autònoma de Barcelona

	Session 1 1130 - 1330	Session 2 1500 - 1630	Session 3 1700 1900
Connected and Autonomous Vehicles	<p><u>Liability/Insurance Issues of Connected and Autonomous Vehicles</u> Session Chair: What will autonomous cars do to the insurance companies? I Bojic, C Ratti, Massachusetts Institute of Technology; R Braendli, Allianz Group, US Civil liability in case of platooning by road W Verheyen, ESL/KULeuven/Odisee UC, BE</p> <p>Paper from AXA?</p>	<p><u>Connected and Autonomous Vehicles</u> Session Chair: Gav Jackman, TSS, UK Roadmap for cooperative ITS in European cities M Cartwright, Centaur Consulting Ltd, UK Leading Innovation Timeline: basis for a strategy on traffic management in a changing ITS world R Jorna, R Kleine, Mobycon; L Hendriks, Rijkswaterstaat, NL Simulating VANets with FLOURISH CCAV Project G Jackman, TSS, UK</p>	<p><u>Connected and Autonomous Vehicles: big data Discussion</u> "Intelligent Highways, Intelligent vehicles, Intelligent Data, Intelligent Models?" The next 4 years of transport development and its implication for transport planning and modelling</p>
Intelligent Mobility – Management and Operations			<p><u>Traffic Management</u> Session Chair: Samya Ghosh, AECOM, UK Analyzing the performance of piezo electrical cables for traffic and weight data collection on the national road network in Norway M F Böhm, E H Aakre, T Haugen, NTNU - Norwegian University of Science and Technology, NO Automatic transport network matching using deep learning M M Salvador, We Are Base/Bournemouth University; M Budka, Bournemouth University; T Quay, We Are Base, UK Is there an economical way to access hidden transport data to support seamless transport K Nur, T Gammons, Arup, UK Vehicle dynamics data collection to characterize the drivers' behaviour C Naude, T Serre, IFSTTAR; V Ledoux, Cerema, FR</p>
Transport Economics, Finance and Appraisal	<p><u>Application of Cost Benefit Analysis (CBA)</u> Session Chair: Pauline Wortelboer, KiM Netherlands Institute for Transport Policy Analysis, NL Uncertainties in cost benefit analyses (CBA) of infrastructure projects: do they matter for project rankings? M Aarestrup Aasness, J Odeck, Norwegian University of Science and Technology and Norwegian Public Roads Administration, NO What project? Improving value for money through early project selection M Welde, NTNU - Norwegian University of Science and Technology, NO; M Börjesson, KTH - Royal Institute of Technology, SE, J Odeck, NTNU - Norwegian University of Science and Technology, NO Contribution to the European discussion of project appraisal: the German FTIP 2030 case C Walther, PTV Planung Transport Verkehr AG and Bauhaus University Weimar; A Dahl, PTV Planung Transport Verkehr AG; V Wassmuth, PTV Transport Consult GmbH, DE Reliability in transport CBA: comparing and testing the consistency of the methods and their outcomes D Meunier, LVMT (UMR-T 9403, École des Ponts, IFSTTAR, UPEM, UPE); H Le Maitre, French Ministry of the Environment, Energy and the Sea, N Picard, THEMA (Université de Cergy-Pontoise), FR</p>	<p><u>Value of Timetable Changes and Reliability</u> Session Chair: Estimation of the social costs of train delays in the Netherlands F Savelberg, P Warffemius, KiM Netherlands Institute for Transport Policy Analysis; E Kroes, Significance, NL Delay valuation in rail transport and train scheduling: a simple stylised model D Meunier, LVMT (UMR-T 9403, École des Ponts, IFSTTAR, UPEM, UPE); M Perez-Herrero, SNCF Réseau, FR Derivation of updated day to day variability relationships for major UK roads G Lovett, S Sirivadidurage, Mott MacDonald, UK The economic value of timetable changes E Kroes, Significance, NL; A Daly, ITS, University of Leeds, UK</p>	<p><u>Integrated Models and their Application</u> Session Chair: Prioritising national infrastructure investment in a post-Brexit world D Simmonds, David Simmonds Consultancy, UK Forecasting the economic impacts of the Oxford to Cambridge Expressway J Swanson, J Cartmell, Steer Davies Gleave, UK A new integrated model to evaluate wider economic impacts of transport policies O Yilmaz, Ministry of Development; E Voyvoda, Middle East Technical University (METU), TR</p>

<p>Transport Economics, Finance and Appraisal</p>	<p>Funding Alternatives Session Chair: David Simmonds, David Simmonds Consultancy, UK Road investments and the trade-off between private and public funding M Welde, NTNU - Norwegian University of Science and Technology; S Brathen, J Rekdal, Moreforskning Molde AS, NO Alternative funding sources for transport infrastructure S Thomas, A Hildred, Oxera Consulting, UK</p>	<p>Special Cases in Appraisal Session Chair: The value of iconic infrastructure projects: two Dutch case studies N Mouter, Delft University of Technology, NL A willingness to pay study of removing a road from within the Stonehenge World Heritage Site J Khan, Department for Transport and Highways England, UK</p>	
<p>Planning for Sustainable Land Use and Transport</p>	<p>Transport and Cities Session Chair: Domi Esztergár-Kiss, Budapest University of Technology and Economics, HU Quantification of the emissions from personal mobility: estimation based on general mobility surveys M Pons, E Domene, M Garcia, Institut D'Estudis Regionals I Metropolitans de Barcelona (IERMB), ES The importance of the first and last mile in total door-to-door travel times, reliability and travellers' perception within the Amsterdam metropolitan region A de Koning, T Straatemeier, Goudappel Coffeng, NL Progress of implementing SUMP in Budapest: project selection, monitoring and evaluation and the role of macroscopic transport modelling M Juhasz, Szechenyi Istvan University; T Matrai, Budapest University of Technology and Economics; T Halmos, P Toth, BKK Centre for Budapest Transport, HU 10 years of the Generated Mobility Assessment Studies X Sanyer, Metropolitan Transport Authority of Barcelona, ES</p>	<p>Equity Session Chair: Pierluigi Coppola, University of Rome "Tor Vergata", IT Mobility disadvantage and sustainability: Just solutions for non-car users and for all K Stark, University of Applied Sciences Erfurt, DE Modelling the health mobility for rational resource distribution policies D Gattuso, Università Degli Studi Mediterranea di Reggio Calabria; G Quattrone, Università Cattolica del Sacro Cuore (DISSES), IT Equity challenges in major transport plans A Aparicio, Technical University Madrid (UPM), ES</p>	<p>Mode Shift Session Chair, Michael Bach, Independent Consultant, UK Potentials for energy and climate efficient passenger mobility: simulation of ambitious mode shift measures in the Ruhr metropolitan region M Müller, O Reutter, Wuppertal Institute for Climate, Environment and Energy, DE Shifting towards cycling in the Greater Stockholm area: a comparison between 2005-2006 and 2011-2013 C Liu, Swedish Road and Transport Research Institute, SE Commuting trips in the metropolitan area of Barcelona: travel behaviour, socio-environmental impacts and policy assessment N Perez-Sans, M Perez-Perez, G Sole, Institut D'Estudis Regionals I Metropolitans De Barcelona (IERMB), ES The Mathilde bridge in Rouen - a study about the impact on mobility of a main road's closure in the center of an urban area M Savary, C Marchesse, D Savalle, Cerema, FR</p>
<p>Rail Policy and Planning</p>	<p>Forecasting Session Chair: Ben Condry, Imperial College London, UK An origin-destination based train station choice model M Verschuren, Nederlandse Spoorwegen, NL Development of integrated demand and station choice models for local railway stations and services M Young, S Blainey, University of Southampton, UK Understanding demand for rail travel in UK B Patrui, A Daly, C Rohr, RAND Europe; M Wardman, SYSTRA; P Connell, Leigh Fisher, UK A new timetable: from rough estimates to fact-driven insights from smartcard data N Guis, J Banninga, Nederlandse Spoorwegen; P Siderius, ProRail, NL</p>	<p>Serving Markets Session Chair: Charles Harmer, Crossrail, UK Train or bus? Travellers' perceptions of public transport modes: a qualitative analysis from a regional line D Dubois, E Perrin, C Hurez, Cerema Centre-Est, FR Passenger coverage and service sustainability: a time-cost model for the optimal choice of stops on a regional rail service F M M Cirianni, G Pavone, Regione Calabria, IT Comparison of rail commuting between 6 west European cities B Condry, Imperial College London, UK</p>	<p>Enhancing the Customer Experience Session Chair: Neil Fleming, Department for Transport, UK Passengers' assessments of thermal comfort in a railway car mock-up with displacement ventilation H-J Hoermann, J Maier, O Zierke, German Aerospace Center (DLR), Institute of Aerospace Medicine, Hamburg, DE The perfect train experience, from Engineering to Imagineering M van Hagen, E Ten Elsen, Nederlandse Spoorwegen, NL From customer insights to new services M van Hagen, J van der Made, Nederlandse Spoorwegen, NL Time valuations of rolling stock improvements F Teklu, M Wardman, R Maldonado, SYSTRA, UK</p>
<p>Local Public Transport</p>	<p>Governance Session Chair: Graham Ellis, Ellis Transport Services, UK Do bus operators go the distance? analyzing local competition in tendered bus contracts A Vigren, VTI, SE Leading from the Middle - Midlands Connect-the genesis of a sub-national transport body J Penrose, H Kelly, Department for Transport, UK A methodology for minimum services definition in Local Public Transport: Governance in Italian regional legislation F M M Cirianni, G Pavone, Regione Calabria; A S Luongo, Invitalia, IT Appraising the Bus Services Bill – lessons from the UK experience C McArdle, Department for Transport, UK</p>	<p>Innovation in Barcelona Session Chair: Niels van Oort, Goudappel Coffeng, NL TMB experience with CNG buses: main lessons learned J Ariño, TMB Transports Metropolitans de Barcelona, ES Opportunity charging of buses: effects on bus operator costs and user performance M A Estrada, Universitat Politècnica de Catalunya; J Mension, TMB, Transports Metropolitans de Barcelona, ES Technological evolution has always been an instrument for improving the quality and efficiency of transport services and mobility management M Villalante I Llaurodo, Barcelona Regional, ES Use of Open data information to develop accessibility indicators in public transport J Llinas Serrahima, Barcelona Regional, ES</p>	<p>Networks Session Chair: Iain Macbriar, QV Associates, UK Effects of network structure on transit use: the case of new Barcelona's bus system H Badia, Technical University of Catalonia (UPC); J Argote-Cabanero, TSS-Transport Simulation Systems, ES; C F Daganzo, University of California, Berkeley and VIA Analytics, Inc., US Performance evaluation procedure for bus interchange areas J Mension, TMB; M Salicrú, University of Barcelona; M Estrada, Universitat Politècnica de Catalunya, ES Public transport optimization in Kyiv: improving accessibility under severe investment constraints A Nunez, J Oh, The World Bank, INT Patterns of using public transport and its evolution trends in the world P Zand, UITP, INT</p>
<p>Global Issues</p>			<p>Plans Session Chair: Sharing experiences on Sustainable Urban Mobility Plans: the case of Lille Metropolitan area and the Algarve poly-centric region O Heddebaut, IFSTTAR-AME-DEST, FR; E Arsenio, LNEC Department of Transport; J Coelho, Comunidade Intermunicipal do Algarve, PT Potential future scenarios for company mobility N Wuytens, I Keseru, C Macharis, Vrije Universiteit Brussel – MOBI, BE</p>

			<p>Business models for innovative mobility services in Nordic cities O Langeland, T-E Julsrud Transport Economics Institute, NO; S Sarasini, RISE Viktoria, SE</p> <p>Concept development of sustainable workplace mobility plans D Esztergár-Kiss, T Tettamanti, Budapest University of Technology and Economics, HU</p>
Freight and Logistics	<p>Aggregate Freight Transport Modelling Session Chair: Erik Verroen, RWS, NL</p> <p>Development of a multimodal transport chain choice model for container transport for BasGoed M de Bok, Significance, G de Jong, Significance, L Tavasszy, Delft University of Technology, NL</p> <p>TRIMODE freight & logistics model of Europe I Williams, TRT/Ian Williams Services; M Garratt, C Wright, MDS Transmodal, UK</p> <p>An exploration of freight transport forecasts for The Netherlands with BasGoed M de Bok, Significance; J Kiel, Panteia; J Francke, KiM Netherlands Institute for Transport Policy Analysis, NL</p> <p>The internalisation of short-term marginal external costs of sea transport I Vierth, Swedish National Road and Transport Research Institute (VTI), SE</p>	<p>Logistics Issues Session Chair: Helen Porter, Peter Davidson Consultancy, UK</p> <p>Grocery stores as attractors of transport demand: theoretical and empirical approaches to explain store location from agent interaction B Heldt, T Matteis, I Frenzel, German Aerospace Center, DE</p> <p>Who are the European modal shift champions? J Francke, O Jonkeren, J Visser, KiM Netherlands Institute for Transport Policy Analysis, NL</p> <p>Impact of higher maximum weights for lorries on modal split - ex-post analysis for Sweden I Vierth, S Lindgren, H Lindgren, Swedish National Road and Transport Research Institute (VTI), SE</p>	<p>Transport Law Issues Session Chair;</p> <p>Towards a legal model for horizontal cooperation in logistics W Verheyen, ESL/KULEUVEN/Odisee UC, BE</p> <p>Logistics systems and the use of the contract of carriage to circumvent the labour protection law C Tincani, University of Verona, IT</p> <p>Relationship between transport law and insurance law A Vermes, Széchenyi István University, HU</p> <p>Evaluating the liability of road carriers in Hungarian law with respect to international tendencies A Szegedi, Széchenyi István University, HU</p>
Transport Models Stream 1	<p>Big Data Session Chair:</p> <p>Developing public transport OD matrices from GPS and smartcard data - a test of the method's validity against household data from Tbilisi L Chittock, S Callighan, T van Vuren, Mott MacDonald, UK</p> <p>Recent developments of big data in the Dutch national model: study with mobile phone data D Joksimovic, Dutch Ministry of Infrastructure and the Environment; K Friso, DAT.Mobility; J Keij, Mezero, NL</p> <p>Fusing mobile network data with mobility data for Transport for London's Project Edmond C Wroe, Telefonica; S Rutherford, Jacobs; P Hanson, AECOM, UK</p> <p>Validation of floating car data for transport policy analysis and transport models H van der Loop, KiM Netherlands Institute for Transport Policy Analysis; M Kouwenhoven, Significance; P van Bekkum, MuConsult, NL</p>	<p>Big Data OD Session Chair: Paul Hanson, AECOM, UK</p> <p>Trip matrix development using mobile phone data: what have we learnt so far and what are the key principles to follow? R Tolouei, AECOM, UK</p> <p>Correcting variable sample rates in trip matrices derived from Automatic Number Plate Recognition cameras: a Python based simulation approach B Mackley, T van Vuren, Mott MacDonald, UK</p> <p>A hybrid gravity modelling approach for trip matrix synthesis S Psarras, R Prince, T Ballis, AECOM, UK</p>	<p>Cycling Innovation Session Chair:</p> <p>Modeling the willingness to use non-motorized modes for mandatory and non-mandatory trips in different urban areas A Bamney, Rewa Engineering College; R Rastogi, Indian Institute of Technology Roorkee (IITR), IE; A Sharma, Queensland University of Technology, AU</p> <p>Updating of the Copenhagen traffic model with respect to bicycle transport G Vuk, Danish Road Directorate, DK</p> <p>Using crowdsourced data to improve the quality of cycling models: the case of Chelmsford C Kelen, G Christou, Jacobs UK</p> <p>Modelling propensity to cycle as a policy tool N Raha, SYSTRA; D Christie, Transport for London; A Gordon, Mott MacDonald, UK</p> <p>Development of an enhanced bicycle model to incorporate electric cyclists in the Dutch national strategic road traffic model N Groot, F Hofman, Rijkswaterstaat; L Harms, KiM Netherlands Institute for Transport Policy Analysis, NL</p>
Transport Models Stream 2	<p>Connected and Autonomous Vehicles Session Chair:</p> <p>Will self-driving cars impact the long term investment strategy for the Dutch National trunk road system? R Smit, Rijkswaterstaat Water, Traffic and Environment; H van Mourik, 4cast; M Pieters, Significance, NL</p> <p>Traffic modelling of self-driving vehicles S Frost, COWI, DK</p>	<p>Short term AI and Deep Learning Session Chair:</p> <p>Model-based short term predictor of traffic states L Suijs, Goudappel Coffeng; L Wismans, L Brederode, Dat.mobility, NL</p> <p>Real time short term traffic prediction for a regional MIDAS network based on a neural network prediction algorithm A Narh, C Goves, P Bate, Transport Systems Catapult, UK</p>	<p>Assignment Session Chair:</p> <p>Development of an agent based simulation framework for public bus operations for improving arrival reliability Md A Ramli, V Jayaraman, Institute of High Performance Computing, A*STAR; K H Chee, SMRT Buses Ltd, SG</p> <p>The assessment of Transit Oriented Developments using microsimulation models E Ruxton, T Tanoz-Sargeant, AECOM, UK</p> <p>Improving consideration of redundancy of itineraries in the modal choice C Derome, RATP, FR</p>