



Day 1: Monday April 14, 9:00-10:30

STS 1 - Electromobility

Day 1: Monday April 14, 9:00-10:30

Chair: Jean Delsey (IFSTTAR, France)

Oral presentations

19803

MOLECULES: MObility based on eLEctric Connected vehicles in Urban and interurban smart cLean Envrionments

*Alma Solar*¹,

¹: ETRA Investigación y desarrollo
Tres Forques 147, 46014 Valencia- Spain

19775

Life cycle assessment of electric vehicles - Key issues of task 19 of the International Energy Agency (IEA) on Hybrid and Electric Vehicles (HEV)

*Gerfried Jungmeier*¹, *Jennifer B. Dunn*², *Amgad Elgowainy*², *Simone Ehrenberger*³, *Enver Doruk Oezdemir*³, *Hans Jörg Althaus*⁴, *Rolf Widmer*⁵,

¹: JOANNEUM RESEARCH
Elisabethstrasse 18, A-8010 Graz- Austria
²: Argonne National Laboratory (ANL) -
9700 S. Cass Avenue Argonne, IL 60439- United States
³: DLR, Institute of Vehicle Concepts
Pfaffenwaldring 38-40, 70569 Stuttgart- Germany
⁴: Quantis, glaTec Technology Center
Überlandstrasse 129, CH-8600 Dübendorf- Switzerland
⁵: EMPA
, Lerchenfeldstrasse 5, CH-9014 St. Gallen- Switzerland

19768

Toward a European-wide interoperable electromobility system

*Gabriele Giustiniani*¹, *Luca Persia*¹, *Heike Barlag*², *Norbert Vierheilig*²,

¹: Centro di ricerca per il Trasporto e la Logistica, Università di Roma "La Sapienza" (CTL)
Via Eudossiana 18, 00184 Roma- Italy
²: Siemens AG (Siemens AG)
Gruendlacher Str. 260 90765 Fuerth- Germany

18453

Cognitive mapping and multi-criteria analysis for decision aiding: an application to the design of an electric vehicle sharing service

Alessandro Luè^{1,2}, *Alberto Colomi*^{2,1}, *Roberto Nocerino*¹,

¹: Poliedra - Politecnico di Milano (Poliedra) -
Via G. Colombo 40, Milano- Italy
²: Design Department - Politecnico di Milano
Via G. Durando 38/A - 20158 Milan- Italy

18009

Future scenarios of electric vehicles with range extender in Austria, Germany and France

*Juliane Stark*¹, *Roman Klementsitz*¹, *Christoph Link*¹, *Christine Weiss*², *Bastian Chlond*², *Thomas Franke*³, *Madlen Günther*³,

¹: University Natural Resources and Life Sciences Vienna, Institute for Transport Studies (BOKU-ITS) -
Peter-Jordan-Str. 82, 1190 Vienna- Austria
²: Karlsruhe Institute of Technology (KIT) -
Otto Ammann-Platz 9 D-76128 Karlsruhe- Germany
³: Chemnitz University of Technology (TUC) -
Wilhelm-Raabe-Strasse 43 09120 Chemnitz- Germany

Poster presentations

19873

Advanced services for electro-mobility: the integration of smartCEM project platform for Reggio Emilia pilot site

*Mauro Dell'amico*¹, *Guido Di Pasquale*², *Leandro Guidotti*³, *Pietro Mascolo*¹,

¹: Interuniversity Consortium for Optimization and Operations Research (ICOOR)
c/o DISMI, University of Modena and Reggio Emilia Via Amendola 2, pad. Morselli, 42122 Reggio Emilia - ITALY- Italy
²: Pluservice srl (PLUS)
S.S. Adriatica Sud 228/D 60019 SENIGALLIA- Italy
³: Università di Modena e Reggio Emilia - HMI Research Group (Unimore)
via Amendola 2, 42122 Reggio Emilia- Italy

19498

An ICT platform for electromobility services: smartCEM project

*Guido Di Pasquale*¹,

¹: Pluservice -
S.S. Adriatica Sud 228/d 60019 – Senigallia (AN)- Italy

18206

Introducing the novel architectures of the PICA V vehicle

*Luis De Leonardo*¹, *Matteo Zoppi*¹, *Giorgio Pietronave*¹, *Rezia Molfino*¹,

¹: Faculty of Mechanical Engineering, University of Genoa (DIME) -
Via all'Opera Pia 15 A, 16145 GE Genoa- Italy

17738

A cost benefit analysis of electric vehicles - a UK case study

*Jinan Piao*¹, *Mike Mcdonald*², *John Preston*³,

¹: Transportation Research Group, Southampton University
Highfield, Southampton, SO17 1BJ- United Kingdom
²: Transportation Research Group, Southampton University
Highfield, Southampton, SO17 1BJ- United Kingdom
³: Transportation Reserch Group, Southampton University
Highfield, Southampton, SO17 1BJ- United Kingdom

17495

The role and activities of SMEs in EU R&D transport programmes: the case of electric vehicles (EVs)

David Morris^{1..}

^{1:} Coventry University -
Priory Street, Coventry, CV1 5FB- United Kingdom



STS 2 - Shipping and the environment**Day 1: Monday April 14, 9:00-10:30**

Chair: Savas Geivanidis (AUTH, Greece)

Oral presentations

18455

AQUO European collaborative project - Development of methods and indicators for the assessment of shipping noise footprint on underwater environment and impact on marine life*Christian Audoly*¹, *Celine Rousset*¹, *Thomas Folegot*², *Michel André*³, *Eric Baudin*⁴, *Lanfranco Benedetti*⁵,¹: DCNS Research (DCNS Research)

DCNS Research

Le Mourillon, BP403, 83055 Toulon Cedex- France

²: Quiet Oceans (Quiet Oceans)

Quiet Oceans

135, rue Claude Chappe, 29280 Plouzane- France

³: Universitat Politècnica de Catalunya (UPC)

Jordi Girona 31, Barcelona, 08034- Spain

⁴: Bureau Veritas (BV)

Bureau Veritas

67/71 Bd du Château – F 92571 Neuilly sur Seine Cedex- France

⁵: Community of European Shipyards Associations (CESA)

52, Rue Marie de Bourgogne, 1000 Brussels- Belgium

18105

Environmental impact and cost-effectiveness of CO2 reduction measures in multimodal trade routes: road and shipping.*Chariklia Georgopoulou*¹, *Nikolaos Kakalis*², *Andreas Brandsaeter*³, *Christos Chryssakis*³, *Magnus Eide*⁴,¹: Det Norske Veritas Research & Innovation (DNV GL) -

5 Aitolikou Str. Piraeus, 185 45- Greece

²: Det Norske Veritas Research & Innovation (DNV GL)

5 Aitolikou Str. Piraeus, 185 45- Greece

³: Det Norske Veritas Research & Innovation (DNV GL)

1322 Høvik- Norway

⁴: Det Norske Veritas Environment and Energy Efficiency (DNV GL)

1322 Høvik- Norway

18102

Marine coatings: a systematic study on structure-property relationship of potential covalently immobilized biocides*Elisabete Silva*¹, *Olga Ferreira*¹, *João Bordado*¹, *Ho-Chun Fang*², *Stuart Downie*³, *Stefan Olsen*⁴,¹: Instituto Superior Técnico (IST) -

Departamento de Engenharia Química Torre Sul, Av. Rovisco Pais, 1049-001, Lisboa- Portugal

²: Lloyd's Register Group Limited (LRS) -

71 Fenchurch Street, London, EC3M 4BS- United Kingdom

³: Lloyd's Register EMEA (LRS) -

Mountbatten House, 1 Grosvenor Square, Southampton, SO15 2JU- United Kingdom

⁴: HEMPEL, S/A (HEMPEL) -

Lundtoftevej 150 DK-2800 Kgs. Lyngby, Denmark- Denmark

18035

Ship motions, vibration and noise influence on crew performance and well-being studies in FAROS project*Seppo Kivimaa*¹, *Antti Rantanen*¹, *Tapio Nyman*¹, *Toby Garner*², *Barry Davies*², *Douglas Owen*²,¹: VTT Technical Research Centre of Finland (VTT) -

Tietotie 1 D, Espoo, FI-02044 VTT- Finland

²: LR Scandpower Ltd (LR) -

2nd Floor, St Catherine's Court, Berkeley Place, Clifton, Bristol BS8 1BQ- United Kingdom

17685

Reduction of the underwater radiated noise by ships: new shipbuilding challenge. The vessels "Ramón Margalef" and "Ángeles Alvariño" as technological references of how to build silent vessels.*Publio Beltrán*¹, *Raúl Salinas*¹, *Alfonso Moreno*¹,¹: Técnicas y Servicios de Ingeniería, S.L. (TSI) -

Avda. Pío XII, Nº44. Edificio Pyomar, Torre 2 - Bajo Izda. 28016 Madrid- Spain

Poster presentations

19915

New bio coating for corrosion inhibition on maritime infrastructures and transportation*Emilio Blas Galindo*¹, *Rocío Barros García*¹, *Edith Guedella Bustamante*¹, *Ricardo Vicente Ullan*², *Stefan Pfeifer*³,¹: ACCIONA Infrastructure (ACCIONA) -

Avda de Europa No. 18, Parque Empresarial La Moraleja, 28108 Alcobendas, Madrid- Spain

²: Instituto de Biotecnología INBIOTEC

Instituto de Biotecnología INBIOTEC, León, Spain- Spain

³: TU Bergakademie Freiberg

TU Bergakademie Freiberg, Freiberg, Germany- Germany

19772

Holistic noise and vibration abatement within the EU 7FP. The SILENV Project: Ship Innovative soLutions to rEduce Noise and Vibrations*Tomaso Gaggero*¹, *Michel André*², *Eric Baudin*³, *Publio Beltran Palomo*⁴, *Ruggero Dambra*⁵, *Mael Delente*⁶, *Enrique Haimov*⁷, *Jan Hallander*⁸, *Mark Houben*⁹, *Sandro Ianniello*¹⁰,*Maria Jiménez-Caballero*¹¹, *Christo Pirovsky*¹², *Antti Rantanen*¹³, *Enrico Rizzuto*¹, *Osman Turan*¹⁴,¹: University of Genoa (UNIGE)

Via Montallegro 1, 16145 Genova- Italy

²: Universitat Politècnica de Catalunya (UPC)

Jordi Girona 31, Barcelona, 08034- Spain

³: Bureau Veritas (BV)

Bureau Veritas

67/71 Bd du Château – F 92571 Neuilly sur Seine Cedex- France

⁴: TSI

Madrid- Spain

⁵: CETEN

A S.p.A, Genova- Italy

⁶: DCNS Group Lorient (DCNS-Lorient) -

DCNS group

9 Rue Jules Legrand 56100 Lorient- France

⁷: CEHIPAR

Madrid- Spain

⁸: SSPA Sweden AB

Gothenburg- Sweden

⁹: TNO Pays-Bas -

¹⁰: CNR-INSEAN

Rome- Italy

¹¹: Cia. Trasmediterranea

Madrid- Spain

¹²: Technical University of Varna

Varna- Bulgaria

¹³: VTT Technical Research Centre of Finland (VTT) -

Tietotie 1 D, Espoo, FI-02044 VTT- Finland

¹⁴: Department of Naval Architecture and Marine Engineering, University of Strathclyde, Glasgow (SU) -

Department of Naval Architecture and Marine Engineering, University of Strathclyde Henry Dyer Building, 100 Montrose Street Glasgow G4 0LZ- United Kingdom

18216

Mitigating maritime transport emissions : diversified effects between European short sea and deep sea shipping

*Pierre Franc*¹,

¹: Ministère de l'écologie, du développement durable et de l'énergie

Direction générale des infrastructures, des transports et de la mer

Arche Sud de la Défense- France

18120

Carbon intensity of French shippers

*Christophe Rizet*¹, *Cecilia Cruz*¹, *Matthieu Lapparent*¹, *Martine Vromen*²,

¹: Département Économie et Sociologie des Transports (IFSTTAR/DEST) -

PRES Université Paris-Est, IFSTTAR

Le Descartes 2, 2 rue de la Butte Verte, 93166 Noisy le Grand Cedex- France

²: CETE Nord - Picardie

Centre d'Études Techniques de l'Équipement

2 Rue de Bruxelles, 59000 Lille, Lille, Nord-Pas-de-Calais 59000- France



STS 3 - ICT and telecommunication**Day 1: Monday April 14, 9:00-10:30**

Chair: Marion Berbineau (IFSTTAR, France)

Oral presentations

19609

Score@F project: a new usage of DATEX II in cooperative systems*Joëlle Besnier*^{1,*,} *Van-Bao Ta*^{2,*,} *Jacques Ehrlich*^{1,*,} *Ludovic Simon*^{2,*,}^{1:} Laboratoire sur les Interactions Véhicules-Infrastructure-Conducteurs (IFSTTAR/LVIC) - IFSTTAR

Route de la Minière, Bâtiment 824, F-78000 Versailles - Satory- France

^{2:} French Ministry of Transport / CETE IDF

CETE

12 rue Teisserenc de Bort 78197 Trappes- France

18521

LTE based telecommunication system for urban guided-transport*Arwa Khayat*^{1,2,} *Mohamed Kassab*^{2,} *Marion Berbineau*^{2,} *Abdelfettah Belghith*^{1,}^{1:} University of Manouba, ENSI, HANA Research Group

HANA Research Group, ENSI, Campus de Manouba, 2010 La Manouba- Tunisia

^{2:} University of Lille Nord de France, F-59000, Lille, IFSTTAR, LEOST, F-59650, Villeneuve d'Ascq

IFSTTAR

20 rue elisée reclus, 59650 Villeneuve d'Ascq- France

18357

Experimentation with the PRESERVE VSS and the Score@F system*Rim Moalla*^{1,} *Brigitte Lonc*^{1,*,} *Gerard Segarra*^{1,} *Marcello Lagana*^{2,} *Panagiotis Papadimitratos*^{2,} *Jonathan Petit*^{3,} *Houda Labiod*^{4,}^{1:} renault sas

Renault

1 avenue du golf 78288 Guyancourt- France

^{2:} KTH

Stockholm- Sweden

^{3:} UT

Enschede- Netherlands

^{4:} Telecom ParisTech

Télécom ParisTech

Paris- France

18331

Transferability of ICT solutions for improving co-modality in passenger transport*Monika Bak*^{1,*,} *Przemyslaw Borkowski*^{1,} *Claudia De Stasio*^{2,}^{1:} University of Gdansk (UG) -

ul. Bazynskiego 1A, 80-952 Gdansk- Poland

^{2:} TRASPORTI E TERRITORIO srl (TRT) -

Via Rutilia, 10/8, 20141 Milano- Italy

18261

Validation of cooperative services in the FOT Testfeld Telematik - approach and lessons learned*Matthias Helfert*^{1,} *Martin Dirnwöber*^{2,}^{1:} AustriaTech -

Donau-City-Straße 1, A-1220 Wien- Austria

^{2:} AustriaTech**Poster presentations**

19913

ISTIMES project: outcomes and perspectives*Francesco Soldovieri*^{1,*,} *Frederic Bourquin*^{2,*,} *Vincenzo Cuomo*^{3,*,} *Jean Dumoulin*^{4,*,}^{1:} National Research Council

Via Diocleziano 328 80124 Napoli- Italy

^{2:} Institut français des sciences et technologies des transports, de l'aménagement et des réseaux

IFSTTAR

14-20 Bld Isaac Newton - F-77420 Champs-Sur-Marne- France

^{3:} National Research Council (CNR)

C.da Santa Loja, Tito Scalo 85050 Potenza- Italy

^{4:} Institut français des sciences et technologies des transports, de l'aménagement et des réseaux

IFSTTAR

Centre de Nantes route de Bouaye CS4 44344 Bouguenais Cedex- France

18417

Hash based message authentication in vehicular delayed tolerant networks*Sara Bahamou*^{1,*,} *Jean-Marie Bonnin*^{1,} *Jong-Hyouk Lee*^{1,}^{1:} TELECOM Bretagne (TB)

Télécom Bretagne

2, rue de la Chataigneraie, RSM Department, TELECOM Bretagne, 35576, Cesson-Sevigne, France.- France

18398

Extending the iTETRIS platform for smartphone sensing and communication simulation*Jérôme Härrri*^{1,} *Paolo Bellavista*^{2,} *Luca Foschini*^{2,} *Robbin Blokpoel*^{3,}^{1:} EURECOM -

EURECOM

Campus SophiaTech, 450 Route des Chappes, 06410 Biot FRANCE- France

^{2:} University of Bologna (UniBo) -

Via Zamboni, 33, 40126 Bologna- Italy

^{3:} Peek Traffic

Basicweg 16, PO box 2542, 3800 GB, Amersfoort- Netherlands

18339

Assessing the impact of nomadic devices applications usage in road transportation of sensitive goods – the HERMES approach*Katia Pagle*^{1,} *Angelos Amditis*^{2,} *Aikaterini Toulidou*^{3,} *Evangelia Gaitanidou*^{3,} *Evangelos Bekiaris*^{3,} *Konstantinos Haniotis*^{4,}^{1:} Institute of Communication and Computer Systems (ICCS) -

ICCS 9, Iroon. Polytechniou Str., GR-157 73 Zografou – HELLAS- Greece

^{2:} Institute of Communication and Computer Systems (ICCS)

Iroon Polytechniou 9, Athens 15773- Greece

^{3:} Centre for Research and Technology Hellas/Hellenic Institute of Transport (CERTH/HIT) -

6th km Charilaou-Thermis, 57001, Thessaloniki- Greece

⁴ Telenavis
43, Anapafseos Str, GR-15235 Vrilissia, Athens, Greece- Greece



STS 4 - Auscultation and monitoring asset conditions**Day 1: Monday April 14, 9:00-10:30**

Chair: Pieter de Winne (AWW, Belgium)

Oral presentations

20179

3D extraction of the relief of road surface through image analysis*Majdi Khoudeir*¹, *Benjamin Bringier*².¹: University of Poitiers (Xlim-SIC)

Xlim-SIC

Département Signal, Image et Communication UMR CNRS Xlim-SIC, n°6172 Université de Poitiers- France

²: University of Poitiers (Xlim-Sic)

Xlim-SIC, neor

Département Signal, Image et Communication UMR CNRS Xlim-SIC, n°6172 Université de Poitiers, Futuroscope- France

18519

Measurement Error Models (MEM) regression method to harmonize friction values from different skid testing devices.*Azzurra Evangelisti*¹, *Samer Katicha*², *Edgar De León Izeppi*², *Gerardo Flintsch*², *Mauro D'apuzzo*¹, *Vittorio Nicolosi*³.¹: University of Cassino and Southern Lazio (DICEM) -

Via G. Di Biasio 43, 03043, Cassino (FR)- Italy

²: Center for Sustainable Transportation Infras tructure, VTT

Blacksburg, Virginia- United States

³: University of Rome

"Tor Vergata", Rome,- Italy

18229

Accurate and up-to-date evaluation of extreme load effects for bridge assessment*Xiao Yi Zhou*¹, *Franziska Schmidt*¹, *Bernard Jacob*², *François Toutlemonde*³.¹: Université Paris Est/IFSTTAR/Département Matériaux et Structures (IFSTTAR/MAST/SDOA) -

PRES Université Paris-Est, IFSTTAR

Cité Descartes - 14-20 bd Newton – 77447 Champs-sur-Marne - Marne-la-Vallée Cedex 2- France

²: Institut français des sciences et technologies des transports, de l'aménagement et des réseaux (IFSTTAR) -

IFSTTAR

Boulevard Newton Champs sur Marne F-77447 Marne la Vallée Cedex 2 - France

³: Université Paris Est/IFSTTAR/Département Matériaux et Structures (IFSTTAR/MAST) -

PRES Université Paris-Est, IFSTTAR

Cité Descartes - 14-20 bd Newton – 77447 Champs-sur-Marne - Marne-la-Vallée Cedex 2- France

18160

Transportation infrastructure monitoring using satellite remote sensing*Edward Hoppe*¹, *Brian Bruckno*², *Elizabeth Campbell*², *Scott Acton*³, *Andrea Vaccari*³, *Michael Stuecheli*³, *Adrian Bohane*⁴, *Giacomo Falorni*⁴, *Jessica Morgan*⁴.¹: Virginia Center for Transportation Innovation and Research (VCTIR) -

530 Edgemont Road Charlottesville, VA 22903- United States

²: Virginia Department of Transportation -

Richmond- United States

³: University of Virginia (UVA) -

Charlottesville, VA- United States

⁴: TRE Canada Inc. -

Vancouver, BC- Canada

17793

MOBI-ROMA tool for mobile road monitoring*Pirkko Saarikivi*¹, *Magnus Andersson*², *Pär Ekström*², *Eric Zachrisson*³, *Torbjörn Gustavsson*³, *Stephanie Müller*⁴.¹: Foreca Ltd (Foreca) -

Keilaranta 1, FI-02150 Espoo- Finland

²: Semcon AB (Semcon) -

Theres Svenssons Gata 15 41780 Göteborg- Sweden

³: Klimator AB (Klimator) -

Guldhedsgatan 5A 40530 Göteborg- Sweden

⁴: Poyry Deutschland GmbH (Poyry) -

Beim Strohhouse 31 20097 Hamburg- Germany

Poster presentations

19971

Evaluation of multilayer pavement viscoelastic properties from falling weight deflectometer using neural networks*Jose Manuel Gonzalez*¹, *Josep Maria Carbonell*², *Wouter Van Bijsterveld*³.¹: International Center for Numerical Methods in Engineering (CIMNE) -

C/ Gran capitan s/n Barcelona 08034- Spain

²: International Center for Numerical Methods in Engineering (CIMNE)

C/ Gran capitan s/n Barcelona 08034- Spain

³: Geotécnica y cimientos S.A. (GEOCISA)

Llanos de Jerez 10-12 Coslada (Madrid)- Spain

18511

Assessment of road infrastructure condition*Hawzheen Karim*¹, *Sven-Erik Hallberg*².¹: Swedish Traffic Administration (STA) -

Trafikverket, 405 33 Göteborg, Sweden- Sweden

²: Swedish Traffic Administration (STA) -

Trafikverket 551 91 Jönköping- Sweden

18078

Implementation of advanced monitoring techniques in road asset management - results from TRIMM project*Robert Karlsson*¹.¹: Dept Infrastructure -

SE-58195 Linköping- Sweden

17970

Monitoring of scour critical bridges using changes in the natural frequency of vibration of foundation piles - A field investigation*Luke Prendergast*¹, *Kenneth Gavin*².¹: University College Dublin (UCD) -

Belfield, Dublin 4, IRL- Ireland

²: University College Dublin (UCD)

Belfield, Dublin 4, IRL- Ireland

STS 5 - Materials for vehicles and vessels**Day 1: Monday April 14, 9:00-10:30**

Chair: Andreas Teibinger (Virtual Vehicle, Austria)

Oral presentations

20035

Advanced Lightweight design for electric VEHICLES - ALIVE*Jens Meschke*^{1,2,3,4,5},¹: Christian Schoenwald

Volkswagen AG, Post Box 1777, 38436 Wolfsburg- Germany

²: Manuel Kurz

Volkswagen AG, Post Box 1777, 38436 Wolfsburg- Germany

³: Alexander Tornow

TU Braunschweig Langer Kamp 38100 Braunschweig- Germany

⁴: Reinhard Hackl

Voestalpine Linz- Austria

⁵: Matthias Flume

Voestalpine Linz- Austria

19953

Advances in friction stir welding of steel - project HILDA*Athanasios Toupis*¹, *Alexander Galloway*¹, *Stephen Cater*², *Daniel Micallef*³, *Duncan Camilleri*³, *Nicolas Poletz*⁴, *Larbi Arbaoui*⁴,¹: University of Strathclyde -

James Weir Building, 75 Montrose St, Glasgow G1 1XJ- United Kingdom

²: TWI Technology Centre (TWI) -

Advanced Manufacturing Park, Wallis Way, Catcliffe, Rotherham, Yorkshire S60 5TZ- United Kingdom

³: University of Malta

Msida MSD 2080- Malta

⁴: Cenaero

Eole Building, Rue des Frères Wright 29, 6041 Gosselies- Belgium

18134

Bus BiW weight optimization using composite sandwich panels*Paulo Neves*¹, *António Fernandes*¹, *David Lantz*², *Lars Carlén*², *Kent Andersson*²,¹: Instituto de Engenharia Mecânica (IDMEC)

Rua Dr. Roberto Frias, 400 4200-465 Porto- Portugal

²: Volvo Bus Co

Göteborg- Sweden

17855

Development of low silicon carbide free bainitic steel for automotive industry*David Alvarez*¹, *Jesus Ferreño*¹, *Jose Manuel Artimez*¹,¹: ITMA Materials Technology

Aviles, Asturias- Spain

17460

Development of a lightweight car body, using sandwich-design*Michael Kriescher*¹, *Simon Brueckmann*¹, *Gundolf Kopp*¹,¹: German aerospace center, Institute of vehicle concepts

Pfaffenwaldring 38-40 70569 Stuttgart- Germany

Poster presentations

20047

Flax bio-composites from bio-epoxy and tannin resins*Jinchun Zhu*¹, *Alix Sauget*², *Elias Nassiopoulos*¹, *Christophe Avril*³, *Antonio Pizzi*², *Hrushikesh Abyhankar*¹, *James Njuguna*¹,¹: University of Cranfield -

College Road, Cranfield, Bedfordshire, MK43 0AL- United Kingdom

²: ÉCOLE NATIONALE SUPÉRIEURE DES TECHNOLOGIES ET INDUSTRIES DU BOIS (ENSTIB) -

LERMAB-ENSTIB

University of Lorraine, 27 rue Philippe Seguin, BP 1041, 88051 Epinal- France

³: Matériaux Hydrogène Technologie (MaHyTec) -

MaHyTec

210 avenue de Verdun, 39100 Dole- France

18145

Fibre reinforced plastic concepts for structural chassis parts*Oliver Deisser*¹, *Horst Friedrich*¹, *Gundolf Kopp*¹,¹: Institute of Vehicle Concepts

Pfaffenwaldring 38-40, D-70569 Stuttgart- Germany

18129

Application of unconventional technologies and new materials for improved economic and environmental performance of ships*Dr. Lars Molter*¹, *Christian Norden*², *Martin Bergström*¹, *Dr. Frank Roland*¹, *Markus Lehne*²,¹: Center of Maritime Technologies e. V. (CMT) -

Bramfelder Straße 164 22305 Hamburg- Germany

²: BALance Technology Consulting GmbH (BAL) -

Contrescarpe 33 28203 Bremen- Germany

17026

MATISSE - Modelling And Testing for Improved Safety of key composite StructureS in alternatively powered vehicles*Roland Wohlecker*¹, *Ralf Matheis*¹, *Andreas Gutsche*², *Ernst Tomasch*², *Bengt Pipkorn*³, *Christian Kurzböck*⁴,¹: fka mbH (FKA)

Steinbachstr. 7 52062 Aachen- Germany

²: Technical University of Graz / Technische Universität Graz (TUG) -

Rechbauerstrasse 12 Graz 8010- Austria

³: Autoliv Development AB (ALV)

Vargada- Sweden

⁴: Virtual Vehicle GmbH (VIF)

Graz- Austria



STS 6 - High speed train**Day 1: Monday April 14, 9:00-10:30**

Chair: Manuel Pereira (ERRAC)

Oral presentations

20084

Decision-aided railway transportation planning*Jean Damay*¹, *Francis Sourd*², *Jean-Pierre Pradayrol*³.¹: SNCF - Innovation & Research Department (SNCF - I&R) -
SNCF

40, avenue des Terroirs de France 75611 Paris CEDEX12- France

²: Innovation & Research Departement (SNCF - I&R) -
SNCF

40, avenue des Terroirs de France 75611 PARIS Cedex12- France

³: SNCF - Direction Grands Projets et Prospective (SNCF - DGPP)
SNCF

2, place de la Défense 92053 Paris La Défense Cedex, France- France

20056

A full scale simulation of a high speed train for slipstream prediction*Lorenzo Pii*¹, *Emmanuel Vanoli*¹, *Francesco Polidoro*¹, *Sebastien Gautier*², *Ali Tabbal*³.¹: Exa Corporation

Exa Corporation

Paris- France

²: Exa Corporation (HVEU) -

Landshuter Allee 8 80637 Munich- Germany

³: Alstom Transport

ALSTOM

St.Ouen- France

18282

Influence of gradient on energy consumption of high speed train*Romain Bosquet*¹, *Pierre-Olivier Vandanjon*², *Maxime Gautier*³, *Alex Coiret*², *Olivier Cazier*¹.¹: Réseau Ferré de France (RFF)

Réseau Ferré de France

92 avenue de France, 75013 Paris- France

²: LUNAM University

IFSTTAR

AME, EASE, F-44341 Bouguenais- France

³: Institut de Recherche en Communications et en Cybernétique de Nantes (IRCCyN)

CNRS : UMR6597 – PRES Université Nantes Angers Le Mans UNAM

Ecole Centrale de Nantes- France

18139

Control rules for dispatching trains on general networks with multiple train speeds*Shi Mu*¹, *Maged Dessouky*¹.¹: University of Southern California

Daniel J. Epstein Department of Industrial and Systems Engineering University of Southern California Los Angeles, CA 90089-0193- United States

17983

High-speed train territorial impact in French and Spanish medium cities with stations located in the outskirts*Armando Ortuño Padilla*¹, *David Bautista Rodríguez*¹, *Patricia Fernández Aracil*¹, *Eloïse Libourel*².¹: University of Alicante (UA) -

Campus de Sant Vicent del Raspeig. Ap. Correos 99 03080 ALICANTE- Spain

²: Laboratoire Ville, Mobilité, Transport (LVMT) -

Ecole des Ponts ParisTech, Université Paris-Est Marne-la-Vallée (UPEMLV), IFSTTAR UMR-T 9403

Ecole des Ponts ParisTech, Cité Descartes, 6 et 8 avenue Blaise Pascal, 77454 Marne-la-Vallée cedex 2- France

Poster presentations

19988

European lessons for California new HSR project: a comparative study using the Spanish network*Begoña Guirao*¹, *Juan L. Campa*¹.¹: Universidad Politécnica de Madrid (UPM)

Departamento de Ingeniería Civil: Transportes ETSI Caminos Avda. Profesor Aranguren, s/n.28040 Madrid- Spain

18510

Cognitive radio for high speed railway through dynamic and opportunistic spectrum reuse*Marion Berbineau*¹, *Emilie Masson*¹, *Yann Cocheril*¹, *Ali Kalakech*¹, *Jean-Pierre Ghys*¹, *Iyad Dayoub*², *Sofiane Kharbech*², *Marie Zwingelstein-Colin*², *Eric Simon*², *Nathalie Haziza*³,*Rémi Painchault*³, *Roland Gautier*⁴, *Kais Hassan*⁴, *Ken-Ji De La Rosa*⁴, *Emanuel Radoi*⁴, *Dominique Nussbaum*⁵, *Raymond Knopp*⁵, *Jean-Marie Bonnin*⁶, *Kamal Deep Singh*⁶, *Jong-**Hyouk Lee*⁶, *Henri Philippe*⁷, *Hassan Ghannoum*⁷, *David Sanz*⁷, *Philippe Massy*⁷.¹: Université Lille Nord de France, IFSTTAR, COSYS, LEOST (IFSTTAR) -

IFSTTAR

20 Rue Elisée Reclus, 59650 Villeneuve d'Ascq- France

²: Université Lille Nord de France, UVHC, IEMN, DOAE

UVHC

Université de Valenciennes- France

³: Thalès Communications and Security, France (THALES)

THALES

Colombes- France

⁴: Université. Bretagne Occidentale, UMR 6285, Lab-STICC, F-29200 Brest, France (Lab-STICC)

Université de Bretagne Occidentale (UBO)

6 avenue Le Gorgeu, C.S 93837, 29238 Brest Cedex 3, France- France

⁵: EURECOM

Institut Télécom

Sophia antipolis- France

⁶: RSM, Telecom Bretagne, France

Institut Télécom

Rennes- France

⁷: SNCF, Direction de l'ingénierie (SNCF)

SNCF

SNCF- Direction de l'infrastructure section radio d'entreprise / departement des telecommunications / direction de l'ingénierie 6 avenue François Mitterrand 93574 La Plaine Saint-Denis cedex- France

18306

Experimental assessment of wind influence on high-speed train energy consumptions.

Alex Coiret¹, Pierre-Olivier Vandanjon¹, Romain Bosquet², Tristan Soubrié³, Guillaume Baty³,

¹: LUNAM University

IFSTTAR

AME, EASE, F-44341 Bouguenais- France

²: Réseau Ferré de France (RFF)

Réseau Ferré de France

92 avenue de France, 75648 Paris cedex 13.- France

³: Andheo - Onera (Andheo)

andheo-onera

29 avenue de la division leclerc, BP72, F92322 Châtillon cedex- France

18253

A two-scale approach towards a multi-agent based model to predict HSL diffuse impacts on biodiversity

Jean-Marc Foures¹,

¹: Laboratoire de géographie physique (LGP) -

CNRS : UMR8591, Université Paris I - Panthéon-Sorbonne, Université Paris-Est Créteil Val-de-Marne (UPEC)

bat. Y 1 Place Aristide Briand 92195 MEUDON CEDEX- France

17761

High-speed rail station, service innovations and temporary office space for mobile workers - A comparison France/Italy

Marie Delaplace¹, Francesca Pagliara², Anne Aguilera³,

¹: LAB'URBA

Université de Paris Est

UNIVERSITE DE PARIS-EST- France

²: University of Federico II Naples

Naples- Italy

³: Laboratoire Ville Mobilité Transport (lvmt)

IFSTTAR

UNIVERSITE DE PARIS EST- France



STS 7 - Traffic management and routing**Day 1: Monday April 14, 9:00-10:30**

Chair: Jordi Casas (TSS, Spain)

Oral presentations

19182

A review of statewide traffic data collection, processing, projection and quality control*Rafiqul Tarefder¹, James Brogan¹*¹: Univeristy of New Mexico
Albuquerque, New Mexico- United States

18386

A multi lanes capacity model designed for variable speed limit applications*Aurelien Duret¹*¹: Centre Technique de l'Equipement Lyon (CEREMA)
CETE Lyon
25 François Mitterrand - CS 92803, 69674 Bron Cedex- France

18358

Routing algorithms for the safe transportation of pupils to school using school buses*Eleni Chalkia¹, Josep Maria Salanova Grau¹, Evangelos Bekiaris¹, Georgia Aifadopoulou¹, Chiara Ferarini², Evangelos Mitsakis¹*¹: Centre for Research and Technology Hellas/Hellenic Institute of Transport (CERTH/HIT) -
6th km Charilaou-Thermis, 57001, Thessaloniki- Greece
²: University of Modena and Reggio Emilia (UNIMORE)

18312

ON-TIME - A framework for integrated railway network operations management*Thomas Albrecht¹, Meena Dasigi²*¹: Technische Universität Dresden (TUD) -
TU Dresden 01062 Dresden- Germany
²: Network Rail (NR)
London- United Kingdom

17896

Decision-support for investing in cooperative systems – Results of the project COBRA*Kerry Malone¹, Jean Hopkin², Philippe Nitsche³*¹: TNO -
Van Mourik Broekmanweg 6 2600AA Delft- Netherlands
²: TRL
Crowthorne House Nine Mile Ride Wokingham Berkshire RG40 3GA- United Kingdom
³: AT
2, Griefinggasse 1210 Vienna- Austria**Poster presentations**

19203

Optimal train routing and scheduling in case of traffic perturbations: improving solution time through parameter tuning*Paola Pellegrini¹, Grégory Marlière¹, Joaquin Rodriguez¹*¹: Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux (IFSTTAR) -
IFSTTAR, Univ. Lille Nord de France
20, rue Élisée Reclus, BP 70317 F-59666 Villeneuve d'Ascq Cedex- France

18493

Evaluation parameters of re-routing strategy*Vladimir Zyryanov¹, Anastasia Feofilova¹*¹: Rostov State Civil Engineering University
Socialisticheskaya street, 162 Rostov-on-Don, 344022- Russia

18345

QUATRA (Software and services for the quality management of traffic data)*Daniel Elias¹, Thomas Heinrich², Alexander Kowarik³*¹: nast consulting ZT GmbH (nast) -
Lindengasse 38, 1070 Vienna- Austria
²: Transver GmbH (transver) -
Maximilianstrasse 45, 80538 Munich- Germany
³: data-analysis OG (data-analysis) -
Eyslergasse, 1130 Vienna- Austria

17851

How useful can be mode choice modelling for decision makers ?*Thomas Anselme¹, Mathieu Jacquot², Charlotte Coupe³, Damien Verry⁴*¹: CEREMA - DTerNC -
MEDDE - METL
10, chemin de la Poudrière - CS 90245 76121 Le Grand Quevilly Cedex- France
²: CEREMA - DTerEST -
MEDDE - METL
1 boulevard Solidarité Metz Technopôle 57076 METZ- France
³: CEREMA - DTecTM -
MEDDE - METL
B.P. 214 77487 Provins Cedex - France- France
⁴: CEREMA - DTecTV -
MEDDE - METL
2 Rue Antoine Charial 69426 Lyon- France

17848

Applying and testing a new generation traffic management with multi-objectives*Martijn De Kievit¹, Yusen Chen¹*¹: Netherlands Organisation for Applied Scientific Research TNO (TNO) -
Schoemakerstraat 97 2628 VK Delft- Netherlands

17640

Decision Support Systems (DSS) for traffic management assessment: notes on current methodology and future requirements for the implementation of a DSS*Jordi Casas^{1,2}, Alex Torday¹, Josep Perarnau¹, Martijn Breen¹, Aleix Ruiz De Villa¹*¹: TSS-Traffic Simulation Systems (TSS) -
Passeig de Gràcia 12, 08007 Barcelona- Spain
²: Universitat de Vic (UVic) -

Sagrada Familia, 4 08500 Vic- Spain



STS 8 - Urban mobility and eco-mobility**Day 1: Monday April 14, 9:00-10:30**

Chair: Andres Monzon (University of Madrid, Spain)

Oral presentations

20092

My car is a "multi-mode" ! Car user's behavior in the light of daily mobility chains.*Antonio Gonzalez*¹, *Valérie Diaz*¹, *Caroline De Vellis*¹, *Louise Chasset*¹,¹: Agence d'Urbanisme Bordeaux métropole Aquitaine (a'urba) -
Agence d'Urbanisme Bordeaux métropole Aquitaine
Hangar G2- Bassin à Flot n°1 - Quai Armand Lalande- BP71- 33041 - Bordeaux- France

20017

Decouple accessibility and automobile mobility in urban areas*Miloš Balac*¹, *Francesco Ciari*¹, *Cyrille Genre-Grandpierre*², *Felix Voituret*³, *Serigne Gueye*³, *Philippe Michelin*³,¹: Institute for Transport Planning and System - ETH, Zurich, Switzerland (IVT-ETH) -
Wolfgang-Pauli-Str. 15 8093 Zürich SWITZERLAND- Switzerland
²: Étude des Structures, des Processus d'Adaptation et des Changements de l'Espace (ESPACE) -
Université d'Avignon
UMR ESPACE, Université d'Avignon, 74 rue Louis Pasteur 84000 Avignon- France
³: Laboratoire d'Informatique d'Avignon (LIA) -
Université d'Avignon
Université d'Avignon et des Pays de Vaucluse 339 chemin des Meinajaries, Agroparc BP 1228, 84911 Avignon cedex 9- France

19798

Modeling accessibility to manage urban mobility: the example of the future Lyon metropolitan area*Aurelie Mercier*¹, *Yves Crozet*¹, *Nicolas Ovtracht*¹,¹: Laboratoire d'économie des transports (LET) -
École Nationale des Travaux Publics de l'État ENTPE, CNRS : UMR5593, Université Lumière - Lyon II
ISH - 14, avenue Berthelot - 69363 Lyon cedex 07- France

19400

"Road-Diet" conversions: where and when?*Nikiforos Stamatiadis*¹,¹: University of Kentucky
265 Raymond Bldg. Lexington, KY 40506-0281- United States

17918

Green City Car - A holistic approach for NVH abatement of city cars*Thilo Bein*¹, *Dirk Mayer*², *Steve Elliott*³, *Leonardo Ferrali*⁴, *Mauro Casella*⁵, *Ernst-Ulrich Saeman*⁶, *Wolfgang Kropp*⁷, *Finn Nielsen*⁸, *Jens Meschke*⁹, *Emanuele Pisano*⁵,¹: Fraunhofer LBF -
Bartningstr. 47 64289 Darmstadt- Germany
²: Fraunhofer LBF
Bartningstr. 47 64289 Darmstadt- Germany
³: ISVR
Southampton- United Kingdom
⁴: Autoneum
Winterthur- Switzerland
⁵: CRF
Orbassano (Torino)- Italy
⁶: Continental Reifen Deutschland GmbH
Hannover- Germany
⁷: Chalmers University of Technology (Chalmers) -
Chalmers University of Technology SE-412 96 Gothenburg Sweden- Sweden
⁸: Brüel & Kjær Sound & Vibration Measurement
Nærum- Denmark
⁹: Volkswagen AG
Wolfsburg- Germany**Poster presentations**

20038

New mobility concepts: myth or emerging reality?*Wolfgang Schade*¹, *Michael Krail*², *André Kühn*¹,¹: Fraunhofer Institute for Systems and Innovation Research (Fraunhofer ISI) -
Breslauer Str. 48 76139 Karlsruhe- Germany
²: Fraunhofer Institute for Systems and Innovation Research (Fraunhofer ISI) -
Breslauerstrasse 48 Karlsruhe- Germany

19741

Intermodality in a context of poor transport integration. The case of sub-Saharan African cities*Lourdes Diaz Olvera*¹, *Assogba Guézéré*², *Didier Plat*¹, *Pascal Pochet*¹,¹: Laboratoire d'économie des transports (LET) -
École Nationale des Travaux Publics de l'État ENTPE, CNRS : UMR5593, Université Lumière - Lyon II
ENTPE Rue Maurice Audin 69518 Vaulx-en-Velin cedex- France
²: Université de Kara
B.P. 43/404 Kara- Togo

18241

An innovative and modular cross-section to encourage alternatives to single-occupancy car use: what is the situation in France?*Sandrine Rousic*¹, *Mathieu Luzerne*¹,¹: Centre d'études et d'expertise sur les risques, l'environnement, la mobilité et l'aménagement (CEREMA) -
CETE
Siège, Aix-en-Provence Pôle d'activités des Milles, Avenue Albert Einstein CS 70499 - 13593 Aix-en-Provence cedex 3- France

17948

The CIVITAS initiative contributing to sustainable urban mobility*Don Guikink*¹, *Tariq Van Rooijen*¹, *Mike McDonald*², *Jinan Piao*³,¹: TNO (TNO) -
van Mourik Broekmanweg 6 2628 XE Delft- Netherlands
²: University of Southampton (TRG) -
Faculty of Engineering and the Environment Building 22 Highfield Campus Southampton SO17 1BJ- United Kingdom
³: Transportation Research Group, Southampton University
Highfield, Southampton, SO17 1BJ- United Kingdom

17715

Sustainable mobility governance in small and medium historic town: the LIFE+ PERHT project approach

Saverio Gini¹, Michela Mingardo², Marco Dall'agnol³, Giorgio Ambrosino⁴, Antonio Liberato⁵,

¹: MemEx srl (MEM) -

Via Cairoli 30 I-57123 Livorno- Italy

²: Municipality of Treviso (MUT) -

Palazzo Rinaldi I-31100 Treviso- Italy

³: Mobilita La Marca (MOM) -

Via Polveriera 1 I-31100 Treviso- Italy

⁴: GA Consultancy (GAC)

Via Mimbelli 5 I-57127- Italy

⁵: MemEx srl (MEM)

Via Cairoli 30 Livorno- Italy

17459

Innovative urban mobility concepts

Prof. Dr.- Ing. Carsten Sommer¹, Elena Mucha¹,

¹: University of Kassel -

Chair of Transportation Planning and Traffic Systems (Fachgebiet Verkehrsplanung und Verkehrssysteme) Mönchebergstraße 7 34125 Kassel- Germany



STS 9 - Security in transportation**Day 1: Monday April 14, 9:00-10:30**

Chair: Xavier Delache (MEDDE, France)

Oral presentations

20176

Interpretive structural modelling of security system for better security management in railways*Anoop Srivastava*¹, *Sanjeev Swami*², *Devender Banwet*³,¹: IG Railway Protection Special Force and Research Scholar (RS) -
3/14, Prem Nagar, Dayalbagh, Agra-282005- India²: DEI Dayalbagh Agra (DEI)
DEI Dayalbagh Agra- India³: Indian Institute of Technology (IIT) -
Safdarjanj Development Area, Hauz Khas, IIT Campus, New Delhi, Delhi 110016- India

18685

Risk assessment in public transport*Andrea Soehnchen*¹,¹: Union Internationale des Transports Publics (UITP) -
Rue Ste. Marie 6 1080 Bruxelles- Belgium

18093

Transportation issues in mass evacuation: from strategy definition to implementation*Abdallah El Hage*¹, *Frédéric Murard*¹, *Charlotte Pierrefeu*¹, *Aurore Clavel*¹, *Caroline Sorand*¹,¹: Département Mobilités du CETE de Lyon (CETE de Lyon \ DMOB) -
CETE de Lyon
25 avenue François Mitterrand 69500 Bron- France

17737

Blast resilient metro vehicles: reducing the impact of terrorist attacks.*Conor O'Neill*¹, *Manuel González Márquez*², *Nicolo Sartori*³, *Richard Seddon*⁴, *Umberto Battista*⁵,¹: Newcastle university (UNEW) -
Newcastle University Stephenson Building Newcastle Upon Tyne NE1 7RU- United Kingdom²: Metro de Madrid, S.A (MDM)
c/ Cavanilles 58, 28007 Madrid- Spain³: Istituto Affari Internazionali (IAI)
Via Angelo Brunetti 9, 00186 Roma.- Italy⁴: Tecnalía (TECNALIA)
Parque Tecnológico de San Sebastián, Mikeletegi Pasealekua 2, E-20009 San Sebastián- Spain⁵: Stam S.r.l. (STAM)
Via Puggia 31/1, 16131 Genova.- Italy

17674

Heading towards the next level of supply chain security*Rainer Mueller*¹, *Gerald Graef*², *Nils Meyer-Larsen*³, *Laura Maier*⁴,¹: Institute of Shipping Economics and Logistics (ISL) -
Universitaetsallee 11 - 13 28359 Bremen- Germany
²: Verein der Wirtschaftsingenieure für Transportwesen (VdWT) -
c/o Hochschule Bremerhaven An der Karlstadt 8 27568 Bremerhaven- Germany³: Institute of Shipping Economics and Logistics (ISL) -
Universitätsallee 11 - 13 28359 Bremen- Germany⁴: University of Applied Sciences Bremerhaven -
An der Karlstadt 8 27568 Bremerhaven- Germany**Poster presentations**

20313

New possibilities of using monitoring technology to improve supply chain security*Sirra Toivonen*¹, *Johan Scholliers*¹, *Hanna Askola*¹, *Lea Hannola*², *Nina Tervonen*²,¹: Technical Research Centre of Finland (VTT) -
P.O.Box 1300, Tampere- Finland²: Lappeenranta University of Technology
PL 20, 53851 Lappeenranta- Finland

20051

Toward a railway resilient communication network against electromagnetic attacks*Marc Heddebaut*¹, *Souhir Mili*¹, *David Sodoyer*¹, *Eduardo Jacob*², *Marina Aguado*², *Christian Pinedo Zamalloa*², *Igor Lopez*², *Virginie Deniau*¹,¹: Université Lille Nord de France (IFSTTAR/COSYS/LEOST) -
IFSTTAR,PRES Université Lille Nord de France
20 rue Elisée Reclus, BP317, 59666 Villeneuve d'Ascq Cedex- France²: University of the Basque Country (EPV-EHU)
bilbao- Spain

19774

The GETAWAY project - improving passenger evacuation techniques in railway stations and other mass transit hubs.*Paul Bryant*¹, *Christos Giachritsis*²,¹: Kingfell Ltd (KF) -
91 Waterloo Road, London SE1 8RT- United Kingdom²: British Maritime Technology Group Ltd (BMT)
Goodrich House, 1 Waldegrave Road, Teddington TW11 8LZ- United Kingdom

17827

Security of road transport networks - identifying and assessing critical road infrastructure*Samuel Rothenpieler*¹, *Ingo Kaundinya*¹, *Georg Mayer*², *Juergen Krieger*¹,¹: Federal Highway Research Institute (BAST) -
Brüderstr. 53 51427 Bergisch Gladbach- Germany²: PTV Transport Consult GmbH (PTV)
Kriegerstraße 15, 70191 Stuttgart- Germany

17730

SECURESTATION: Passenger station and terminal design for safety, security and resilience to terrorist attack*Marga Martín Sánchez*¹, *David Fletcher*², *Jonathan Paragreen*²,¹: Ingeniería de sistemas para la defensa de España (ISDEFE) -
Beatriz de Bobadilla 3, 28040 Madrid- Spain²: University of Sheffield -
Mappin Street Sheffield S1 3JD- United Kingdom

17198

Safe and secure intelligent transport systems (SITS)*Trond Foss*¹,¹: SINTEF Technology and Society (TFo)
P.O. box 4760 7465 Trondheim- Norway

16296

Methodology for the assessment of transport infrastructure*Harald Kammerer*¹, *Jakob Haardt*²,¹: ILF Consulting Engineers (ILF) -
Harrachstrasse 26, 4020 Linz- Austria²: German Federal Highway Research Institute (BAST) -
Brüderstrasse 53, 51427 Bergisch Gladbach- Germany



Programme

Day 1: Monday April 14, 14:00-15:30

STS 10 - Electrification and hybridisation

Day 1: Monday April 14, 14:00-15:30

Chair: Maurizio Maggiore (EC/R&I)

Oral presentations

20306

Automotive fuel economy improvement by micro hybridization

*Clément Fontaine*¹, *Sebastien Delprat*¹, *Sébastien Paganelli*¹, *Jérôme Bodelle*²

¹: Laboratoire d'automatique et de mécanique industrielles et humaines (LAMIH) -

CNRS : UMR8201, Université de Valenciennes et du Hainaut-Cambrésis

Le Mont Houy, 59313 Valenciennes CEDEX 9- France

²: Centre de Recherche, d'Innovation Technique et Technologique en Moteurs et Acoustique Automobile (CRITT M2A) -

Centre de Recherche, d'Innovation Technique et Technologique

CRITT M2A Rue Christophe Colomb - Parc de la Porte Nord 62700 BRUAY LA BUISSIÈRE- France

20236

Vehicle-to-infrastructure communications for electric race car

*Jesús Hernández*¹, *Carlos Bustamante*¹, *Eduard Mateu*¹, *Álvaro Arrúe*¹, *Pere Balaguer*¹

¹: Applus IDIADA (IDIADA)

L'Albomar – P.O. Box 20, E-43710 Santa Oliva, Tarragona- Spain

18329

Optimizing components size of an Extended Range Electric Vehicle (EREV) according to the use specifications

*Romain Derollepot*¹, *Christine Weiss*², *Zehir Kolli*³, *Thomas Franke*⁴, *Rochdi Trigui*¹, *Bastian Chlond*², *Jimmy Armoogum*³, *Juliane Stark*⁵, *Roman Klementschtz*⁵, *Michael Baumann*⁶, *Serge Pelissier*¹

¹: IFSTTAR-LTE

IFSTTAR

Bron- France

²: KIT-IFV

Karlsruhe- Germany

³: IFSTTAR-DEST

IFSTTAR

Marne La Vallée- France

⁴: TUC

Chemnitz- Germany

⁵: BOKU-ITS

Vienna- Austria

⁶: LBP-GABI

Stuttgart- Germany

17679

HELIOS : High Energy Lithium-Ion Storage solutions - final results

*Frederique Delcorso*¹

¹: RENAULT

Renault

1 AV DU GOLF API TCR LAB 0 12 78288.0 12 78288 GUYANCOURT FRANCE- France

16722

Achievements and lessons learnt in the EU Project ZERO REGIO

*Ashok Rastogi*¹, *Heinrich Lienkamp*¹

¹: Infraser GmbH & Co. Höchst KG (Infraser) -

Industriepark Höchst. C 526 65296 Frankfurt am Main- Germany

Poster presentations

19832

A rEVOLUTION in addressing lightweight and modularity design in the electrification of mobility. One year activity in FP7 EVOLUTION project.

*Francesca Di Paolo*¹, *Jesper De Claville Christiansen*², *Daniele Pullini*³, *Filippo Cappadona*⁴

¹: Soc. Cons. INNOVAZIONE AUTOMOTIVE E METALMECCANICA A.R.L. (IAM) -

via nazionale snc, 66030 Santa Maria Imbaro (CH)- Italy

²: Aalborg University (AAU) -

Niels Jernes Vej 10, 9220 Aalborg E- Denmark

³: Centro Ricerche Fiat SCpA (CRF) -

Strada Torino 50, 10043 Orbassano (TO)- Italy

⁴: PININFARINA S.P.A. (PIN) -

Via Nazionale, 30, 10020 Cambiano (To)- Italy

18955

Electric high-performance powertrain with 800 volt powernet

*Mathias Deiml*¹, *Armin Engstle*¹, *Martin Schlecker*¹

¹: AVL Software and Functions GmbH (AVL Software and Functions GmbH) -

Im Gewerbepark B27, 93059 Regensburg- Germany

18274

The European wide mode design platform for both Micro EVs and small M1 Vehicles

*Pietro Perlo*¹, *Carloandrea Malvicino*², *Antonio Lionetto*³, *Gregory Font*⁴, *Pietro Guerrieri*⁵, *Andrea Pipino*², *Luigi Petruccelli*², *Vincenzo Di Lago*², *Silvano Sandri*²

¹: Interactive Fully Electrical Vehicles (IFEVS)

Via Carle, 1 - 12048 - Sommariva del Bosco- Italy

²: Centro Ricerche Fiat (CRF) -

Strada Torino 50 - 10043 - Orbassano- Italy

³: STMicroelectronics srl (ST) -

Stradale Primosole 50 95121 Catania- Italy

⁴: IFP Energies Nouvelles (IFPEN) -

IFP Energies Nouvelles

1-4 Avenue du Bois Préau 92852 Rueil-Malmaison- France

⁵: POLIMODEL -
Strada Carignano 46/1 - 10024 – Moncalieri- Italy

18262

Influence of driving cycles on traction motor design optimizations for electric vehicles

*Liang Chen*¹, *Jiabin Wang*¹, *Panagiotis Lazari*¹,

¹: The University of Sheffield -
Department of Electronic and Electrical Engineering, Sir Frederick Mappin Building, Mappin Street, Sheffield, S1 3JD- United Kingdom

18115

The impacts of electric cars on road safety: insights from a real-world driving study

*Philippe Nitsche*¹, *Michael Aleksa*¹, *Martin Winkelbauer*², *Marko Harnisch*¹, *Michael Kammer*¹,

¹: AIT Austrian Institute of Technology -
Giefinggasse 2, 1210 Vienna- Austria
²: Austrian Road Safety Board (KFV) -
Schleiergasse 18, 1100 Wien- Austria

17951

Lifetime analysis of four different lithium ion batteries for (plug-in) electric vehicle application.

*Hartmut Popp*¹, *Josef Attia*¹, *Frederique Delcorso*², *Atanaska Trifonova*¹,

¹: AIT Austrian Institute of Technology -
Giefinggasse 2 1210 Vienna- Austria
²: RENAULT -
Renault
1 AV DU GOLF API TCR LAB 0 12 78288 0 12 78288 GUYANCOURT FRANCE- France

17859

Eco-design and validation of in-wheel concept for electric vehicles, EUNICE project

*Alberto Peña*¹, *Iñaki Iglesias*¹, *Igor Olavarria*¹,

¹: Fundación Technalia Research & Innovation (TECNALIA) -
Parque Científico y Tecnológico de Bizkaia C/Geldo, Edificio 700 E-48160 Derio – Bizkaia (SPAIN)- Spain



STS 11 - Climate change and transports**Day 1: Monday April 14, 14:00-15:30**

Chair: Michel Andr, (IFSTTAR, France)

Oral presentations

27211

Railways - climate change compliance for mobility*Alexandre Kaddouri*¹.

¹: Département recherche et développements (R&D - SNCF) -
SNCF, Société nationale des Chemins de Fer français - SNCF
SNCF DIRECTION DU DEVELOPPEMENT DURABLE 34 Rue du Commandant Mouchotte 75014 PARIS- France

20039

GHG mitigation strategy in the European transport sector*Wolfgang Schade*¹, *Michael Krail*².

¹: Fraunhofer Institute for Systems and Innovation Research (Fraunhofer ISI) -
Breslauer Str. 48 76139 Karlsruhe- Germany
²: Fraunhofer Institute for Systems and Innovation (ISI) -
Breslauerstrasse 48 Karlsruhe- Germany

20013

A study on super credits and their impact on fleet-average real-world CO2 emissions*Petros Katsis*¹, *Thomas Papageorgiou*¹, *Leonidas Ntziachristos*².

¹: EMISIA S.A. -
Antoni Tritsi 21, Service Post 2, GR 57001, Thessaloniki- Greece
²: Laboratory of Applied Thermodynamics, Aristotle University of Thessaloniki (LAT/AUTH) -
Laboratory of Applied Thermodynamics, Department of Mechanical Engineering, Aristotle University of Thessaloniki, Greece, GR-54124- Greece

19646

Why do CO2 emissions from heavy road freight transports increase in spite of higher fuel prices?*Inge Vierth*¹.

¹: Swedish Road and Transport Research Institute (VTI) -
Box 55686 10215 Stockholm- Sweden

16640

Effects of CO2 reduction strategies on passenger transport in Germany*Rico Wittwer*¹, *Gerd- Axel Ahrens*¹, *Katrin Dziekan*².

¹: Technische Universität Dresden (TUD) -
Fakultät Verkehrswissenschaften "Friedrich List" Lehrstuhl Verkehrs- und Infrastrukturplanung 01062 Dresden- Germany
²: Umweltbundesamt (UBA) -
Umweltbundesamt Wörlitzer Platz 1 06844 Dessau-Roßlau- Germany

Poster presentations

20031

CO2 Information of transport services : a French initiative*Pascal Chambon*¹, *Olivier Gavaud*¹, *Jacques Dupendant*¹.

¹: Ministry in charge of Transport (MEDDE) -
DGITM, MEDDE
La Grande Arche, paroi Sud 92055 la Defense cedex- France

19826

Overview of strategies for reducing CO2 emissions during the use phase of passenger cars*Camila Freitas Salgueiredo*^{1,2}, *Olivier Orfila*¹, *Guillaume Saint Pierre*¹, *Alex Coiret*³, *Pierre-Olivier Vandanjon*³, *Philippe Doublet*², *Stéphane Doncieux*⁴, *Sebastien Glaser*¹.

¹: IFSTTAR-LVIC (IFSTTAR-LVIC) -
Institut français des sciences et technologies des transports, de l'aménagement et des réseaux
14 route de la minière - bat. 824 78000 Versailles, France- France
²: RENAULT SAS -
Renault
Technocentre Guyancourt - 1, avenue du Golf - 78288 Guyancourt - France- France
³: LUNAM University
IFSTTAR
AME, EASE, F-44341 Bouguenais- France
⁴: Institut des Systèmes Intelligents et Robotique (ISIR) -
Université Paris VI - Pierre et Marie Curie, CNRS : UMR7222
Université Pierre et Marie Curie - Paris VI Boite courrier 173 4 Place JUSSIEU 75252 Paris cedex 05- France

18851

Logistics systems, weather extremes and policy response – a comparison between Europe, the US and Australia*Hedi Maurer*¹, *Claus Doll*², *Prem Chhetri*³, *Marie Venner*¹, *Jan Kiel*¹.

¹: PANTEIA/NEA -
Postbus 7001 2701 AA Zoetermeer- Netherlands
²: Fraunhofer ISI -
The Fraunhofer Institute for Intelligent Analysis and Information Systems IAI Schloss Birlinghoven 53754 Sankt Augustin- Germany
³: RMIT University -
Building 80, 445 Swanston Street Melbourne 3000 Victoria- Australia

18265

Lean and green: creating a network community for sustainable logistics*Nico Anten*¹, *Walther Ploos Van Amstel*², *Kees Verweij*³.

¹: Connekt -
Kluyverweg 6, 2629 HT, Delft- Netherlands
²: VU University Amsterdam -
Main building VU University Amsterdam De Boelelaan 1105 1081 HV Amsterdam The Netherlands- Netherlands
³: Buck Consultants International
Nijmegen- Netherlands

17836

Measures to promote the diffusion of alternative fuel vehicles in EU27*Michael Krail*¹, *Wolfgang Schade*¹, *André Kühn*¹.

¹: Fraunhofer Institute for Systems and Innovation Research (ISI) (Fraunhofer-ISI) -
Breslauer Strasse 48 D-76139 Karlsruhe- Germany

17406

Harmonising carbon footprint calculation for freight transport chains*Alan Lewis*¹, *Verena Ehrler*², *Heidi Auvinen*³, *Hedi Maurer*⁴, *Igor Davydenko*⁵, *Antje Burmeister*⁶, *Saskia Seidel*², *Andreas Lischke*², *Jan Kiel*⁴.

¹: Transport & Travel Research Ltd (TTR) -

2 King Street Nottingham NG1 2AS- United Kingdom
² Institute of Transport Research German Aerospace Center (DLR) -
Institute of Transport Research Rutherfordstrasse 2 12489 Berlin- Germany
³ Technical Research Centre of Finland (VTT)
Vuorimiehentie 3 Espoo P.O. Box 1000 FI-02044 VTT- Finland
⁴ Panteia
Zoetermeer- Netherlands
⁵ TNO Sustainable Transport and Logistics (TNO) -
Schoemakerstraat 97 (Building A) NL-2628 VK Delft- Netherlands
⁶ SPLOTT - IFSTTAR, Université Paris - Est -
IFSTTAR
Marne-la-Vallée- France

16745

Carbon footprint of urban mobility. An international benchmarking*Natalia Sobrino*¹, *Eric Cornelis*², *Andres Monzon*³, *Laurie Hollaert*²,¹ Transport Research Center, Universidad Politécnica de Madrid (TRANSyT, UPM) -
c/Professor Aranguren sn 28040 Madrid- Spain² Fondation Universitaire Notre Dame de la Paix (FUNDP) -
rue Grandgagne 21 B-5000 NAMUR- Belgium³ Transport Research Center, Universidad Politécnica de Madrid (TRANSyT, UPM) -
c/Profesor Aranguren sn 28040 Madrid- Spain

STS 12 - Heavy commercial, innovative vehicles**Day 1: Monday April 14, 14:00-15:30**

Chair: Joakim Svensson (Volvo, Sweden)

Oral presentations

20063

Novel modular system for animal transport*Fernando Viadero*¹, *Rubén Cerdá*¹, *Alfonso Fernández Del Rincón*¹, *Pablo García*¹, *Miguel Iglesias*¹, *Ana De Juan*¹,¹: University of Cantabria (UC) -

Department of Structural and Mechanical Engineering, E.T.S.I.I.T, Avda de los Castros s/n 39005 Santander- Spain

20001

Swedish roadmap for high capacity transports (HCT)*Jerker Sjögren*¹, *Helena Kyster-Hansen*²,¹: CLOSER

Lindholmen Science Park, Gothenburg- Sweden

²: Tetraplan A/S -

Kronprinsessegade 46E DK-1306 Copenhagen K- Denmark

19947

Improvement of truck brake disc lifespan by material design*Anne Lise Cristol*¹, *Mathilde Collignon*², *Yannick Desplanques*¹, *Dufrénoy Philippe*³, *David Balloy*¹, *Gilles Regheere*⁴,¹: Laboratoire de mécanique de Lille (LML) -

Ecole Centrale de Lille, CNRS : UMR8107

Bâtiment M6 Bvd Paul Langevin 59655 VILLENEUVE D ASCQ CEDEX- France

²: Centre Technique des Industries de la Fonderie (CTIF)

Centre Technique des Industries de la Fonderie

44 avenue de la Division Leclerc F-92318 SEVRES CEDEX- France

³: Laboratoire de mécanique de Lille (LML) -

Université Lille I - Sciences et technologies, CNRS : UMR8107

Bâtiment M6 Bvd Paul Langevin 59655 VILLENEUVE D ASCQ CEDEX- France

⁴: Centre Technique des Industries de la Fonderie (CTIF)

CTIF

44 avenue de la Division Leclerc 92318 Sèvres cedex- France

19715

Evaluation of the road transport management system, a self-regulation initiative in heavy vehicle transport in South Africa*Paul Nordengen*¹, *Oliver Naidoo*²,¹: The Council for Scientific and Industrial Research (CSIR) -

PO Box 395; Pretoria 0001; South Africa- South Africa

²: Judah Compliance Auditors

Pietermaritzburg- South Africa

17689

Targeted selection of overweight vehicles in Norway*Thomas Engen*¹, *Isabelle Roche-Cerasi*¹, *Erlend Aakre*²,¹: SINTEF -

NO-7465 Trondheim Norway- Norway

²: NTNU -

NO-7465 Trondheim Norway- Norway

Poster presentations

20075

SARTRE automated platooning vehicles*Chan Eric*¹,¹: Ricardo UK -

400 Science Park, Milton Road, Cambridge CB4 0WH- United Kingdom

19786

Possible impacts of increasing maximum truck weight - Case Finland*Lasse Nykänen*¹, *Heikki Liimatainen*¹,¹: Tampere University of Technology, Transport Research Centre Verne (TUT) -

P.O. Box 541, FI-33101 Tampere- Finland

18476

Traffic safety of heavy goods vehicles and implications for High Capacity Transport vehicles*Jesper Sandin*¹, *András Bálint*², *Helen Fagerlind*², *Sogol Kharrazi*¹,¹: the Swedish National Road and Transport Research Institute (VTI) -

VTI, SE-581 95 Linköping- Sweden

²: Division of Vehicle Safety, Chalmers University of Technology (Chalmers) -

Chalmers University of Technology SE-412 96 Gothenburg Sweden- Sweden

17920

The project MoDe - Maintenance-on-Demand concepts for commercial vehicles*Thilo Bein*¹, *Dominik Elberskirch*¹, *Thomas Bonnot*², *Francois Philipp*³, *Pascal Kempfs*⁴, *Bart Peeters*⁵, *Henrik Huovila*⁶, *Peitsa Turvanen*⁷, *Elias Khoury*⁸, *Bob Thomas*⁹, *Andreas Schirling*¹⁰,¹: Fraunhofer LBF -

Bartningstr. 47 64289 Darmstadt- Germany

²: Volvo Technology France

Volvo

St Priest- France

³: TU Darmstadt

Darmstadt- Germany

⁴: DHL

Diegem- Belgium

⁵: LMS

Leuven- Belgium

⁶: VTT

Tampere- Finland

⁷: Mobisoft

Tampere- Finland

⁸: Université de Technologie de Troyes (UTT)

Université de Technologie de Troyes

⁹: Avonwood

Wimborne- United Kingdom

¹⁰: Continental
Frankfurt- Germany

17221

Deployment and evaluation of an innovative system for targeted selection of heavy vehicles for safety inspection

Lone-Eirin Lervåg¹, Trond Foss¹

¹: SINTEF Technology and Society (TFo)
P.O. box 4760 7465 Trondheim- Norway



STS 13 - ADAS and automatic driving**Day 1: Monday April 14, 14:00-15:30**

Chair: Jean-Marc Blosseville (IFSTTAR, France)

Oral presentations

19527
The driver Continuous Support function in the FP7 “interactiVe” project: an implementation based on the “co-driver” metaphor.

*Mauro Da Lio*¹, *Paolo Bosetti*¹, *Francesco Biral*¹, *Marco Galvani*¹, *Enrico Bertolazzi*¹, *Andrea Saroldi*², *Fabio Tango*².

¹ Università degli Studi di Trento (UNITN) -

Dept.of Industrial Engineering, via Mesiano 77, 38100 Trento- Italy

² Centro Ricerche Fiat (CRF) -

Strada Torino, 50 - 10043 Orbassano (TO)- Italy

18456
Impact of full speed range ACC on the traffic, the safety and the energy consumption.

*Prisca-Laure Bogne-Niytchunga*¹, *Lydie Nouveliere*², *Olivier Orfila*³, *Sebastien Glaser*³, *Saïd Mammari*².

¹ IFSTTAR-LIVIC (IFSTTAR-LIVIC) -

institut francais des sciences et technologies, des transports, de l'amenagement et du reseau

14, route de la miniere - Bat. 824 78000 Versailles, France- France

² University of Evry Val d'Essonne / IBISC (Univ-evry/IBISC) -

University of Evry-Val-d'Essonne

40, rue du pelvoux 91020 Evry-Courcouronnes, France- France

³ IFSTTAR-LIVIC (IFSTTAR-LIVIC) -

Institut français des sciences et technologies des transports, de l'aménagement et des réseaux

14 route de la miniere - bat. 824 78000 Versailles, France- France

18391
Evaluating the shift of control between driver and vehicle at high automation at low speed: The role of anticipation

*Ebru Burcu Dogan*¹, *Renaud Deborne*², *Patricia Delhomme*³, *Andras Kemeny*², *Patricia Jonville*⁴.

¹ Institut VeDeCoM

Institut VeDeCoM

77, Rue des Chantiers 78000 Versailles- France

² Technical Centre for Simulation (CTS)

Renault

Technocentre 1, Avenue du Golf 78288 Guyancourt- France

³ Laboratoire de Psychologie de la Conduite (LPC) -

IFSTTAR

25 Allée des Marronniers 78000 Versailles Satory- France

⁴ Direction Scientifique et Technologies du Futur

Peugeot

Route de Gisy - 78943 Vélizy-Villacoublay Cedex- France

17909
Can unmanned ships improve navigational safety?

*Hans-Christoph Burmeister*¹, *Wilko Bruhn*², *Ørnulf Jan Rødseth*³, *Thomas Porathe*⁴.

¹ Fraunhofer Center for Maritime Logistics and Services CML -

Schwarzenbergstr. 95D 21073 Hamburg- Germany

² Fraunhofer Center for Maritime Logistics and Services CML -

Schwarzenbergstraße 95D 21073 Hamburg- Germany

³ MARINTEK -

Otto Nielsens veg 10, NO-7052 Trondheim- Norway

⁴ Chalmers University of Technology (Chalmers) -

Chalmers University of Technology SE-412 96 Gothenburg Sweden- Sweden

17849
An integrated systems of driving assistance tools for driving assistance application in extraurban roads

*Gennaro Nicola Bifulco*¹, *Francesco Galante*¹, *Maria Russo Spena*¹, *Luigi Pariota*¹, *Anita Fiorentino*², *Stefano Scala*², *Ferruccio Vico*².

¹ Università di Napoli Federico II (unina)

Via Claudio 21, 80125, Napoli- Italy

² Fiat Group Automobile (FGA)

Via Ex Aeroporto 80038 Pomigliano d'Arco Napoli- Italy

Poster presentations

20123
Perception of dynamic urban environments using stereovision based dynamic occupancy grid map

*You Li*¹, *Yassine Ruichek*¹.

¹ Laboratoire Systèmes et Transports (SET) -

Institut de Recherche sur les Transports, l'Energie et la Société - IRTES

90010 Belfort cedex, France- France

18291
Driving assistances for senior drivers: a human centered design approach

Jean-Christophe Paris^{1,2}, *Thierry Bellet*¹, *Maurice Cour*³, *Claude Marin-Lamellet*¹, *Philippe Deleurence*¹, *Fabien Moreau*¹, *Serge Boverie*³, *Jean-Marc Andre*², *Bernard Claverie*².

¹ Laboratoire d'Ergonomie et de Sciences Cognitives pour les Transports (IFSTTAR/LESCOT) -

IFSTTAR

25, Avenue François Mitterrand, Cité des mobilités 69675 Bron cedex- France

² Laboratoire de l'intégration, du matériau au système (IMS) -

Institut polytechnique de Bordeaux, Université Sciences et Technologies - Bordeaux I, CNRS : UMR5218

33405 TALENCE CEDEX- France

³ Continental Automotive France SAS

Continental Automotive France SAS

1, Avenue Paul OURLIAC, BP 83649 F-31036 TOULOUSE Cedex 1- France



STS 14 - Geotechnics**Day 1: Monday April 14, 14:00-15:30**

Chair: Antonio Gomes Correia (University of Minho, Portugal)

Oral presentations

20229

Use of an ultra wide band radar to detect slope movements along transport infrastructures*Jean-Pierre Magnan*¹, *Jean-Paul Duranthon*², *Patrick Joffrin*³, *François Depardon*⁴, *Dominique Allagnat*⁵, *François Lemaître*⁶, *Philippe Evenat*⁷, *Philippe Le Ster*⁷.¹ Département Géotechnique, Environnement, Risques naturels et Sciences de la terre (IFSTTAR/GERS) - IFSTTAR, PRES Université Paris-Est, PRES Université Nantes Angers Le Mans UNAM, PRES Université de Lyon, PRES Université de Grenoble 14-20 Boulevard Newton - Cité Descartes, Champs sur Marne - F-77447 Marne la Vallée Cedex 2- France² Centre d'Etudes et d'expertises sur les Risques, l'Environnement, la Mobilité et l'Aménagement (CEREMA-DT Centre Est) CEREMA-DT CE Bron- France³ Risques Rocheux et Ouvrages géotechniques (IFSTTAR/GERS/RRO) - IFSTTAR, PRES Université de Lyon 25, avenue François Mitterrand, Case24 Cité des mobilités F-69675 Bron Cedex- France⁴ LCPC-Experts LCPC-Experts Marne-la-Vallée- France⁵ EGIS-Géotechnique Grenoble- Germany⁶ Département Electromagnétisme et Radar (Toulouse) (DEMR) - ONERA 2 avenue Edouard Belin 31055 TOULOUSE cedex 4- France⁷ ESTAR ESTAR La Richardais- France

20182

Accuracy of Ground Penetrating Radar in pavement thickness evaluation - impact of interpretation errors*Anne Lalague*¹, *Matthew Lebens*², *Inge Hoff*³.¹ SINTEF - Building & Infrastructure - Pb. 124 Blindern, NO-0314 Oslo, Norway- Norway² Minnesota Department of Transportation (MnDOT) Mn/DOT Office of Materials Mailstop 645 1400 Gervais Avenue Maplewood, MN 55109- United States³ Norwegian University of Science and Technology (NTNU) - Sem Sælands vei 7-9 NO-7491 Trondheim NORWAY- Norway

19762

Geotechnical challenges related to the transport infrastructures on sensitive soft clay deposits*Vikas Thakur*¹, *Bjørn Kristoffer Dolva*¹.¹ Norwegian Public Roads Administration (NPRA) - Postboks 8142Dep, 0033 OSLO- Norway

17847

Numerical investigation of the effect of variable subsoil conditions and freight traffic on railway infrastructure*Clemente Fuggini*¹, *Donato Zangani*¹.¹ D'Appolonia S.p.A. Via San Nazaro, 19, Genoa- Italy**Poster presentations**

20226

Characterisation of laterite for road construction*Massamba Ndiaye*^{1,2}, *Jean-Pierre Magnan*¹, *Ibrahima Cissé*², *Lamine Cissé*³.¹ Institut français des sciences et technologies des transports, de l'aménagement et des (IFSTTAR) - PRES Université Paris-Est, IFSTTAR Boulevard Newton, Champs sur Marne, F-77447 Marne la Vallée Cedex 2- France² Ecole Polytechnique de Thiès³ Agence des travaux et de gestion des routes, Dakar (Ageroute)

20186

Intelligent compaction technology for geomaterials. A demonstration project*Antonio Gomes Correia*¹, *Manuel Parente*².¹ University of Minho, School of Engineering, Centre for Territory, Environment and Construction (UM - C-TAC) - Campus de Azurem, 4800-058 Guimaraes- Portugal² University of Minho, Centre for Territory, Environment and Construction (UM - C-TAC) Campus de Azurem, 4800-058, Guimaraes- Portugal

19330

Stability charts for unsaturated soil slopes*Cormac Reale*¹, *Kenneth Gavin*², *Jianfeng Xue*³.¹ University College Dublin (UCD) - Dublin 4- Ireland² University College Dublin (UCD) Belfield, Dublin 4, IRL- Ireland³ Monash University - School of Applied Sciences and Engineering Monash University, Gippsland Campus- Australia

17678

How to evaluate the excavatability of controlled low-strength materials for trenches: a new approach*Eric Gennesseaux*¹, *Thierry Sedran*¹, *Michel Hardy*², *Jean-Michel Torrenti*¹.¹ IFSTTAR IFSTTAR IFSTTAR Centre de Nantes Route de Bouaye - CS 04 44344 BOUGUENNAIS Cedex FRANCE- France² GDF SUEZ GDF SUEZ 361, avenue du Président Wilson - BP 33 93210 Saint-Denis La Plaine Cedex- France

STS 15 - Asphalt materials**Day 1: Monday April 14, 14:00-15:30**

Chair: G sp r L szł (KTI, Hungary)

Oral presentations

19064

High modulus asphalt concrete with dolomite aggregate*Viktors Haritonovs¹, Martins Zaumanis¹, Janis Tihonovs¹, Andrejs Krasnikovs²*¹ Riga Technical University, Faculty of Civil Engineering, The Institute of Transportation, Dept. of Roads and Bridges
Azenes street 16/20, Riga LV-1048- Latvia² Riga Technical University, Faculty of Transport and Mechanical Engineering, The Institute of Mechanics
Ezermalas street 6k, Riga, LV-1006- Latvia

18130

Integration of material-science based performance models into PMS*Alfred Weninger-Vycudil¹, Michael Wistuba², Goran Mladenovic³, Johann Litzka⁴, Alexander Alisov², Axel Walther²*¹ PMS-Consult Ltd
Naglergasse 7/9, 1010 Vienna- Austria² TU Braunschweig
Beethovenstrasse 51 b, 38106 Braunschweig- Germany³ University of Belgrade, Faculty of Civil Engineering
Bul. Kralja Aleksandra 73, 11000 Belgrade- Serbia⁴ Litzka ZT
Schubertgasse 31, 2380 Perchtoldsdorf- Austria

18024

A decision aid model for asphalt mixture choice*Nicolas Bueche¹, André-Gilles Dumont¹*¹ Ecole Polytechnique Fédérale de Lausanne (EPFL) -
Swiss Federal Institute of Technology EPFL-FSTI IEL-LTS2, Station 11 Lausanne 1015 - Switzerland- Switzerland

17968

"Comparative consideration on the design relevant asphalt properties – test specimen production in the laboratory and paved asphalt layer"*Sebastian Lipke¹, Petra Lipke¹*¹ Federal Highway Research Institute (BAST)
Brüderstraße 53 51427 Bergisch Gladbach- Germany

16532

Moisture susceptibility and rutting potential of warm mixes produced by foaming technology*Leila Hashemian¹, Amir Kavussi²*¹ Rah va Abnieh Novin (RAVAN) -
No.5, first alley, Miremad street, Motahari Street.- Iran² Tarbiat Modares University
Tehran- Iran**Poster presentations**

20122

Characteristics of selected bituminous binders with high-speed grinded crumb rubber*Jan Valentin¹, Lucie Soukupova², Jan Benes², Kristyna Milackova²*¹ Czech Technical University in Prague, Faculty of Civil Engineering (CTU/FCE) -
Thakurova 7, 166 29 Prague- Czech Republic² Czech Technical University in Prague, Faculty of Civil Engineering (CTU/FCE) -
Thákurova 7, 166 29 Praha- Czech Republic

19442

Investigation of the permanent deformation characteristics of overlaid pavement incorporating stress absorbing membrane interlayers (SAMIs)*Olumide Ogundipe¹, Nick Thom², Andrew Collop³*¹ Civil Engineering Department
Ekiti State University Ado-Ekiti, Nigeria- Nigeria² Nottingham Transportation Engineering Centre,
Room C18, NTEC, University Park, Nottingham University, NG7 2RD- United Kingdom³ Faculty of Technology, De Montfort University
LEICESTER- United Kingdom

18327

Performance control of bituminous mixtures with a high RAP content*Ivan Drouadaine¹, Frédéric Delfosse¹, Stephane Faucon-Dumont¹, Sabine Largeaud¹*¹ Centre de recherche EUROVIA
EUROVIA
22 rue Thierry Sabine 33703 MERIGNAC- France

16395

Experimental study of binder-filler interaction using the modified multiple stress-strain creep recovery test*Mahmoud Elnasri¹, Nick Thom¹, Gordon Airey²*¹ Nottingham Transportation Engineering Centre NTEC, Department of Civil Engineering, University of Nottingham,
Nottingham- United Kingdom² Nottingham Transportation Engineering Centre, University of Nottingham (NTEC, UoN) -
University Park, Nottingham, NG7 2RD- United Kingdom

STS 16 - Fibre reinforced and materials for infrastructure**Day 1: Monday April 14, 14:00-15:30**

Chair: Ales Znidaric (ZAG, Slovenia)

Oral presentations

19028

Glass fibre reinforcement in bridge structures*André Weber*¹, *Steffen Scheer*²,¹: Schöck Bauteile GmbH -
Vimbucherstr. 2 76534 Baden-Baden- Germany²: Schoeck France SARL -
Schoeck France SARL
6 rue Icare 67960 Entzheim- France

18731

Advanced composite materials for prestressed concrete bridge girders*Abdeljelil Belarbi*¹, *Mina Dawood*¹, *Bora Gencturk*¹, *Bora Acun*¹,¹: University of Houston, Houston, Texas (UH) -
N108 Engineering Bldg. 1 Houston, TX 77204-4003- United States

18593

Reliability of New Shear Design Equations for FRP-strengthened Concrete Bridge Girders*Ayman Okeil*¹, *Abdeljelil Belarbi*², *Daniel Kuchma*³,¹: Louisiana State University
3513-D PF Taylor Hall, Dept. of Civil & Env. Eng., Baton Rouge, LA 70803- United States²: University of Houston
N127 Engineering Building 1, Houston, TX 77204-4003- United States³: University of Illinois, Urbana-Champaign
205 N. Mathews Ave. Urbana, IL 61801- United States

18214

Mechanical-behavior of FRP rebar/concrete interfaces*Arnaud Rolland*¹, *Sylvain Chataigner*², *Karim Benzarti*¹, *Marc Quiertant*¹, *Pierre Argoul*¹, *Jean-Marc Paul*²,¹: IFSTTAR
IFSTTAR
F-75732 Paris Cedex 15- France²: IFSTTAR (SMC)
IFSTTAR
Route de Bouaye CS4 44344 BOUGUENAI Cedex- France

17458

Innovative use of FRP for sustainable precast concrete bridges and structures*Sami Rizkalla*¹,¹: North Carolina State University -
Raleigh North Carolina 267695- United States**Poster presentations**

19822

Durability of concrete/FRP bonded assemblies subjected to hydrothermal coupled creep ageing mechanisms: Experimental and numerical investigations*Noureddine Houhou*¹, *Karim Benzarti*¹, *Marc Quiertant*¹, *Sylvain Chataigner*², *Georges Youssef*³, *Marjorie Rabasse*³, *Christophe Aubagnac*³, *Arnaud Gagnon*³, *André Fléty*³,¹: Université Paris-Est, IFSTTAR -
IFSTTAR
Cité Descartes / 14-20 Bd Newton, 77447 Marne La Vallée- France²: LUNAM Université, IFSTTAR
IFSTTAR
44341 Bouguenais- France³: DL Autun, CETE Lyon
CETE Lyon
Bd de l'Industrie, BP 141, 71405 Autun- France

19637

Smart bi-reinforced composite materials - Importance of nanomaterials & nanotechnologies to boost the applications in infrastructures and transportation that evolve in harsh environment*Monssef Drissi Habi*¹,¹: Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux (IFSTTAR) -
IFSTTAR
CS4 Route de Bouaye 44344 Bouguenais- France

16505

16 years of deployment of FRP material in bridges in Kentucky*Issam Harik*¹, *Abheetha Peiris*²,¹: University of Kentucky -
Raymond Building Lexington, KY 40506-0281- United States²: University of Kentucky -
Raymond Building Lexington, KY 40506-0281- United States

STS 17 - Traffic and congestion monitoring**Day 1: Monday April 14, 14:00-15:30**

Chair: Antonio Lemonde de Macedo (LNEC, Portugal)

Oral presentations

20107

Behavioural responses to traffic congestion. Findings from Paris, São Paulo and Mumbai*Gaele Lesteven*^{1,*}

¹: Centre de Recherches Réseaux Industrie Aménagement, UMR Géographie-Cités, (CRIIA) -
 Université Paris 1 Panthéon-Sorbonne
 Institut de Géographie 191, rue Saint-Jacques 75005 Paris- France

18324

Rail externalities: assessing the social cost of rail congestion*Maria Perez Herrero*^{1,*} *Julien Brunel*^{1,*} *Gregoire Marlot*^{1,*}

¹: Réseau Ferré de France (RFF)
 Réseau Ferré de France
 92 avenue de France, 75013 Paris- France

18297

Modelling traffic hindrance caused by road construction as part of a multi objective decision support framework*Henny Huerne, Ter*^{1,*} *Eric Van Berkum*^{1,*}

¹: Twente University (UT) -
 Drienerloaan 5 7522 NB Enschede- Netherlands

18220

Statistical model for travel time prediction corresponding to fluctuation of bottleneck capacity*Katsuya Sakai*^{1,*} *Takahiko Kusakabe*^{1,*} *Yasuo Asakura*^{1,*}

¹: Tokyo Institute of Technology
 2-12-1-M1-20 O-okayama Meguro Tokyo- Japan

Poster presentations

19968

Use of density-based cluster analysis and classification techniques for traffic congestion prediction and visualization*Themistoklis Diamantopoulos*^{1,*} *Dionysios Kehagias*^{1,*} *Felix König*^{2,*} *Dimitrios Tzovaras*^{1,*}

¹: Centre for Research & Technology Hellas, Information Technologies Institute (CERTH/ITI) -
 6th Km. Charilaou - Thessaloniki Road P.O. BOX 60361 GR - 57001 Thessaloniki- Greece
²: TomTom International BV
 An den Treptowers 1, 12435 Berlin- Germany

19755

Use of road traffic tools for rail road congestion study*Pierre-Antoine Cuniasse*^{1,*} *Christine Buisson*^{2,*} *Joaquin Rodriguez*^{3,*} *David De Almeida*^{4,*} *Emmanuel Teboul*^{1,*}

¹: SNCF Transilien
 SNCF
 Paris- France
²: LICIT, IFSTTAR/ENTPE
 IFSTTAR, École Nationale des Travaux Publics de l'État ENTPE
 rue Maurice Audin 69518 Vaulx-en-Velin Cedex- France
³: Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux (IFSTTAR) -
 IFSTTAR, Univ. Lille Nord de France
 20, rue Élisée Reclus, BP 70317 F-59666 Villeneuve d'Ascq Cedex- France
⁴: SNCF Innovation & Recherche
 Société nationale des Chemins de Fer français - SNCF
 Paris- France

18429

Commuting mode choice: Motivational determinants and road users profile*Sofia Martin-Puerta*^{1,*}

¹: Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux (IFSTTAR) -
 PRES Université Paris-Est, IFSTTAR
 Boulevard Newton, Champs sur Marne, F-77447 Marne la Vallée Cedex 2- France

18052

Assessment of the main new travel-times calculation technologies on Lyon East ring road*Alexis Bacelar*^{1,*} *Bruno Levilly*^{2,*} *Eric Purson*^{3,*} *Eric Klein*^{3,*} *Fabrice Reclus*^{4,*}

¹: CERTU
 MEDDE
 LYON- France
²: DIR-CE
 MEDDE
 LYON- France
³: CETE
 MEDDE
 METZ- France
⁴: CETE
 MEDDE
 LYON- France

17357

Empirical analysis of lane changes behaviour at freeway weaving section*Florian Marczak*^{1,*} *Christine Buisson*^{1,*}

¹: LICIT, IFSTTAR/ENTPE
 IFSTTAR, École Nationale des Travaux Publics de l'État ENTPE
 rue Maurice Audin 69518 Vaulx-en-Velin Cedex- France



STS 18 - Pedestrian and powered two wheelers**Day 1: Monday April 14, 14:00-15:30**

Chair: Peter Saleh (AIT, Austria)

Oral presentations

19989

Method for future pedestrian accident scenario prediction*Peter Luttenberger*¹, *Ernst Tomasch*¹, *Rémy Willinger*², *Christian Mayer*³, *Jörg Bakker*³, *Nicolas Bourdet*², *Christian Ewald*³, *Wolfgang Sinz*¹,¹: Graz University of Technology
Graz- Austria²: Université de Strasbourg
université de Strasbourg
Strasbourg- France³: Daimler AG
Stuttgart- Germany

18755

Decision tools to enhance safety of cyclists and skaters at rural mid-block crossings*Jean-François Bruneau*¹, *Pierre-Louis Houle*¹,¹: Université de Sherbrooke
Dép. de géomatique appliquée, 2500 Boulevard de l'Université, Sherbrooke, QC J1K 2R1- Canada

18433

Mobility and safety of powered two-wheelers in the OECD countries*Pierre Van Elslande*¹, *Véronique Feypell*², *James Holgate*³, *Kris Redant*⁴, *Hélène De Solère*⁵, *Dimitris Margaritis*⁶, *George Yanniss*⁷, *Eleonora Papadimitriou*⁷, *Saskia De Craen*⁸, *Lars Inge Haslie*⁹, *Juan Muguero*¹⁰, *Per-Olov Grummas Granström*¹¹,¹: Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux (IFSTTAR) -
PRES Université Paris-Est, IFSTTAR

Boulevard Newton, Champs sur Marne, F-77447 Marne la Vallée Cedex 2- France

²: International Transport Forum
International Transport Forum

Offices: 2-4 rue Louis David, 5th Floor, PARIS 16ème, France- France

³: VicRoads⁴: Belgian Road Research Centre (CRR)⁵: CERTU

CERTU

⁶: Centre for Research and Technology Hellas Athènes (CERTH) -

Arkat Building 357 - 359 Mesogeion Avenue Athens- Greece

⁷: National Technical University of Athens (NTUA) -

Patision Complex: 28 Oktovriou (Patision) 42, 10682 Athens, Greece Zografou Campus: Heroon Polytechniou 9, 15780 Zografou, Greece- Greece

⁸: SWOV⁹: Road Directorate¹⁰: ATOS Consulting¹¹: Swedish Transport Administration

17835

Assessment methodologies for forward looking integrated pedestrian safety systems – the AsPeCSS project*Monica Pla*¹, *Marcus Wisch*², *Paul Lemmen*³, *Stefanie De Hair*⁴, *Thomas Schaller*⁵, *Mervyn Edwards*⁶,¹: IDIADA Automotive Technology S.A.

L'Albornar PO Box 20 E-43710 Santa Oliva - Tarragona- Spain

²: Bundesanstalt für Straßenwesen (BASt) -

Brüderstraße 53 D-51427 Bergisch Gladbach- Germany

³: Humanetics Europe GmbH (Humanetics) -

Breitspiel 6 69126 Heidelberg- Germany

⁴: Toegepast Natuurwetenschappelijk Onderzoek (TNO) -

Steenovenweg 1 Helmond- Netherlands

⁵: Bayerische Motoren Werke (BMW) -

Knorrstr. 147 80702 München- Germany

⁶: Transport Research Laboratory (TRL) -

Crowthorne House Nine Mile Ride Wokingham Berkshire RG40 3GA- United Kingdom

17807

Road users' strategies and communication: driver-pedestrian interaction*Matus Sucha*¹,¹: Univerzita Palackého Olomouci (UPOL) -

Krizkovskeho 8, 771 48, Olomouc- Czech Republic

Poster presentations

19941

Improving safety and mobility of Vulnerable Road Users through ITS applications*Johan Scholliers*¹, *Daniel Bell*², *Andrew Morris*³, *Alejandra Garcia*⁴,¹: Technical Research Centre of Finland (VTT) -

P.O.Box 1300, Tampere- Finland

²: Factum Chaloupka & Risser OG (FACTUM) -

Danhausergasse 6/4 1040 Vienna Austria- Austria

³: Loughborough University

Ashby Road, LE11 3TU Loughborough,- United Kingdom

⁴: Fundación CIDAUT (CIDAUT)

Parque Tecnológico de Boecillo, Parcela 209, 47151 Valladolid- Spain

19824

Analysis and classification of Powered Two Wheelers riding pattern*Ferhat Attal*¹, *Abderrahmane Boubezoul*¹, *Latifa Oukhellou*², *Stéphane Espié*³,¹: Laboratoire Exploitation, Perception, Simulateurs et Simulations (IFSTTAR/LEPSIS) -

Université Paris-Est Marne-la-Vallée (UPEMLV), IFSTTAR

Cité Descartes 14- 20 bd Newton 77447 Champs-sur-Marne-Marne-la-Vallée Cedex- France

²: Génie des Réseaux de Transport Terrestres et Informatique Avancée (IFSTTAR/GRETTIA) -

Université Paris-Est Créteil Val-de-Marne (UPEC), IFSTTAR

Cité Descartes 14- 20 bd Newton 77447 Champs-sur-Marne-Marne-la-Vallée Cedex- France

³: Département Infrastructures et Mobilité (IFSTTAR/IM) -

PRES Université Paris-Est, IFSTTAR

Cité Descartes 14- 20 bd Newton 77447 Champs-sur-Marne-Marne-la-Vallée Cedex- France

18441

Trajectories of multiple people in crowds using laser range scanner

*Adiaviakoye Ladjj*¹, *Plainchault Patrick*¹, *Bourcerie Marc*², *Auberlet Jean-Michel*³,

¹: eseo

10 Boulevard Jeanneteau – CS 90717 - 49107 Angers Cedex 2, France- French Southern and Antarctic Territories

²: Université d'Angers

Université d'Angers

4 Boulevard de Lavoisier, 49000 Angers- France

³: LARIS

Université Angers

18332

Signs and signals for cyclists and pedestrians, comparison of rules and practices in 13 countries

*Hiron Benoît*¹,

¹: certu (certu/cerema) -

CERTU

2 rue Antoine Charial 69003 Lyon- France

18320

METRAMOTO: powered two wheelers traffic measurement for road safety and risks assessment

*Eric Violette*¹, *Peggy Subirats*², *Yohan Dupuis*³,

¹: CETE Normandie-Centre

Ministère de l'Ecologie, du Développement Durable et de l'Energie

10, chemin de la poudrière - BP 90245 - 76121 Le Grand-Quevilly cedex- France

²: CETE Normandie-Centre

Ministère de l'Ecologie, du Développement Durable et de l'Energie

10, chemin de la poudrière - BP 90245 - 76121 Le Grand-Quevilly cedex- France

³: CETE Normandie-Centre

Ministère de l'Ecologie, du Développement Durable et de l'Energie

10, Chemin de la Poudriere BP 90241 76 121 Le Grand Quevilly Cedex- France





Programme

Day 2: Tuesday April 15, 9:00-10:30

STS 19 - Reducing pollutant emissions

Day 2: Tuesday April 15, 9:00-10:30

Chair: Panagiota Dilara (EC/JRC)

Oral presentations

20170

Impact of FAME content on the regeneration frequency of Diesel Particulate Filters (DPFs)

Kenneth Rose¹, Heather Hamje¹, Dimitris Katsaounis², Christos Samaras², Savas Geivanidis², Zissis Samaras²

¹ CONCAWE (CONCAWE) -

Boulevard du Souverain 165 1160 Brussels- Belgium

² Laboratory of Applied Thermodynamics, Aristotle University (LAT/AUTH)

Laboratory of Applied Thermodynamics Aristotle University of Thessaloniki 541 24 THESSALONIKI, Greece- Greece

20040

Exhaust aftertreatment potentials of advanced coupled NSC-SCR system

Thomas Wittka¹, Bastian Holderbaum², Thomas Körfer²

¹ RWTH Aachen University

Schinkelstr. 8 52062 Aachen- Germany

² FEV GmbH

Neuenhofstraße 181 52078 Aachen- Germany

19706

Power controlled microwave reactor for the removal of NOx and SOx from the exhaust of marine diesel engine

Maysam Abbod¹, Radu Beleca¹, David Peirce², Lionel Ganippa², Nadaraja Manivannan¹, Wamadeva Balachandran¹

¹ Centre for Electronic Systems Research-Brunel University

Kingston Lane, Uxbridge, UB8 3PH- United Kingdom

² Centre for Advanced Powertrain and Fuel Research- Brunel University

Kingston Lane, Uxbridge, UB8 3PH- United Kingdom

18245

In situ evaluation and optimisation of earthwork machinery emissions

Mohamed Sennoune¹, Bogdan Muresan Paslaru², Jullien Agnès², Adrian Capony², Chantal Proust³

¹ ISTO Orléans, EASE/IFSTTAR Nantes -

IFSTTAR, Université d'Orléans

Route de Bouaye CS4, 44344 Bouguenais Cedex- France

² LUNAM Université, Ifsttar, AME, EASE

IFSTTAR

route de Bouaye CS 4, 44344 Bouguenais Cedex- France

³ Université d'Orléans

Université d'Orléans

45071, Orléans- France

17843

Collection and assessment of instantaneous vehicle emissions on street network

Vladimir Djoric¹, Jadranka Jovic¹, Smiljan Vukanovic¹

¹ University of Belgrade - Faculty of Transport and Traffic Engineering - Transportation Planning and Traffic Management Department (FTTE) -

Vojvode Stepe 305, 11000, Belgrade- Serbia

Poster presentations

20498

Jakarta driving cycle and emission factors: analysis in the case of the Semanggi intersection.

Mohammad Syafrizal¹, Estelle Bretagne², Nadia Hamani², Bambang Sugiarto¹, Setyo Sarwanto Moersidik¹

¹ University of Indonesia

Faculty of Engineering, Depok 16424- Indonesia

² Université de Picardie Jules Verne (UPJV)

Université de Picardie Jules Verne

IUT de l'Aisne, 48 rue d'Ostende 02100 Saint Quentin- France

19561

Quantification of non-exhaust road transport PM emissions

Ilias Vouitsis, Leonidas Ntziachristos, Christos Samaras, Zissis Samaras¹

¹ Laboratory of Applied Thermodynamics, Aristotle University Thessaloniki (LAT/AUTH)

Laboratory of Applied Thermodynamics, Aristotle University Thessaloniki, University campus, Building C, Grounfloor, Thessaloniki GR 54124, PO Box 458- Greece

19559

Quantification of road transport particulate matter using detailed technology emission factors

Ilias Vouitsis, Leonidas Ntziachristos, Christos Samaras, Zissis Samaras¹

¹ Laboratory of Applied Thermodynamics, Aristotle University Thessaloniki (LAT/AUTH)

Laboratory of Applied Thermodynamics, Aristotle University Thessaloniki, University campus, Building C, Grounfloor, Thessaloniki GR 54124, PO Box 458- Greece

17993

Estimating the operational effects of a bunker levy: the case of handymax bulk carriers

George Kapetanis¹, Konstantinos Gkonis¹, Harilaos Psaraftis²

¹ Laboratory for Maritime Transport National Technical University of Athens, Athens, Greece (NTUA - LMT) -

9 Iroon Polytechniou St., Zografou 15773, Athens- Greece

² Technical University of Denmark (DTU) -

Lyngby, Denmark- Denmark



STS 20 - Inland waterways and logistics**Day 2: Tuesday April 15, 9:00-10:30**

Chair: Paris Sansoglou (European Dredging Association ? EuDA)

Oral presentations

29026

Identification of hydrodynamic coefficients from sea trials for ship maneuvering simulation*Toan Tran*^{1,2}, *Philippe Sergent*³, *Abdellatif Ouahsine*¹, *François Hissel*³,¹: University of Technology of Compiègne

Lab.Roberval, UMR CNRS 7337 Centre de recherches Royallieu

BP 20529, 60206 Compiègne cedex- France

²: Division of Waterway Safety Port and Waterways Engineering Faculty (VMU)³: Centre d'Etudes Techniques Maritimes Et Fluviales (CETMEF) -

CETMEF

134, rue de Beauvais 60280 MARGNY LES COMPIEGNE- France

19626

Navigator 2020 - innovation in inland waterway transport*Michael Fastenbauer*¹, *Andreas Bäck*¹, *Gudrun Maierbrugger*¹,¹: via donau - Österreichische Wasserstraßen-Gesellschaft mbH (via donau) -

Donau-City-Straße 1 A-1220 Wien- Austria

18471

Economic and environmental evaluation of a new vessel design for U.S. short-distance waterway shipping*Qing Liu*¹,¹: Rahall Transportation Institute -

970 3rd Ave, Huntington, WV- United States

18020

Findings of the program "impulse dynamic waterway traffic management" (Netherlands)*Frans De Mol*¹,¹: Water Transport Environment

Schoemakerstraat 97c 2628 VK Delft- Netherlands

17734

Maritime interface and metropolitan interface: questions about the logistic integration of the Seine Axis*Laurent Leveque*¹, *Serry Arnaud*²,¹: UMR CNRS IDEES CIRTAI Université du Havre -

Université du Havre

25 rue Philippe Lebon 76600 Le Havre- France

²: centre d'études pour le développement des territoires et l'environnement (CEDETE) -

Université d'Orléans : EA1210

UFR Lettres, Langues et Sciences Humaines 10 rue de tours, BP 46527 45065 ORLEANS CEDEX 2- France

Poster presentations

20034

Aspiring modal shift by an innovative inland vessel and logistics system*Sandra Stein*¹, *Jan Kaffka*², *Daniel Diekmann*², *Uwe Clausen*², *Nenad Zmic*³, *Wilfried Sihn*⁴,¹: Vienna University of Technology Faculty of Mechanical and Industrial Engineering / Institute of Management Science

Theresianumgasse 27 1040 Wien- Austria

²: TU Dortmund University, Institute of Transport Logistics (ITL)

Leonhard-Euler-Str. 2 44227 Dortmund- Germany

³: University of Belgrade, Faculty of Mechanical Engineering Department for Material Handling, Constructions and Logistics

Kraljice Marije 16, 11120 Belgrade 35- Serbia

⁴: Fraunhofer Austria Research GmbH (FhA)

STS 21 - Urban logistics (1)**Day 2: Tuesday April 15, 9:00-10:30**

Chair: Wanda Debauche (BRRC, Belgium)

Oral presentations

18404
Energy-efficient urban freight logistics: the set-up and operation of freight quality partnerships in European cities
Dimitrios Tsamboulas¹, Panayota Moraiti¹
¹: National Technical University of Athens (NTUA) -
 Patision Complex: 28 Oktovriou (Patision) 42, 10682 Athens, Greece Zografou Campus: Heroon Polytechniou 9, 15780 Zografou, Greece- Greece

18264
Promotion of E-bikes for delivery of goods in European urban areas: an Italian case study
Federico Lia¹, Roberto Nocerino¹, Chiara Bresciani¹, Alberto Colomi¹, Alessandro Luè¹
¹: Poliedra - Politecnico di Milano (Poliedra) -
 Via G. Colombo 40, Milano- Italy

18062
A city distribution impact assessment framework
Susanne Balm¹, Cathy Macharis², Lauriane Milan², Hans Quak¹
¹: TNO Delft -
 Brassersplein 2 - 2600 Delft- Netherlands
²: Vrije Universiteit Brussel Brussels (VUB) -
 Pleinlaan 2 - 1050 Brussels- Belgium

18047
On-board intelligence for the Furbot: a new concept for urban freight transport
Evangeline Pollard¹, Joshu  Perez Rastelli², Fawzi Nashashibi²
¹: IMARA-INRIA -
 INRIA
 Domaine de Voluceau - Rocquencourt B.P. 105 - 78153 Le Chesnay- France
²: Institut National de Recherche en Informatique et en Automatique (INRIA) -
 INRIA
 Domaine de Voluceau-Rocquencourt BP 105, 78153 Le Chesnay Cedex- France

17873
The routing problem of an innovative urban freight distribution scheme
Elvezia Maria Cepolina¹, Alessandro Farina¹
¹: Department of Civil and Industrial Engineering, University of Pisa
 via Diotalvi 2, Pisa- Italy

Poster presentations

20028
Engaging city stakeholders to achieve efficient and environmentally friendly urban freight movements
Thomas Zunder¹, Paulus Aditjandra¹, Carlo Vaghi², Jarl Schoemaker³, Konstantina Lapidou³, Ines  sterle⁴
¹: University of Newcastle upon Tyne (UNEW) -
 Stephenson Building Newcastle upon Tyne NE1 7RU- United Kingdom
²: Gruppo Clas -
 www.grupposclas.it- Italy
³: Panteia NEA (NEA) -
 Bredewater 26 2715 CA Zoetermeer- Netherlands
⁴: Gruppo Clas -
 Via Lattuada 20 - 20135 Milano- Italy

18199
A novel robotic handling device integrated on a Freight Urban RoBOTic vehicle
Giovanni Gerardo Muscolo¹, Luis De Leonardo¹, Giorgio Pietronave¹, Aiko Dinale¹, Matteo Zoppi¹, Francesco E. Cepolina¹
¹: Robot Design Research Group (PMAR) -
 Dept. of Mechanics and Machine Design University of Genova, Italy- Italy

17959
The unknown part of the transport system: the light duty vehicle (LDV)
Michel Savy¹, Sabrina Tenfiche¹
¹: Paris East University -
 Paris School of Urban Planning and Ecole des Ponts ParisTech
 IUP 61, avenue du G n ral de Gaulle 94010 Cr teil cedex France- France



STS 22 - Travel information**Day 2: Tuesday April 15, 9:00-10:30**

Chair: Pierre-Yves Gilli,ron (EPFL, Switzerland)

Oral presentations

18484

Understanding the revolution in travel information: a model of information source acquisition and use*Severine Marechal*¹, *John Polak*¹, *Aruna Sivakumar*¹,¹: Imperial College London (ICL) -

Imperial College London, South Kensington Campus, London SW7 2AZ- United Kingdom

18457

Examining the efficiency of peak and off-peak travel patterns using excess travel and travel economy measures*Enda Murphy*¹,¹: University College Dublin (UCD) -

School of Geography, Planning & Environmental Policy, Richview, Dublin 4, Ireland.- Ireland

18337

Pre-trip road information impact assessment: a literature review*Sylvain Belloche*¹, *Charlotte Pierrefeu*¹, *Caroline Sorand*¹,¹: Cerema / Direction Territoriale Centre-Est -

Ministère de l'Ecologie, du Développement Durable et de l'Energie

25, avenue François Mitterrand CS 92803 69674 BRON CEDEX- France

18257

Transferability study on full scale implementation of real time passenger information*Mitja Klemenčič*¹, *Marjan Lep*¹, *Vlasta Rodošek*¹, *Marko Čelan*¹, *Branko Jurčič*¹,¹: University of maribor, Faculty of civil engineering

Smetanova 17, SI-2000 Maribor- Slovenia

18184

Deployment of interoperable cross-border multimodal traveller information in Central Europe*Gerhard Menzel*¹, *Martin Böhm*¹,¹: AustriaTech - Federal Agency for Technological Measures Ltd. -

Raimundgasse 1/6, A-1020 Vienna- Austria

Poster presentations

20160

TISAR: Traveller Information System for the Adriatic Region*Monica Giannini*¹,¹: Pluservice (Pluservice) -

SS Adriatica sud 228/D- Italy

17882

Planning a real-time ridesharing network: critical mass and role of transfers*Jean-Baptiste Ray*^{1,2},¹: Movicité (Movicité) -

Movicité

27 rue de St Cyr, 69009 LYON- France

²: ARCADIS (ARCADIS) -

ARCADIS

127 boulevard Stalingrad, 69626 Villeurbanne Cedex- France

17293

A probabilistic approach for data quality assessment of road hazard warnings in crowdsourced driving navigation systems*Arnaud Gorin*¹, *Marie Caouissin*¹, *Dominique Guichon*¹, *Xavier Delache*²,¹: Engineering Center of Ile-de-France

Ministère de l'écologie de l'Energie, du Développement durable et de l'Aménagement du territoire

12 rue Teisserenc de Bort, 78190 Trappes-en-Yvelines- France

²: Technical Department of Transport, Roads Engineering and Road Safety

Ministère de l'écologie de l'Energie, du Développement durable et de l'Aménagement du territoire

110 rue de Paris, 77171 Sourdun- France

15144

The assessment of social benefits of two Marche region of Italy multimodal traveller information systems*Riccardo Enei*¹,¹: Institute of Studies for The Integration of Systems (ISIS) -

Via Flaminia 21 00196 Rome- Italy



STS 23 - Construction and rehabilitation of railways**Day 2: Tuesday April 15, 9:00-10:30**

Chair: Ludger Rogge (EC/M&T)

Oral presentations

20016

Application of different methods for rehabilitation of existing transition zones on the old railway lines*Marko Vajdic*¹, *Duo Liu*², *Stanislav Lenart*³, *Oslaković Irina*⁴,¹: Institut IGH d.d.

J.Rakuše 1, 10000 Zagreb- Croatia

²: TU-Munich, Chair and institute of road, railway and airfield construction (TUM)

Munich- Germany

³: ZAG Ljubljana

Dimičeva 12, 1000 Ljubljana- Slovenia

⁴: University of Twente (UT) -

NL 7500 AE Enschede The Netherlands- Netherlands

19952

CAPACITY4RAIL : toward a resilient, innovative and high capacity European railway system for 2030/2050*Laurent Schmitt*¹, *Paul Crompton*², *Fabien Létourneaux*¹, *Isabelle De Keyzer*¹,¹: International Union of Railways (UIC) -

International Union of Railways

16, rue Jean Rey - 75015 Paris- France

²: ARTTIC

7 rue de Livourne – B-1060 Bruxelles -- Belgium

18278

An environmental analysis of rehabilitation options for an open track section of railway in Slovenia*Bizjak Karmen Fifer*¹, *Katja Slanc*¹, *Matthew Wayman*², *Friderik Knez*¹,¹: Slovenian Building and Civil Engineering Institute (ZAG) -

Dimičeva 12 Ljubljana- Slovenia

²: Transport Research Laboratory (TRL)

Crowthorne House, Nine Mile Ride, Wokingham, Berkshire, RG4- United Kingdom

18058

Eurovia / ETF - Low rail track system*Fabrice Breton*¹, *Eric Layerle*¹, *Thierry Cerrato*²,¹: EUROVIA

EUROVIA

18, place de l'Europe F-92565 Rueil Malmaison Cedex- France

²: ETF

ETF

267 Chaussée Jules Cesar 95250 BEAUCHAMP- France

17507

Secondary stiffness of fastening's clip: influence on the behaviour of the railway track panel*Konstantinos Giannakos*¹,¹: University of Thessaly, Dpt. Civil Engineering

108 Neoreion str., Piraeus 18534, Greece- Greece

Poster presentations

20100

Twist deviation, as a new track geometric measurements parameters for Hungarian railways*Anita Ortelli*¹, *Tamás Mátrai*²,¹: Hungarian State Railways (MÁV)

H-1011, Budapest, Hunyadi utca 12-14- Hungary

²: BKK Centre for Budapest Transport (BKK) -

H-1075, Budapest, Rumbach Sebestyén u. 19-21- Hungary

20069

Smart Sleeper - Measurement of bending moments in concrete sleepers laid on ballast tracks*Charles Petit*¹, *Vincent Lamour*², *Arnaud Loaec*¹, *Vincent Lanticq*²,¹: SATEBA (SATEBA) -

SATEBA

31 place Ronde Quartier Valmy 92986 Paris La Défense Cedex- France

²: CEMENTYS (CEMENTYS) -

CEMENTYS

27 villa Daniel 75013 Paris- France

19743

The RATP Osmose concept, for enhanced and shared transport stations*Yo Kaminagai*¹,¹: RATP (RATP) -

RATP

54 Quai de la Rapée F-75599 PARIS CEDEX 12- France

18361

Wheel-rail contact modelling and analysis, considering profiles types and lateral displacement*Constantin Bărbîntă*¹, *Cristian Ulianov*², *Francis Franklin*², *Spiridon Crețu*¹,¹: "Gheorge Asachi" Technical University of Iasi -

Bd. Dimitrie Mangeron nr. 43 Iasi, 700050- Romania

²: Newcastle Centre for Railway Research, Newcastle University (NewRail) -

Stephenson Building, Claremont Road, Newcastle University Newcastle upon Tyne NE1 7RU- United Kingdom



STS 24 - Greening and recycling for materials and pavement 10:30

Day 2: Tuesday April 15, 9:00-

Chair: Pedro Partal (University of Huelva, Spain)

Oral presentations

20188

Study of the influence on addition of nylon fibers on the mechanical behavior of HMA

*Kíssyla Costa*¹, *Antônio Carlos Guimarães*¹,

¹: Instituto Militar de Engenharia (IME) -

Praça General Tiburcio, 80 - Urca - Rio de Janeiro/RJ- Brazil

20132

Potential utilization of green coconut in asphalt paving in Rio de Janeiro and its benefits for the environment

*Therezinha Maria Da Silva Dias*¹, *Ben-Hur Albuquerque Da Silva*²,

¹: Prefeitura da Cidade do Rio de Janeiro (PCRJ)

Avenida Osvaldo Cruz, 87/1609 - Flamengo - Rio de Janeiro- Brazil

²: Instituto Militar de Engenharia (IME)

Praça General Tiburcio, 80 - Urca - Rio de Janeiro- Brazil

18431

Introduction to European COREPASOL project on harmonizing cold recycling pavement techniques

*Jan Valentin*¹, *Michael Engels*², *Diana Simnofske*³, *Fátima Batista*⁴, *Ciaran McNally*⁵,

¹: Czech Technical University in Prague, Faculty of Civil Engineering (CTU/FCE) -

Thakurova 7, 166 29 Prague- Czech Republic

²: Wirtgen GmbH -

Reinhard-Wirtgen-Straße 2, 53578 Windhagen- Germany

³: University of Kassel -

Mönchebergstraße 19, 34125 Kassel, Germany- Germany

⁴: Laboratório Nacional de Engenharia Civil, I.P. (LNEC)

Avenida do Brasil, 101, 1700-066 Lisboa- Portugal

⁵: University College Dublin (UCD) -

Bursars Office, University College Dublin, Belfield, Dublin- Ireland

17818

Technical performance and benefits of recycling of reclaimed asphalt containing polymer modified binder into premium surface layers

*Greet Leegwater*¹, *Jozef Komacka*², *Gang Liu*³, *Erik Nielsen*⁴, *Eva Remisova*²,

¹: TNO -

Van Mourikbroekmanweg 6 2628XE- Netherlands

²: University of Žilina

Žilina- Slovakia

³: Technical University Delft

Delft- Netherlands

⁴: DRD

Hedehusene- Denmark

17430

Case study: increasing the percentage of recycled asphalt

Marjan Tušar^{1,2}, *Avsenik Lidija*¹,

¹: National Institute of Chemistry Slovenia

Hajdrihova 19, SI-1000 Ljubljana- Slovenia

²: Slovenian National Building and Civil Engineering Institute

Dimičeva 12, SI-1000 Ljubljana- Slovenia

Poster presentations

20206

OptiRec - The optimal way of road structure rehabilitation

*Jan Valentin*¹, *Michael Engels*², *Vaclav Snizek*³,

¹: Czech Technical University in Prague, Faculty of Civil Engineering (CTU/FCE) -

Thakurova 7, 166 29 Prague- Czech Republic

²: Wirtgen GmbH

Reinhard-Wirtgen-Straße 2, 53578 Windhagen-- Germany

³: Czech Technical University in Prague (CTU/FCE) -

Thakurova 7, 166 29 Praha 6- Czech Republic



STS 25 - Public transport modes**Day 2: Tuesday April 15, 9:00-10:30**

Chair: Andr, Peny (RATP, France)

Oral presentations

18099

Methodology for the elaboration of a technical and economical optimisation tool to optimise the asset management of RATP's infrastructures*Angel Paterna Hidalgo*^{1,2}, *Marc Vuillet*², *Carlos Duarte Barrio*¹, *Youssef Diab*², *Damien Serre*³.¹: Régie autonome de la ville de paris (RATP)

RATP

50 rue Roger Salengro, 94724 Fontenay Sous Bois- France

²: Ecole d'ingénieur de la ville de Paris (EIVP)

EIVP

80 RUE REBEVAL, 75019 PARIS- France

³: RESCUESolutions SAS

RESCUESolutions

3 rue de la Porte d'en Bas, 92220 Bagneux- France

17884

3iBS: the intelligent, innovative integrated bus systems*Michele Tozzi*¹, *Umberto Guida*², *Thoralf Knotz*³.¹: International Association of Public Transport (UITP) -

Rue Sainte-Marie 6, BE-1080 Brussels- Belgium

²: International Association of Public Transport (UITP) -

rue Sainte Marie 6 B-1080 Brussels- Belgium

³: Fraunhofer Institute for Transportation and Infrastructure Systems

Zeunerstr. 38, 01069 Dresden- Germany

17854

Paris metro 1 full-automation, state safety assessment*Thibault Chatelus*¹.¹: Service Technique des Remontées Mécaniques et des Transports Guidés (STRMTG) -

STRMTG

1461 rue de la Piscine 38400 Saint Martin d'Hères- France

17692

An implementation of regularity-driven bus service: development of alternative business models*Oded Cats*¹, *Azhar Al-Mudhaffar*².¹: Royal Institute of Technology (KTH) -

Kungliga Tekniska Högskolan, SE-100 44 STOCKHOLM- Sweden

²: Stockholm County Council (SLL), Transport Administration (TF)

Lindhagensgatan 100, 112 51 Stockholm- Sweden- Sweden

17452

The EBSF European dimension: drivers and barriers to transfer innovative bus systems across Europe*Maria Vittoria Corazza*¹, *Antonio Musso*¹.¹: Sapienza University of Rome (UNIROMA1) -

Via Eudossiana 18, 00184 Rome- Italy

Poster presentations

20120

Tramway-oriented development: what results in what context? Comparative approach between France and the Czech Republic.*Richard Zelezny*¹.¹: Laboratoire Ville, Mobilité, Transport (LVMT) -

Université Paris-Est Marne-la-Vallée (JPEMLV)

Ecole des Ponts ParisTech, Cité Descartes, 6 et 8 avenue Blaise Pascal, 77454 Marne-la-Vallée cedex 2- France

19981

A performance measurement system for public transport services in Thessaloniki, Greece*Georgios Georgiadis*^{1,2}, *Yiannis Xenidis*¹, *Ioannis Toskas*³, *Panagiotis Papaioannou*⁴.¹: Department of Civil Engineering, Aristotle University of Thessaloniki (AUTH) -

Department of Civil Engineering, School of Engineering Aristotle University of Thessaloniki GR-54124, Thessaloniki- Greece

²: Thessaloniki Public Transport Authority (THEPTA)

65 Georgikis Scholis Ave. GR-57001, Pylaia - Thessaloniki, Greece- Greece

³: Attiko Metro SA

26th Oktovriou Str. 40, Thessaloniki 54627, Greece- Greece

⁴: Aristotle University of Thessaloniki, Civil Engineering Department (AUTH) -

Aristotle Univ of Thessaloniki Engineering School-Dept of Civil Engineering PO Box 482 Thessaloniki, 54124 Greece- Greece

19899

Sustainability in urban rail systems: addressing the conflicts between the social, political and environmental requirements for improving energy efficiency*Paul Batty*¹, *Roberto Palacin*¹, *Arturo Gonzalez Gil*¹, *Jonathan Powell*¹.¹: NewRail -

School of Mechanical and Systems Engineering Newcastle University Stephenson Building Newcastle upon Tyne NE1 7RU United Kingdom.- United Kingdom

17823

Real-time forecasting the bus route state by data assimilation process*Etienne Hans*¹, *Nicolas Chiabaut*¹, *Ludovic Leclercq*¹.¹: Laboratoire d'Ingénierie Circulation Transport (LICIT) -

École Nationale des Travaux Publics de l'État ENTPE, Université de Lyon, IFSTTAR

25 Avenue François Mitterrand, 69675 Bron Cedex- France

17675

Waterborne transport: a new public urban transport system?*Isabelle Treve*¹, *Didier Baudry*².¹: CEREMA-DtecTV (Center of studies and expertise on risks, environment, mobility and town and country planning) -

Ministry of transport

2 rue Antoine Charial CS 33927 69426 Lyon cedex 03- France

²: CEREMA/DterNP (Center of studies and expertise on risks, environment, mobility and town and country planning) -

Ministry of transport

2 rue de Bruxelles BP 275 59019 LILLE Cedex- France

STS 26 - Data and statistics for accidents

Day 2: Tuesday April 15, 9:00-10:30

Oral presentations

19607

Neck injury protection: potential cost savings and improved seat evaluation*Ernst Tomasch*¹, *Sylvia Schick*², *Astrid Linder*³, *Kai-Uwe Schmitt*⁴, *Andreas Gutsche*¹, *Wolfgang Sinz*¹, *Ines Levallios*⁵, *Sergio Alonso*⁶,¹ Graz University of Technology (TU Graz) -
Inffeldgasse 23/1 8010 Graz- Austria² Ludwig-Maximilians-Universität München (LMU) -
Institute for Legal Medicine Nussbaumstr. 26- Germany³ The Swedish National Road and Transport Research Institute (VTI) -
Box 8072 SE 40278 Göteborg- Sweden⁴ Institute for Biomedical Engineering - ETH Zurich
Gloriastrasse 35 8092 Zurich- Switzerland⁵ FAURECIA S.A.

FAURECIA S.A.

Automotive Seating- France

⁶ CIDAUT

Valladolid- Spain

19549

Understanding traffic crash under-reporting: linking medical records to individual and crash characteristics*Kira Janstrup*¹, *Tove Hels*¹, *Sigal Kaplan*¹, *Helle Sommer*², *Jens Lauritsen*³,¹ Danmarks Tekniske Universitet - DTU (DENMARK) (DTU Transport) -
Bygningstorvet 116B DK-2800 Kgs. Lyngby- Denmark² Danmarks Tekniske Universitet - DTU (DENMARK) (DTU FOOD) -
Søtoft Plads DK-2800 Kgs. Lyngby- Denmark³ Accident Analysis Group, Orthopaedic Surgery department O, Odense University Hospital, Odense C, Denmark -
Odense University Hospital, Odense C, Denmark- Denmark

18042

Speed distribution and traffic safety measures*Anna Vadeby*¹, *Åsa Forsman*¹,¹ Swedish National Road and Research Institute
Olaus Magnus vag 35, SE-58195 Linköping- Sweden

17840

Risk of road traffic injuries for pedestrians, cyclists, car occupants and powered two-wheel users, based on a road trauma registry and travel surveys, Rhône, France*Stéphanie Blaizot*¹, *Francis Papon*², *Mouloud Haddak*¹, *Emmanuelle Amoros*¹,¹ Unité Mixte de Recherche Epidémiologique et de Surveillance Transport Travail Environnement (IFSTTAR/UMRESTTE) -
Université Claude Bernard - Lyon I, IFSTTAR, PRES Université Lyon
25 Avenue François Mitterrand, 69675 Bron Cedex- France² Département Économie et Sociologie des Transports (IFSTTAR/DEST) -
PRES Université Paris-Est, IFSTTAR

Le Descartes 2, 2 rue de la Butte Verte, 93166 Noisy le Grand Cedex- France

Poster presentations

19572

Unraveling the relationship between trauma types and traffic crash characteristics: an error component logit approach*Kira Janstrup*¹, *Tove Hels*¹, *Sigal Kaplan*¹, *Carlo Giacomo Prato*¹, *Jens Lauritsen*²,¹ Danmarks Tekniske Universitet - DTU (DENMARK) (DTU Transport) -
Bygningstorvet 116B DK-2800 Kgs. Lyngby- Denmark² Accident Analysis Group, Orthopaedic Surgery department O, Odense University Hospital
Odense C- Denmark

18107

Using household mobility surveys, to better assess the risk exposure to road traffic injuries*Mouloud Haddak*¹, *Liacine Bouaoun*¹, *Emmanuelle Amoros*¹,¹ Unité Mixte de Recherche Epidémiologique et de Surveillance Transport Travail Environnement (IFSTTAR/UMRESTTE) -
Université Claude Bernard - Lyon I, IFSTTAR, PRES Université Lyon
25 Avenue François Mitterrand, 69675 Bron Cedex- France

17813

Operation and safety of tramways in interaction with public spaces - COST Action TU1103*Laetitia Fontaine*¹, *Giuseppe Inturri*²,¹ Service technique des Remontées Mécaniques et des Transports Guidés (STRMTG) -
Division Tramways, COST Action TU1103 Chair
1461 rue de la piscine 38400 Saint Martin d'Hères- France² University of Catania

Dipartimento di Ingegneria Civile e Ambientale via Santa Sofia 64 95100 Catania (Italia)- Italy

17759

The traffic safety effect of combined speed and red light cameras*Ellen De Pauw*¹, *Stijn Daniels*¹, *Elke Hermans*¹, *Tom Brijs*¹, *Geert Wets*¹,¹ Transportation Research Institute - Hasselt University -
Wetenschapspark 5, bus 6 BE-3590 Diepenbeek- Belgium

STS 27 - Land use and planning**Day 2: Tuesday April 15, 9:00-10:30**

Chair: Dominique Mignot (IFSTTAR, France)

Oral presentations

19673

Influence of the metrics on discrete facility location. Toward a pertinent Lp norm targeting a transport objective.*Didier Josselin*^{1,2}, *Julio Rojas-Mora*³, *Delphine Blanke*⁴, *Daniel Gourion*⁴, *Marc Ciligot-Travain*⁴.¹: ESPACE -CNRS : UMR7300, Université d'Avignon
74 rue Louis Pasteur 84000 AVIGNON- France²: Laboratoire Informatique d'Avignon (LIA) -Centre d'Enseignement et de Recherche en Informatique - CERI, Université d'Avignon et des Pays de Vaucluse
339 Chemin des Meinajaries Agroparc BP 1228 84911 Avignon cedex 9- France³: Universidad Austral de Chile

Valdivia- Chile

⁴: Laboratoire de mathématiques d'Avignon (LMA) -

Université d'Avignon et des Pays de Vaucluse

Université d'Avignon et des Pays de Vaucluse Faculté des sciences 33 Rue Louis Pasteur 84000 Avignon- France

19631

Territory analysis using cell-phone data.*Vincent Aguiléra*¹, *Chloé Milion*², *Sylvain Allio*².¹: Laboratoire Ville, Mobilité, Transport (LVMT) -

IFSTTAR UMR-T9404, Ecole des Ponts ParisTech, Université Paris-Est Marne-la-Vallée (UPEMLV)

Ecole des Ponts ParisTech, Cité Descartes, 6 et 8 avenue Blaise Pascal, 77454 Marne-la-Vallée cedex 2- France

²: Orange Labs (Orange Labs)

Orange Labs Belfort

2 rue Maurice et Louis De Broglie 90000 Belfort- France

18601

New data, new applications: using transportation system data for regional analysis*Genevieve Giuliano*¹, *Mohja Rhoads*², *Sandip Chakrabarti*².¹: University of Southern California (USC) -

Los Angeles, CA, 90089-0626, USA- United States

²: University of Southern California

Los Angeles, CA- United States

17927

Integrating land-use and transport infrastructure planning: towards adaptive and sustainable transport infrastructure*Jos Arts*¹, *Tertius Hanekamp*², *Anne Dijkstra*¹.¹: University of Groningen / Rijkswaterstaat, Ministry of Infrastructure & Environment

Zernickelaan 1, Groningen, the netherlands- Netherlands

²: Temah Consultancy

Utrecht- Netherlands

17722

The socioeconomic and spatial factors that explain the affordability of daily travel for households*Jean-Pierre Nicolas*¹, *Florian Vanco*², *Damien Verry*².¹: Laboratoire d'économie des transports (LET) -

École Nationale des Travaux Publics de l'État ENTPE, CNRS : UMR5593, Université Lumière - Lyon II

ISH - 14, avenue Berthelot - 69363 Lyon cedex 07- France

²: certu (Centre Etude Réseaux Transport et Urbanisme) -

Ministère de l'écologie de l'Energie, du Développement durable et de l'Aménagement du territoire

2 rue antoine Charial 69426 Lyon Cedex 03- France

Poster presentations

20095

The transformation of commuting patterns in the functional urban region of Budapest*Imre Keseru*^{1,2}.¹: Vrije Universiteit (VUB) -

Pleinlaan 2, B-1050, Brussels- Belgium

²: KTI Institute for Transport Sciences (KTI) -

Than K. u. 3-5 Budapest- Hungary

19557

Robust and Optimal Locations for Sustainable Environment and Systems (ROLSES)*Didier Josselin*^{1,2}, *Julio Rojas-Mora*³, *Delphine Blanke*⁴, *Daniel Gourion*⁴, *Marc Ciligot-Travain*⁴, *Mohammed El-Asri*^{4,5}, *Edith Gabriel*⁴, *Cyrille Genre-Grandpierre*².¹: Laboratoire Informatique d'Avignon (LIA) -

Centre d'Enseignement et de Recherche en Informatique - CERI, Université d'Avignon et des Pays de Vaucluse

339 Chemin des Meinajaries Agroparc BP 1228 84911 Avignon cedex 9- France

²: ESPACE -

CNRS : UMR7300, Université d'Avignon

74 rue Louis Pasteur 84000 AVIGNON- France

³: Universidad Austral de Chile

Valdivia- Chile

⁴: Laboratoire de mathématiques d'Avignon (LMA) -

Université d'Avignon et des Pays de Vaucluse

Université d'Avignon et des Pays de Vaucluse Faculté des sciences 33 Rue Louis Pasteur 84000 Avignon- France

⁵: IUT de Vannes

IUT de Vannes

IUT 8, rue Montaigne - BP 561 - 56017 VANNES Cedex- France

18341

Emerging figures: infrastructure and urban form in the construction of the Unique European Space*Fabrizia Berlingieri*¹.¹: TU Delft/Department of Architecture; Università Mediterranea di Reggio Calabria/ Dipartimento di Architettura e Territorio (TU Delft/ UNIRC)

UNIRC_ loc. Feo di Vito 89124, Reggio Calabria- Italy

18328

A LUTI agent-based model of Lyon area: welfare analysis of some scenarios*Charles Raux*¹.¹: Laboratoire d'économie des transports (LET) -

CNRS : UMR5593, Université de Lyon

ISH - 14, avenue Berthelot - 69363 Lyon cedex 07- France

17763

Living near a railway station : a well - reasoned choice for inhabitants ?*Sophie Hasiak*¹, *Fabrice Hasiak*²,¹: Centre d'études techniques de l'Equipement Nord Picardie (CETE Nord Picardie) -
CETE

2 rue de Bruxelles 59 019 Lille Cedex- France

²: Centre d'études techniques de l'Equipement Nord Picardie (CETE Nord Picardie) -
CEREMA

2 rue de Bruxelles 59019 Lille Cedex- France





Programme

Day 2: Tuesday April 15, 14:00-15:30

STS 28 - Energy management

Day 2: Tuesday April 15, 14:00-15:30

Chair: Alessandro Coda (EUCAR)

Oral presentations

20149

Key parameters to be considered for market introduction of a thermoelectric generator

Michel Simonin¹, Véronique Monnet¹, Cédric De Vaulx¹, Guilhem Vidiella², Richard Grossin²

¹: Valeo Thermal System
Valeo Engine Cooling
8 rue Louis Lormand, 78321 La Verrière- France

²: ROM Innovation & Strategy
ROM Innovative
Paris- France

20020

Sustainability assessment of infrastructure elements with integrated energy harvesting technologies

Bijan Adl-Zarrabi, Phd¹, Mohammed Hoseini², York Ostermeyer¹, Holger Wallbaum¹

¹: Chalmers University of Technology (Chalmers) -
Chalmers University of Technology SE-412 96 Gothenburg Sweden- Sweden

²: Norwegian Public Roads Administration (NPRA)
Oslo- Norway

18002

Development of a system of environmental and energy consumption data for urban road traffic. Pilot application in Thessaloniki, Greece

Magdalini Pitsiava-Latinopoulou¹, Giorgos Mellios², Nikos Gavanas¹, Anastasios Tsakalidis¹, Aggelos Aggelakakis¹, Chariton Kouridis²

¹: Aristotle University of Thessaloniki (AUTH)
Aristotle University of Thessaloniki University Campus 54124, Thessaloniki- Greece

²: EMISIA SA -
Antoni Tritsi 21, Service Post 2, 57001, Thessaloniki- Greece

17808

Creating prospective value chains for renewable road transport energy sources up to 2050 in Nordic Countries

Anu Tuominen¹, Nina Wessberg¹, Anna Leinonen¹, Annele Eerola¹, Simon Bolwig²

¹: VTT Technical Research Centre of Finland
P.O.Box 1000 02044 VTT- Finland

²: Technical University of Denmark (DTU) -
Produktionstorvet Building 424 2800 Kongens Lyngby- Denmark

17512

Energy efficiency optimisation, through the use of an absorption cooling system onboard fishing vessels

Eduardo Blanco-Davis¹, Paraskevas Fanelis¹, Bárbara Marques², Alvaro Oliveira², Peilin Zhou¹

¹: University of Strathclyde -
Henry Dyer Bldg., 100 Montrose Street, Glasgow G4 0LZ, Scotland- United Kingdom

²: Estaleiros Navais de Peniche (ENP) -
Molhe Leste, 2520-620, Peniche- Portugal

Poster presentations

19911

Implementing renewable energy in European transport: barriers and opportunities

Marika Rosa¹, Aiga Barisa¹, Dorothy Sutherland Olsen²

¹: Riga Technical University (RTU) -
Kronvalda boulv.1, Riga LV1010- Latvia

²: Nordic Institute for Studies in Innovation, Research and Education (NIFU) -
P. O. Box 5183 Majorstuen, 0302 Oslo- Norway

19902

Energy-efficient urban rail systems: strategies for an optimal management of regenerative braking energy

Arturo Gonzalez-Gil¹, Roberto Palacin¹, Paul Batty¹, Jonathan Powell¹

¹: University of Newcastle upon Tyne (Newcastle University) -

NewRail - Newcastle Centre for Railway Research Stephenson building - Faculty of Science, Agriculture and Engineering NE1 7RU - Newcastle upon Tyne- United Kingdom

17688

Cost-benefit analysis of future vehicle technologies: exploring electric vehicle sharing schemes and intermodality in Lisbon

Jose Prata¹, Elisabete Arsenio²

¹: FCT and LNEC I.P. Department of Transport (LNEC) -
Av. do Brasil 101 1700-066 Lisboa- Portugal

²: LNEC I.P. Department of Transport (LNEC) -
Av. do Brasil 101 1700-066 Lisboa- Portugal



STS 29 - Noise and vibrations**Day 2: Tuesday April 15, 14:00-15:30**

Chair: Darko Kokot (ZAG, Slovenia)

Oral presentations

19503

Mitigation of ground vibrations from freight trains*Patrick Vanhonacker*¹.¹: Alfa Products & Technologies (APT) -
Rue du Trone, 98 1050 Brussels- Belgium

18317

Sound exposure of a pedestrian going through an urban boulevard.*Delphine Lejri*¹, *Cécile Bécarie*¹, *Xavier Olny*².¹: Laboratoire d'Ingénierie Circulation Transport (LICIT) -
École Nationale des Travaux Publics de l'État ENTPE, IFSTTAR
25 Avenue François Mitterrand, 69675 Bron Cedex- France²: CETE de Lyon -
CETE de Lyon
46, rue Saint Théobald BP128 38081 L'ISLE D'ABEAU CEDEX FRANCE- France

18280

Additional efficient warning sounds for electric and hybrid vehicles*Etienne Parizet*¹, *Ryan Robart*¹, *Perceval Pondrom*², *Jean-Christophe Chamard*³, *Guillaume Baudet*⁴, *David Quinn*⁵, *Karl Janssens*⁶, *Manfred Haider*⁷.¹: Laboratoire Vibrations Acoustique (LVA INSA-Lyon) -
Institut National des Sciences Appliquées de Lyon
Laboratoire Vibrations Acoustique 25 bis, av. Jean Capelle 69621 Villeurbanne Cédex- France²: Technical University Darmstadt (TUD)
Karolinenplatz 5, Darmstadt, 64289- Germany³: PSA Peugeot-Citroen -
PSA Peugeot-Citroën
Route de Gisy 78943 Vélizy Villacoublay cedex- France⁴: Renault -
Renault
Technocentre Guyancourt - 1, avenue du Golf - 78288 Guyancourt - France- France⁵: Nissan Motor Manufacturing (Nissan)
Washington road, Sunderland, SR53NS- United Kingdom⁶: LMS International - Leuven (LMS)
LMS International Researchpark Haasrode ZI Interleuvenlaan 68 3001 Leuven- Belgium⁷: AIT Austrian Institute of Technology (AIT) -
Donau-City-Strasse 1 1220 Vienna- Austria

17928

Toolbox from the EC FP7 HOSANNA project for the reduction of road and rail traffic noise in the outdoor environment*Jens Forssén*¹, *Maarten Hornikx*², *Bart Van Der Aa*¹, *Jérôme Defrance*³, *Dirk Van Maercke*³, *Philippe Jean*³, *Julien Maillard*³, *Faouzi Koussa*³, *Timothy Van Renterghem*^{4,5}, *Dick Botteldooren*^{4,5}, *Bert De Coensel*^{4,5}, *Keith Attenborough*⁶, *Shahram Taherzadeh*⁶, *Imran Bashir*⁶, *Jian Kang*⁷, *Yuliya Smyrnova*⁷, *Ronny Klæboe*⁸, *Knut Veisten*⁸, *Marjan Mosslem*⁸, *Mats Nilsson*⁹, *Maria Rådsten-Ekman*⁹, *Kirill Horoshenkov*¹⁰, *Hadj Benkreira*¹⁰, *Amir Khan*¹⁰, *Manuel Männel*¹¹, *Bruno Vincent*¹², *Jin Yong Jeon*¹³, *Hyung Suk Jang*¹³, *Joo Young Hong*¹³.¹: Chalmers University of Technology (Chalmers) -
Chalmers University of Technology SE-412 96 Gothenburg Sweden- Sweden²: Eindhoven University of Technology (TUE)
Eindhoven University of Technology Den Dolech 2 5612 AZ Eindhoven- Netherlands³: Centre Scientifique et Technique du Bâtiment (CSTB)
CSTB
Grenoble- France⁴: Department of Information Technology (INTEC)
Ghent University - IMEC, Sint-Pietersnieuwstraat 41, B-9000 Gent- Belgium⁵: Iminds Ghent
Zuiderpoort Office Park Gaston Crommenlaan 8 (box 102) B-9050 Ghent-Ledeberg Belgium- Belgium⁶: The Open University
Milton Keynes- United Kingdom⁷: University of Sheffield
The University of Sheffield Western Bank Sheffield S10 2TN UK- United Kingdom⁸: The Institute of Transport Economics
Oslo- Norway⁹: Stockholm University
Stockholm- Sweden¹⁰: The University of Bradford
Bradford- United Kingdom¹¹: Müller BBM
Munich- Germany¹²: Acoucity - Observatoire du bruit
Grand Lyon
Lyon- France¹³: Hanyang University
Seoul 133-791- South Korea

17439

ACOUTRAIN - Virtual certification of acoustic performance for freight and passenger trains*Nicola Furio*¹, *Maria Starnberg*², *Estelle Bongini*³, *David Thompson*⁴, *Ulf Orrenius*⁵, *Nathalie Cuny*⁶.¹: UNIFE -
221 Avenue Louise 1050 Brussels- Belgium²: DB Systemtechnik GmbH
80939 München- Germany³: SNCF
SNCF
Paris- France⁴: ISVR - University of Southampton
Highfield, Southampton, SO17 1BJ- United Kingdom⁵: Bombardier Transportation
Västerås- Sweden⁶: ALSTOM Transport
Alstom transport
La Rochelle- France**Poster presentations**

20032

HRMS UIC project - Harmonisation of Running behaviour and noise Measurement Sites*Laurent Schmitt*¹, *Wolfgang Zottl*², *Florian Saliger*²¹: International Union of Railways (UIC) -

International Union of Railways

16, rue Jean Rey - 75015 Paris- France

²: ÖBB-Infrastruktur AG

Nordbahnstraße 50 A-1020 Wien- Austria

19841

Mitigation measures to reduce ground vibration in RIVAS project: from the vehicle to the propagation path*Estelle Bongini*¹,¹: Société Nationale des Chemins de Fer Français, Innovation & Research (SNCF I&R) -

Société nationale des Chemins de Fer français - SNCF

40 avenue des Terroirs de France, 75012 PARIS- France

18452

Simulation-based design of a steerable acoustic warning device to increase (H)EV detectability while reducing urban noise pollution*Bert Van Genechten*¹, *Koen Vansant*¹, *Arthur Berkhoff*²,¹: LMS International -

Interleuvenlaan 68 3001 Leuven- Belgium

²: Netherlands Organisation for Applied Scientific Research (TNO) -

Oude Waalsdorperweg 63, 2597AK Den Haag, PO Box 96864, 2509JG Den Haag- Netherlands

18249

Experimental identification of noise reduction properties of honeycomb panels using a small cabin*Vittorio D'ortona*¹, *Marianna Vivolo*¹, *Bert Pluymers*¹, *Dirk Vandepitte*¹, *Wim Desmet*¹,¹: KU Leuven

Department of Mechanical Engineering, division PMA, KU Leuven, 3000 Leuven, Belgium.- Belgium

17772

Noise emission levels for electric and hybrid vehicles — First results of the FOREVER project*Marie-Agnès Pallas*¹, *Michel Bérengier*², *John Kennedy*³, *Phil Morgan*⁴, *Sara Gasparoni*⁵, *Reinhard Wehr*⁵,¹: Laboratoire d'Acoustique Environnementale (IFSTTAR/LAE) -

IFSTTAR, Université de Lyon

Cité des Mobilités, 25 avenue F. Mitterrand, case 24, 69675 Bron cedex- France

²: Laboratoire d'Acoustique Environnementale (IFSTTAR/LAE) -

IFSTTAR, PRES Université Nantes Angers Le Mans UNAM

Route de Bouaye, CS4, 44344 Bouguenais Cedex- France

³: Trinity College (TCD) -

Department of Mechanical and Manufacturing Engineering, Trinity College, Dublin 2- Ireland

⁴: Transport Research Laboratory (TRL) -

Crowthorne House Nine Mile Ride, Wokingham, Berkshire, RG40 3GA- United Kingdom

⁵: AIT Austrian Institute of Technology (AIT) -

A-1210 Vienna, Gieffingasse 2- Austria



STS 30 - Rail freight**Day 2: Tuesday April 15, 14:00-15:30**

Chair: Blaise de Vadder (EC/R&I)

Oral presentations

20139

The role of human factors in rail freight innovation*Carlo Vaghi*¹, *Phillip Wheat*², *Ines österle*³, *Alberto Milotti*³, *John Nellthorp*²,¹: Gruppo Clas -

www.grupposclas.it- Italy

²: University of Leeds -

Woodhouse Lane ; Leeds ; LS2 9JT- United Kingdom

³: Gruppo Clas -

Via Lattuada 20 - 20135 Milano- Italy

18165

Enhancing the rolling stock standards towards a harmonized electromagnetic environment*Jon Del Portillo*¹, *Iñigo Adin*¹, *Jaizki Mendizabal*¹, *Daniel Valderas*¹, *Iñaki Ortego*¹, *Gonzalo Solas*¹,¹: CEIT and Tecnun (University of Navarra)

P/ Manuel de Lardizabal 15, San Sebastian- Spain

18021

Charting the development of an innovative rail freight concept for Low Density High Value Goods – from inception to design*Thomas Zunder*¹, *Ross Jackson*¹, *Emmanuel Matsika*¹,¹: NewRail, Newcastle University (UNEW) -

Stephenson Building Newcastle University NE1 7RU- United Kingdom

17868

Is freight really flexible in the timetabling process for a mixed-use rail network? Some considerations based on French experience.*Camille Morvant*¹,¹: Systèmes Productifs, Logistique, Organisation des Transports et Travail (IFSTTAR/SPLOTT) -

IFSTTAR, Université Paris-Est

14-20 boulevard Newton, Cité Descartes, 77447 Marne-la-Vallée cedex 2- France

17762

MARATHON technological progresses innovations and discoveries*Armand Toubol*¹, *Franco Castagnetti*²,¹: NEWOPERA Aisbl (NEWOPERA) -

Rue d'Idalie 9-13 B 1050 Brussels Belgium- Belgium

²: NEWOPERA Aisbl (NEWO) -

Rue D'Idalie 9-13 B1050 Brussels Belgium- Belgium

Poster presentations

19820

CAPACITY4RAIL project. The wagon load activity technology innovations: new freight wagons and trains*Armand Toubol*^{1,2}, *Franco Castagnetti*³, *Bo Olsson*²,¹: NEWOPERA Aisbl (NEWOPERA) -

Rue d'Idalie 9-13 B 1050 Brussels Belgium- Belgium

²: TRAFIKVERKET (TRAFIKV) -

71-89 Borlänge- Sweden

³: NEWOPERA Aisbl (NEWO) -

Rue D'Idalie 9-13 B1050 Brussels Belgium- Belgium

18400

The “SUSTRAIL” high speed freight vehicle: Innovations and the assessment of the benefits and costs*Simon Iwnicki*¹, *John Nellthorp*², *Clemente Fuggini*³, *Donato Zangani*³,¹: Institute of Railway Research (IRR) -

University of Huddersfield, Queensgate, Huddersfield HD1 3DH- United Kingdom

²: Institute of Transport Studies (ITS)

Leeds- United Kingdom

³: D'Appolonia S.p.A.

Via San Nazaro, 19, Genoa- Italy

18026

An investigation into rail freight potential in Indonesia employing simulation modelling.*Clare Woroniuk*¹, *Paulus Aditjandra*¹, *Thomas Zunder*¹,¹: NewRail, Newcastle University (UNEW) -

Stephenson Building Newcastle University NE1 7RU- United Kingdom

17742

Enhancing the competitiveness of international rail freight services*Udo Sauerbrey*¹, *Stefan Mahler*¹,¹: Railistics GmbH (RX) -

Bahnhofstrasse 36 65185 Wiesbaden- Germany



STS 31 - Urban logistics (2)**Day 2: Tuesday April 15, 14:00-15:30**

Chair: Michel Savy (ENPC, France)

Oral presentations

20162

PAC project - purchase portering systems*Emmanuelle Moesch*¹, *Claire Capo*², *Isabelle Bardin*^{1,2}, *Odile Chanut*²¹: Cluster Paca Logistique (CPL) -

PRIDES

Immeuble CMCI 2 rue Henri Barbusse 13001 Marseille- France

²: Laboratoire Universitaire de Recherche en Sciences de Gestion spécialisé en Logistique (CRET-LOG)

Université de la Méditerranée - Aix-Marseille II

413, avenue Gaston Berger F-13625 Aix-en-Provence Cedex 1- France

18508

Evaluation of the Urban Freight Transportation (UFT) projects*Tatiana Graindorge*¹, *Dominique Breuil*²¹: IMS (Laboratoire de l'Intégration du Matériau au Système)

Université de Bordeaux

351 cours de la Libération – 33405 Talence cedex, France- France

²: EIGSI (Ecole d'Ingénieurs en Génie des Systèmes Industriels)

Engineering School

26 rue de Vaux de Foltetier -17041 La Rochelle Cedex1, France- France

18445

Improving the parcel service performance in the Seoul Metropolitan Area: Differentiated approaches by urban land use pattern*Sang Beom Seo*¹, *Jee-Sun Lee*¹, *Changjin Ahn*¹¹: The Korea Transport Institute (KOTI) -

315 Goyangdaero, Ilsanseo-Gu, Goyang-City, Gyeonggi-Do 411-701- South Korea

18198

Final deliveries for online shopping: the deployment of pickup point network in urban and suburban areas*Eleonora Morganti*¹, *Laetitia Dablanc*², *François Fortin*¹, *Elisabeth Gouvello*³¹: Systèmes Productifs, Logistique, Organisation des Transports et Travail (IFSTTAR/AME/SPLOTT) -

IFSTTAR,PRES Université Paris-Est

14-20 Boulevard Newton - Cité Descartes, Champs sur Marne - F-77447 Marne la Vallée Cedex 2- France

²: Systèmes Productifs, Logistique, Organisation des Transports et Travail (IFSTTAR/SPLOTT) -

IFSTTAR,Université Paris-Est Créteil Val-de-Marne (UPEC)

Le Descartes 2, 2 rue de la Butte Verte, 93166 Noisy le Grand Cedex- France

³: Institut d'Aménagement et d'Urbanisme (IAU Île-de-France)

IAU Île-de-France

Paris- France

17550

Information sharing in last mile distribution – Lessons learned from a pilot in Oslo*Olav Eidhammer*¹, *Jardar Andersen*¹¹: Institute of Transport Economics, Norway (TOI) -

Gaustadalléen 21 0349 Oslo- Norway

Poster presentations

20083

How the location of urban consolidation and logistics facility have an impact on the delivery costs? An accessibility analysis*Gonzalez-Feliu Jesus*¹, *Josep-Maria Salanova*²¹: Laboratoire d'économie des transports (LET) -

École Nationale des Travaux Publics de l'État ENTPE,CNRS : UMR5593,Université Lumière - Lyon II

ISH - 14, avenue Berthelot - 69363 Lyon cedex 07- France

²: Hellenic Institute of Transport (HIT)

Thessaloniki- Greece

18387

City logistics: towards a global typology*Laetitia Dablanc*^{1,2}, *Jean-Paul Rodrigue*³¹: Systèmes Productifs, Logistique, Organisation des Transports et Travail (IFSTTAR/SPLOTT) -

IFSTTAR,Université Paris-Est Créteil Val-de-Marne (UPEC)

Le Descartes 2, 2 rue de la Butte Verte, 93166 Noisy le Grand Cedex- France

²: IFSTTAR University of Paris-Est

AME

14 blvd Newton 77447 Marne la Vallée- France

³: HOFSTRA University

1000 Fulton Avenue Hempstead Long Island- United States

18118

New logistics concept for urban courier services*Matthias Brüning*¹, *Bijan Abdolrahimi*¹, *Werner Schönewolf*¹¹: Fraunhofer IPK (IPK) -

Pascalstr. 8-9 10587 Berlin- Germany



STS 32 - Health, social and gender issues**Day 2: Tuesday April 15, 14:00-15:30**

Chair: Owen Waygood (University of Laval, Canada)

Oral presentations

19975

A proposal for more efficient travel behaviour change interventions*Foteini Mikiki*¹, *Panagiotis Papaioannou*².

- ¹: Aristotle University of Thessaloniki, Civil Engineering Department (AUTH) -
Aristotle University of Thessaloniki Engineering School-Dept of Civil Engineering PO Box 482 Thessaloniki, 54124 Greece- Greece
²: Aristotle University of Thessaloniki, Civil Engineering Department (AUTH) -
Aristotle Univ of Thessaloniki Engineering School-Dept of Civil Engineering PO Box 482 Thessaloniki, 54124 Greece- Greece

19879

Gender differences in the travel behavior of adolescents and young adults in Denmark*Sigrun Sigurdardottir*¹, *Mette Møller*¹, *Sigal Kaplan*^{1,2}.

- ¹: Technical University of Denmark (DTU Transport)
Bygningstorvet 116V DK-2800 Kgs. Lyngby- Denmark
²: Danmarks Tekniske Universitet - DTU (DENMARK) (DTU Transport) -
Bygningstorvet 116B DK-2800 Kgs. Lyngby- Denmark

19770

Walking, cycling, and public transport use: their determinants and relationship with physical activity - a study with GPS, accelerometers, and an electronic mobility survey*Basile Chaix*¹, *Yan Kestens*², *Scott Duncan*³, *Laurent Jardinier*⁴, *Julie Méline*¹, *Claire Merrien*¹, *Tristan Guilloux*⁵.

- ¹: Inserm U707 (Institut National de la Santé et de la Recherche Médicale) (Inserm U707)
Inserm : U707
Inserm U707, Faculté de Médecine Saint-Antoine, 27 rue Chaligny, 75012 Paris- France
²: Département de Médecine Sociale et Préventive, Université de Montréal (DMSP, UdeM)
Département de Médecine Sociale et Préventive, Université de Montréal, 1430 Boulevard Mont-Royal, Montréal, Québec, H2V 4P3, Canada- Canada
³: Human Potential Centre, Auckland University of Technology (Human Potential Centre, AUT)
Human Potential Centre, Auckland University of Technology, 17 Antares Place, Mairangi Bay, Auckland 0632, New Zealand- New Zealand
⁴: Centre d'Etudes sur les Réseaux, les Transports et l'Urbanisme (CERTU)
Ministère de l'Ecologie, du Développement Durable et de l'Energie
2 rue Antoine Charial, CS 33927, 69426 Lyon Cedex 03- France
⁵: Centre d'Etudes sur les Réseaux, les Transports et l'Urbanisme (CERTU)
Ministère de l'Ecologie, du Développement Durable et de l'Energie
Lyon- France

18083

Road scenario and driver stress level: an HRV study in both virtual and real environments*Pasquale Sena*¹, *Anita Fiorentino*², *Matteo D'amore*¹, *Bruno Fusco*¹.

- ¹: Università degli Studi di Salerno
via Ponte don Melillo - 84084 - Fisciano (SA)- Italy
²: Fiat Group Automobile (FGA)
Via Ex Aeroporto 80038 Pomigliano d'Arco Napoli- Italy

17400

Electromagnetic field emission by cables and traction motors in hybrid and electric vehicles*Yu Wang*¹, *Jiabin Wang*¹.

- ¹: Electrical Machines & Drives Research Group, Department of Electronic & Electrical Engineering,
University of Sheffield, Mappin Street, Sheffield, S1 3JD- United Kingdom

Poster presentations

19871

Ensuring transport systems accessibility for persons with disabilities in the Russian Federation*Vadim Donchenko*¹, *Dmitrij Enin*¹, *Alexandr Kolik*¹, *Yulij Kunin*¹.

- ¹: Scientific and Research Institute of Motor Transport (NIIAT) -
Geroev Panfilovcev str., 24 Moscow- Russia

19586

Drowsiness and fatigue sensing system based on driver's physiological signals*Jose Solaz*¹, *Helios De Rosario*¹, *Paulo Gameiro*², *Daniel Bande*³.

- ¹: Institute of Biomechanics (IBV) -
Universidad Politécnica de Valencia - Edificio 9C Camino de Vera s/n E46022. Valencia (Spain)- Spain
²: Borstena Gruppen (Borstena) -
EN 234 - km 87,7 (Chão do Pisco) Apartado 35 - 3521-909 35 - 3521-909 Nelas - Portugal- Portugal
³: FICOSA INTERNATIONAL S.A. (FICOSA) -
Can Mitjans, s/n - 08232 Viladecavalls (Barcelona), España- Spain

18442

New nomads: impact on mobility patterns*Maria Cristina Marolda*¹.

- ¹: European Commission (EC)
200, rue de la Loi - 1049 Bruxelles- Belgium

18127

Care, mobility, employment: how do people in rural areas manage this challenge of squaring the circle?*Webke Unbehau*¹, *Tina Uhlmann*¹, *Thomas Hader*², *Florian Aschauer*¹, *Regine Gerike*¹.

- ¹: University of Natural Resources and Life Sciences Vienna, Institute for Transport Studies (BOKU IVe) -
Peter-Jordan-Straße 82 1190 Vienna- Austria
²: Chamber of Labour Vienna
Prinz Eugen Straße 20-22, 1040 Wien- Austria

17522

Mobility, inequality and spatial public policies in Lisbon metropolitan area. Are we planning more justice?*Sofia Santos*¹.

- ¹: Centro de Investigação e Estudos de Sociologia (CIES-IUL) -
Edifício ISCTE, Av. das Forças Armadas, 1649-026 Lisboa- Portugal



STS 33 - Infrastructure maintenance and repair**Day 2: Tuesday April 15, 14:00-15:30**

Chair: Anne Beeldens (BRRC, Belgium)

Oral presentations

19929

Towards automated and cost-efficient track maintenance. Final developments of the ACEM-Rail project*Noemi Jimenez-Redondo*¹, *Sergio Escriba*¹, *Francisco Benitez*², *Francisco Cores*², *Noelia Caceres*²¹: CEMOSA (CEMOSA) -

Benaque 9, 29004 Malaga- Spain

²: Transport Engineering, University of Seville (USE) -

Escuela Tecnica Superior de Ingenieros, Camino de los descubrimientos s/n, 41092 Sevilla- Spain

19043

Application of multi-criterion assessment for selection of level intersection*Jan Hradil*¹, *Michal Uhlík*¹, *Petr Slabý*¹¹: Faculty of Civil Engineering, Department of road structures -

ČVUT CTU FCE - Department of road structures, Thákurova 7, 166 29 Praha 6 Tel.: +420 / 224 353 880 +420 / 224 353 880 Fax.: +420 / 224 311 085- Czech Republic

18293

Low-energy and environment-friendly solutions for road maintenance*Bernard Eckmann*¹, *Frédéric Delfosse*², *Philippe Poilane*³, *Bruno Taillis*⁴¹: EUROVIA Management

EUROVIA

18, place de l'Europe - 92565 Rueil-Malmaison Cedex- France

²: EUROVIA Research Centre

EUROVIA

22, rue Thierry Sabine, BP 20067 - 33703 MERIGNAC- France

³: EUROVIA Management

EUROVIA

20, rue de Bel Air - 44471 CARQUEFOU Cedex- France

⁴: EUROVIA Management

EUROVIA

18, rue Thierry Sabine - BP80203 - 33708 MERIGNAC Cedex- France

18266

3-D longitudinal and transverse cracking and the influence of non-uniform contact pressure on the stress intensity factors of these cracks*Dermot Casey*¹, *James Grenfell*¹, *Gordon Airey*¹¹: Nottingham Transportation Engineering Centre, University of Nottingham (NTEC, UoN) -

University Park, Nottingham, NG7 2RD- United Kingdom

16241

Effects of rehabilitation treatments on longitudinal road surface profile properties*Rayya Hassan*¹, *Robert Evans*¹¹: Swinburne University of Technology -

PO Box 218 Hawthorn, Victoria, 3122- Australia

Poster presentations

20138

Life-cycle maintenance cost prediction for concrete bridges based on inspection data.*Panagiotis Panetsos*¹, *Sergios Lambropoulos*²¹: Egnatia Odos S.A., Maintenance Department (EOAE) -

6th km Thessaloniki-Thermi- Grenada

²: National Technical University of Athens, School of Civil Engineering, Department of Construction Engineering and Management (NTUA)

9 Iroon Polytechniou str., Zografou, GR 157 73, Athens, Greece- Greece

17876

Toolbox, selection of maintenance candidates based on new triggers*Leif Sjögren*¹, *Emma Benbow*², *Mark Harrington*², *Robert Karlsson*³, *Veronique Cerezo*⁴, *Mohamed Bouteldja*⁵¹: The Swedish Road and Transport Research Institute (VTI) -

Olaus Magnus väg 35 SE 581 95 Sweden- Sweden

²: TRL -

Crowthorne House, Nine Mile Ride, Wokingham, Berkshire, UK, RG40 3GA- United Kingdom

³: Dept Infrastructure -

SE-58195 Linköping- Sweden

⁴: IFSTTAR, AME-EASE, Lunam Université

IFSTTAR

Route de Bouaye, CS4 44344 Bouguenais cedex- France

⁵: CETE of Lyon

CEREMA

Bron- France

17871

Selecting a road network maintenance strategy to achieve the operator's objectives*Pierre Hankach*¹, *Philippe Lepert*¹¹: Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux (IFSTTAR) -

IFSTTAR

Route de Bouaye - CS4 - 44344 BOUGUENAIIS Cedex France- France

17677

CEREAL - Carbon road map for energy efficient pavement maintenance*Christ Van Gurp*¹, *Renilde Spiensma*², *Michael Anker Larsen*³¹: KOAC-NPC (KOAC) -

Schumanpark 43 7336 AS Apeldoorn- Netherlands

²: Royal Haskoning DHV (RHDHV) -

P.O. Box 1132 3800 BC Amersfoort- Netherlands

³: Road Directorate (VD) -

Guldalderen 12 DK-2640 Hedehusene- Denmark



STS 34 - Mobility assessment and survey**Day 2: Tuesday April 15, 14:00-15:30**

Chair: J,r"me Pourbaix (UITP)

Oral presentations

19837

An integrated approach to measuring the whole journey traveller experience*Oded Cats*^{1,„} *Yusak Susilo*^{1,„} *Rodica Hrin*^{2,„} *Andree Woodcock*^{3,„} *Marco Diana*^{4,„} *Egle Speicyte*^{5,„} *Eileen O'connell*^{6,„} *Chiara Di Majo*^{7,„} *Virginie Tolio*^{8,„} *Patricia Bellver*^{9,„} *Merja Hoppe*^{10,„}¹: Royal Institute of Technology (KTH) -

Kungliga Tekniska Högskolan, SE-100 44 STOCKHOLM- Sweden

²: Integral Consulting R&D³: Coventry University (UK)⁴: Politecnico di Torino (Polito) -

Politecnico di Torino - Corso Duca degli Abruzzi, 24 10129 Torino- Italy

⁵: Smart Continent⁶: Interactions Ltd⁷: RSM – Roma Mobility Age⁸: FIA – Federation Internationale de l'Automobile

FIA

⁹: ITENE - Instituto Tecnológico de l Embalaje, Transporte y Logística¹⁰: Zurich University of Applied Scien

19828

Testing regularity in the allocated time to travel*Iragaël Joly*^{1,„}¹: Laboratoire d'Economie Appliquée de Grenoble (GAEL)

Institut national de la recherche agronomique (INRA) : UMR1215, Institut Polytechnique de Grenoble - Grenoble Institute of Technology

46 avenue Felix Viallet 38031 Grenoble cedex 1- France

18210

Innovative survey of car drivers' mobility in six European countries: some results and methodological lessons*Davide Fiorello*^{1,„} *Guzay Pasaoglu*^{2,„} *Angelo Martino*^{1,„} *Alyona Zubaryeva*^{2,„} *Christian Thiel*^{2,„}¹: TRT Trasporti e Territorio (TRT) -

Via Rutilia 10/8 20141 Milano- Italy

²: EC - DG Joint Research Centre - Institute for Energy and Transport (JRC IET) -

PO Box 2, NL-1755 ZG Petten, Netherlands- Netherlands

17484

From prospective scenarios to policy-making : bridging the gap in sustainable mobility planning in France*Virginie Lasserre*^{1,„} *Hector G. Lopez-Ruiz*^{2,„}¹: Center for studies on urban planning, transportation and public facilities (CERTU) -

ministry of territorial equality and housing, Ministry of ecology, sustainable development and energy

2, rue Antoine Charial, CS 33927, F69426 Lyon cedex 03- France

²: Institute for Prospective Technological Studies (IPTS)

European Commission - Joint Research Centre (JRC) - C/ Inca Garcilaso, 3 - 41092 Seville- Spain

14175

Passengers transport modes hierarchy and trends in cities: results of a worldwide survey*Anne Aguilera*^{1,„} *Jean Grebert*^{2,„} *Helena Nandi*^{3,„}¹: Laboratoire Ville, Mobilité, Transport (LVMT) -

IFSTTAR, Ecole des Ponts ParisTech, Université Paris-Est

Cité Descartes 19 rue Alfred Nobel 77455 Marne la Vallée cedex 2- France

²: Renault

Renault

Technocentre Guyancourt- France

³: DHL Supply Chain

Sao Paulo- Brazil

Poster presentations

19638

Estimating travel time distribution for reliability analysis*Maurice Aron*^{1,„} *Neila Bhourj*^{1,„} *Younes Guessous*^{2,„}¹: University Paris-Est, IFSTTAR /COSYS/GRETTIA

IFSTTAR

Boulevard Newton, 77 Champs/Marne- France

²: Ecole des Ponts ParisTech -

ENPC

École des Ponts ParisTech 6-8 avenue Blaise-Pascal Cité Descartes 77455 Champs-sur-Marne Marne-la-Vallée cedex 2- France

18192

The mobility of Rhône-Alpes inhabitants: the construction of a new travel survey protocol*Christophe Hurez*^{1,„} *Maria Tébar*^{2,1,„}¹: Centre d'études techniques de Lyon - Pôle scientifique et technique Rhône-Alpes "Mobilités durables des personnes et des marchandises" (CETE de Lyon) -

Ministère de l'Ecologie, du Développement Durable et de l'Energie

25, avenue François Mitterrand, Case n°1, 69674 BRON CEDEX- France

²: Dynamiques Economiques et Sociales des Transports (IFSTTAR/AME/DEST) -

PRES Université Paris-Est, IFSTTAR

14-20 Boulevard Newton - Cité Descartes, Champs sur Marne - F-77447 Marne la Vallée Cedex 2- France

17900

STARTER - jointly working on sustainable mobility in touristic areas*Liesbeth Van Alphen*^{1,„} *Ronald Jorna*^{1,„} *Zuiver Hans*^{1,„}¹: Mobycon is an independent research and consulting company with 25 years of experience in traffic, transport and mobility. (Mobycon) -

Mobycon Tanthofdreef 15 2623EW Delft- Netherlands

17599

The role of the French mobility surveys in the transport policy making*Tristan Guilloux*^{1,„} *Mathieu Rabaud*^{2,„} *Cyprien Richer*^{2,„}¹: Centre d'Etudes sur les Réseaux, les Transports et l'Urbanisme (CERTU)

Ministère de l'Ecologie, du Développement Durable et de l'Energie

Lyon- France

²: Centre d'Etude Technique de l'Equipement (CETE Nord-Picardie) -

Ministère de l'écologie de l'Energie, du Développement durable et de l'Aménagement du territoire

2 rue de Bruxelles, 59 000 Lille- France

17565

Why do travellers in Europe change transport mode? Facts and implications for policy and providers (project USEmobility)

*Jolanta Skalska*¹, *Thomas Krautscheid*¹, *Dr. Andreas Geißler*¹, *Christian Grotemeier*¹,

¹: Allianz pro Schiene e.V. -
Reinhardtstr. 31 10117 Berlin- Germany

17423

Proposal for a new accessibility metric taking into account road condition

Andras Gulyas^{2,1},

²: Hungarian Public Roads Non-profit Co. (MK) -
Fenyek Elek 7-13 Budapest- Hungary

¹: University of Pécs (PTE) -
H-7624 Pécs Boszorkány u 2- Hungary



STS 35 - Integrated public transport services**Day 2: Tuesday April 15, 14:00-15:30**

Chair: Yves Amsler (UITP)

Oral presentations

20117

Tendering and awarding of public transport services under imperfect market conditions: the case of Thessaloniki greater area, Greece*Panagiotis Papaioannou¹, Elsa Adamantidou², Dimitra Komnianou², Chrysa Vizmpa², Yiannis Xenidis¹*

- ¹: Aristotle University of Thessaloniki, Civil Engineering Department (AUTH) -
Aristotle Univ of Thessaloniki Engineering School-Dept of Civil Engineering PO Box 482 Thessaloniki, 54124 Greece- Greece
- ²: Thessaloniki Public Transport Authority (THEPTA) -
65 Georgikis Scholis Ave- Greece

18384

Explaining factors of commercial and financial efficiencies of urban public transport networks*Damien Grangeon¹, Nicolas Wagner¹, Florian Vanco²*

- ¹: CETE Lyon - Ministère de l'Ecologie
Ministère de l'écologie de l'Energie, du Développement durable et de l'Aménagement du territoire
25 avenue François Mitterrand Case n°1 69674 BRON CEDEX- France
- ²: CERTU - Ministère de l'Ecologie
Ministère de l'écologie de l'Energie, du Développement durable et de l'Aménagement du territoire
2 rue Antoine Charial CS 33927 69426 Lyon cedex 03- France

18168

On the value of crowding in public transport for Ile-de-France*Eric Kroes¹, Marco Kouwenhoven¹, Laurence Debrincat², Nicolas Pauget²*

- ¹: Significance -
Koninginnegracht 23 2514 AB The Hague- Netherlands
- ²: STIF -
STIF
41 rue de Chateaudun 75009 Paris- France

18138

New tools for design and operation of urban transport interchange facilities, zones and development areas.*Frank Van Der Hoeven¹, Patrick Van Egmond², Caroline Hoogendoorn³, Stefan Van Der Spek¹, Akkelies Van Nes¹, Ivo Cré⁴, Helmut Berends⁵*

- ¹: Delft University of Technology, Faculty of Architecture and the Built Environment (TU Delft) -
Julianalaan 134, 2628 BL Delft- Netherlands
- ²: DTV Consultants (DTV) -
Markendaalseweg 44 Breda | P.O. Box 3559 4800 DN Breda- Netherlands
- ³: International Association of Public Transport (UITP) -
Rue Sainte-Marie 6 (Quai des Charbonnages) B-1080 Brussels- Belgium
- ⁴: POLIS -
Rue du Trône, 98 B - 1050, Brussels- Belgium
- ⁵: Berends-Consult -
Bürgermeister-Schoene-Str. 46 D-28213 Bremen- Germany

17719

Multimodal city-hubs and their impact on local economy and land use*Odile Heddebaut¹, Derek Palmer²*

- ¹: Economic and Social Dynamics of Transports (DEST) (IFSTTAR/DEST) -
IFSTTAR,PRES Université Paris-Est
IFSTTAR AME/DEST Villeneuve d'Ascq 20 rue Elisée Reclus BP 70317 59666 Villeneuve d'Ascq Cedex France- France
- ²: Transport Research Laboratory (TRL) -
Crowthorne House, Nine Mile Ride, Wokingham, Berkshire, RG40 3GA, United Kingdom- United Kingdom

Poster presentations

20112

Application of multi-criteria analysis for evaluation of good practice on infomobility services in European Union*Irina Yatskiv¹, Eugene Kopytov¹, Roman Gorky²*

- ¹: Transport and Telecommunication Institute, Latvian Transport Development and Education Association (TTI, LaTDEA)
Lomonosova 1, Riga- Latvia
- ²: Transport and Telecommunication Institute (TTI)
Lomonosova 1, Riga- Latvia

19827

Exploring factors related to users' experience of public transport: users profiles and route choice*Elise Grison^{1,2}, Valérie Gyselinck³, Jean-Marie Burkhart²*

- ¹: Laboratoire Mémoire et Cognition (LMC) -
Université Paris V - Paris Descartes : EA02
71 avenue Edouard Vaillant 92100 Boulogne billancourt- France
- ²: Laboratoire de Psychologie des comportements et des mobilités. (LPC) -
IFSTTAR
25 allée des Marronniers Satory F-78000 VERSAILLES- France
- ³: Laboratoire Mémoire et cognition (LMC) -
Université Paris V - Paris Descartes : EA02
71 avenue Edouard Vaillant 92100 Boulogne billancourt- France

18419

EU Project EPTA - Model for European public transport authority as a key factor to transport sustainability. The case of Bologna.*Tommaso Bonino¹, Marco Amadori¹, John Nelson², Giorgio Ambrosino³, Andrea Lodi⁴*

- ¹: SRM Reti e Mobilità
Via Magenta 16, Bologna 40128- Italy
- ²: dot.rural Digital Economy Hub, University of Aberdeen -
MacRobert Building, King's College, Aberdeen, AB24 5UA- United Kingdom
- ³: GA Consultancy (GAC)
Via Mimbelli 5 I-57127- Italy
- ⁴: Dipartimento di Elettronica, Informatica e Sistemistica, University of Bologna
Viale Risorgimento 2, Bologna 40136- Italy

18136

A new iterative method to estimate origin-destination matrix in urban public transport*Balázs Horváth¹, Richárd Horváth¹, Bertalan Gaál¹*

- ¹: Széchenyi István University - Department of Transport (SIU) -
9026 Győr Egyetem tér 1.- Hungary

17961

What makes a successful urban interchange? Results from an evidence review.

*Clare Harmer*¹, *Katie Millard*¹, *Derek Palmer*¹, *Barry Ubbels*², *Andres Monzon*³, *Sara Hernández*³.

¹: Transport Research Laboratory (TRL) -

Crowthorne House, Nine Mile Ride, Wokingham, Berkshire, RG40 3GA, United Kingdom- United Kingdom

²: Panteia

Zoetermeer- Netherlands

³: TRANSyT-UPM (Transport Research Centre) (UPM) -

c/Profesor Aranguren sn 28040 Madrid- Spain

17798

The operation of ITS in public transport service: guidelines for Public Authorities and operators

*Giorgio Ambrosino*¹, *Saverio Gini*².

¹: GA Consultancy (GAC)

Via Mimbelli 5 I-57127- Italy

²: MemEx srl (MEM) -

Via Cairoli 30 I-57123 Livorno- Italy



STS 36 - Infrastructure and road safety**Day 2: Tuesday April 15, 14:00-15:30**

Chair: Anna Vadeby (VTI, Sweden)

Oral presentations

18465

Development of safety performance functions for two-lane rural first-class main roads in Hungary*Attila Borsos*¹, *John Ivan*², *Gyula Orosz*³.¹: Department of Transport Infrastructure, Széchenyi István University (SZE) -

Egyetem tér 1. 9026 Győr- Hungary

²: University of Connecticut (UConn) -

Civil & Environmental Engineering, Unit 2037 Storrs, CT 06269-2037- United States

³: Hungarian Transport Administration (KKK) -

Lövőház u. 39 1024 Budapest- Hungary

18444

Relationship between road infrastructure characteristics and accidents on highways*Veronique Cerezo*¹, *Florence Conche*², *Michaël Sanz*³.¹: Laboratory EASE

IFSTTAR-AME

Route de Bouaye, CS4, 44344 Bouguenais cedex- France

²: Département Laboratoire de Clermont-Ferrand (DLCF)

CETE de Lyon, DLCF

8-10 rue Bernard Palissy, 63017 Clermont-ferrand cedex 2- France

³: Vinci Autoroutes réseau ASF

Vinci Autoroutes réseau ASF

74 allée de Beauport CS90304 84278 Vedene Cedex- France

18394

For the vizon "zero accident at intersections": a challenge between road safety and capacity*Jean Emmanuel Bakaba*¹, *Jörg Ortlepp*¹.¹: German Insurance Association - Accident Research (GDV) -

Wilhelmstrasse 43/43G, 10117 Berlin- Germany

18287

Development of a guideline for the selection of vehicle restraint systems - identification of the key selection parameters*Francesca La Torre*¹, *Ceki Erginbas*², *Robert Thomson*³, *Giuseppina Amato*⁴, *Bine Pingal*⁵, *Peter Saleh*⁶, *Chris Britton*⁷, *Kris Redant*⁸.¹: University of Florence (UNIFI) -

Via S. Marta, 3 - 50139 - Firenze- Italy

²: TRL³: Swedish National Road and Transport Research Institute (VTI) -

Box 8072, SE-402 78 Gothenburg- Sweden

⁴: Trinity College Dublin (TCD) -

Trinity College Dublin, College Green, Dublin 2, Ireland- Ireland

⁵: ZAG Slovenian National Building and Civil Engineering Institute (ZAG) -

Dimičeva 12, 1000 Ljubljana, Slovenia- Slovenia

⁶: Austrian Institute of Technology GmbH (AIT) -

Donau-City-Straße 1 1200 Vienna- Austria

⁷: Parsons Brinckerhoff (PBWorld) -

Westbrook Mills, Godalming, Surrey GU7 2AZ, UK- United Kingdom

⁸: Belgian Road Research Centre (BRRC) -

Blvd de la Woluwe 42, B-1200 Brussels- Belgium

17466

An examination of the effectiveness of a new generation of safety barriers*Victoria Gitelman*^{2,1}, *Roby Carmel*¹, *Etti Doveh*³, *Fany Pesahov*¹, *Shalom Hakkert*¹.²: Transportation Research Institute, Technion

Technion City, Haifa 32000- Israel

¹: Ran Naor Road Safety Research Center, Technion

Technion City, Haifa 32000- Israel

³: The Technion Statistical Laboratory

Technion City, Haifa 32000- Israel

Poster presentations

18272

A safer road with no accident: a case study*Olivier Moisan*¹, *Peggy Subirats*¹, *Eric Violette*¹, *Olivier Bisson*¹, *Philippe Chauvin*².¹: CETE Normandie-Centre

Ministère de l'Ecologie, du Développement Durable et de l'Energie

10, chemin de la poudrière - BP 90245 - 76121 Le Grand-Quevilly cedex- France

²: Département de Seine-Maritime - Service Sécurité Routière

Département de Seine-Maritime - Service Sécurité Routière

54 rue Dufay - BP73 76001 Rouen Cedex- France

18049

Safety impacts of auxiliary lanes at major/minor priority junctions outside built-up areas*Dániel Miletics*¹, *Csaba Koren*¹.¹: Széchenyi István University (SIU) -

Egyetem tér 1. 9026 Győr- Hungary

18014

Innovative concepts for smart road restraint systems (RRS) to provide greater safety for motorcyclists*Juan Alba*¹, *Mario Maza*¹, *Arturo Dávila*², *David Valladares*¹.¹: I3A-Universidad de Zaragoza (I3A-UNIZAR) -

Edificio I+D+i C/ Mariano Esquillor, s/n 50018 - Zaragoza (Spain)- Spain

²: Appius IDIADA (IDIADA) -

L'Albornar, PO Box 20 E-43710 Santa Oliva (Tarragona)- Spain

17965

The influence of an increasing variety of safety barriers on road safety*Janine Kuebler*¹.¹: Federal Highway Research Institute (BAST) -

Bruederstraße 53 51427 Bergisch Gladbach- Germany



Programme

Day 3: Wednesday April 16, 9:00-10:30

STS 37 - Heavy duty electric vehicles

Day 3: Wednesday April 16, 9:00-10:30

Chair: Loek van Seeters (DAF, The Netherlands)

Oral presentations

19810

Active Maglev guideway as electricity generating and distribution facility

Viktor Dzenzerskiy¹, Nikolay Khachapuridze¹, Sergey Plaksin¹, Vladimir Toldayev¹, Yuri Shkil¹

¹: Institute of Transport Systems and Technologies of the National Academy of Sciences of Ukraine
Pisargevskogo str., 5, Dnepropetrovsk- Ukraine

19597

SMARTV2G: Smart vehicle to grid interface

Patricio Peral¹, Sixto Santonja¹, Caterina Tormo¹

¹: Energy Technological Institute (ITE) -
Juan de la cierva, 24. Parque tecnológico de Valencia. Paterna- Spain

18322

Conversion of electromagnetic pollution present in the railway environment into electrical energy

Marc Heddebaut¹, Virginie Deniau¹, Bogdan Vulturescu¹, Jean Rioult¹, Jean-Pierre Ghys¹

¹: Université Lille Nord de France, Lille, France IFSTTAR, COSYS, LEOST
IFSTTAR
Villeneuve d'Ascq- France

18298

Energy storage system studies for heavy duty hybrid electric vehicles in the EC HCV project

Mario Conte¹, Francesco Vellucci¹, Massimo Ceraolo², Peter Daemon³, Giorgio Mantovani⁴, Christian Niklas⁵, Sophie Tintignac⁶, Giancarlo Trotti⁷

¹: Italian Agency for New Technologies, Energy and Economic Sustainable Development (ENEA) -
Via Anguillarese, 301 00123 Roma- Italy
²: University of Pisa, Department of Engineering of Energy, Systems, Territory and Construction
Pisa- Italy
³: Magna Steyr
Graz- Austria
⁴: Altra S.p.A
Genova- Italy
⁵: AIT-Austrian Institute of Technology
Wien- Austria
⁶: Volvo Group Trucks Technology, Advanced Technology and Research
Gothenburg- Sweden
⁷: DimacRed
Milan- Italy

17975

Large scale EV charge scheduling under contractual power constraints: a priority rule-based semi-online algorithm

Pierre Blanchart¹, Marine Depecker-Quéchon¹, Cédric Auliac¹

¹: Laboratoire Information, Modèles, Apprentissage
CEA, LIST
Saclay 91191 Gif-sur-Yvette cedex- France

Poster presentations

20054

eM-VRP: A new class of Vehicle Routing Problem based on a new concept of modular electric vehicle

Mohammed Ait Ouahmed¹, Aggoune-Mtalaa Wassila¹, Zineb Habbas², Djamel Khadraoui¹

¹: Centre de Recherche Public Henri Tudor Headquarters (CRP Henri Tudor) -
29 Avenue John F. Kennedy, 1855 LUXEMBOURG- Luxembourg
²: Laboratoire d'Informatique Théorique et Appliquée (LITA) -
Université Paul Verlaine - Metz
Université Paul Verlaine -Metz Île du Saulcy 57045 METZ CEDEX 1- France

19962

Alternative drivetrains in public transport – potentials of hybrid buses regarding exhaust and noise emissions

Jan Hammer¹, Kai Scholz-Starke²

¹: TÜV NORD Mobilität
Adlerstr. 7 45307 Essen- Germany
²: Institut für Kraftfahrzeuge RWTH Aachen University (ika)
Steinbachstr. 7 52074 Aachen- Germany

19900

Energy efficiency in railways: applying the lessons learned from the development of electromobility to diesel rail vehicles

Paul Batty¹, Roberto Palacin¹, Arturo Gonzalez Gil¹, Jonathan Powell¹

¹: NewRail -
School of Mechanical and Systems Engineering Newcastle University Stephenson Building Newcastle upon Tyne NE1 7RU United Kingdom.- United Kingdom

19625

Full scale test on prefabricated slabs for electrical supply by induction of urban transport systems

Pierre Hornych¹, Mai-Lan Nguyen¹, Jean-Pierre Kerzreho¹, Sergio Perez²

¹: IFSTTAR / département MAST / LAMES (IFSTTAR) -
IFSTTAR
Centre de Nantes Route de Bouaye CS4 44341 Bouguenais CEDEX- France
²: BOMBARDIER TRANSPORTATION -
Neustadter Strasse 62 Mannheim- Germany

18474

Hybrids – a step on the way to full electric buses? Results of involving end users in the European RTD project 'Hybrid Heavy Duty Vehicles'

Michael Glotz-Richter^{1,2}

¹: City of Bremen (FHB) -
Senator für Umwelt, Bau und Verkehr Ansgaritorstr. 2 28195 Bremen- Germany
²: City of Bremen -
Senator für Umwelt, Bau und Verkehr Ansgaritorstr. 2 28195 Bremen- Germany

18114

Electric vehicle charging stations allocation models

*Fouad Baouche*¹, *Romain Billot*¹, *Nour-Eddin El Faouzi*¹, *Rochdi Trigui*²,

¹: Laboratoire d'Ingénierie Circulation Transport (LICIT) -
École Nationale des Travaux Publics de l'État ENTPE, Université de Lyon, IFSTTAR
25 Avenue François Mitterrand, 69675 Bron Cedex- France

²: IFSTTAR
IFSTTAR
Bron- France



STS 38 - Eco-driving**Day 3: Wednesday April 16, 9:00-10:30**

Chair: Zisis Samaras (AUTH, Greece)

Oral presentations

19893

A study on co-modality and eco-driving mobility*Sven Maerivoet¹, Lars Akkermans², Kristof Carlier¹, Muriel Desaegher¹*

- ¹: Transport & Mobility Leuven (TML) -
Diestsesteenweg 57 3010 Kessel-Lo (Leuven)- Belgium
²: Toyota Motor Europe (BELGIUM) (TME)
Bourgetlaan 60 1140 Brussel- Belgium

19868

Traffic models enhancements for properly assess environmental impacts of ITS/ICT systems: generalities and eco-driving example*Eugenio Morello¹, Silvana Toffolo¹, Giorgio Magra¹*

- ¹: IVECO S.p.A. (IVECO) -
via Puglia 35, 10156 Torino- Italy

19862

Assessment of human machine interface concepts for green driving support systems*Philipp Seewald¹, Johanna Josten¹, Adrian Zlocki², Jan Loewenau³, Lutz Eckstein¹*

- ¹: Institute of Automotive Engineering RWTH Aachen University (ika) -
Steinbachstr. 7, 52074 Aachen- Germany
²: Forschungsgesellschaft Kraftfahrwesen Aachen (fka) -
Steinbachstr. 7, 52074 Aachen- Germany
³: BMW Research & Development -
Hanauer Straße 46 80992 Munich- Germany

18451

Eco-driving in a public transport context. Experiences from a field trial.*Helena Strömberg¹, Marianne Karlsson¹*

- ¹: Design & Human Factors, Chalmers University of Technology (Chalmers) -
Chalmers University of Technology SE-412 96 Gothenburg Sweden- Sweden

17545

ICT measures to reduce CO2 emissions in metropolitan areas. The case study of Madrid*Alvaro Garcia-Castro¹, Andres Monzon², Cristina Valdes³*

- ¹: Transport Research Centre. Universidad Politecnica de Madrid (TRANSyT-UPM) -
Centro de Investigacion del Transporte. Escuela de Caminos, Canales y Puertos Profesor Aranguren s/n 28040 Madrid (Spain)- Spain
²: Transport Research Centre. Universidad Politecnica de Madrid (TRANSyT-UPM) -
ETSI Caminos, Canales y Puertos. Avda. Profesor Aranguren s/n. 28040 Madrid- Spain
³: Transport Research Centre. Universidad Politecnica de Madrid (TRANSyT-UPM) -
ETSI Caminos, Canales y Puertos. Avda. Profesor Aranguren s/n. 28040 Madrid- Spain

Poster presentations

19857

Development of an ecodriving assistance application for nomadic devices performing real-time and post trip coaching for road vehicles*Olivier Orfila¹, Guillaume Saint Pierre¹, Mickaël Messias¹, Judicaël Abecassis¹, Pablo Mejuto², Pablo Lopez²*

- ¹: Laboratoire sur les Interactions Véhicules-Infrastructure-Conducteurs (IFSTTAR/COSYS/LMIC) -
IFSTTAR
77, rue des Chantiers - 78000 Versailles- France
²: Centro Tecnológico de Automoción de Galicia (CTAG) -
CTAG Polígono Industrial A Granxa Calle A, parcelas 249-250 E-36400 Porriño (Pontevedra) Spain- Spain

17990

Eco-driving for clean vehicles - optimise energy use for trams and e-buses*Wolfgang Backhaus¹*

- ¹: Rupprecht Consult - Forschung und Beratung GmbH (Rupprecht Consult) -
Clever Str. 13 - 15 50668 Köln (Cologne)- Germany



STS 39 - Engines and powertrains**Day 3: Wednesday April 16, 9:00-10:30**

Chair: Josef Affenzeller (ERTRAC/AVL, Austria)

Oral presentations

20165
Modelling the low-load performance of an advanced compression ignition engine running on European market gasoline

*Roger Cracknell*¹, *David Rickeard*², *Heather Hamje*², *Kenneth Rose*², *Kai Deppenkemper*³, *Barbara Graziano*⁴, *Karl Heufer*⁵, *Hans Rohs*³.

¹: Shell Global Solutions
 Chester- United Kingdom

²: CONCAWE -

Boulevard du Souverain 165 1160 Brussels- Belgium

³: RWTH Aachen University

⁴: RWTH Aachen University -

Templergraben 55 52056 Aachen- Germany

⁵: FEV GmbH

Aachen- Germany

20068
Technical issues of PM removal from ship diesel engine exhausts

*Anatol Jaworek*¹, *Michal Szudyga*², *Andrzej Krupa*¹, *Teresa Antes*³, *Claudia Carotenuto*⁴, *Francesco Di Natale*⁴, *Wamadeva Balachandran*⁵, *Donald Gregory*⁶, *Michael Jackson*⁷.

¹: Institute of Fluid-Flow Machinery, Polish Academy of Sciences (IMPPAN)

ul. Fiszerka 14, 80-231 Gdansk- Poland

²: Rafako S.A, Research and Development Office, ESP Division (RAFAKO)

Górnośląska str. 3A, Pszczyna- Poland

³: Rafako S.A, Research and Development Office, ESP Division (RAFAKO)

Górnośląska str. 3A, Pszczyna,- Poland

⁴: University of Naples Federico II, Department of Chemical Engineering (UNINA)

Corso Umberto I 40, Napoli 80-138- Italy

⁵: Brunel University, Department of Electronic and Computer Engineering (BRUNEL)

Room: H244, Howell Building, Uxbridge UB8 3PH- United Kingdom

⁶: Sustainable Maritime Solutions LTD (SMS)

Island Wraysbury 8, Staines, TW19 5AS- United Kingdom

⁷: iXscient Ltd (iXscient)

Popes Grove 76, Twickenham Middlesex TW1 4JX- United Kingdom

19934
Ways to reduce CO2 emissions from on-highway, heavy duty diesel engines

*Chris Such*¹, *Andy Noble*².

¹: Ricardo UK Ltd -

Bridge Works, Shoreham-by-Sea, West Sussex, BN43 5FG, England- United Kingdom

²: Ricardo UK, Ltd

18017
HERCULES-1: The long term (2004-2014) R&D programme on large engine technologies for ships.

*Nikolaos Kyrtatos*¹.

¹: National Technical University of Athens (NTUA) -

9, Iroon Politechniou Street Zografou Campus ATHENS15773 GREECE- Greece

17783
Development of predictive vehicle & drivetrain operating strategies based upon advanced information & communication technologies

*Stephen Jones*¹, *Arno Huss*¹, *Emre Kural*¹, *Alexander Massoner*¹, *Edoardo Morra*¹, *Christa Simon*¹, *Reinhard Tatschl*¹, *Christian Vock*¹.

¹: AVL List GmbH (AVL) -

Hans List Platz 1, A-8020 Graz- Austria

Poster presentations

20029
FEV HiFORS injector with continuous rate shaping: influence on mixture formation and combustion process

*Paul Grzeschik*¹, *Hermann-Josef Laumen*², *Udo Schlemmer-Kelling*².

¹: Institute for Combustion Engines, RWTH Aachen University (VKA) -

Schinkelstraße 8 52062 Aachen- Germany

²: FEV GmbH -

Neuenhofstraße 181 52078 Aachen- Germany

19956
Potential for reduction of fuel consumption to meet future CO2 emission targets

*Vinod Rajamani*¹, *Markus Schoenen*¹, *Yves Rosefort*¹, *Peter Heuser*¹, *Thorsten Schnorbus*¹.

¹: FEV GmbH

Neuenhofstrasse 181, Aachen- Germany

19758
Technical solutions for arctic engine

*Paolo Calcinotto*¹, *Luciano Perinel*¹.

¹: Wärtsilä Italia S.p.A. (R&D, 4-Stroke DAE)

Bagnoli della Rosandra, 334 San Dorligo della Valle 34018 Trieste- Italy

18454
Impacts of inadequate engine maintenance on diesel exhaust emissions

*Didier Pillot*¹, *Agnès Legrand-Tiger*², *Elisse Thirapounho*², *Patrick Tassel*¹, *Pascal Perret*¹.

¹: Laboratoire Transport et Environnement (IFSTTAR AME / LTE) -

IFSTTAR

25 Avenue François Mitterrand, 69675 Bron Cedex- France

²: AIR-be

AIR-be

18 Villa Marguerite, 92130 Issy les Moulineaux- France

18200
Early-stage assessment of innovations for vehicle powertrains using Design Assistance System

*Sergii Bogomolov*¹, *Jan Macek*¹, *Antonin Mikulec*¹, *Vit Dolecek*¹, *Michael Valasek*¹.

¹: Czech Technical University in Prague (CTU) -

Technicka 4, 166 07, Prague- Czech Republic

17814
A scalable simulation methodology for assessment of SI-engine performance and fuel consumption on component, subsystem and system level

*Reinhard Tatschl*¹, *Christoph Pötsch*¹, *Peter Priesching*¹, *Henrik Schuemie*¹, *Oldrich Vitek*², *Jan Macek*².

¹: AVL List GmbH (AVL) -

Hans List Platz 1, A-8020 Graz- Austria
2: Czech Technical University (CVUT) -
Thakurova 2077/7, 160 00 Praha 6-Dejvice- Czech Republic



STS 40 - Logistics: terminals and ICT**Day 3: Wednesday April 16, 9:00-10:30**

Chair: Joost de Bock (EC/R&I)

Oral presentations

20142

Freight distribution based on delivery area booking*Bertrand David*¹.

¹: Laboratoire d'Informatique en Images et Systèmes d'Information (LIRIS) - Institut National des Sciences Appliquées (INSA) - Lyon, Université Lumière - Lyon II, Université Claude Bernard - Lyon I, CNRS : UMR5205, Ecole Centrale de Lyon Ecole Centrale de Lyon 69134 Ecully, France- France

19974

The application of 'just in time' to reverse logistics to increase network efficiencies and sustainability factors: A feasibility study from the UK multiple retail sector*Michael Morley*¹, *David Oglethorpe*², *Graeme Heron*³.

¹: Newcastle Business School - Newcastle Business School City Campus East Newcastle upon Tyne NE1 8ST- United Kingdom
²: University of Sheffield - The University of Sheffield Western Bank Sheffield S10 2TN UK- United Kingdom
³: Newcastle Business School, University of Northumbria. (NBS) - Newcastle Business School City Campus East Newcastle upon Tyne NE1 8ST- United Kingdom

18051

Evaluating strategies to improve access to marine container terminals and streamline gate operations*Maria Boile*¹, *Eleftherios Sdoukopoulos*¹, *Afroditi Anagnostopoulou*¹.

¹: Centre for Research and Technology Hellas / Hellenic Institute of Transport (CERTH/HIT) Agialeias 52, 15125, Marousi, Athens- Greece

17634

A dynamic pricing model for time slot management in attended home delivery logistics*Cheng-Chieh (Frank) Chen*¹, *Yu-Jie (Cindy) Chen*¹.

¹: Graduate Institute of Logistics Management, National Dong Hwa University (NDHU) - No. 1, Sec. 2, Da Hsueh Rd., Shoufeng, Hualien 97401, Taiwan, R.O.C.- Taiwan

16927

Spatial patterns of food retailers and consequences for logistics A comparison between France and Germany*Saskia Seidel*¹, *Corinne Blanquart*², *Verena Ehrler*³, *Nico Müller*⁴.

¹: German Aerospace Center, Institute of Transport Research (DLR VF) - Rutherfordstr. 2 12489 Berlin- Germany
²: IFSTTAR Systèmes Productifs, Logistique, Organisation des Transports, et Travail (IFSTTAR SPLOTT) - IFSTTAR Lille - Villeneuve-d'Ascq 20, rue Élisée Reclus BP 70317 F-59666 VILLENEUVE D'ASCQ CEDEX- France
³: German Aerospace Center Institute of Transport Research (DLR VF) - Rutherfordstr. 2 12489 Berlin- Germany
⁴: Hochschule Neubrandenburg

Poster presentations

20133

Development of a holistic approach fostering innovation uptake in the logistics area*Jannicke Baalsrud Hauge*¹, *Kostas Kalaboukas*², *Kahina Hamadache*², *Paola Lupieri*³, *Margherita Forcolin*³, *Hans Westerheim*⁴, *Nils Meyer-Larsen*⁵, *Alberto Capella*⁶, *Gunnar Stefansson*⁷, *Violeta Roso*⁷.

¹: Bremer Institut für Produktion und Logistik (BIBA) - Hochschulring 20, 28359 Bremen- Germany
²: SingularLogic
SingularLogic S.A. European Department, Nea Iona, Greece- Greece
³: Insiel SpA (Insiel SpA) - Insiel SpA, via San Francesco 43, 34133 Trieste (Italy- Italy)
⁴: SINTEF - NO-7465 Trondheim Norway- Norway
⁵: Institute of Shipping Economics and Logistics (ISL) - Universitätsallee 11 - 13 28359 Bremen- Germany
⁶: Instituto Tecnológico de Aragon (ITA) - María de Luna, nº8 (Pol. Actur) 50018 Zaragoza- Spain
⁷: School of Technology Management and Economics, Chalmers University of Technology. (Chalmers) Vera Sandbergs gt.8 Göteborg- Sweden

19766

SHIFTER project re-evaluates nodal points as traffic multipliers. Transfer technologies are paramount in transport chain optimisation.*Franco Castagnetti*¹.

¹: NEWOPERA Aisbl (NEWO) - Rue D'Idalie 9-13 B1050 Brussels Belgium- Belgium

19491

Enhancing the ramp-up of a new contract logistics business by developing a workers requirements matrix*Katharina Winter*¹, *Christiane Geiger*¹, *Uwe Clausen*¹.

¹: TU Dortmund University, Institute of Transport Logistics (ITL) - Leonhard-Euler-Str. 2 44227 Dortmund- Germany

18294

Systematic approach to functional requirements for future freight terminals*Stefano Ricci*¹.

¹: Sapienza Università di Roma - DICEA - Area Trasporti - Piazzale Aldo Moro 5, 00185 Rome- Italy



STS 41 - ITS, implementation, assessment and impacts**Day 3: Wednesday April 16, 9:00-10:30**

Chair: Peter Sweatman (UMTRI/ITS America, United States)

Oral presentations

19737

From traffic signal control systems to automated driving, a technical and historical review*Jean-Marc Blosseville*¹, *Mathieu Flonneau*²,¹: Institut Français des Sciences et Technologies du Transport et de l'Aménagement des réseaux (IFSTTAR) - institut français des sciences

25 Allée des Marronniers- France

²: Université Paris I Panthéon-Sorbonne IRICE-CRHI (Paris I Sorbonne)

Université Paris I - Panthéon-Sorbonne

17 rue Victor Cousin, 75005 Paris- France

19515

SYNCRO, an innovative public procurement of an advanced data gathering system for interurban road based on ITS technologies*Jean-Christophe Maisonobe*¹, *Jean-Daniel Demond*¹, *Giannicola Marengo*², *Dolores Adamski*³, *Diego Albesano*⁴, *Olivier Latouille*¹,¹: Conseil general de l'Isere -

Conseil general de l'Isere

15 boulevard joseph vallier 38029 Grenoble cedex 2- France

²: Provincia di Torino

Corso Inghilterra, 7/9 - 10138 TORINO- Italy

³: Chambre de Commerce et d'Industrie de Grenoble (CCI Grenoble)

CCI Grenoble

GREX World Trade Center BP1509 38025 Grenoble cedex 1- France

⁴: Camera di Commercio industria artigianato e agricoltura di Torino (CCIAA di Torino)

Via San Francesco da Paola, 24 10123 Torino- Italy

18179

The impact of navigation support and traffic information on distance keeping behaviour*Aikaterini Toulou*¹, *Evangelos Bekiaris*², *Evangelia Gaitanidou*²,¹: Centre for Research and Technology Hellas/Hellenic Institute of Transport (CERTH/HIT) -

6th km Charilaou-Thermis, 57001, Thessaloniki- Greece

²: Centre for Research and Technology Hellas/Hellenic Institute of Transport (CERTH/HIT) -

6th km Charilaou-Thermis, 57001, Thessaloniki- Greece

17955

Sensor City Mobility - using sensory data for advanced mobility information services*Jan Burgmeijer*¹, *Diana Vonk-Noordegraaf*¹, *Gerdien Klunder*¹,¹: TNO (TNO) -

van Mourik Broekmanweg 6 2628 XE Delft- Netherlands

17892

Tailoring a reference model for C-ITS architectures and using a DATEX II profile to communicate traffic signal information*Jörg Freudenstein*¹, *Ian Cornwell*²,¹: AlbrechtConsult GmbH

Theaterstr. 24 52062 Aachen- Germany

²: Mott MacDonald Ltd.

1 Atlantic Quay Broomielaw Glasgow G2 8JB- United Kingdom

Poster presentations

19003

ITS-systems as metaphors for the idealized planner*Björn Hasselgren*¹,¹: Royal Institute of Technology (KTH) -

KTH Royal Institute of Technology SE-100 44 Stockholm Sweden- Sweden

18447

The Amitran project contribution to the validation of methodologies for ITS assessment*Txomin Rodríguez*¹, *Arkaitz Urquiza*¹, *Gerdien Klunder*²,¹: Tecnalia Research & Innovation (TECNALIA) -

Parque Tecnológico de Zamudio, ed. 202, Zamudio (Bizkaia)- Spain

²: Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek (TNO) -

P.O. Box 49 2600 AA Delft- Netherlands

18283

ITS development and industry status in Taiwan from supply chain point of view*Shou-Ren Hu*¹, *Chih-Peng Chu*², *Chung-Shun Yang*³, *Yi-Fen Wen*⁴, *Chia-Ying Wu*⁴,¹: Department of Transportation & Communication Management Science (National Cheng Kung University) -

No.1, University Road, Tainan City 701, Taiwan (R.O.C.)- Taiwan

²: Department of Business Administration (National Dong Hwa University) -

No. 1, Sec. 2, Da Hsueh Rd., Shoufeng, Hualien 97401, Taiwan, R.O.C.- Taiwan

³: Institute For Information Industry

13F.,No.133, Sec.4, Minsheng E Rd., Taipei City 105, Taiwan, R.O.C.- Taiwan

⁴: University of Leeds

Leeds LS2 9JT- United Kingdom

18203

The impacts of cooperative traffic systems on safety, environment and travel times: A literature survey*Isabela Mocanu*¹, *Philippe Nitsche*¹, *Kerry Malone*²,¹: AIT Austrian Institute of Technology -

Giefinggasse 2, 1210 Vienna- Austria

²: TNO -

Van Mourik Broekmanweg 6 2600AA Delft- Netherlands

18159

Impact evaluation of traffic performance and road safety: a case study on an urban motorway in France*Simon Cohen*¹, *Zoi Christoforou*²,¹: Génie des Réseaux de Transport Terrestres et Informatique Avancée (IFSTTAR/GRETTIA) -

Université Paris-Est Créteil Val-de-Marne (UPEC),IFSTTAR

Le Descartes 2, 2 rue de la Butte Verte, 93166 Noisy le Grand Cedex- France

²: Ecole des Ponts ParisTech (ENPC)

Ecole des Ponts-ParisTech

6 et 8 av. Blaise Pascal, Cité Descartes, Champs-sur-Marne, 77455 Marne-la-Vallée cedex 2- France

17811
Opticities: A Project for an efficient urban mobility, though the development of innovative ITS and public/private cooperation

*Jean Coldefy*¹

¹: Grand Lyon -
Public authority
20 rue du lac BP3103 69399 Lyon cedex 03- France

17788
Car drivers intelligent transportation systems: self reported use and attitudes

*Marko Polic*¹, *Virpi Britschgi*², *Sonja Forward*³

¹: Department of Psychology, Faculty of Arts, University of Ljubljana (UL FF)
Askerceva 2 1000 Ljubljana- Slovenia

²: VTT
Espoo- Finland

³: VTT
Linköping- Sweden



STS 42 - Pavement performance and durability**Day 3: Wednesday April 16, 9:00-10:30**

Chair: Andr,-Gilles Dumont (EPFL, Switzerland)

Oral presentations

20163

The poro-elastic road surface (PERS): the 10 dB reducing pavement within reach?*Luc Goubert¹, Hans Bendtsen², Anneleen Bergiers¹, Björn Kalman³, Darko Kokot⁴.*¹ Belgian Road Research Centre (BRRC) -
Woluwedal 42, 1200 Brussels- Belgium² Danish Road Directorate (DRD)
Flong- Denmark³ Swedish National Road and Transport Research Institute (VTI)
Linköping- Sweden⁴ Slovenian National Building and Civil Engineering Institute (ZAG)
Ljubljana- Slovenia

19448

Long term monitoring of performance characteristics of the pavement test track*Audrius Vaitkus¹, Donatas Čygas², Alfredas Laurinavičius², Viktoras Vorobjovas¹, Laura Žiliūtė¹.*¹ Road Research Institute Vilnius Gediminas technical university (VGTU RRI) -
Linkmenų str. 28, LT-08217 Vilnius- Lithuania² Department of Roads Vilnius Gediminas technical university (VGTU DR) -
Saulėtekio ave. 11, LT -10223 Vilnius- Lithuania

17952

Evaluation of load-carrying capacity of asphalt superstructures from deflection measurements*Anh Duc Nguyen¹, Stephen Bald¹.*¹ Technische Universität Darmstadt -
30 D-64287 Darmstadt,- Germany

17899

Durable pothole repairs*Cliff Nicholls¹, Kathrin Kubanek², Carsten Karcher², Adewole Adesiyun³, Andreas Hartmann⁴, Aleksander Ipavec⁵, Jozef Komacka⁶, Erik Nielsen⁷.*¹ Transport Research Laboratory -
Crowthorne House Nine Mile Ride Wokingham Berkshire RG40 3GA- United Kingdom² Karlsruhe Institute of Technology (KIT) -
Karlsruhe Institute of Technology (KIT) Institute of Highway and Railroad Engineering Department Highway Construction Technology Otto-Ammann-Platz 1 76131 Karlsruhe 76128 Karlsruhe-
Germany³ Forum of European National Highway Research Laboratories -
Blvd. de la Woluwe 42 bte 3 B-1200 Brussels- Belgium⁴ University of Twente, Faculty of Engineering Technology, Department of Construction Management and Engineering
PO Box 217 7500 AE Enschede- Netherlands⁵ ZAG Slovenian National Building and Civil Engineering Institute Laboratory for Asphalt, Bitumen and Bitumen-based products
Dimiceva 12 SI-1000 Ljubljana- Slovenia⁶ University of Zilina, Department of Highway Engineering
Univerzitna 8215/1 010 26 Zilina- Slovakia⁷ Danish Road Directorate -
Guldalderen 12 DK-2640 Hedehusene- Denmark

17821

Impact of characteristics of asphalt concrete wearing courses on crack resistance at low temperatures*Marjan Tušar^{1,2}, Dejan Hribar³, Bernhard Hofko⁴.*¹ Slovenian National Building and Civil Engineering Institute (ZAG)
Dimičeva 12, 1000 Ljubljana- Slovenia² National Institute of Chemistry (KI)
Hajdrihova 19, 1000 Ljubljana- Slovenia³ Building and Civil Engineering Institute ZRMK Ljubljana⁴ Institute of Transportation, Research Centre of Road Engineering, Vienna University of Technology**Poster presentations**

19802

Modelling subjective condition data of asphalt surfaced urban pavements*Rayya Hassan¹, Oliver Lin², Amutha Thananjeyan².*¹ Swinburne University of Technology -
PO Box 218 Hawthorn, Victoria, 3122- Australia² VicRoads -
12 Lakeside Drive, Burwood East, Victoria, 3151- Australia

19469

Modelling of aging of low noise road surfaces*Gijsjan Van Blokland¹, Ronald Van Loon¹, Christiaan Tollenaar¹.*¹ M+P Consulting engineers (M+P) -
PO box 2094 NL-5260 CB Vught- Netherlands

18463

Project level pavement management optimization procedure combining optimal control theory and HDM-iv models*Jelena Cirilovic¹, Goran Mladenovic², Cesar Queiroz³.*¹ Institute IMS
Bulevar vojvode Misica 43, 11000 Belgrade- Serbia² University of Belgrade, Faculty of Civil Engineering
Bul. Kralja Aleksandra 73, 11000 Belgrade- Serbia³ Consultant, Roads and Transport Infrastructure, Former World Bank Highways Adviser
Washington DC- United States

17714

Performance prediction modelling of flexible pavement structures*Erlingsson Sigurdur¹, Abubeker Ahmed¹.*¹ Pavement Engineering VTI, The Swedish Road and Transport Research Institute
SE 581 95 Linköping- Sweden

STS 43 - Infrastructure for inland navigation**Day 3: Wednesday April 16, 9:00-10:30**

Chair: Michel Fastenbauer (Via Donau, Austria)

Oral presentations

19885

Multi-scale modeling approaches of inland navigation networks for their management in a global change context*Eric Duviella*¹, *Kludia Horváth*¹, *Lala Rajaoarisoa*¹, *Karine Chuquet*²¹: Mines Telecom - Mines Douai

Ecole des Mines de Douai

Département Informatique et Automatique 941, Rue Charles Bourseul, BP 10838 59508 Douai cedex- France

²: Voies Navigables de France

Voies Navigables de France

37 rue du Plat BP 725 59034 Lille Cedex- France

19850

Transformation of the Danube ports into logistics centers and their integration in the EU logistics network*Sanja Bojic*¹, *Milosav Georgijevic*¹, *Dejan Bracanov*²,¹: University of Novi Sad, Faculty of Technical Sciences

Trg Dositeja Obradovica 6, 21 000 Novi Sad- Serbia

²: University of Novi Sad, Faculty of Economics

Segedinski put 9- 11, 24000 Subotica- Serbia

18092

A new asset management approach for inland waterways*Markus Hoffmann*¹, *Katrin Haselbauer*¹, *Alexander Haberl*¹, *Ronald Blab*¹, *Thomas Hartl*², *Markus Simoner*², *Klaus Dieplinger*²¹: Technical University of Vienna (TU WIEN) -

Gusshausstraße 28/230/3 A-1040 Wien- Austria

²: Österreichische Wasserstraßen-Gesellschaft mbH (via donau) -

Donau-City-Straße 1 A-1220 Wien- Austria

17922

Move-IT - modernisation of the existing European IWT fleet*Johan Gille*¹, *Linette De Swart*¹,¹: Ecorys Nederland B.V. (Ecorys) -

PO Box 4175 3006 AD Rotterdam- Netherlands

Poster presentations

19792

Stimulus for SME innovations in inland navigation*Bas Van Bree*¹, *Peter Colon*¹,¹: Buck Consultants International (BCI) -

Kerkenbos 10-31, 6546 BB, Nijmegen- Netherlands

19122

3D Numerical simulation of convoy-generated waves and sediment transport in restricted waterways*Abdellatif Ouahsine*¹, *Sheng-Cheng Ji*¹, *Hassan Smaoui*², *Philippe Sergent*², *Nicolas Huybrechts*²,¹: Université de Technologie de Compiègne (UTC) -

Université de Technologie de Compiègne

Centre de recherches Royallieu BP 20529, 60206 Compiègne cedex, France- France

²: Centre d'Etudes Techniques Maritimes Et Fluviales (CETMEF) -

CETMEF

134, rue de Beauvais 60280 MARGNY LES COMPIEGNE- France

18251

Resilience of waterway systems – an explorative study of the American, Dutch and German waterway systems*Arjan Hijdra*^{2,1}, *Maarten Vlist Van Der*^{4,3}, *Jos Arts*^{2,5},²: University of Groningen (RUG) -

Faculteit Ruimtelijke Wetenschappen P.O.box 800 9700 AV Groningen the Netherlands- Netherlands

¹: Rijkswaterstaat, Ministry of Infrastructure & Environment (RWS) -

P.O. Box 20.000 3502 LA Utrecht, The Netherlands- Netherlands

⁴: Rijkswaterstaat, Ministry of Infrastructure & Environment (RWS) -

Zuiderwagenplein 2 8224 AD Lelystad Postbus 17 8200 AA Lelystad- Netherlands

³: Wageningen University (WUR) -

PO box 47 6700AA WAGENINGEN Visitors' Address Droevendaalsesteeg 3 6708PB WAGENINGEN- Netherlands

⁵: Rijkswaterstaat, Ministry of Infrastructure & Environment (RWS) -

Schoemakerstraat 97 2628 VK Delft Postbus 5044 2600 GA Delft- Netherlands



STS 44 - Infrastructure and mobility pricing, policy measures 10:30

Day 3: Wednesday April 16, 9:00-

Chair: Charles Raux (LET, France)

Oral presentations

20041

Evaluation of urban road transport pricing regimes

*Torsten Marnier*¹, *Matthias Klumpp*¹,

¹: FOM University, Institute for Logistics and Service Management (FOM ild) -
Leimkugelstraße 6 45141 Essen- Germany

18517

Valuing an option to abandon a PPP toll road project

*Marko Sudaric*¹, *Nevena Vajdic*², *Goran Mladenović*³, *Milos Bozovic*⁴,

¹: University of Novi Sad, Faculty of Sciences
Trg Dositeja Obradovica 3, 21000 Novi Sad- Serbia
²: University of Belgrade, Faculty of Civil Engineering (FCE UoB) -
Bul. kralja Aleksandra 73, 11000 Beograd- Serbia
³: University of Belgrade, Faculty of Civil Engineering (GRFBG) -
Bulevar kralja Aleksandra 73, Belgrade- Serbia
⁴: University of Belgrade, Faculty of Economics
Kamenicka 6, 11000 Belgrade- Serbia

17974

Assessment of the social and economic impacts of transport policy

*Jan Kiel*¹, *Hedi Maurer*¹, *Tobias Dennisen*², *Stephan Kritzinger*², *Michael Krail*³, *Wolfgang Schade*³, *Davide Fiorello*⁴, *Francesca Fermi*⁴,

¹: Panteia BV -
Bredewater 26 Zoetermeer- Netherlands
²: ProgTrans AG -
Henric Petri-Strasse 9 Basel- Switzerland
³: Fraunhofer Institute for Systems and Innovation (ISI) -
Breslauerstrasse 48 Karlsruhe- Germany
⁴: TRT TRASPORTI E TERRITORIO srl (TRT) -
Via Rutilia, 10/8 Milano- Italy

17824

Revealed preference off-street parking price elasticity

*Nada Milosavljevic*¹, *Jelena Simicevic*¹,

¹: University of Belgrade, Faculty of Transport and Traffic Engineering -
Vojvode Stepe 305, 11000 Belgrade- Serbia

17178

Supporting policy making in maritime transport by means of multi-actors multi-criteria analysis: a methodology developed for the Greek maritime transport system

*Eliza Gagatsi*¹, *George Giannopoulos*², *Georgia Aifandopoulou*²,

¹: Aristotle University of Thessaloniki (AUTH)
Thessaloniki, Greece- Greece
²: Centre for Research & Technology Hellas-Hellenic Institute of Transport (CERTH) -
6th Klm. Charilaou - Thermi Road P.O. BOX 60361 GR - 570 01 Thermi, Thessaloniki GREECE- Greece

Poster presentations

19895

A behavioural experiment on intelligent road user charging

*Sven Maerivoet*¹, *Eef Delhaye*¹, *Friedl Maertens*²,

¹: Transport & Mobility Leuven (TML) -
Diestsesteenweg 57 3010 Kessel-Lo (Leuven)- Belgium
²: IBM Belgium (IBM) -
Bourgetlaan 42 1130 Brussel- Belgium

19422

Developments in tolling by weight

*Christoph Gilgen*¹, *David Cornu*¹,

¹: Kistler Instrumente AG -
Eulachstrasse 22 8408 Winterthur- Switzerland

18039

Organizational and economic mechanism of electronic system implementation for collecting tolls from heavy vehicles on motor roads

*Taras Pechonchyk*¹,

¹: State Road Research Institute named after M.P.Shulgin (DNDI)
Peremogy Avenue, 57, Kyiv, 03113- Ukraine



STS 45 - System safety, control and detection**Day 3: Wednesday April 16, 9:00-10:30**

Chair: Andrew Parkes (TRL, United Kingdom)

Oral presentations

20105

INTERAIL - Towards a safer and reliable European Railway*Nuno Pedrosa*^{1,.}^{1:} ISQ (ISQ) -

TAGUSPARK-OEIRAS Av. Prof. Dr. Cavaco Silva, 33 2740-120 PORTO SALVO PORTUGAL- Portugal

19846

An ontology for ERTMS/ETCS*Olimpia Hoinaru*^{1,.} *Christophe Gransart*^{1,.} *Georges Mariano*^{1,} *Etienne Lemaire*^{1,}^{1:} IFSTTAR

IFSTTAR

20 rue Elisee Reclus BP 70317 59666 Villeneuve d'Ascq CEDEX France- France

19584

What mitigation technique should be implemented to reduce freight vehicle derailments by 2050?*Dewan Islam*^{1,} *Konstantina Laparidou*^{2,} *Arnaud Burgess*^{2,}^{1:} Freight Logistics Research Group, NewRail - Centre for Railway Research, University of Newcastle Upon Tyne -

University of Newcastle Upon Tyne, Stephenson Building, NE1 7RU, UK; Email: dewan.islam@newcastle.ac.uk; Telephone +441912223972 +441912223972.- United Kingdom

^{2:} PANTEIA

Bredewater 26, P.O. Box 7001, 2701 AA Zoetermeer- Netherlands

18501

Overview of freight train derailments in the EU. Causes, impacts, prevention and mitigation measures*Cristian Ulianov*^{1,.} *François Defossez*^{2,} *Gordana Vasić Franklin*^{1,} *Mark Robinson*^{1,}^{1:} Newcastle Centre for Railway Research, Newcastle University (NewRail) -

Stephenson Building, Claremont Road, Newcastle University Newcastle upon Tyne NE1 7RU- United Kingdom

^{2:} MERMEC Group S.p.A. (MERMEC)

mermec group

Technopôle de Château-Gombert Les Baronnie Bat. A, rue Paul Langevin - 13013 Marseille- France

18435

Modelling and verification methodology for control systems*Nesrine Darragi*^{1,}^{1:} Évaluation des Systèmes de Transports Automatisés et de leur Sécurité (IFSTTAR/ESTAS) -

PRES Université Lille Nord de France, IFSTTAR

20 rue Elisée Reclus, BP317, 59666 Villeneuve d'Ascq Cedex- France

Poster presentations

19658

Development of innovative safety performance indicators from naturalistic driving data*Arnaud Bonnard*^{1,.} *Myriam Hugot*^{1,} *Corinne Brusque*^{1,}^{1:} Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux (IFSTTAR) -

PRES Université Paris-Est, IFSTTAR

Boulevard Newton, Champs sur Marne, F-77447 Marne la Vallée Cedex 2- France

19619

All-day moving objects detection for security at level crossing*Julian Murgia*^{1,} *Cyril Meurie*^{2,.} *Yassine Ruichek*^{1,}^{1:} IRTES-SeT, UTBM,

Institut de Recherche sur les Transports, l'Energie et la Société - IRTES

13 rue Ernest Thierry Mieg, 90010 BELFORT CEDEX- France

^{2:} Univ Lille Nord de France, IFSTTAR, LEOST

IFSTTAR

20 rue Elisée Reclus, BP70317, 59666 VILLENEUVE D'ASCQ CEDEX- France

19525

Virtual lab based on co-simulation to include impairments of wireless telecommunication such as GSM-R in the evaluation of ERTMS*Patrick Sondi*^{1,.} *Marion Berbineau*^{2,} *Mohamed Kassab*^{2,} *Martine Wahl*^{2,} *Christophe Gransart*^{2,} *Etienne Lemaire*^{3,} *Georges Mariano*^{3,} *Mohamed Ghazel*^{3,} *Vincent Benard*^{3,} *Walter Schön*^{4,}^{1:} Laboratoire d'Informatique Signal et Image de la Côte d'Opale (LISIC) -

Université du Littoral Côte d'Opale : EA4491

Maison de la Recherche Blaise Pascal 50, rue Ferdinand Buisson BP 719 62228 Calais Cedex- France

^{2:} Laboratoire Électronique Ondes et Signaux pour les Transports (IFSTTAR/LEOST) -

PRES Université Lille Nord de France, IFSTTAR

20 rue Elisée Reclus, BP317, 59666 Villeneuve d'Ascq Cedex- France

^{3:} Évaluation des Systèmes de Transports Automatisés et de leur Sécurité (IFSTTAR/ESTAS) -

PRES Université Lille Nord de France, IFSTTAR

20 rue Elisée Reclus, BP317, 59666 Villeneuve d'Ascq Cedex- France

^{4:} Heuristique et Diagnostic des Systèmes Complexes (HEUDIASYC) -

Université de Technologie de Compiègne, CNRS : UMR7253

Université de Technologie de Compiègne - Centre de Recherches de Royallieu - BP 20529 - 60205 COMPIEGNE cedex- France

18503

Study of the implementation of ERTMS with respect to French national “non on board rules” using a collaborative methodology based on formal methods and simulation.*Simon Collart-Dutilleul*^{1,} *Philippe Bon*^{1,} *El Miloudi E Lkoursi*^{1,} *Etienne Lemaire*^{1,}^{1:} Université. Lille Nord de France, France IFSTTAR-ESTAS

IFSTTAR

Villeneuve d'Ascq- France

18303

Prevention wrong way driving on highways with a new road sign: a field experiment*Catherine Chauvineau*^{1,}^{1:} Centre d'Etudes et d'Expertise sur les Risques, l'Environnement, la Mobilité et l'Aménagement (CEREMA) - Direction Territoriale Ouest (CETE Ouest)

Centre d'Etudes Techniques de l'Équipement de l'Ouest

Centre d'Etudes et d'Expertise sur les Risques, l'Environnement, la Mobilité et l'Aménagement - Direction Territoriale Ouest MAN 9 Rue Viviani BP46223 44262 NANTES Cedex 2- France-

France

18101

Safety component-based approach and its application to ERTMS/ETCS on-board train control system*Marc Sango*^{1,2,3,.} *Christophe Gransart*^{2,3,.} *Laurence Duchien*^{1,2,.}

¹: INRIA
INRIA
INRIA Lille - Nord Europe- France
²: Université Lille Nord de France
Univ Lille Nord de France
Université Lille Nord de France- France
³: IFSTTAR
IFSTTAR
COSYS/LEOST, Villeneuve d'Ascq- France

17658

The analysis of design, operation and maintenance options to provide a fault-tolerant railway system

*Claudia Fecarotti*¹, *John Andrews*¹, *Rasa Remenyte - Prescott*¹,

¹: Nottingham Transportation Engineering Centre (NTEC), The University of Nottingham
Pavement Research Building, University of Nottingham, University Park, Nottingham NG7 2RD- United Kingdom





Programme

Day 3: Wednesday April 16, 14:00-15:30

STS 46 - Liquid and gaseous fuels

Day 3: Wednesday April 16, 14:00-15:30

Chair: Kenneth Rose (ExxonMobil, United States)

Oral presentations

19950

Biomethane in urban bus transport in Poland

*Wojciech Gis*¹, *Jerzy Waskiewicz*¹, *Maciej Gis*²

¹ Motor Transport Institute (ITS)

Jagiellońska Street 80 03-301 Warsaw- Poland

² Warsaw University of Technology The Faculty of Automotive and Construction Machinery Engineering
Narbutta Street 80 02-524 Warsaw- Poland

18502

The consequences of increasing fuel prices on car travel and household budgets

Richard Grimal^{1,2}

¹ French Technical Department of Studies on Roads and Transport (SETRA)

French Technical Department of Studies on Roads and Transport

110 rue de Paris 77171 Sourdon - France- France

² French Institute of Science and Technology for Transport, Development and Networks (IFSTTAR) -

French Institute of Science and Technology for Transport, Development and Networks

14-20 Bld Newton, B524 Cité Descartes, Champs-Sur-Marne, F-77447 MARNE-LA-VALLÉE Cedex 2- France

18319

The impact of road geometry and surface roughness on fuel consumption for Swedish logging trucks

*Gunnar Svenson*¹, *Dag Fjeld*²

¹ The Forestry Research Institute of Sweden (Skogforsk) -

Uppsala Science Park S-75183 Uppsala- Sweden

² Swedish University of Agricultural Sciences (SLU) -

S-901 83 Umeå- Sweden

17795

Accessibility analysis as an urban planning tool: Gas station location

*Diego Escobar*¹, *Carlos Cadena gaitán*², *Francisco Garcia*¹

¹ National University of Colombia - Department of Civil Engineering (UNAL) -

Carrera 27 #64-60, Manizales, Caldas- Colombia

² United Nations University – School of Governance (UNUMERIT) -

KeizerKarelplein19,6211TCMaastricht- Netherlands

16581

The Development of an innovative on-board CNG storage system for methane-fuelled cars conducted within the FP7 EU project "InGAS"

*David Storer*¹, *Giorgio Menzato*¹, *Volker Strubel*², *Michael Kleschinski*², *Bernhard Kiener*³, *Jerzy Kaleta*⁴, *Pawel Gasior*⁴, *Wojciech Blazejewski*⁴, *Georg Mair*⁵, *Christian Gregor*⁵

¹ Centro Ricerche Fiat (CRF) -

Strada Torino 50, 10043 Orbassano (TO)- Italy

² xperion Energy & Environment GmbH (xperion)

Kassel- Germany

³ Ventrex (Ventrex)

Graz- Austria

⁴ Wroclaw University of Technology (WRUT)

Wroclaw- Poland

⁵ BAM Bundesanstalt für Materialforschung (BAM)

Unter den Eichen 87;12205;Berlin- Germany

Poster presentations

20308

Statistical evaluation of slope's effect on real emissions and fuel consumption performed with different cars in Naples urban area

*Livia Della Ragione*¹, *Giovanni Meccariello*¹, *Maria Vittoria Prati*¹, *Maria Antonietta Costagliola*¹

¹ Istituto Motori (CNR)

Via Marconi, 6 80125 Napoli- Italy

18318

Demand for gasoline in Greece: the effect of economic recession

*Christina Milioti*¹, *Matthew Karlaftis*¹

¹ National Technical University of Athens (NTUA) -

Zografou Campus: Heron Polytechniou 5, 15773 Zografou, Greece- Greece



STS 47 - Comodal freight, supply chain, corridors**Day 3: Wednesday April 16, 14:00-15:30**

Chair: Gerard Waldron (ARRB, Australia)

Oral presentations

19534

Cooperation between waterways and railways, an unnatural alliance. Rail strategic development of river ports in the Greater Paris Region.*Antoine Beyer*^{1,2} *Laetitia Verhaeghe*²

¹: Université Paris-Est, IFSTTAR/Splott (IFSTTAR) -
PRES Université Paris-Est, IFSTTAR
Boulevard Newton, Champs sur Marne, F-77447 Marne la Vallée Cedex 2- France

²: Université Paris-1 Panthéon-Sorbonne
Université Paris-1 Panthéon-Sorbonne
Magistère d'aménagement, Paris- France

18490

A pan-European ecosystem for intelligent cargo and its impact on emission reduction*Martin Dobler*^{1,2} *Jens Schumacher*^{1,2}

¹: The Process- and Product-Engineering research centre (FHV) -
Vorarlberg University of Applied Sciences Process- and Product-Engineering Hochschulstrasse 1 6850 Dornbirn Austria- Austria

18260

How green are the TEN-T core network corridors?*George Panagakos*¹ *Harilaos Psaraftis*²

¹: National Technical University of Athens (NTUA) -
Patision Complex: 28 Oktovriou (Patision) 42, 10682 Athens, Greece Zografou Campus: Heroon Polytechniou 9, 15780 Zografou, Greece- Greece

²: Technical University of Denmark (DTU) -
Lyngby, Denmark- Denmark

17867

How to create a management structure for transport corridors*Maria Öberg*^{1,2} *Kristina Nilsson*^{1,2} *Charlotta Johansson*^{1,2}

¹: Luleå University of Technology
Department of Civil, Environmental and Natural Resources Engineering Division of Architecture and Water Luleå University of Technology 971 87 Luleå- Sweden

17861

Smart logistics corridors and the benefits of Intelligent Transport Systems*Maarten Oonk*^{1,2}

¹: Netherlands Organisation for applied scientific research-TNO (TNO) -
Van Mourik Broekmanweg 6- Netherlands

Poster presentations

20168

GRAMOD: a tool for making enterprise supply chain sustainable*Paul-Eric Dossou*¹ *Philip Mitchell*²

¹: Institut Catholique d'Arts et Métiers (ICAM) -
Institut Catholique d'Arts et Métiers (ICAM)
Site de Paris-Sénart 11, rue Georges Charpak 77127 Lieusaint - Sénart- France

²: Institut Catholique d'Arts et Métiers (ICAM) -
Institut Catholique d'Arts et Métiers (ICAM)
La Roche-sur-Yon, France- France

19907

Evaluation of transport modes for petroleum derived products by the complete cost method*Dante Bachi Junior*¹ *Geraldo Lucio Tiago Filho*¹ *Maria Rachel Russo Seydell*^{1,2}

¹: Federal University of Itajuba (UNIFEI) -
Av. BPS, 1303 - Bairro Pinheirinho, 37500-290 - Itajuba, MG- Brazil

18144

Accelerating a shift from road to rail freight transport in Germany -Three scenarios*Kilian Frey*^{1,2} *Johannes Hartwig*² *Claus Doll*³

¹: Federal Environment Agency (UBA) -
Wörlitzer Platz 1, 06844 Dessau- Germany

²: Fraunhofer Institute for System and Innovation Research ISI -
Breslauer Strasse 48 76139 Karlsruhe- Germany

³: Fraunhofer Institute for Systems and Innovation Research (ISI) -
Breslauer Str. 48 76139 Karlsruhe- Germany

18143

The Mediterranean railway corridor: territorialising multiple visions of a macro-regional axis*Eloïse Libourel*¹

¹: Laboratoire Ville, Mobilité, Transport (LVMT) -
Ecole des Ponts ParisTech, Université Paris-Est Marne-la-Vallée (UPEMLV), IFSTTAR UMR-T 9403
Ecole des Ponts ParisTech, Cité Descartes, 6 et 8 avenue Blaise Pascal, 77454 Marne-la-Vallée cedex 2- France

18025

TelliSys - An innovative intermodal transport system*Alexia Fenollar Solvay*^{1,2} *Max Haberstroh*^{1,2} *Max Klingender*¹ *Daniel Schilberg*¹ *Sabina Jeschke*¹

¹: Institute of Information Management in Mechanical Engineering of the RWTH Aachen University (IMA - RWTH Aachen) -
Dennewartstraße 27, 52068 Aachen- Germany

17858

Effect of a full internalization of external costs of global supply chains on production, trade and transport*Lorant Tavasszy*^{1,2} *Jorrit Harmsen*¹ *Olga Ivanova*¹ *Tatyana Bulavskaya*²

¹: TNO
PO Box 49, 2600AA Delft- Netherlands

²: Delft University of Technology
PO Box 5015, 2600 GA Delft- Netherlands

17729

The role of corridor development in boosting the European industrial future based on Northern Scandinavian mines*Jenni Eckhardt*¹ *Jarkko Rantala*²

¹: Technical Research Centre of Finland (VTT) -
P.O.Box 1100, 90571 Oulu- Finland

²: Tampere University of Technology (TUT) -
P.O. Box 541, 33101 Tampere- Finland

STS 48 - Driver, driving simulation and naturalistic driving 15:30

Day 3: Wednesday April 16, 14:00-

Chair: William Bird (EC/)

Oral presentations

19978

Cab and system design influence on metro drivers' performance: preliminary study.

*Aleksandrs Rjabovs*¹, *Roberto Palacin*¹, *Mark Robinson*²,

¹Newcastle University (UNEW) -

NewRail - Newcastle Centre for Railway Research Stephenson building - Faculty of Science, Agriculture and Engineering NE1 7RU - Newcastle upon Tyne- United Kingdom

²Newcastle university (UNEW) -

Newcastle University Stephenson Building Newcastle Upon Tyne NE1 7RU- United Kingdom

19771

'Now or later?' Understanding adolescents' time-frame for their intentions to obtain a driving license and own a car

*Sigrun Sigurdardottir*¹, *Sigal Kaplan*^{1,2}, *Mette Møller*¹,

¹Technical University of Denmark (DTU Transport)

Bygningstorvet 116V DK-2800 Kgs. Lyngby- Denmark

²Danmarks Tekniske Universitet - DTU (DENMARK) (DTU Transport) -

Bygningstorvet 116B DK-2800 Kgs. Lyngby- Denmark

18675

Assessing individual driver's relative performance at curve: applying Data Envelopment Analysis on simulator data

*Seddigheh Babae*¹, *Yongjun Shen*¹, *Elke Hermans*¹, *Geert Wets*¹, *Tom Brijs*¹, *Caroline Ariën*¹,

¹Hasselt University, Transportation research institute (IMOB)

Campus Diepenbeek Science Park 5 BE 3590 Diepenbeek- Belgium

18436

Attitudes of Greek drivers towards mobile phone use while driving

*George Yannis*¹, *Athanasios Theofilatos*¹, *Paraskevi Marinou*¹,

¹National Technical University of Athens (NTUA) -

Patision Complex: 28 Oktovriou (Patision) 42, 10682 Athens, Greece Zografou Campus: Heron Polytechniou 9, 15780 Zografou, Greece- Greece

18360

Impact evaluation of speed regulation systems using naturalistic driving data: The EuroFOT example.

*Guillaume Saint Pierre*¹, *Hélène Tattegrain*², *Clément Val*³,

¹Research Laboratory for Advanced Driving Assistance Systems, Components and Systems Department, (IFSTTAR-COSYS-LVIC) -

IFSTTAR

25 Allée des Marronniers, F-78000 Versailles, France- France

²Ergonomics and Cognitive Sciences Laboratory for Transport. Transport, health and safety department of the French Institute of Science and Technology for Transport, Development and

Networks (IFSTTAR) (IFSTTAR-TS2-LESCOT) -

IFSTTAR

25 Avenue François Mitterand, 69675, Bron, France- France

³European Centre of Studies on Safety and Risk Analysis (CEESAR) -

CEESAR

132 rue des Suisses, 92000 NANTERRE, France- France

Poster presentations

19976

Youths' development in attitudes, driver behaviour and accidents - a cohort study

*Torkel Bjornskau*¹, *Agathe Backer-Grondahl*²,

¹Institute of Transport Economics (TOI) -

Gaustadalleen 21 0349- Norway

²The Norwegian Center for Child Behavioral Development -

P.O. Box7053 Majorstuen 0306 Oslo- Norway

19523

UDRIVE: the European naturalistic driving study

*Rob Eenink*¹, *Yvonne Barnard*², *Martin Baumann*³, *Xavier Augros*⁴, *Fabian Utesch*³,

¹SWOV Institute for Road Safety Research (SWOV)

PO Box 1090 NL 2260 BB Leidschendam- Netherlands

²ERTICO - ITS Europe

Avenue Louise 326 B-1050 Brussel- Belgium

³German Aerospace Center (DLR) (DLR)

Institute of Transportation Systems | Lilienthalplatz 7 | 38108 Braunschweig Germany- Germany

⁴Volvo Group Trucks Technology

Volvo Group Trucks Technology

TER E70 2 12 - 1 avenue Henri Germain 69800 Saint Priest - France- France

18475

First findings from a simulator study on driving behaviour of drivers with cerebral diseases

*Dimosthenis Pavlou*¹, *Eleonora Papadimitriou*¹, *George Yannis*¹, *Panagiotis Papantoniou*¹, *John Golias*¹, *Sokratis Papageorgiou*²,

¹National Technical University of Athens (NTUA) -

Patision Complex: 28 Oktovriou (Patision) 42, 10682 Athens, Greece Zografou Campus: Heron Polytechniou 9, 15780 Zografou, Greece- Greece

²National and Kapodistrian University of Athens -

75 Mikras Asias str., 11527 Goudi- Greece

18411

First exploration of the effect of road and traffic environment on distracted driving through a driving simulator study

*George Yannis*¹, *Eleonora Papadimitriou*¹, *Panagiotis Papantoniou*¹, *Dimosthenis Pavlou*¹, *John Golias*¹,

¹National Technical University of Athens (NTUA) -

Patision Complex: 28 Oktovriou (Patision) 42, 10682 Athens, Greece Zografou Campus: Heron Polytechniou 9, 15780 Zografou, Greece- Greece

18336

Driving simulator : an innovative tool to test new road infrastructures

*Fabrice Vienne*¹, *Stephane Caro*¹, *Désiré Lara*², *Jean-Michel Auberlet*¹, *Florence Rosey*³, *Eric Dumont*¹,

¹IFSTTAR / COSYS / LEPSIS (Laboratoire Exploitation, Perception, Simulateurs et Simulations)

IFSTTAR

14-20 Boulevard Newton Cité Descartes, Champs sur Marne F-77447 Marne la Vallée Cedex 2- France

²Laboratoire Régional des Ponts et Chaussées de Saint-Brieuc (LR Saint-Brieuc)

CETE Ouest

5, rue Jules Vallès 22015 St Brieuc Cedex- France

³CETE Normandie-Centre

Ministère de l'Ecologie, du Développement Durable et de l'Energie

10, chemin de la poudrière - BP 90245 - 76121 Le Grand-Quevilly cedex- France

17457

Simulator vs. real traffic conditions: how different parameters influence the transferability of results

Maria Gemou¹, Evangelos Bekiaris¹

¹: Centre for Research and Technology Hellas (CERTH/HIT) -
Mesogeion Avenue 357-359, 15231, Chalandri- Greece



STS 49 - Climate resilient roads**Day 3: Wednesday April 16, 14:00-15:30**

Chair: Jon Krokeborg (NPRA, Norway)

Oral presentations

20124

Potential impact of climate change on porous asphalt with a focus on winter damage*Kyle Kwiatkowski¹, Irina Stipanovic Oslakovic², Andreas Hartmann³, Herbert Ter Maat⁴.*¹: University of Colorado Boulder, Civil Environmental and Architectural Engineering Dept. - Boulder, Colorado 80309-0425- United States²: University of Twente, Construction Management and Engineering Department (University of Twente, CME) - P.O.Box 217 7500 AE Enschede- Netherlands³: University of Twente, Faculty of Engineering Technology, Department of Construction Management and Engineering PO Box 217 7500 AE Enschede- Netherlands⁴: Alterra Wageningen (ESS-CC) - Postbus 47 6700 AA Wageningen- Netherlands

19679

Risk assessment of flooding of highways in the Netherlands*Dirk Pereboom¹, Kees Van Muiswinkel², Thomas Bles¹.*¹: Deltares, Unit geo-engineering P.O. Box 177, 2600 MH Delft, Netherlands- Netherlands²: Rijkswaterstaat Water, Traffic, Environment (Rijkswaterstaat) - Postbus 5044 2600 GA Delft, Netherlands- Netherlands

19594

Blue spot analysis - a key component in climate adaptation of major Danish roads*Christian Axelsen¹, Dr. Michael Larsen¹.*¹: Danish Road Directorate (DRD) - Guldalderen 12, 2640 Hedehusene- Denmark

18290

The impacts of climate change on pavement maintenance costs in Queensland, Australia*Gary Chai¹, Rudi Van Staden², Hong Guan¹, Greg Kelly¹, Sanaul Chowdhury¹.*¹: Griffith School of Engineering (Griffith University) - Gold Coast campus, Queensland, QLD 4222- Australia²: College of Engineering and Science (Victoria University) - Melbourne, Victoria- Australia

17592

Design guideline for a climate projection data base and specific climate indices for roads: CliPDaR*Christoph Matulla¹, Joachim Namyslo², Konrad Türk¹, Barbara Chimani¹.*¹: Central Institute for Meteorology and Geodynamics (ZAMG) - Zentralanstalt für Meteorologie und Geodynamik Fachabteilung Klimaforschung Hohe Warte 38 A-1190 Wien- Austria²: German National Meteorological Service (DWD) - Deutscher Wetterdienst, Abt. Klima- und Umweltberatung, Frankfurter Str. 135, D-63067 Offenbach- Germany**Poster presentations**

19370

Adaptation of the road infrastructure to climate change*Carina Herrmann¹, Markus Auerbach¹.*¹: Federal Highway Research Institute (BAST) Bruederstraße 53, D-51427 Bergisch Gladbach- Germany

17893

Life cycle impacts during early stages of road infrastructure planning: a case study in Sweden*Sofia Miliutenko¹, Carolina Liljenström¹, Helge Brattebø², Harpa Birgisdóttir³, Susanna Toller^{1,4}, Kristina Lundberg⁵, José Potting^{1,6}.*¹: Royal Institute of Technology, Division of Environmental Strategies Research (KTH) Drottning Kristinas väg 30, SE 100 44 Stockholm- Sweden²: Department of Energy and Process Engineering, Norwegian University of Science and Technology 7491 Trondheim- Norway³: Danish Building Research Institute, Aalborg University A.C. Meyers Vænge 15, 2450 København SV- Denmark⁴: Swedish Transport Administration (Trafikverket) Solna strandväg 98, 171 54 Solna- Sweden⁵: Ecoloop, Strategic Services & Sustainable Development Mosebacke Torg 4, SE-116 46, Stockholm- Sweden⁶: Environmental Systems Analysis Group, Wageningen University PO Box 47, 6700 AA Wageningen- Netherlands

17639

Intelligent controlled compact parking for modern parking management on German motorways*Jessica Kleine¹, Rainer Lehmann¹.*¹: Bundesanstalt fuer Strassenwesen Bruederstr. 53 51427 Bergisch Gladbach- Germany

17511

Tempered road system*Dirk Jansen¹.*¹: Federal Highway Research Institute (BAST) - Bruederstraße 53 51427 Bergisch Gladbach- Germany

16336

The evaluation of road infrastructure development projects*Olivier Van Damme¹, Hinko Van Geelen¹, Patricia Courange².*¹: Belgian Road Research Centre (BRR) Boulevard de la Woluwe, 42 1200 Brussels- Belgium²: Brussels Mobility - Strategy Directorate CCN – Rue du Progrès 80/1 – 1035 Bruxelles- Belgium

STS 50 - Asset management and financing infrastructure 15:30

Day 3: Wednesday April 16, 14:00-

Chair: Yves Crozet (LET, France)

Oral presentations

18523

Including risk into socio-economic evaluations of transportation projects

*Hélène Le Maître*¹, *Xavier Delache*¹,

¹: Service d'études sur les transports, les routes et leurs aménagements (SETRA) - SETRA
110 rue de Paris 77171 Sourdun- France

18111

Exploring alternatives in early design of large infrastructure projects

*Therese Eriksson*¹, *Anna Kadefors*¹, *Jan Bröchner*¹,

¹: Chalmers University of Technology
Chalmers Tekniska Högskola 41296 Göteborg- Sweden

17954

Impacts of infrastructure projects on competitiveness

*Jan Kiel*¹, *Barry Ubbels*¹, *Joko Purwanto*², *Heyndrickx Christophe*², *Ofelia Betancor*³, *Pilar Socorro*³, *Aday Hernandez*³, *Martijn Smit*⁴, *Barbara Pawlowska*⁵, *Ralf Fiedler*⁶,

¹: Panteia BV -
Bredewater 26 Zoetermeer- Netherlands
²: Transport & Mobility Leuven (TML) -
Diestsesteenweg 57 3010 Leuven- Belgium
³: Universidad de Las Palmas de Gran Canaria -
Juan de Quesada, 30 35001 Las Palmas de Gran Canaria- Spain
⁴: Vrije Universiteit Amsterdam -
Boelelaan 1105 Amsterdam- Netherlands
⁵: University of Gdansk (UG)
Armii Krajowej 119/121, 81-824 Sopot- Poland
⁶: Fraunhofer CML (CML) -
Fraunhofer-Center für Maritime Logistik und Dienstleistungen CML Schwarzenbergstraße 95 D, 21073 Hamburg- Germany

17940

Strategic planning and tools for infrastructure development and transport systems integration in Southeast Europe

*Marios Miliadou*¹, *Christos Taxiltaris*¹, *George Mintsis*¹, *Socrates Basbas*¹,

¹: Aristotle University of Thessaloniki (A.U.Th.) -
Aristotle University of Thessaloniki (A.U.Th.) - Aristotle University of Thessaloniki, Polytechnic School, Faculty of Rural and Surveying Engineering, Department of Transportation and Hydraulic Engineering, GR-541 24, Thessaloniki - Greece- Greece

17769

SUNRA - a sustainability rating system framework for National Road Administrations

*Chris Sowerby*¹, *James Langstraat*¹, *Clare Harmer*², *Lennart Folkesson*³, *Henrik Gudmundsson*⁴,

¹: CH2M HILL -
Halcrow (A CH2M HILL Company) Arndale House, Otley Road, Headingley Leeds, LS6 2UL- United Kingdom
²: Transport Research Laboratory (TRL) -
Crowthorne House, Nine Mile Ride, Wokingham, Berkshire, RG40 3GA, United Kingdom- United Kingdom
³: VTI -
Box 8072 SE-402 78 Göteborg- Sweden
⁴: Danmarks Tekniske Universitet - DTU (DENMARK)
Technical University of Denmark Anker Engelunds Vej 1 Building 101A 2800 Kgs. Lyngby- Denmark

Poster presentations

20135

Risk-based asset integrity management process and technology for sustainable operation of transport infrastructure systems

*Romain Goy*¹, *Jean-Baptiste Oblin*¹, *Jerome Boero*¹, *Stephanie Dias*¹,

¹: OXAND
OXAND
49 avenue Franklin Roosevelt - 77210 Avon- France

18424

Stakeholders - trouble makers or creators of better life opportunity ? Their role in transport infrastructure projects

*Agnieszka Lukaszewicz*¹, *Anthony Francis*²,

¹: Road and Bridge Research Institute (IBDiM) -
ul. Instytutowa 1 03-302 Warsaw- Poland
²: Bircham Dyson Bell LLP (BDB) -
50 Broadway London SW1H 0BL- United Kingdom

18376

Evaluation of parameters affecting operating principles and financial elements of urban motorways

*Helen Tyrogianni*¹, *Bill Halkias*¹, *Dimitrios Mandalozis*¹, *Anna Politou*¹,

¹: Attikes Diadromes -
41,9km of Attiki Odos, 19002 Peania- Greece

18344

An assessment of present state and possible improvements of cost-benefit analysis in France

David Meunier^{1,2}, *Emile Quinet*^{3,4}, *Quentin Roquigny*⁵,

¹: Commissariat Général au Développement Durable (CGDD)
Ministère de l'Ecologie, du Développement Durable et de l'Energie
Tour Voltaire 1, place des Degrés 92055 LA DEFENSE Cedex- France
²: Laboratoire Ville, Mobilité, Transport (LVMT) -
IFSTTAR UMR-T9404, Ecole des Ponts ParisTech, Université Paris-Est Marne-la-Vallée (UPEMLV)
Ecole des Ponts ParisTech, Cité Descartes, 6 et 8 avenue Blaise Pascal, 77454 Marne-la-Vallée cedex 2- France
³: Ecole des Ponts - ParisTech
Ecole des Ponts ParisTech
Ecole des Ponts ParisTech Cité Descartes, 6 et 8 avenue Blaise Pascal 77454 Marne-la-Vallée cedex 2- France
⁴: Ecole d'Économie de Paris - Paris School of Economics (EEP-PSE) -
Ecole d'Économie de Paris
48 boulevard Jourdan 75014 Paris- France
⁵: Direction Générale du Trésor (DGT)
Ministère de l'Economie et des Finances
DGT 139, rue de Bercy Télédocus 228 75572 Paris Cedex 12- France

18097

Price variation clauses and cost indices in road construction and maintenance projects*Malcolm Simms*¹, *Stewart Struthers*², *Egbert Beuving*³,¹: Mineral Products Association - (MPA)

London- United Kingdom

²: Colas Ltd

Rowfant, Sussex- United Kingdom

³: European Asphalt Pavement Association (EAPA) -

Rue du commerce 77, B-1040 Brussels- Belgium

17654

Do we really need to decrease the priority of urban road investments? Case study in Budapest*Mattias Juhász*¹, *Tamás Mátrai*²,¹: Széchenyi István University (SZE)

9026 Győr, Egyetem tér 1.- Hungary

²: BKK Centre for Budapest Transport (BKK) -

H-1075, Budapest, Rumbach Sebestyén u. 19-21- Hungary

17390

Inefficiencies in Germany's federal transport infrastructure plan*Kilian Frey*¹,¹: Federal Environment Agency (UBA) -

Wörlitzer Platz 1, 06844 Dessau- Germany



STS 51 - Factors of accidents**Day 3: Wednesday April 16, 14:00-15:30**

Chair: Gianfranco Burzio (ACEA)

Oral presentations

20304

Structural time series modelling of the number of road fatalities in Poland in relation to economic factors*Ruth Bergel-Hayat*¹, *Joanna Zukowska*²¹: Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux (IFSTTAR) - PRES Université Paris-Est, IFSTTAR
Boulevard Newton, Champs sur Marne, F-77447 Marne la Vallée Cedex 2- France²: Gdansk University of Technology
11/12 G. Narutowicza St., 80-233 Gdańsk- Poland

20190

United traffic laws, standards, and regulations for the GCC countries: Problems and solutions*Khaled Shaaban*¹¹: Qatar University (QU) -
PO Box 2713- Qatar

19552

Characterization of the sites of traffic accidents involving vulnerable road users (VRU) in São Paulo City*Claudia Machado*¹, *José Quintanilha*¹, *Eduardo Shinohara*², *Mariana Giannotti*¹, *Henrique Nishisaki*¹¹: Escola Politécnica da Universidade de São Paulo (EPUSP) -
Avenida Professor Almeida Prado - travessa 2 - nº 83 Cep 05508-070 - Butantã – São Paulo - SP - Brasil- Brazil²: Companhia de Tecnologia de Saneamento Ambiental do Estado de São Paulo (CETESB-SP) -
Av. Prof. Frederico Herman Jr., 345 - Alto de Pinheiros - cep: 05459-900 - São Paulo - SP - Brasil- Brazil

17924

Traffic accidents in connection to road work in Sweden*Eva Liljegren*¹¹: Swedish Transport Administration (Trv) -
403 33 Göteborg- Sweden

17721

The STARS evaluation tool: optimising network performance, road worker safety and road user safety during roadworks and maintenance*Jill Weekley*¹, *Nora Ni Nuallain*², *Renaud Sarrazin*³, *Jonas Wennstrom*⁴¹: TRL -
Crowthorne House Nine Mile Ride Wokingham RG40 3GA- United Kingdom²: Trinity College Dublin
Dublin- Ireland³: BRRC
Brussels- Belgium⁴: VTI
Linköping- Sweden**Poster presentations**

28032

Improvement of car primary safety systems in accidents involving pedestrians based on accident scenario classification*Konthea Yong*¹, *Thierry Hermitte*¹¹: Laboratoire d'Accidentologie, de Biomécanique et d'études du comportement humain (LAB)
LAB
132 rue des Suisses 92000 NANTERRE- France

19883

Causes of road driving hazardous situations*Thierry Serre*¹, *Claire Naude*¹, *Jean-Yves Fournier*¹, *Maxime Dubois-Lounis*¹, *Sebastien Chauvet*¹, *Daniel Lechner*¹, *Vincent Ledoux*²¹: Laboratoire Mécanismes d'accidents (IFSTTAR/LMA) -
IFSTTAR
304 Chemin de la Croix Blanche, 13300 Salon-de-Provence- France²: CERTU
CERTU
2 rue Antoine Charial CS 33927 69426 Lyon Cedex 3- France

18100

Toward smart active road studs for lane delineation*Amit Shahar*¹, *Roland Brémond*¹¹: The Laboratory for road Operations, Perception, Simulators and Simulations (LEPSiS)
French Institute of Sciences and Technology for Transport, Development and Networks (IFSTTAR)
14-20 Boulevard Newton, Cité Descartes, Champs sur Marne, F-77447 Marne la Vallée Cedex 2- France

18054

Optimising Automatic Incident Detection (AID) based on image processing to ensure road tunnel safety: combining performance and robustness.*Jérémy Bossu*¹¹: French Tunnel Study Centre (CETU) -
Centre d'études des tunnels
cité des mobilités - CETU ZAC (ou parc d'activité) du Chêne Allée du Général Benoit 69500 BRON- France

17890

Ex-ante assessment of a speed limit reducing operation - A data-driven approach.*Maurice Aron*¹, *Régine Seidowsky*¹, *Simon Cohen*¹¹: University Paris-Est, IFSTTAR (the French Institute of Science and Technology for Transport Development and Networks), COSYS (Component and system department), GRETTIA (Land Transportation Network Engineering and Advanced Informatics) (IFSTTAR-COSYS-GRETTIA) -
University Paris-Est, IFSTTAR (the French Institute of Science and Technology for Transport Development and Networks), COSYS (Component and system department), GRETTIA (Land Transportation Network Engineering and Advanced Informatics)
Boulevard Newton, 77447 Champs sur Marne- France

17741

The role of traffic and environmental conditions in increasing accident risk*Satu Innamaa*¹, *Ilkka Norros*¹, *Eetu Pili-Sihvola*¹¹: VTT Technical Research Centre of Finland -
P.O. Box 1000 FI-02044 VTT- Finland

17731

Speed management in work zones - the ASAP project*Robert Thomson*¹, *Peter Saleh*², *Francesca La Torre*³, *Xavier Cocu*⁴, *Pavel Tucka*⁵

- ¹: Swedish National Road and Transport Research Institute (VTI) -
Box 8072, SE-402 78 Gothenburg- Sweden
- ²: Austrian Institute of Technology GmbH (AIT) -
Donau-City-Straße 1 1200 Vienna- Austria
- ³: University of Florence (UNIFI) -
Via S. Marta, 3 - 50139 - Firenze- Italy
- ⁴: Belgian Road Research Centre (BRRC) -
Boulevard de la Woluwe 42 B-1200 Bruxelles- Belgium
- ⁵: Transport Research Center (CDV) -
Lisenska 33a 63600 BRNO- Czech Republic



STS 52 - Mobility and traffic modelling and simulation**Day 3: Wednesday April 16, 14:00-15:30**

Chair: Laura Lonza (European Commission, JRC)

Oral presentations

20178

Optimized intermodal roundtrips in transport networks*Cecília Vale*¹, *Isabel Ribeiro*¹,¹: University of Porto, Faculty of Engineering (Porto, Portugal) (FEUP) -
R. Dr. Roberto Frias 4200 - 465 Porto- Portugal

19948

Modeling and solving international journey planning problems*Konstantinos Androutsopoulos*¹, *Konstantinos Zografos*²,¹: Transportation Systems and Logistics Laboratory, Department of Management Science and Technology, Athens University of Economics and Business
Evelpidon 47A & Lefkados 33, 113 62 Athens- Greece²: Department of Management Science, School of Management, Lancaster University
Bailrigg, Lancaster, LA1 4YX- United Kingdom

18684

Forecasting capabilities of a micro-simulation method for trip generation*Patrick Bonnel*¹, *Jorge Cabrera Delgado*¹,¹: Laboratoire d'économie des transports (LET) -
École Nationale des Travaux Publics de l'État ENTPE, CNRS : UMR5593, Université Lumière - Lyon II
rue Maurice Audin, 69518 Vaulx-en-Velin- France

18325

MOBI - modal shift through gamification*Jan Christiaens*¹, *Sander Buningh*²,¹: Mobiel 21 (M21) -
Vital Decosterstraat 67- Belgium
²: DTV Consultants (DTV) -
Markendaalseweg 44 4811 KC Breda- Netherlands

17799

Study on emergency traffic evacuation based on cell transmission model (CTM)*Yafei Zhou*¹, *Tiansheng Xie*¹, *Jing Cai*¹, *Xiaonan Cheng*¹,¹: Center for Safety and Emergency Technology Research, China Waterborne Transport Research Institute
8 Xitucheng Road, Beijing- China**Poster presentations**

19898

Models for Optimising Dynamic Urban Mobility (MODUM)*Sven Maerivoet*¹,¹: Transport & Mobility Leuven (TML) -
Diestsesteenweg 57 3010 Kessel-Lo (Leuven)- Belgium

19665

Modelling and solution approach for the environmental travelling salesman problem*Georgios K.d. Saharidis*¹, *George Kolomvos*², *George Liberopoulos*¹,¹: Department of Mechanical Engineering, University of Thessaly (UTH) -
Leoforos Athinon, Pedion Areos, 38334 Volos, Greece- Greece²: Kathikas Institute of Research & Technology (KIRT) -
4 Hachiarfanou, Kathikas 8573, Paphos Cyprus- Cyprus

19558

Using a multi-agent-system to assess the sensitivity of a flexible transport*Didier Josselin*^{1,2}, *Adrien Lammoglia*¹, *Nicolas Marilleau*³,¹: ESPACE -
CNRS : UMR7300, Université d'Avignon, UMR ESPACE CNRS 7300
74 rue Louis Pasteur 84000 AVIGNON- France
²: Laboratoire d'Informatique d'Avignon (LIA)
Laboratoire d'Informatique d'Avignon
339 chemin des Meinajariès, Agroparc BP 91228, 84911 Avignon cedex 9- France
³: UMI 209 UMMISCO
UMI 209 UMMISCO
32 avenue Henri Varagnat 93143 Bondy Cedex- France

18006

Towards a unified evaluation of traffic light algorithms*Daniel Krajewicz*¹, *Robbin Blokpoel*², *Wolfgang Niebel*¹, *Cornelia Hebenstreit*³, *Jérôme Härrä*⁴, *Michela Milano*⁵, *Anna-Chiara Bellini*⁵, *Thomas Stütze*⁶,¹: German Aerospace Center (DLR) -
Rutherfordstr. 2 12489 Berlin- Germany
²: Imtech Traffic & Infra -
Amersfoort- Netherlands
³: Technical University of Graz / Technische Universität Graz -
Rechbauerstrasse 12 Graz 8010- Austria
⁴: EURECOM -
EURECOM
Campus SophiaTech, 450 Route des Chappes, 06410 Biot FRANCE- France
⁵: Università di Bologna (UNIBO) -
Via Zamboni, 33 - 40126 Bologna- Italy
⁶: University libre de Bruxelles
Brussels- Belgium

STS 53 - Research policy, training**Day 3: Wednesday April 16, 14:00-15:30**

Chair: Patrick mercier-Handisyde (EC/R&I)

Oral presentations**Poster presentations**

20052

A methodology to develop commonly agreed research priorities - an outcome of the PROS project*Peter Urban*¹, *Olaf Op Den Camp*²,¹ Forschungsgesellschaft Kraftfahrwesen mbH Aachen (FKA) -
Steinbachstr. 7 - 52074 Aachen- Germany² Nederlandse Organisatie voor toegepast-natuurwetenschappelijk onderzoek (TNO) -
Steenovenweg 1 5708 HN Helmond- Netherlands

19720

Establishing a comprehensive transport research information management and exchange system - the HERMES Project*George Kotsikos*¹, *C. Gelatly*², *Gregory Mygdakos*³, *Michael Papadopoulos*⁴, *Francois Maugere*⁵, *George Smyrnakis*⁶,¹ Newcastle University (UNEW) -
Stephenson Building Newcastle upon Tyne NE1 7RU- United Kingdom² Newcastle University
Newcastle NE1 7RU- United Kingdom³ European Aeronautics Science Network (EASN) -⁴ European Aeronautics Science Network (EASN)⁵ International Union of Railways

uic

⁶ Foundation WEGEMT (WEGEMT) -

19130

Joint research programming and harmonised governance regimes for increased international transport research cooperation*George Giannopoulos*¹, *Angel Aparicio*², *Evangelos Mitsakis*³, *Katerina Chrysostomou*¹,¹ Centre for Research and Technology Hellas - Hellenic Institute of Transport (CERTH/HIT) -
6th Km. Charilaou - Thermi Road P.O. BOX 60361 GR - 570 01 Thermi, Thessaloniki GREECE- Greece² UPM

Madrid- Spain

³ Centre for Research and Technology Hellas/Hellenic Institute of Transport (CERTH/HIT) -

6th km Charilaou-Thermis, 57001, Thessaloniki- Greece

18403

How can the transfer of knowledge contribute to achieve sustainability in transport: lessons learned from TRANSPORT LEARNING training project*Octavia Stepan*¹, *Julia Zientek*², *Tom Rye*³, *Robert Pressl*²,¹ The Association for Urban Transition (ATU) -
str. Voila 10 Bucharest 4- Romania² Forschungsgesellschaft Mobilität - Austrian Mobility Research (FGM-AMOR) -
Schoenaugasse 8a A-8010 Graz- Austria³ Lund University -

John Ericssons väg 1, Lund - 2nd floor in V-huset at LTH- Sweden

18112

A living lab framework: facilitating the adoption of innovations in international information infrastructures*Inge Lucassen*¹, *Bram Klievink*², *Lori Tavasszy*^{1,2},¹ TNO

Van Mourik Broekmanweg 6 2628 XE Delft- Netherlands

² Delft University of Technology

Jaffalaan 5, 2628BX Delft- Netherlands

17580

Towards the initiation of joint research priorities in the area of transport*Jean-Pierre Médevielle*¹, *Evangelos Bekiaris*¹, *Lucile Murier-Mendoza*¹, *Matina Loukea*²,¹ HUMANIST VIRTUAL CENTRE OF EXCELLENCE (HUMANIST VCE) -
HUMANIST VIRTUAL CENTRE OF EXCELLENCE

25 avenue François Mitterrand 69675 Bron cedex - France- France

² Center for Research and Technology Hellas/Hellenic Institute for Transport (CERTH/HIT) -

6th km, Charilaou – Thermi Road P.O. Box 60361 - 570 01 Thermi, Thessaloniki, Greece- Greece





Programme

Day 4: Thursday April 17, 9:00-10:30

STS 54 - Air pollution modelling

Day 4: Thursday April 17, 9:00-10:30

Chair: Heather Hamje (CONCAWE)

Oral presentations

20214

Traffic and vehicle fleet statistics for the calculation of air pollutant emissions from road transports in France

Michel André¹, Marion Carteret², Anaïs Pasquier¹

¹: Laboratoire Transport et Environnement (IFSTTAR/LTE) -
Université de Lyon, IFSTTAR
25 Avenue François Mitterrand, 69675 Bron Cedex- France

²: Laboratoire de Chimie Moléculaire et Environnement, Université de Savoie (LCME)
Université de Savoie
73376, Le Bourget du Lac, cedex- France

19540

ICT-emissions methodology for assessing ITS and ICT solutions

Silvana Toffolo¹, Eugenio Morello¹, Zissis Samaras², Leonidas Ntziachristos², Maier Werner³, Alvaro García Castro⁴, Christian Vock⁵

¹: IVECO S.p.A. (IVECO) -
via Puglia 35, 10156 Torino- Italy

²: Aristotle University of Thessaloniki (LAT)
University Campus, 54124 Thessaloniki- Greece

³: Berner & Mattner Systemtechnik GmbH (Berner & Mattner Systemtechnik)

⁴: Erwin-von-Kreibitz-Str., D 80807 Munich- Germany

⁵: Universidad Politecnica de Madrid

7 Calle Ramiro de Maeztu, 28040 Madrid- Spain

⁵: AVL List GmbH (AVL) -

Hans List Platz 1, A-8020 Graz- Austria

18121

Influence of mobility on population exposure to air pollutants

Francis Golay¹, Nadine Curt¹, Xavier Olry¹, Therese Vittoz¹, Frederic Reydellet¹

¹: centre d'études et d'expertise sur les risques, l'environnement, la mobilité et l'aménagement (CEREMA) -
Ministère de l'écologie de l'Energie, du Développement durable et de l'Aménagement du territoire
46, rue Saint Théobald BP128 38081 L'ISLE D'ABEAU CEDEX FRANCE- France

17766

Transverse approach between environmental atmosphere in Grand Mare tunnel and material degradation

Arnaud Barbier¹, Joseph Kasperek¹, Ibtissem Bouddabous-Ameur^{1,2}, Frederic Harel³, Patrick Langlois³, Beatrice Hannoyer¹

¹: GPM- CNRS UMR 6634

University of Rouen
BP12. 76801 Saint Etienne du Rouvray Cedex- France

²: LCAE, Chemistry Department, Science faculty of Tunis,
University Campus 2092 El Manar Tunis- Tunisia

³: Interdepartmental Directorate of North West Roads

Interdepartmental Directorate of North West Roads

76160 Darnetal- France

17700

Comparability of the environmental effects of logistics services - sector guidance for ecological assessments

Kerstin Dobers¹, Grischa Meyer², Jörg Friedrichs³, Gordon Mauer⁴, Gerhard Schmitt⁵, Uwe Clausen¹, Marc Schneider¹, David Rüdiger¹

¹: Fraunhofer Institute for Material Flow and Logistics IML (Fraunhofer IML) -

Joseph-von-Fraunhofer Str. 2-4, 44227 Dortmund- Germany

²: DB Mobility Logistics AG -

Edmund-Rumpler-Straße 3, 60459 Frankfurt am Main- Germany

³: Deutsche Post AG -

Charles-de-Gaulle-Straße 20 53113 Bonn- Germany

⁴: Arcadis Deutschland GmbH -

Pelikanplatz 35 30177 Hannover- Germany

⁵: Werner & Mertz Service & Logistics GmbH (W&M) -

Werner & Mertz GmbH Rheinallee 96 55120 Mainz,- Germany

Poster presentations

20009

How traffic flow models calibration influence fuel consumption estimation?

Thamara Vieira Da Rocha¹, Marcello Montanino², Ludovic Leclercq¹, Celine Parzani¹, Vincenzo Punzo^{2,3}, Biagio Ciuffo³, Panagiota Dilara³, Pierre Bonnel³

¹: Laboratoire d'Ingénierie Circulation Transport (LICIT) -
École Nationale des Travaux Publics de l'État ENTPE, Université de Lyon, IFSTTAR
25 Avenue François Mitterrand, 69675 Bron Cedex- France

²: University of Naples Federico II - Department of Transportation Engineering (DIT)

Via Claudio 21, 80125 Napoli- Italy

³: Joint Research Centre - Institute for Energy and Transport (JRC-IET)

Via E. Fermi 2749, 21027 Ispra (VA)- Italy

19985

Environmental impact of urban traffic volumes: a causal specific approach

Basil Stefanis¹, Anastasia Roukouni², Dimitrios Terzopoulos³

¹: Department of Civil Engineering, Democritus University of Thrace

Vas. Sofias 12, 67100 Xanthi- Greece

²: Aristotle University of Thessaloniki

A.U.Th 000, 54124 Thessaloniki- Greece

³: Democritus University of Thrace

Vas. Sofias 12, 67100 Xanthi- Greece

19875

Evaluation of road transport effect on atmospheric air: method of emission computations and use of results

Vadim Donchenko^{2,1}, *Andrej Ruzsky*³, *Yulij Kunin*¹, *Vladimir Vizhensky*⁴,

² Scientific and Research Institute of Motor Transport (NIIAT) -
Geroev Panfilovcev str.,24 Moscow- Russia

¹ Scientific and Research Institute of Motor Transport (NIIAT) -
Geroev Panfilovcev str.,24 Moscow- Russia

³ Scientific and Research Institute of Motor Transport (NIIAT)
Geroev Panfilovcev str.,24 Moscow- Russia

⁴ Scientific and Research Institute of Motor Transport (NIIAT) -
Geroev Panfilovcev str.,24 Moscow- Russia

19562

Simulating, assessing and mapping the effects of the speed limit distribution on pollutant emissions of private cars

Didier Josselin^{1,2}, *Julie Prud'homme*¹, *Cyrille Genre-Grandpierre*¹,

¹ ESPACE -

CNRS : UMR7300, Université d'Avignon
74 rue Louis Pasteur 84000 AVIGNON- France

² Laboratoire Informatique d'Avignon (LIA) -

Centre d'Enseignement et de Recherche en Informatique - CERI, Université d'Avignon et des Pays de Vaucluse
339 Chemin des Meinajaries Agroparc BP 1228 84911 Avignon cedex 9- France

19550

COPERT Micro: a tool to calculate the vehicle emissions in urban areas

*Christos Samaras*¹, *Leonidas Ntziachristos*¹, *Zissis Samaras*¹,

¹ Laboratory of Applied Thermodynamics, Aristotle University of Thessaloniki (LAT/AUTH) -

Laboratory of Applied Thermodynamics, Department of Mechanical Engineering, Aristotle University of Thessaloniki, Greece, GR-54124- Greece

18246

Effects of temporal traffic data aggregation level on the estimation of air pollutant emissions using a COPERT4 based model- Application to A7 motorway (France)

*Karine Muller-Perriand*¹,

¹ Centre d'études et d'expertise sur les risques, l'environnement, la mobilité et l'aménagement

CEREMA, Direction Territoriale Centre-Est

46 rue Saint Théobald - BP128 38081 L'ISLE D'ABEAU- France



STS 55 - Human behaviour, factors, perception, visibility**Day 4: Thursday April 17, 9:00-10:30**

Chair: Isabelle Dussutour (ID4Car, France)

Oral presentations

19608

A promising approach to people flow assessment in railway stations using classical CCTV networks*Fabrice Ganansia*¹, *Cyril Carincotte*², *Adrien Descamps*², *Christophe Chaudy*³.¹: SNCF, Département Innovation&Recherche (SNCF-I&R) -

SNCF

Immeuble Lumière - Aile Nord - 4ème étage 40, avenue des Terroirs de France 75611 PARIS Cedex 12- France

²: Multitel Asbl - Image Department -

Rue Pierre et Marie Curie 2 - 7000 Mons- Belgium

³: ACIC -

Parc Initialis Boulevard Initialis 28 B-7000 Mons- Belgium

19596

Modelling human fatigue`s impact on the risk of ship accidents*Muhammad Juned Akhtar*¹, *Ingrid Utne*².¹: Institute of Transport Economics Norway (TØI) -

Gaustadalleen 21, NO-0349 Oslo- Norway

²: Norwegian University of Science and Technology (NTNU) -

Department of Marine Technology, Norwegian University of Science and Technology (NTNU), Trondheim- Norway

18395

Temporal development of the level of traffic calming measures' acceptance by road users*Panagiotis Iordanopoulos*¹, *Katerina Chrysostomou*¹, *Stylianos Papailiou*¹, *Evangelos Mitsakis*¹.¹: Centre for Research and Technology Hellas - Hellenic Institute of Transport (CERTH/HIT) -

6th Klm. Charilaou - Thermi Road P.O. BOX 60361 GR - 570 01 Thermi, Thessaloniki GREECE- Greece

18069

Recognition of built-up and non-built-up areas from road scenes*Gabriella Iván*¹, *Csaba Koren*¹.¹: Széchenyi István University (SIU) -

Egyetem tér 1. 9026 Győr- Hungary

17949

Where we look when we drive: a multidisciplinary approach*Roland Brémond*¹, *Jean-Michel Auberlet*², *Viola Cavallo*², *Désiré Lara*³, *Vérane Faure*², *Sophie Lemonnier*², *Régis Lobjois*², *Jean-Philippe Tarel*².¹: Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux (IFSTTAR) -

PRES Université Paris-Est,IFSTTAR

Boulevard Newton, Champs sur Marne, F-77447 Marne la Vallée Cedex 2- France

²: Laboratoire Exploitation, Perception, Simulateurs et Simulations (IFSTTAR/LEPSIS) -

Université Paris-Est Marne-la-Vallée (UPEMLV),IFSTTAR

58 boulevard Lefebvre, 75732 Paris Cedex 15- France

³: Laboratoire Régional des Ponts et Chaussées de Saint-Brieuc (LR Saint-Brieuc)

CETE Ouest

5, rue Jules Vallès 22015 St Brieuc Cedex- France

Poster presentations

19668

Roads otherwise to induce calm driving » Understanding driving behaviours to design roads in a different way*Antoine Oser*¹, *Olivier Moisan*², *Florence Rosey*², *Eric Dumont*³, *Marie Ripoche*¹.¹: SERVICE D'ETUDES SUR LES TRANSPORTS LES ROUTES ET LEURS AMENAGEMENTS (SETRA)

SETR

110 RUE DE PARIS, SOURDUN B.P. 214 77487 PROVINS CEDEX- France

²: Centre d'études techniques de l'équipement Normandie-Centre (CETE NC)

CETE Normandie Centre

0, chemin de la poudrière BP 90245 76121 Le Grand-Quevilly cedex- France

³: Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux (IFSTTAR)

IFSTTAR

Boulevard Newton, Champs sur Marne F-77447 Marne la Vallée Cedex 2- France

18396

Digital imaging for assessing and improving highway visibility*Didier Aubert*¹, *Vincent Boucher*², *Roland Brémond*¹, *Pierre Charbonnier*³, *Aurélien Cord*⁴, *Eric Dumont*¹, *Philippe Foucher*³, *Fabrice Fournela*², *Florian Greffier*², *Dominique Gruyer*⁴.*Nicolas Hautière*¹, *Valérie Muzet*³, *Philippe Nicolle*⁵, *Jean-Philippe Tarel*¹.¹: Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux (IFSTTAR) -

PRES Université Paris-Est,IFSTTAR

Boulevard Newton, Champs sur Marne, F-77447 Marne la Vallée Cedex 2- France

²: Laboratoire Régional des Ponts et Chaussées d' Angers (LR Angers)

CETE Ouest

23, avenue de l'Amiral Chauvin BP 69 49136 Les Ponts de Cé Cédex- France

³: Laboratoire Régional des Ponts et Chaussées de Strasbourg (LR Strasbourg)

CETE Est

11, rue Jean Mentelin BP 9 67035 Strasbourg Cedex- France

⁴: Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux (IFSTTAR) -

IFSTTAR

14, route de la Minière - Bâtiment 824 - 78000 Versailles- France

⁵: Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux (IFSTTAR) -

IFSTTAR

Route de Bouaye - CS4 - 44344 Bouguenais Cedex- France

17787

Real-time ultrasound system for driver monitoring: an innovative application*Salvatore A. Pullano*¹, *Antonio La Gatta*^{2,3}, *Francesco Ruberto*¹, *Antonino S. Fiorillo*^{1,2}.¹: School of Biomedical Engineering, University Magna Græcia -

Viale Europa - 88100 - Catanzaro- Italy

²: Veneto Research Consortium

Saccolongo - Padova- Italy

³: TSEM s.p.a. -

Via Enrico Mattei 18 - Saccolongo - Padova- Italy

17563

Human centred design. for ecomobility: the DECOMOBIL project

*Annie Pauzie*¹, *Lucile Mendoza*²

¹: Institut français des sciences et technologies des transports, des aménagements et des réseaux (Ifsttar/LESCOT) -
IFSTTAR

25 avenue François Mitterrand, 69675, Bron cedex, case 24, France- France

²: Human Centred Designed for Information Society Technologies Virtual Centre of Excellence (HUMANIST) -
HUMANIST VCE

25 avenue François Mitterrand 69675 Bron cedex case 24- France



STS 56 - Infrastructure lifecycle and deterioration**Day 4: Thursday April 17, 9:00-10:30**

Chair: Bernard Halphen (CEREMA, France)

Oral presentations

19135

Brazilian road deterioration test - final report*Gustavo Otto*¹, *Amir Valente*¹, *Leto Momm*¹,¹: Transportation and Logistics Laboratory (Labtrans) -

Campus Academico - UFSC - Florianópolis - Santa Catarina rindade - Florianópolis/SC - ZIPCODE 88040-970 - PO Box 5005- Brazil

18702

Development and application of a life-cycle assessment model for pavement management*João Santos*¹, *Adelino Ferreira*¹, *Gerardo Flintsch*²,¹: Department of Civil Engineering, University of Coimbra -

Rua Luís Reis Santos, 3030-788 Coimbra- Portugal

²: The Via Department of Civil and Environmental Engineering, Virginia Tech

200 Patton Hall, Blacksburg, VA 24061- United States

18296

Long Life Bridges*Eugene O' Brien*^{1,2}, *Mark Tucker*¹, *Alan O' Connor*^{1,3},¹: Roughan & O' Donovan Innovative Solutions (ROD-IS) -

Arena House, Arena Road, Sandyford, Dublin 18- Ireland

²: University College Dublin (UCD) -

Belfield, Dublin 4- Ireland

³: Trinity College Dublin (TRINITY COLLEGE DUBLIN) -

Trinity College Dublin, College Green, Dublin 2, Ireland- Ireland

18258

Evaluation of long term glass-grid test section using unique method*Maciej Maliszewski*¹, *Przemysław Harasim*¹, *Dominika Maliszewska*¹, *Adam Zofka*¹,¹: Road and Bridge Research Institute (IBDIM) -

Instytutowa 1 03302 Warsaw- Poland

17697

Enhancing correlation between pavement consumption and deterioration with financial depreciation*Deborah Delaney*¹, *Gary Chai*¹, *Chris Harbord*¹, *Greg Kelly*²,¹: Griffith University (GU) -

Department of Accounting, Finance and Economics Gold Coast campus, Griffith University Southport, Qld, 4222- Australia

²: Logan City Council

Logan City- Australia

Poster presentations

18233

Roughness deterioration model for cement concrete pavements*László Gáspár*¹, *Zsolt Bencze*¹,¹: KTI Institute for Transport Sciences Non Profit Ltd. (KTI) -

H-1119 Budapest, Than Károly u. 3-5- Hungary

18230

Indicators for roads LCA including the pavement durability*Agnès Jullien*¹, *Veronique Cerezo*²,¹: IFSTTAR, AME-EASE, Lunam Université

IFSTTAR

Route de Bouaye CS4, 44344 Bouguenais- France

²: IFSTTAR, AME-EASE, Lunam Université

IFSTTAR

Route de Bouaye, CS4 44344 Bouguenais cedex- France

16855

Effects of using of reclaimed asphalt and/or lower temperature asphalt on the availability of the road network*Cliff Nicholls*¹, *Matthew Wayman*¹, *Konrad Mollenhauer*², *Ciaran McNally*³, *Amir Tabaković*³, *Amanda Gibney*³, *Aikaterini Varveri*⁴, *Sean Cassidy*⁵, *Reza Shahmohammadi*⁵, *Kevin Gilbert*⁶,¹: Transport Research Laborator (TRL)

Crowthorne House, Nine Mile Ride, Wokingham, Berkshire RG40 3GA- United Kingdom

²: Universität Kassel

Fachgebiet Bau und Erhaltung von Verkehrswegen, Mönchebergstraße 7, D 34125 Kassel- Germany

³: University College Dublin

Newstead, Belfield, Dublin 4- Ireland

⁴: Technische Universiteit Delft

Stevinweg 1, 2628 CN Delft, P.O. Box 5048, 2600 GA Delft- Netherlands

⁵: Lagan Asphalt

Rosemount Business Park, Ballycoolin Road, Dublin 11- Ireland

⁶: Shell Bitumen

Manchester- United Kingdom



STS 57 - Navigation, positioning, GNSS**Day 4: Thursday April 17, 9:00-10:30**

Chair: Markus Schumacher (BAST, Germany)

Oral presentations

20240

Market analysis for satellite train localisation for train control systems*René Sebastian Hosse*¹, *Hansjörg Manz*¹, *Eckehard Schnieder*¹, *Kirsten Burmeister*²

- ¹ Technische Universität Braunschweig -
TU Braunschweig 38092 Braunschweig Allemagne- Germany
- ² Technische Universität Braunschweig (TU BS)
Langer Kamp 8 38106 Braunschweig- Germany

18389

Understanding route choice behavior: an analysis using GPS based data*Alessandro Vacca*¹, *Italo Meloni*¹

- ¹ CRiMM - University of Cagliari -
Via San Giorgio, 12 – 09124 CAGLIARI- Italy

18378

Using GPS data in favour of traffic knowledge*Laura Clergue*¹, *Valérie Buttignol*¹

- ¹ Centre d'études et d'expertise sur les risques, l'environnement, la mobilité et l'aménagement (CEREMA) -
Ministère de l'Ecologie, du Développement Durable et de l'Energie
Pôle d'Activités Les milles Avenue Albert Einstein 13593 Aix en Provence- France

17752

Development of an advanced testing system and smart train positioning system for ETCS applications*Saïoa Arrizabalaga*¹, *Jaizki Mendizabal*², *Stanislas Pinte*³, *Jose Manuel Sanchez*⁴, *Jesus Maria Gonzalez*⁵, *Jan Bauer*⁶, *Meropi Themistokleous*⁷, *David Lowe*⁸

- ¹ CEIT and Tecnun (University of Navarra)
Paseo Manuel de Lardizabal 15, 20018 San Sebastian- Spain
- ² CEIT and Tecnun (University of Navarra)
Paseo Manuel Lardizabal 15, 20018 San Sebastian- Spain
- ³ ERTMS Solutions
Rue de la Caserne 45, 1000 Brussels- Belgium
- ⁴ Integrasys SA
Esquilo, 1. Las Rozas 28230 Madrid- Spain
- ⁵ Instituto de Magnetismo Aplicado (Universidad Complutense de Madrid)
Sor Juana Inés de la Cruz 3, 28049 Madrid- Spain
- ⁶ Fraunhofer-Institut für Integrierte Schaltungen IIS
Am Wolfsmantel 33, 91058 Erlangen- Germany
- ⁷ University of Glasgow (Glasgow Univ.) -
Glasgow G12 8QQ Scotland- United Kingdom
- ⁸ Nottingham Scientific Ltd
Loxley House, Tottle Road, Riverside Business Park, Nottingham NG2 1RT- United Kingdom

17586

How to enhance accuracy and integrity of satellite positioning for mobility pricing in cities: the Urban Trench method*David Bétaille*¹, *François Peyret*¹, *Miguel Ortiz*¹

- ¹ Département Composants et Systèmes (COSYS) – Laboratoire GEOLOC
IFSTTAR
Centre de Nantes Route de Bouaye – CS4 – 44344 – Bouguenais Cedex - France- France

Poster presentations

20239

Approach to certification of satellite based localisation unit in railways*Hansjörg Manz*¹, *Eckehard Schnieder*¹, *Uwe Becker*², *Carsten Seedorff*², *Arne Baudis*²

- ¹ Technische Universität Braunschweig, Institute for Traffic Safety and Automation Engineering -
Technische Universität Braunschweig, Institute for Traffic Safety and Automation Engineering, 38106 Braunschweig, Germany- Germany
- ² Technische Universität Braunschweig, Institute for Traffic Safety and Automation Engineering
Technische Universität Braunschweig, Institute for Traffic Safety and Automation Engineering, 38106 Braunschweig, Germany- Germany

20111

3D modeling of urban environments for enhancing GPS localization's accuracy*Julien Moreau*¹, *Sébastien Ambellouis*², *Yassine Ruichek*¹

- ¹ IRTES-SeT, UTBM,
Institut de Recherche sur les Transports, l'Energie et la Société - IRTES
13 rue Ernest Thierry Mieg, 90010 BELFORT CEDEX- France
- ² Laboratoire Électronique Ondes et Signaux pour les Transports (IFSTTAR/LEOST) -
PRES Université Lille Nord de France, IFSTTAR
20 rue Elisée Reclus, BP317, 59666 Villeneuve d'Ascq Cedex- France

19641

The SATLOC project*George Barbu*¹, *Juliette Marais*²

- ¹ Union Internationale des Chemins de Fer
uic
Paris- France
- ² IFSTTAR-LEOST (IFSTTAR) -
IFSTTAR
20 rue E. Reclus 59666 Villeneuve d'Ascq- France



STS 58 - Human factors and safety**Day 4: Thursday April 17, 9:00-10:30**

Chair: Horst Schulze (BAST, Germany)

Oral presentations

20004

Comparison of car drivers and motorcyclists' drink-driving in 19 countries, results from the SARTRE 4 survey.*Julien Cestac*^{1,*,} *Cécile Barbier*^{1,} *Gian-Marco Sardi*^{2,} *Richard Freeman*^{3,} *Sami Kraïem*^{1,} *Jean-Pascal Assailly*^{1,}¹: Laboratoire de Psychologie de la Conduite (IFSTTAR/LPC) -
IFSTTAR

25 allée des Marronniers, 78000 Versailles - Satory- France

²: La Società Italiana di Psicologia della Sicurezza Viaria (S.I.P.Si.Vi) -
Via Matteotti, 2 12100 CUNEO- Italy³: Institute of Education, University of London (IOE London) -
20 Bedford Way London WC1H 0AL- United Kingdom

18106

RESTRAIL : Collaborative project on Reduction of Suicides and Trespasses on RAILway property*Marie-Hélène Bonneau*^{1,} *Jacques Colliard*^{2,} *Grigore Havarneanu*^{2,*}¹: Union Internationale des Chemins de fer (UIC) -
uic

16 rue Jean Rey - 75015 Paris- France

²: Union Internationale des chemins de fer (UIC) -Union internationale des chemins de fer
16 rue Jean Rey 75015 Paris- France

18066

Traffic (safety) culture of alcohol use: cultural patterns in the light of results of the SARTRE 4 Study*Christopher Schlembach*^{1,*} *Christian Brandstaetter*^{1,} *Gerald Furian*^{1,}¹: Kuratorium fuer Verkehrssicherheit (KFV) -
Schleiergasse 18 1100 Vienna- Austria

17521

Safety of scholar trip: design of innovative support for bus drivers*Annie Pauzie*^{1,*}¹: Institut français des sciences et technologies des transports, des aménagements et des (Ifsttar/LESCOT) -
IFSTTAR

25 avenue François Mitterrand, 69675, Bron cedex, case 24, France- France

16320

Spreading awareness of traffic safety through web application*Miha Ambrož*^{1,*} *Jernej Korinšek*^{1,} *Ivan Prebil*^{1,}¹: University of Ljubljana, Faculty of Mechanical Engineering (UL-FS) -
Aškerčeva cesta 6, SI-1000 Ljubljana- Slovenia**Poster presentations**

20237

Paternalistic creep in road safety?*Beate Elvebakk*^{1,*}¹: The Institute of Transport Economics (TOI)
Gaustadalléen 21, 0349 Oslo- Norway

19916

A model of suicide and trespassing processes to support the analysis and decision related to preventing railway suicides and trespassing accidents at railways*Jean-Marie Burkhardt*^{1,*} *Helena Radbo*^{2,*} *Anne Silla*^{3,*} *Francoise Paran*^{4,*}¹: Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux (LPC) (IFSTTAR LPC) -
PRES Université Paris-Est, IFSTTAR

25 allée des Marronniers Satory F-78000 VERSAILLES- France

²: Karlstad University

Karlstad University, Department of Health and Environmental Sciences, Division of Public Health Sciences, SE-651 88 Karlstad, Sweden- Sweden

³: Technical Research Centre of Finland

P.O. Box 1000, 02044 VTT, Finland- Finland

⁴: Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux (IFSTTAR (LPC)) -

PRES Université Paris-Est, IFSTTAR

25 allée des Marronniers Satory F-78000 VERSAILLES- France

19764

Prevention of wrong way accidents on highways: a human factors approach*Perrine Ruer*^{1,*} *Philippe Cabon*^{1,*} *Fabrice Vienne*^{2,*}¹: Dedale -

Dedale

15 place de la Nation, 75011 PARIS- France

²: IFSTTAR / COSYS / LEPSIS (Laboratoire Exploitation, Perception, Simulateurs et Simulations)

IFSTTAR

14-20 Boulevard Newton Cité Descartes, Champs sur Marne F-77447 Marne la Vallée Cedex 2- France

19050

Risk analysis of human errors in road transport using H-FMEA technique*Neda Javadieh*^{1,*} *Amir Abdekhodae*^{1,*} *Mehran Motamed Ektesabi*^{1,*}¹: Swinburne University of Technology

John St Hawthorn VIC 3122, Australia- Australia

18687

Improved stakeholder cooperation for efficient response*Denis Luyten*^{1,*}¹: Union Internationale des Transports Publics (UITP) -

Rue Ste. Marie 6 1080 Bruxelles- Belgium



STS 59 - Safety policy and economics**Day 4: Thursday April 17, 9:00-10:30**

Chair: Luca Persia (University of Rome, Italy)

Oral presentations

19358

An economic analysis of wrong-way driving and possible countermeasures*Laurent Carnis*¹, *Emmanuel Kemel*²,¹: IFSTTAR

IFSTTAR

Marne la Vallée- France

²: CETE de l'Ouest

CETE de l'Ouest

Nantes- France

18522

Social rivalries and their impact in the form of road networks and public space. Historical research.*Yiorgos Chronopoulos*¹,¹: National Technical University of Athens (NTUA) -

Patision Complex: 28 Oktovriou (Patision) 42, 10682 Athens, Greece Zografou Campus: Heron Polytechniou 9, 15780 Zografou, Greece- Greece

18405

European road safety and e-safety*Petros Evgenikos*¹, *Panagiotis Papantoniou*¹, *Thierry Hermitte*², *Pierre Van Elslande*³, *Alan Kirk*⁴, *Pete Thomas*⁴, *Deniz Atalar*⁴, *Manfred Pfeiffer*⁵, *George Yannis*¹,¹: National Technical University of Athens (NTUA) -

Patision Complex: 28 Oktovriou (Patision) 42, 10682 Athens, Greece Zografou Campus: Heron Polytechniou 9, 15780 Zografou, Greece- Greece

²: Laboratoire d'Accidentologie, de Biomécanique et d'études du comportement humain (LAB)

LAB

132 rue des Suisses 92000 NANTERRE- France

³: Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux (IFSTTAR) -

PRES Université Paris-Est, IFSTTAR

Boulevard Newton, Champs sur Marne, F-77447 Marne la Vallée Cedex 2- France

⁴: Transport Safety Research Centre, Loughborough University

Loughborough University, Leicestershire, UK, LE11 3TU- United Kingdom

⁵: IVT Research GmbH

M4 10 68161 Mannheim, Germany- Germany

17743

Synergies and conflicts between safety and environmental measures in transport*Markus Pöllänen*¹, *Heikki Liimatainen*¹,¹: Tampere University of Technology, Transport Research Centre Verne (TUT) -

P.O. Box 541, FI-33101 Tampere- Finland

14695

Challenges in creating AstaZero, the active safety test area*Jan Jacobson*¹, *Pether Wallin*², *Peter Janevik*³,¹: SP Technical Reséarch institute of Sweden (SP) -

Box 857, SE 501 15 Boras- Sweden

²: ASTA Active Safety Test Area AB (AstaZero) -

P.O. Box 8077, SE-402 78 Gothenburg- Sweden

³: ASTA Active Safety Test Area AB (AstaZero)

Göteborg- Sweden

Poster presentations

19959

School transportation and its regulation - an outcome from the EU project SAFEWAY2SCHOOL*Anna Anund*¹, *Asa Viklund*², *Katarina Appeltöft*³,¹: Swedish Road and Transport Research Institute (VTI) -

Olaus Magnusväg 35- Sweden

²: Swedish Transport Administration

Luleå- Sweden

³: Swedish Transport Administration

Stockholm- Sweden

18469

Development of the European road safety knowledge system*George Yannis*¹, *Pete Thomas*², *Nicole Muhlrad*³, *Heike Martensen*⁴, *Letty Aarts*⁵, *Petros Evgenikos*¹, *Eleonora Papadimitriou*¹,¹: National Technical University of Athens (NTUA) -

Patision Complex: 28 Oktovriou (Patision) 42, 10682 Athens, Greece Zografou Campus: Heron Polytechniou 9, 15780 Zografou, Greece- Greece

²: Transport Safety Research Centre, Loughborough University

Loughborough University, Leicestershire, UK, LE11 3TU- United Kingdom

³: Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux (IFSTTAR) -

PRES Université Paris-Est, IFSTTAR

Boulevard Newton, Champs sur Marne, F-77447 Marne la Vallée Cedex 2- France

⁴: Belgian Road Safety Institute⁵: SWOV

Duindoorn 32 2262 AR Leidschendam- Netherlands

18460

Assessment of road safety legislation, policy and institutional capacity in South-East European regions*George Yannis*¹, *Maurizio Tira*², *Michela Tiboni*², *Laura Panea*³, *á gnes Orsolya Kiss*⁴, *Arpad Török*⁵, *Alexandra Laiou*¹, *Vesna Marinko*⁶, *Jure Kostanjšek*⁷, *Branka Leskovšek*⁸,*Borislav Vankov*⁹, *Guido Piccoli*¹⁰,¹: National Technical University of Athens (NTUA) -

Heron Polytechniou 9, 15780 Zografou- Greece

²: University of Brescia (UniBS) -

Branze 43, Brescia, 25123- Italy

³: Association EU CONCEPTS R&D

Bucharest- Romania

⁴: GRSP Hungary Association

Budapest- Hungary

⁵: KTI Institute for Transport Sciences Non Profit Ltd

Budapest- Hungary

⁶: Slovenian Traffic Safety Agency

Ljubljana- Slovenia

⁷: University of Ljubljana

Ljubljana- Slovenia
⁸: Automobile Association of Slovenia
 Ljubljana- Slovenia
⁹: Open Youth
 Sofia- Bulgaria
¹⁰: Agency of East Lombardy for Transport and Logistics
 Brescia- Italy

18440

Analysis of road safety management systems in Europe

*Nicole Muhlrud*¹, *Gilles Vallet*¹, *Ilona Butler Victoria Gitelman*², *Etti Doveh*², *Emmanuelle Dupont*³, *Pete Thomas*⁴, *Rachel Talbot*⁴, *Eleonora Papadimitriou*⁵, *George Yannis*⁵, *Luca Persia*⁶, *Gabriele Giustiniani*⁶, *Klaus Machata*⁷, *Charlotte Bax*⁸,

¹: Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux (IFSTTAR) -

PRES Université Paris-Est, IFSTTAR
 Boulevard Newton, Champs sur Marne, F-77447 Marne la Vallée Cedex 2- France

²: The Technion Statistical Laboratory

Technion City, Haifa 32000- Israel

³: IRSE

Brussels- Belgium

⁴: Transport Safety Research Centre, Loughborough University
 Loughborough University, Leicestershire, UK, LE11 3TU- United Kingdom

⁵: National Technical University of Athens (NTUA) -

Patision Complex: 28 Oktovriou (Patision) 42, 10682 Athens, Greece Zografou Campus: Heroon Polytechniou 9, 15780 Zografou, Greece- Greece

⁶: CTL

Rome- Italy

⁷: KfV

Vienna- Austria

⁸: SWOV

18113

Willingness to pay for road safety improvement

*Mouloud Haddak*¹, *Marie Lefèvre*², *Nathalie Havet*³,

¹: Unité Mixte de Recherche Epidémiologique et de Surveillance Transport Travail Environnement (IFSTTAR/UMRESTTE) -

Université Claude Bernard - Lyon I, IFSTTAR, PRES Université Lyon

25 Avenue François Mitterrand, 69675 Bron Cedex- France

²: Unité Mixte de Recherche Epidémiologique et de Surveillance Transport Travail Environnement (UMRESTTE) -

IFSTTAR UMR-T 9405, IFSTTAR-TS2, Université Claude Bernard - Lyon I, PRES Université de Lyon

25, avenue François Mitterrand, Case24 Cité des mobilités F-69675 Bron Cedex- France

³: Groupe d'Analyse et de Théorie Economique Lyon St-Etienne (GATE) -

CNRS : UMR5824, Université Lumière - Lyon II

93, chemin des Mouilles - B.P.167 - 69131 - ECULLY cedex- France

17996

Safety inspection and management of road network in operation

*Salvatore Cafiso*¹, *Alessandro Di Graziano*¹, *Giuseppina Pappalardo*¹, *Grazia La Cava*¹,

¹: University of Catania

viale A Doria 95125 Catania- Italy

17980

Conceptualizing road safety management through territorialized complex system: context and goals

*Thierry Saint-Gérard*¹, *Mohand Medjkane*², *Abdelkrim Benchaib*³, *Dominique Fleury*⁴, *Eliane Propeck*⁵,

¹: Identité et différenciation des espaces, de l'environnement et des sociétés (IDEES) -

CNRS : UMR6266, Université de Caen Basse-Normandie : EA6266, IDEES-CAEN

IDEES-CAEN - Batiment AC Université de CAEN Basse-Normandie Esplanade de la paix 14032 CAEN CEDEX- France

²: Identité et différenciation des espaces, de l'environnement et des sociétés (IDEES) -

CNRS : UMR6266, Université de Caen Basse-Normandie : EA6266

IDEES-CAEN - Batiment AC Université de CAEN Basse-Normandie, Esplanade de la paix, 14032 CAEN-CEDEX- France

³: Power Electronics Activities -

ALSTOMGRID

102, avenue de paris, 91300 Massy- France

⁴: Unité de recherche Mécanismes d'accidents (IFSTTAR/MA) -

IFSTTAR

Chemin de la Croix Blanche, 13300 Salon-de-Provence- France

⁵: Université de Strasbourg, France (LIVE)

université de Strasbourg : EA7362

Laboratoire LIVE UMR 7362 CNRS, Université de Strasbourg, France- France



STS 60 - Bicycles**Day 4: Thursday April 17, 9:00-10:30**

Chair: Randy Rzewnicki (ECF)

Oral presentations

19537

Factors influencing risk and severity of cycling accidents*Ariane Von Below*¹,¹: Bundesanstalt fuer Strassenwesen (BAST) -
Bruederstrasse 53 51427 Bergisch Gladbach- Germany

17513

Results of implementation "NS bike" system - Case study*Valentina Basarić*¹, *Dejan Ilić*², *Jelena Mitrović*¹, *Vuk Bogdanović*¹, *Zoran Despotović*³, *Nenad Ruškić*¹,¹: University of Novi Sad Faculty of Technical Sciences (FTN) -
Trg Dositeja Obradovića 6 21000 Novi Sad- Serbia
²: Public corporation Parking service Novi Sad (PS NS) -
Filipa Višnjića 47 21000 Novi Sad- Serbia
³: Secondary school of transport Pinki (Pinki) -
Šumadijska 12a 21000 Novi Sad- Serbia

17384

Development and implementation of an audit tool for urban bikeway road network*Athanasios Galanis*¹, *Nikolaos Eliou*¹,¹: University of Thessaly, Department of Civil Engineering
Pedion Areos 38334, Volos- Greece

16430

Bike sharing systems, part of public policies on sustainable mobility*Olivier Richard*¹, *Thomas Jouannot*²,¹: Centre for Expertise and Engineering on Risks, Urban and Country Planning, Environment and Mobility (CEREMADterCE) -
CETE de Lyon
25, avenue François Mitterrand CS 92803 69674 BRON CEDEX- France
²: Centre for Expertise and Engineering on Risks, Urban and Country Planning, Environment and Mobility (CEREMADtechTV) -
CEREMA
2 rue Antoine Charial CS 33927 69426 Lyon cedex 03- France

13757

The metrics of bicycling systems in Chinese cities-evidence from Shanghai, Tianjin and Beijing*John Zacharias*¹, *Ming Yang*¹,¹: Peking University (PKU) -
Zhongguancun N. St., Haidian District, Beijing 100080- China**Poster presentations**

20073

Recommendations on integration of bicycle in tram and BHLS infrastructure projects*Genevieve Laferrere*¹,¹: NGO French bicycle federation (FUB) -
FUB
5 rue des bouchers 67000 Strasbourg- France

20050

Safety of urban cycling: A study on perceived and actual dangers*Anita Graser*¹, *Michael Aleksa*¹, *Markus Straub*¹, *Peter Saleh*¹, *Stephan Wittmann*¹, *Gernot Lenz*¹,¹: AIT Austrian Institute of Technology -
Giefinggasse 2, 1210 Vienna- Austria

19629

Spatio-temporal usage pattern analysis of the Paris shared bicycle scheme : a data mining approach*Etienne Côme*¹, *Andry Randriamanamihaga*¹, *Latifa Oukhellou*¹,¹: Génie des Réseaux de Transport Terrestres et Informatique Avancée (IFSTTAR/GRETTIA) -
IFSTTAR
14-20 Boulevard Newton Cité Descartes, Champs sur Marne F-77447 Marne la Vallée- France

17829

Typology of bicycle collisions and falls from a survey of 1078 injured people: some hints for safety advices.*Alice Billot-Grasset*¹, *Vivian Viallon*², *Emmanuelle Amoros*², *Martine Hours*²,¹: Unité Mixte de Recherche Epidémiologique et de Surveillance Transport Travail Environnement (UMRESTTE (UMR N° 9405) Université Lyon1 - IFSTTAR)
IFSTTAR,PRES Université Lyon
25, avenue François Mitterrand, Case24 F-69675 Bron Cedex- France
²: Unité Mixte de Recherche Epidémiologique et de Surveillance Transport Travail Environnement (IFSTTAR/UMRESTTE) -
Université Claude Bernard - Lyon I,IFSTTAR,PRES Université Lyon
25 Avenue François Mitterrand, 69675 Bron Cedex- France

17504

Road safety of cyclists at intersections*Marcel Schreiber*¹, *Jörg Ortlepp*¹, *Dr. Jean Emmanuel Bakaba*¹,¹: German Insurers Accident Research (UDV) -
Gesamtverband der Deutschen Versicherungswirtschaft Wilhelmstraße 43/ 43G 10117 Berlin- Germany

11473

Electric bicycles - Riding habits like bicycles or mopeds? Overview about the project SEEKING - SAFE E-BIKING*Peter Saleh*¹,¹: AIT Austrian Institute of Technology GmbH (AIT) -
Giefinggasse 2 1210 Vienna- Austria

STS 61 - Rail certification and competitiveness**Day 4: Thursday April 17, 9:00-10:30**

Chair: Mark Robinson (Newrail, United Kingdom)

Oral presentations

19829

DynoTRAIN: introduction of simulation in the certification process of railway vehicles*Christine Funfschilling*¹, *Yann Bezin*², *Michel Sebes*³.¹: Département recherche et développements (R&D - SNCF)

SNCF

Immeuble Lumière 40 avenue des terroirs de France, 75011 PARIS- France

²: University of Huddersfield, Queensgate

Huddersfield- United Kingdom

³: Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux Marne-la-Vallée (IFSTTAR) -

IFSTTAR

Boulevard Newton, Champs sur Marne, F-77447 Marne la Vallée Cedex 2- France

18375

Intermodal competition: studying the pricing behavior of the French rail monopoly*Patricia Perennes*¹.¹: Centre d'économie de la Sorbonne (CES) -

Université Paris I - Panthéon-Sorbonne, CNRS : UMR8174, Réseau Ferré de France

Maison des Sciences Économiques - 106-112 Boulevard de l'Hôpital - 75647 Paris Cedex 13- France

18374

Value of travel time reliability on French high-speed and regional services*Laure Guiraud*¹, *Sylvie Gayda*², *Eric Kroes*³, *Inês Cabrita*².¹: Réseau Ferré de France (RFF)

Réseau Ferré de France

92 avenue de France, 75013 Paris- France

²: STRATEC -

Av. A. Lacomblé 69-71 bte 8 B-1030 BRUXELLES- Belgium

³: Significance -

Koninginnegracht 23 2514 AB The Hague- Netherlands

18213

TrioTRAIN: bringing research and standardisation closer together*Ross Hanley*¹, *Riccardo Licciardello*², *Ségolène Martin*³, *Keith Rose*⁴.¹: Union des Industries Ferroviaires Européennes (UNIFE) -

Avenue Louise, 221 B-1050 Bruxelles- Belgium

²: SAPIENZA Università di Roma

Rome- Italy

³: CEN-CENELEC Management Centre -

CEN-CENELEC Management Centre Avenue Marnix 17 B-1000 Brussels- Belgium

⁴: European Committee for Standardization (CEN) -

CEN-CENELEC Management Centre Avenue Marnix 17 B-1000 Brussels- Belgium

17747

Monitoring of rail research projects to improve market impact and implementation*Mark Robinson*¹, *Dan Otteborn*², *Cristian Ulianov*³.¹: Newcastle university (UNEW) -

Newcastle University Stephenson Building Newcastle Upon Tyne NE1 7RU- United Kingdom

²: Bombardier Transport

Stockholm- Sweden

³: Newcastle Centre for Railway Research, Newcastle University (NewRail) -

Stephenson Building, Claremont Road, Newcastle University Newcastle upon Tyne NE1 7RU- United Kingdom

Poster presentations

19488

Necessity of rolling stock in 2050 to meet European Transport White paper 2011 target*Dewan Islam*^{2,1}, *Ross Jackson*¹, *Mark Robinson*¹.²: Freight Logistics Research Group, NewRail - Centre for Railway Research, University of Newcastle Upon Tyne -

University of Newcastle Upon Tyne, Stephenson Building, NE1 7RU, UK; Email: dewan.islam@newcastle.ac.uk; Telephone +441912223972 +441912223972.- United Kingdom

¹: NewRail - Centre for Railway Research, Newcastle University,

Newcastle upon Tyne, NE1 7RU- United Kingdom

18418

A methodology for assessing the impacts of enhanced rail services in South East Europe*Iraklis Stamos*¹, *Evangelos Mitsakis*¹, *Josep Maria Salanova Grau*¹, *Georgia Aifadopoulou*¹.¹: Centre for Research & Technology Hellas - Hellenic Institute of Transport (CERTH/HIT) -

6th Klm. Charilaou - Thermi Road P.O. BOX 60361 GR - 570 01 Thermi, Thessaloniki GREECE- Greece

18321

An economic analysis of railway capacity*Gregoire Marlot*¹, *Julien Brunel*¹, *Maria Perez Herrero*¹.¹: Réseau Ferré de France (RFF)

Réseau Ferré de France

92 avenue de France, 75013 Paris- France

18208

EUREMCO - European Railway ElectroMagnetic COmpatibility*Ross Hanley*¹, *Noel Haddad*², *Colin Place*³, *Wilhelm Baldauf*⁴, *Gerhard Zimmer*⁵, *Francois Maumy*⁶, *Emmanuel Rigaud*².¹: Union des Industries Ferroviaires Européennes (UNIFE) -

Avenue Louise, 221 B-1050 Bruxelles- Belgium

²: SNCF

Société nationale des Chemins de Fer français - SNCF

Paris- France

³: Bombardier Transportation

Derby- United Kingdom

⁴: Deutsche Bahn

Munich- Germany

⁵: Siemens

Erlangen- Germany

⁶: Alstom Transport

ALSTOM

STS 62 - Ship design and assessment**Day 4: Thursday April 17, 9:00-10:30**

Chair: Massimo Debenedetti (Fincantieri, Italy)

Oral presentations

19709

New green-ship challenges faced by the all-electric platform*John Prousalidis*¹, *Lambros Kaiktsis*¹, *Fotis Kanellos*², *George Antonopoulos*¹, *Charalampos Patsios*¹, *Alistair Greig*³.¹: National Technical University of Athens School of Naval Architecture & Marine Engineering (NTUA) -

9 Heron Politechniou St Athens 15773 Greece- Greece

²: Technical University of Crete (TUC), Dept. of Production Engineering and Management (D-PEM), Division of Production Systems (D-PS)

73100 Chania, Greece- Greece

³: UCL Mechanical Engineering, University College London

Torrington Place, London WC1E 7JE, UK- United Kingdom

19495

ContiOPT - Holistic optimisation of a high efficiency and low emission containership*Martin Köpke*¹, *Apostolos Papanikolaou*², *Stefan Harries*³, *Pierre Sames*⁴, *Lampros Nikolopoulos*⁵.¹: Germanischer Lloyd SE -

Brooktorkai 18; 20457 Hamburg, Germany- Germany

²: National Technical University of Athens -

National Technical University of Athens School of Naval Architecture and Marine Engineering 9, Heron Polytechniou, 15773 Athens-Zografou- Greece

³: FRIENDSHIP SYSTEMS GmbH -

Benzstr. 2 D-14482 Potsdam- East Germany

⁴: DNV GL Group -

Brooktorkai 18 20457 Hamburg- Germany

⁵: National Technical University of Athens (NTUA)

9, Heron Polytechniou 15773 Athens-Zografou- Greece

17875

CFD approach to resistance prediction as a function of roughness*Yigit Kemal Demirel*¹, *Mahdi Khorsanchi*¹, *Osman Turan*¹, *Atilla Incecik*¹.¹: Department of Naval Architecture, Ocean and Marine Engineering, University of Strathclyde (SU) -

Henry Dyer Building, 100 Montrose Street, Glasgow G4 0LZ, United Kingdom- United Kingdom

17842

Triple energy saving by use of contra rotating, tip loaded and podded propulsion technology*Antonio Sanchez Caja*¹, *Mariano Perez Sobrino*², *Tomi Veikonheimo*³, *Juan Gonzalez- Adalid*⁴, *Maarten Nijland*⁵, *Ramon Quereda*⁶, *Aitor Auriarte*⁷, *Ilkka Saisto*⁸.¹: VTT Finland

Tietotie 1 A Espoo- Finland

²: Universidad Politecnica Madrid

Av. Moncloa- Spain

³: ABB Finland

HIOMOTIE 13, HELSINKI 00380- Finland

⁴: SISTEMAR

PEÑALARA 2, POZUELO DE ALARCON 15 28224 MADRID- Spain

⁵: MAERSK

Esplanaden 50, 1098 Copenhagen- Denmark

⁶: CEHIPAR

CARRETERA DE LA SIERRA s/n, 28048 Madrid- Spain

⁷: CintraNaval-Defcar

AVENIDA LAUROETA ETORBIDEA 4, LOIU 48180- Spain

⁸: VTT

Tietotie 1 A, Espoo- Finland

17443

The adaptive ship - How smart materials and structures can improve vessels' performance under varying operational conditions*Matthias Krause*¹, *Frank Roland*¹.¹: Center of Maritime Technologies e. V. (CMT) -

Bramfelder Straße 164 22305 Hamburg- Germany

Poster presentations

29368

Stabilisation of vessels with support of balloons*Reinhard Ahlers*¹, *Rory Doyle*².¹: BALance Technology Consulting GmbH (BAL) -

Contrescarpe 33 28103 Bremen- East Germany

²: BMT Group Ltd

1 Waldegrave R.; Teddington, Middlesex, TW11 8LZ- United Kingdom

18060

Risk-based inspection system for collection and investigating of structural data to improve design and inspection planning*Hifi Hifi*¹, *Nigel Bartrop*¹.¹: Strathclyde University Department of Naval Architecture & Marine Engineering (NAME) -

100 Montrose street glasgow G4 0LZ- United Kingdom

18044

Efficient retrofitting of vessels - How planning tools and reverse engineering methodologies can improve repair shipyards' performance*Matthias Krause*¹, *Michael Hübler*¹, *Michael Müller*², *Frank Roland*¹.¹: Center of Maritime Technologies e. V. (CMT) -

Bramfelder Straße 164 22305 Hamburg- Germany

²: IMAWIS - Maritime Wirtschafts- und Schiffbauforschung GmbH (IMAWIS) -

Industriestraße 8 18069 Rostock- Germany

17637

Eco innovative refitting technologies and processes for shipbuilding industry: project results*Francisco Del Castillo*¹, *Eduardo Blanco-Davis*², *Thomas Koch*³, *Eden Mamut*⁴, *Marco Antonio Estrela*⁵.¹: Fundación Centro Tecnológico SOERMAR (SOERMAR)

Avda. Cardenal Herrera Oria, 57. Madrid 28034- Spain

²: University of Strathclyde -

Henry Dyer Bldg., 100 Montrose Street, Glasgow G4 0LZ, Scotland- United Kingdom

³: Atlantec Enterprise Solutions GmbH (AES) -

Oehleckerring N°13, Hamburg 22419, GERMANY- Germany

⁴: Centre for Advanced Engineering Sciences (CAES-UOC) -

Mamaia Avenue N° 124, Constanta 900527- Romania

⁵ Instituto de Soldadura e Qualidade (ISQ) -
Av. Professor Dr. Cavaco Silva No 33, Talaide, Taguspark, Porto Salvo, 2740-120 Oeiras- Portugal

16597

Systematic ship related monitoring, reporting and verification of operational emissions

*Martin Köpke*¹, *Pierre Sames*¹, *Barbara Woltron*²,

¹ Germanischer Lloyd SE -
Brooktorkai 18; 20457 Hamburg, Germany- Germany

² Nautical Officer and Marine Expert

