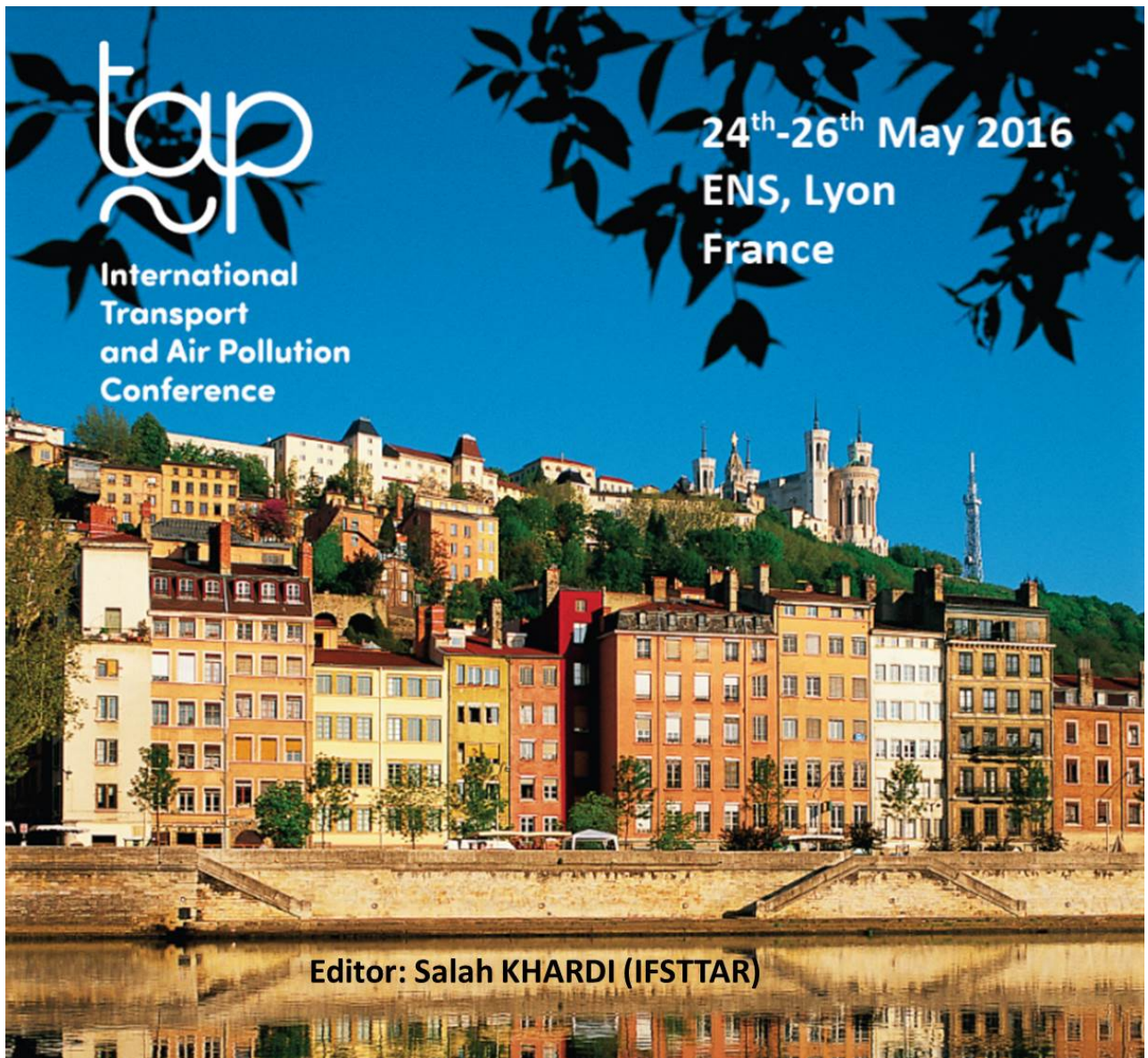


21st International Transport and Air Pollution Conference
“TAP 2016”



Towards energy transition and cleaner transport



Organising Committee

TAP 2016 chairman

Salah KHARDI, PhD HDR, Senior Researcher

French Institute of Science and Technology for Transport, Development and Networks (IFSTTAR).

Transport and Environment Laboratory

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

Email: Salah.khardi@ifsttar.fr

Tel.: + 33 4 72 14 24 79

Fax: +33 4 72 37 68 37

Main organiser

French Institute of Science and Technology for Transport, Development and Networks (IFSTTAR)

Mobility, Planning and Environment Department (AME Department)

Transport and Environment Laboratory (LTE)

<http://www.ifsttar.fr>

IFSTTAR Organising Committee

S. Khardi (LTE), S. Pelissier (LTE), G. Da Silva (LTE), N. Teillac (DG - COM), M.F. Sherratt-Roux (DAEI), D. Pillot (LTE), R. Trigui (LTE).

Registration

Alexandra Richard (IFSTTAR AME)

Co-organisers

- *LUTB Transport & Mobility Systems
Rhône-Alpes Automotive Cluster
www.lutb.fr - www.automotive-cluster.fr*
- *European Commission
Joint Research Centre. Institute for Energy and Transport
Sustainable Transport Unit. Ispra, Italy
<https://ec.europa.eu/jrc/>*

International Scientific Committee

Jürgen Blassnegger (TUG, Austria)
Pierre Bonnel (JRC, European Commission)
Alain Bouscayrol (Lille University, France)
Thomas Büttler (EMPA, Switzerland)
Aurélie Charron (IFSTTAR, France)
Panagiota Dilara (DG-GROW, European Commission)
Asif Faiz (FA, USA)
Laurent Gagnepain (ADEME, France)
Maria-Cristina Galassi (JRC, European Commission)
Christian George (IRCELYON, France)
Stefan Hausberger (TUG, Austria)
Mario Keller (MKC, Switzerland)
Salah Khardi (IFSTTAR, France)
Norbert Ligterink (TNO, NL)
Raphael Luz (TUG, Austria)
Joeri Van Mierlo (Vrije Universiteit Brussel, Belgium)
Nikolas Moussiopoulos (LHTEE/AUTH, Greece)
Leonidas Ntziachristos (LAT/AUTH, Greece)
Martin Rexeis (TUG, Austria)
Zissis Samaras (LAT/AUTH, Greece)
Ernesto Sanchez-Triana (World Bank, USA)
Ake Sjödin (IVL, Sweden)
Robin Smit (DSITI and University of Queensland, Australia)
Peter Sturm (TUG, Austria)
Martin Weilenmann (MODESTIA, Switzerland)

Chairmen of sessions

Tim Wallington (Ford Motor Company, USA)

Norbert Ligterink (TNO, NL)

Thomas Büttler (Automotive Powertrain Technologies Laboratory, EMPA, Switzerland)

Ms Joanna Szychowska (European Commission, Belgium)

Christian George (IRCELYON, France)

Nour-Eddin El-Faouzi (IFSTTAR, France)

Dilara Panagiota (JRC, European Commission)

Mario Keller (INFRAS, Switzerland)

Stefan Hausberger (TUG, Austria)

Laurent Gagnepain (ADEME, France)

Salah Khardi (IFSTTAR LTE, France)

Åke Sjödin (IVL, Sweden)

Ernesto Sanchez-Triana (World Bank, USA)

Klaus Schäfer (IMK-IFU, Germany)

Serge Pelissier (IFSTTAR LTE, France)

Zissis Samaras (LAT/AUTH, Greece)

Leonidas Ntziachristos (LAT/AUTH, Greece)

Jürgen Blassnegger (TUG, Austria)

Maria-Cristina Galassi (JRC, European Commission)

Nikolas Moussiopoulos (LHTEE/AUTH, Greece)

Asif Faiz (FA, USA)

Tim Wallington (Ford Motor Company, USA)

Michel DEPROST (Editor-in-Chief Enviscope, France)

Peter Sturm (TUG, Austria)

Marc Lejeune (LUTB / Renault Trucks, France)

Yinon Rudich (Weizmann Institute, Israel)

Pierre Bonnel (JRC, European Commission)

Barbara D'Anna (Ircelyon, France)

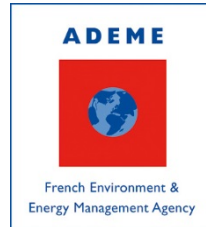
Aurélie Charron (IFSTTAR, France)

Rochdi Trigui (IFSTTAR, France)

Harikishan Perugu (Univ. of Cincinnati, USA)

Robin Smit (DSITIA and University of Queensland, Australia)

Supporting partners



Fédération des associations
de surveillance de la
qualité de l'air



ARISTOTLE
UNIVERSITY OF
THESSALONIKI



TAP 2016 Final Program

Please note that only the name of the first author is indicated. However, TAP proceedings will include the names of all the contributors.

Day 1: Tuesday 24th May 2016

8:00	Registration - coffee
PLENARY SESSION (Amphitheater)	
8:45	<p>Opening – Welcome</p> <p><i>Chairmen: Salah Khardi (Senior Researcher, IFSTTAR, France) and Thomas Bütler (Head of Vehicle Systems Group. Automotive Powertrain Technologies Laboratory, EMPA - Switzerland)</i></p> <p><i>Hélène Jacquot-Guimbal (General Directorate, IFSTTAR)</i></p> <p><i>Philippe Grand (President of LUTB Transport & Mobility Systems and IVECO France)</i></p>
9:00	Ms. Ségolène Royal (Minister of the Environment, Energy and Marine Affairs, responsible for International Climate Relations - France) or her representative: to be confirmed
9:30	<p>Ms Joanna Szychowska (European Commission. DG Internal Market, Industry, Entrepreneurship and SMEs. Unit - Automotive and Mobility Industries, Belgium)</p> <p><i>The EU regulatory system for Type Approvals of Motor Vehicles and how to avoid another Dieseldate</i></p>
10:00	<p>Pr Tim Wallington (Ford Motor Company, USA)</p> <p><i>Light-Duty Vehicles Emissions and Urban Air Quality: Past, Present, and Future Perspectives</i></p>
10:45 Amphitheater	
Exhaust and non-exhaust emissions from transport modes : measurements and modelling	
Chairmen: Christian George (IRCELYON, France) and Norbert Ligterink (TNO, NL)	
	<p>In service CO2 and NOX emissions of Euro 6/VI cars, light- and heavy-duty goods vehicles in real London driving: Taking the road into the Laboratory</p> <p><i>James Tate (Institute for Transport Studies - University of Leeds, United Kingdom)</i></p> <p>PM10 emission effects of new studded tyre regulations</p> <p><i>Mats Gustafsson (Swedish National Road and Transport Research Institute, Sweden)</i></p> <p>Portable Emissions Measurement System (PEMS) data for Euro 6 diesel cars and comparison with emissions modelling</p> <p><i>O'Driscoll Rosalind (Imperial College London, United Kingdom)</i></p> <p>Emissions of NO, NO2, and PM from inland water transportation</p> <p><i>Ralf Kurtenbach (Bergische Universität Wuppertal, Germany)</i></p>

10:45 Room B

Transport policies and mobility challenges towards cleaner cities

Chairmen: Tim Wallington (Ford Motor Company, USA) and Asif Faiz (FA, USA)

Evaluation of E-mobility co-benefits in Klagenfurt

Ulrich Uhrner (Traffic & Environment, IVT, Graz University of Technology, Austria)

ESPRIT: a new carsharing concept - A socio-economic assessment from Lyon region, France

Sadeghian Shadi (VEDECOM Institute, France)

Analyzing effectiveness of air quality management policies in Peru: improvements and challenges

Gomes Lima Ana Luisa (World Bank, USA)

Vehicle fleet composition in urban environment

Eijk Arjan (TNO, Netherlands)

Decomposition of Low emission zone strategies into mechanisms and methodology for assessing their impacts on air pollution

Pasquier Anaïs (IFSTTAR, France)

Combined air quality and noise evaluation of transport policies: methodology and feedbacks

Philippe Dunez (CEREMA, France)

Reducing Freight Transport Pollution by using Electric good vehicles in Paris region

Montenon Antoine (LUTB-RAAC, France)

10:45 Room C

Intelligent Transports Systems and traffic management

Chairman: Nour-Eddin El-Faouzi (IFSTTAR, France)

Air pollution and energy consumption mitigation by Parking Guiding System

Benhassine Sana (Ecole Supérieure Commerce Tunis, Tunisia)

Sustainability Enhancement of Urban Traffic Routing via Multi Criteria Optimisation

Nai Oleari Alberto (Automotive, Infrastructure & Transportation Division, Altran Technologies, France)

Combining microscopic traffic modelling and 3 pollutant emission modellings to assess modifications of traffic supply and demand

Badin Anne-Laure (Cerema, France)

truckRCS - Truck Rail Cargo System - Road & Rail Network Innovation

Korn Patrick (Voith Engineering Services GmbH, Germany)

An Efficient Lane-based Strategy to provide an Eco-Signal Pre-emption Control System Using Connected Vehicles Technology

Noaen Mohammad (Department of Electrical and Computer Engineering, University of Calgary, Canada)

12:30 Lunch Break

13:30 Poster session

Chairmen: Serge Pelissier and Didier Pillot (IFSTTAR, France)

14:30 Amphitheater**Exhaust and non-exhaust emissions from transport modes : measurements and modelling****Chairwoman: Dilara Panagiota (JRC, European Commission)**

Particle mass size distribution relation to train traffic and type in a railway tunnel

Mats Gustafsson (Swedish National Road and Transport Research Institute, Sweden)

Modelling non-exhaust emissions of road salt using the NORTRIP model

Rolstad Denby Bruce (Norwegian Meteorological Institute, Norway)

DPF regeneration of Euro5 Diesel vehicles as source of fine and ultrafine particles in the atmosphere

Barbara D'Anna and R'mili Badr (IRCELYON, France)

Intercomparison of three modeling approaches for road dust resuspension using two experimental data sets

Thouron Laëtitia (CEREA, France)

How selection techniques on traffic data sets can help in estimating network vehicle emissions

*Schiper Nicole (IFSTTAR ENTPE, France)***14:30 Room B****Building and maintenance of road infrastructures (roads, tunnels, new materials and technologies)****Chairman: Mario Keller (INFRAS, Switzerland)**

Influence of pavement management on road traffic emissions and associated costs

Pellecuer Luc (Département de génie de la construction, École de technologie supérieure, Canada)

Potential and methods to reduce GHG emissions from road infrastructure

Johansson Håkan (Swedish Transport Administration, Sweden)

BIOTAIR : Biofiltration treatment, promising results for reducing road traffic pollutants

Petit Jean-François (CEREMA, France)

Use of cement-based materials containing activated carbon to improve air quality in road-transport infrastructures: pilot field tests done in France & Spain

*Isabelle Dubois-Brugger (LafargeHolcim R&D, France)***14:30 Room C****Transport, energy consumption and Greenhouse Gas emissions****Chairmen: Stefan Hausberger (TUG, Austria) and Laurent Gagnepain (ADEME, France)**

ITS environmental monitoring: Development of an innovative method based on unique data for traffic management and traffic user information

Heidegger Fabian (ITS Vienna Region, Public Transport Authority Eastern Region, Austria)

The most promising environmental innovations in inland waterway transport

Consuegra Sara (Verbeek, Netherlands)

	<p>Monitoring Specific Energy Consumption and CO2 Emissions from Rail Traction Activity <i>A. Braschi (Sustainable Development Unit, International Railways Union, France)</i></p> <p>Using a simplified Willans line approach as a means to evaluate the savings potential of CO2 reduction measures in Heavy-Duty Transport <i>Zyl Stephan (TNO, Netherlands)</i></p> <p>Impact assessment of vehicle technology, fuel, and ICT measures on CO2 emissions from road traffic to 2030 <i>Papadimitriou Giannis (Emisia S.A., Greece)</i></p> <p>Modal Shifting Effects and Climate Impacts through Electric Bicycle Use in Germany <i>Kaemper Claudia (Institut für Energie- und Umweltforschung, Germany)</i></p>
16:00 Coffee Break	
16:30 Amphitheater	
Exhaust and non-exhaust emissions from transport modes : measurements and modelling	
Chairmen: Salah Khardi (IFSTTAR, France) and Peter Sturm (TUG, Austria)	
	<p>An emissions inventory for non-road mobile machinery (NRMM) in Switzerland <i>Notter Benedikt (INFRAS Research and Consulting, Switzerland)</i></p> <p>Evaluation of emissions and fuel consumption of Heavy-Duty Vehicles in urban areas <i>Zamboni Giorgio (Dept. MEMTE - University of Genoa, Italy)</i></p> <p>Development of Road Transport Emissions: Case Study of Singapore for 2004-2014 <i>Arimbi Jinca (TUM CREATE, Singapore)</i></p> <p>RemIAG model: Bottom-up emissions inventories for cities with lack of data <i>Ibarra Sergio (Instituto de Astronomia, Geofisica e Ciencias Atmosfericas, Sao Paulo - Brazil)</i></p> <p>A comprehensive evaluation method for instantaneous emission measurements <i>Weller Konstantin (Graz University of Technology, Austria)</i></p>
16:30 Room B	
Transport and non-transport emission interactions	
Human exposure and health impacts	
Chairman: Åke Sjödin (IVL, Sweden)	
	<p>Investigation on lowering commuters' in-vehicle exposure to ultrafine particles <i>Xu Bin (Tongji University, Shanghai - China)</i></p> <p>Air quality in urban Mass Transit Systems: indoor/outdoor interrelations <i>Muresan Bogdan (IFSTTAR, France)</i></p> <p>Risk Exposure of BTEX Emissions from a Diesel Refuelling Station in Johannesburg, South Africa <i>Moolla Raesa (University of the Witwatersrand, South Africa)</i></p> <p>Reconstructing past and present dioxins atmospheric pollution scenarios in the city of Lyon <i>Coudon Thomas (Santé Individu Société – SIS, France)</i></p>

	Effects of bike lane features on cyclists' exposure to black carbon and ultrafine particles <i>Lonati Giovanni (Politecnico di Milano, Italy)</i>
16:30 Room C	
Transport, energy consumption and Greenhouse Gas emissions	
Chairman: Ernesto Sanchez-Triana (World Bank, USA)	
	<p>Analysis of Diurnal Trends in Vehicle Fleet Composition and their Emission Contribution on an Urban Arterial Road in Leeds, UK <i>Wyatt David (University of Leeds, United Kingdom)</i></p> <p>Vehicle emissions in Turkey: Current status and policy options for the future <i>Mock Peter (International Council on Clean Transportation, Germany)</i></p> <p>Market fuel properties and CO₂ emissions for mobility <i>Ligterink Norbert (TNO, Netherlands)</i></p> <p>Scenario analysis of CO₂ emissions in the period 2015-2035 from passenger vehicles in Ireland <i>Alam Md Saniul (Environmental Protection Agency, Ireland)</i></p> <p>Prospective of the city and the daily mobility: which tools for the environmental assessment? <i>Francois Cyrille (LET ENTPE, France)</i></p> <p>An Alternative Energy Efficiency Index Offer to Reduce CO₂ Emissions from Ships: Fleet Energy Efficiency Management Index <i>Gorkem Kokkulunk (Yildiz Technical University, Turkey)</i></p> <p>A real-world test and demonstration project for assessing consumption and emission of Natural Gas Heavy Good Vehicles: Equilibre Project <i>F. Baouche (IFSTTAR, France)</i></p>
16:30 Room D	
PRESS CONFERENCE	
18:00 End of day 1 sessions	
19:15 - Welcome Cocktail	

Day 2: Wednesday 25th May 2016

8:00	Registration - coffee
PLENARY SESSION (Amphitheater)	
Chairmen: Klaus Schäfer (IMK-IFU, Germany) and Zissis Samaras (LAT/AUTH, Greece)	
8:30	Marie-Françoise Sherratt-Roux (French National Contact Point - Transport, France) <i>Presentation of Horizon 2020 calls for 2017 in the area of Transport and air pollution</i>
9:00	Dr Rodolfo Lacy Tamayo Ph.D. (Subsecretario de Planeación y Política Ambiental, México) <i>Air Pollution Control and Fuel Subsidies in Mexico</i>
9:30	Pr Sergio Sanchez (CEO and Executive Director - Clean Air Institute) <i>Analyzing effectiveness of air quality management policies in Peru: improvements and challenges</i>
10:00 Coffee Break	
10:30 Amphitheater	
Exhaust and non-exhaust emissions from transport modes : measurements and modelling	
Chairmen: Leonidas Ntziachristos (LAT/AUTH, Greece) and Jürgen Blassnegger (TUG, Austria)	
	<p>Vehicle emission model for traffic simulations <i>Ligterink Norbert (TNO, Netherlands)</i></p> <p>Numerical investigation of diesel particulate matters in the exhaust tailpipe <i>Talebizadeh Pouyan (Amirkabir University of Technology, Iran)</i></p> <p>The relative importance of tailpipe and non-tailpipe emissions on the oxidative potential of ambient particles in Los Angeles, CA <i>Shirmohammadi Farimah (University of Southern California, USA)</i></p> <p>Elucidating the origin of the enrichment in aromatic compounds in Paris megacity atmosphere <i>Salameh Thérèse (LISA, France)</i></p> <p>Effect of Lane Closure on Vehicle Trajectories and Emissions: Simulation and Real-World Evaluation <i>Hartmann Martin (Institute for Transportation Research and Education, North Carolina State University, USA)</i></p> <p>Laboratory and Field Measurements of Solid Particle Number Concentration <i>Tritscher Torsten (TSI GmbH, Germany)</i></p>
10:30 Room B	
Real driving emissions (RDE)	
Chairwoman: Dilara Panagiota (JRC, European Commission)	
	<p>Quality Assurance of PEMS Emissions Data aimed for the Development of Real-world Vehicle Emission Factors <i>Katsis Petros (EMISIA S.A., Greece and School of Civil Engineering, University of Queensland, Australia)</i></p>

<p>Variations of real world NOx emissions of diesel Euro 5 and 6 light-duty vehicles <i>Kadijk Gerrit (TNO, Netherlands)</i></p> <p>How vehicle emissions vary through the day, week and year: Evidence from telematics data <i>Luc Pellecuer (Département de génie de la construction, École de technologie supérieure, Canada)</i></p> <p>Exhaust emissions from in-service inland waterways vessels <i>Pillot Didier (IFSTTAR, France)</i></p> <p>Real driving emissions as a determinant for the sustainable transport system development <i>Merkisz Jerzy (Poznan University of Technology, Poland)</i></p>
--

10:30 Room C

Environmental legislation, green mobility and teleworking

Chairman: Maria-Cristina Galassi (JRC, European Commission)

<p>Amending EU Regulations 443/2009 and 510/2011 on CO2 emissions from Light Duty Vehicles following the introduction of the WLTP <i>Pavlovic Jelica (European Commission, Joint Research Centre, Italy)</i></p> <p>On the potential for lightweight electric vehicles to facilitate one-way trips in and around city centres <i>R. Mounce (Centre for Transport Research, University of Aberdeen, UK)</i></p> <p>Developments on Eco-innovations: procedure and calculation examples <i>Malfettani Stefano (European Commission, Joint Research Centre, Italy)</i></p>

10:30 Room D

Networking event

Networking event with the opportunity to present your organization, project ideas and your skills
The French National Contact Point – Transport (France)

12:30 Lunch Break

13:30 Poster session - Rochdi Trigui (IFSTTAR, France) and Didier Pillot (IFSTTAR, France)

14:30 Amphitheater

Exhaust and non-exhaust emissions from transport modes : measurements and modelling

Chairmen: Norbert Ligterink (TNO, NL) and Nikolas Moussiopoulos (LHTEE/AUTH, Greece)

<p>PM10 non-exhaust emission factors from tunnel measurements using a novel approach accounting for wall deposition and resuspension <i>Ulrich Uhrner (Traffic & Environment, IVT, Graz University of Technology, Austria)</i></p> <p>Effect of measurement protocol on organic aerosol measurements of exhaust emissions from gasoline and diesel vehicles <i>Kim Youngseob (CEREA, France)</i></p> <p>Urban Taxis and their contribution to the air pollution and CO2 emission: Case study of Singapore <i>Arimbi Jinca (TUM CREATE, Singapore)</i></p>

	<p>Dilution and temperature effects on ultrafine particle emissions at the exhaust outlet of Diesel and gasoline passenger cars <i>Louis Cédric (IFSTTAR, France)</i></p> <p>VOC emissions from the vehicle evaporation process: species and underestimation <i>Man Hanyang, School of Environment, Tsinghua University (China)</i></p> <p>Uncertainty estimation of road transportation emissions at metropolitan scale <i>Chen Ruiwei (CEREA, France)</i></p>
--	---

14:30 Room B

Emission Control Technologies of primary air pollutants

Chairmen: Asif Faiz (FA, USA) and Tim Wallington (Ford Motor Company, USA)

	<p>Low-temperature catalytic oxidation of vinyl chloride emission over Ru modified Co₃O₄ catalysts <i>Chao Wang (East China University of Science and Technology, China)</i></p> <p>Development of a resistive soot sensor <i>Grondin Didier (IRCELYON, France)</i></p> <p>Performance of in-use buses retrofitted with diesel particle filters <i>Rafael Fleischman (Technion - Israel Institute of Technology, Israel)</i></p> <p>Potential of In-Motion-Charging buses for the Electrification of Urban Bus Lines <i>Fabian Bergk (ifeu – Institut für Energie, Germany)</i></p>
--	---

14:30 Room C

Tutorial on modelling and energy management of hybrid electric vehicles coping with environmental issues

Part 1 – Modelling

Alain Bouscayrol (Lille University - MEGEVH Network, France)

- *Structural and functional descriptions / Backwards and forwards approaches*
- *Different modeling objectives / Graphical descriptions*
- *Requirements for energy management of HEVs*

14:30 – 17:00 Room D

ROUND TABLE


Air pollution in the cities

Air quality improvement for the well-being of citizens

Moderator: Michel DEPROST (Editor-in-Chief Enviscope, France)

	<p>Debate involving journalists, scientific and political personalities (in French):</p> <ul style="list-style-type: none"> • Actions for the present and the future based on the following topics: air quality monitoring, health and environmental impacts, new fuels, abatement devices and technologies of emissions, urban traffic management, ... • How to act on the citizen behaviors to reduce health, environmental and climatic impacts of pollutant emissions?
--	--

	<p>Participants:</p> <ul style="list-style-type: none"> - Marie-Blanche Personnaz (General Directorate, Air Rhône Alpes) - Bernard Garnier (President ATMO France) - Laurent Gagnepain (ADEME, France) - Marie Pouponneau (ADEME, France) - Gilles Vesco (Responsible for Soft mobility in Grand-Lyon ; Inventor of Velo'Ov) - Lionel Brard (Deputy Mayor of Valence - France, Vice-President of the Urbain Community of Valence Romans Sud-Isère, Former President of "France Nature Environnement") - Salah KHARDI (IFSTTAR, France) - Eric Wiart (Municipal Councillor – Urban logistics and mobility, Grenoble)
<p>16:00 Coffee Break</p>	
<p>16:30 Amphitheater</p>	
<p>Air quality measurement, monitoring and modelling</p>	
<p>Chairmen: Zissis Samaras (LAT/AUTH, Greece) and Peter Sturm (TUG, Austria)</p>	
	<p>Wireless sensor networks deployment for air pollution monitoring <i>Boubrima Ahmed (URBANET, France)</i></p> <p>Title (to be confirmed) <i>Maria del Pilar Restrepo (Medellin)</i></p> <p>Coupling traffic and emission models: dynamic driving speed for emissions assessment <i>Lejri Delphine (IFSTTAR-ENTPE, France)</i></p> <p>Traffic-related and meteorological influences on air pollutant concentrations at an urban background station in Berlin during BÄRLIN2014 <i>Schäfer Klaus (Karlsruhe Institute of Technology, Institute of Meteorology and Climate Research, Department of Atmospheric Environmental Research, Germany)</i></p> <p>Evaluation of Black Carbon sources and geographical origins in Lorraine: multi-site approach and near real time data <i>Petit Jean-Eudes (Air Lorraine, France)</i></p>
<p>16:30 Room B</p>	
<p>Emission Control Technologies of primary air pollutants</p>	
<p>Chairmen: Marc Lejeune (LUTB / Renault Trucks, France) and Asif Faiz (FA, USA)</p>	
	<p>Impact of engine warm-up and DPF active regeneration on regulated & unregulated emissions of a Euro 6 Diesel vehicle equipped with urea SCR catalyst <i>Leblanc Mickaël (IFP Energies Nouvelles, France)</i></p> <p>Active Diesel Particulate Filters and Nitrogen Dioxide Emission Limits <i>Ibrahim Osama (Department of Mechanical Engineering, College of Engineering & Petroleum, Kuwait University, Kuwait)</i></p> <p>Real time measurements of VOCs by transportable mass spectrometry using chemical ionization methods: a breakthrough innovative product for air quality analysis <i>Leprovost Julien (AlyXan, France)</i></p>

	<p>A simplified temperature model for the three way catalytic converter <i>Varun Pandey (IFSTTAR, France)</i></p>
16:30 Room C	
<p style="text-align: center;">Transport and non-transport emission interactions Human exposure and health impacts</p>	
<p style="text-align: center;">Chairmen: Yinon Rudich (Weizmann Institute, Israel) and Maria-Cristina Galassi (JRC, EC)</p>	
	<p>Effective air quality management: lessons from Latin America <i>Enriquez Santiago (The World Bank, USA)</i></p> <p>Possible health effects of repeated exposures to re-suspended urban dust: the effect of non-tailpipe emissions <i>Rudich Yinon (Weizmann Institute of Science, Israel)</i></p> <p>Evaluation of exposure to particulate air pollution and its lung deposition among cyclists in the Perth Metropolitan Area <i>Shrestha Anu (Curtin University, Australia)</i></p> <p>New compact technology for cabin air purification <i>Lamaa Lina (Brochier Technologies, France)</i></p> <p>Does air pollution modify the impact of aircraft noise on mortality from cardiovascular disease? Results of an ecological study in France <i>Evrard Anne-Sophie (IFSTTAR, France)</i></p>
16:30 Room D	
<p style="text-align: center;">Tutorial on modelling and energy management of hybrid electric vehicles coping with environmental issues</p>	
<p style="text-align: center;">Part 2 - Energy Management Rochdi Trigui (IFSTTAR - MEGEVH Network, France)</p> <ul style="list-style-type: none"> - <i>Energy management definition - Rule based approaches</i> - <i>Optimization based approaches</i> - <i>From offline assessment to online implementation</i> - <i>Pollutant emissions as constraints</i> - <i>Pollutant emissions as part of the optimization</i> 	
16:30 Room - Office	
<p style="text-align: center;">PRESS CONFERENCE</p>	
<p style="text-align: center;">18:00 End of day 2 sessions</p> <p> Departure from conference venue to conference dinner (coach organized)</p>	
<p style="text-align: center;">19:00 - GALA DINNER</p>	

Day 3: Thursday 26th May 2016

8:00	Registration - coffee
PLENARY SESSION (Amphitheater)	
Chairman: Christian George (IRCELYON, France) and Ernesto Sanchez-Triana (World Bank, USA)	
8:30	Dr Yewande Awe (World Bank, Washington DC, USA) <i>The World Bank's work on "Clean air and healthy lungs"</i>
9:00	Pr Sergio Sanchez (CEO and Executive Director - Clean Air Institute) <i>Effective air quality management: lessons from Latin America</i>
9:30	Pr Yinon Rudich (Department of Earth and Planetary Sciences, Weizmann Institute, Israel) <i>Health effects of repeated exposures to re-suspended urban dust</i>
10:00 Coffee Break	
10:30 Amphitheater	
Real driving emissions (RDE)	
Chairmen: Laurent Gagnepain (ADEME, France) and Pierre Bonnel (JRC, European Commission)	
	<p>A new approach for systematic use of PEMS data in emission simulation <i>Claus Matzer (Technical University of Graz, Austria)</i></p> <p>Real life emissions of Euro 6 diesel cars and operation of emission control systems <i>Cuenot Francois (Transport and Environment, Belgium)</i></p> <p>Real-world driving cycles for light-duty vehicles in the Netherlands <i>Geilenkirchen Gerben (Netherlands Environmental Assessment Agency – PBL, Netherlands)</i></p> <p>Modelling the effect on air quality of Euro 6 emission factor scenarios <i>Toenges-Schuller Nicola (AVISO GmbH, Germany)</i></p> <p>Recent remote sensing measurements of emissions from heavy-duty buses and passenger cars in Sweden <i>Jerksjö Martin (IVL Swedish Environmental Research Institute, Sweden)</i></p>
10:30 Room B	
Air quality measurement, monitoring and modelling	
Chairman: Tim Wallington (Ford Motor Company, USA)	
	<p>Investigating the influence of the calibration and validation of cell-transmission traffic flow model on average-speed based emissions prediction <i>Sayegh Arwa (University of Leeds, United Kingdom)</i></p> <p>Urban air: An operational air quality management tool at high resolution for cities <i>Galineau Julien (NUMTECH, France)</i></p> <p>Air-noise observatory regional and local scale exposure to air and noise pollution <i>Didier Chapuis (Air Rhône-Alpes, France)</i></p>

Investigation of Volatile Organic Compounds Exposure inside Vehicle Cabins in China

Xu Bin (Tongji University, Shanghai - China)

Exposure Analysis in Pearl River Delta (PRD) Based on Land Use Regression (LUR)

Xiaofan Yang (School of Environment, Tsinghua University, Beijing, China)

10:30 Room C

Transport, energy consumption and Greenhouse Gas emissions

Chairman: Nikolas Moussiopoulos (LHTEE/AUTH, Greece)

Quantification of the effect of WLTP introduction on CO₂ emissions from passenger cars

Tsokolis Dimitris (Laboratory of Applied Thermodynamics, Greece)

Transport energy consumption in Tunisia: growth which needs to be stopped

Harizi Besma (High School of Business Tunis, University of Manouba, Tunisia)

The validation of CO₂MPAS tool for supporting the introduction of WLTP in the European CO₂ certification scheme

Fontaras Georgios (European Commission, Joint Research Centre, Italy)

Real-world driving, energy demand and emissions of electrified vehicles

Kugler Ulrike (German Aerospace Center, Germany)

Greenhouse gas emissions from heavy duty vehicles using upgraded biogas as a fuel

Winther Morten (Department of Environmental Science, Aarhus University, Denmark)

The Impact of Combustible Renewables and Waste Consumption and Transport on the Environmental Degradation: The Case of Tunisia

Ben Jebli Mehdi (University of Jendouba, FSJEG de Jendouba, Tunisia)

10:30 Room D

Exhaust and non-exhaust emissions from transport modes : measurements and modelling

Chairwoman: Barbara D'Anna (Ircelyon, France)

MOVES-Matrix Energy Consumption and Emission Modeling Applied to Individual Vehicles

Liu Haobing (Georgia Institute of Technology, USA)

Calculating emissions from road transport on a street level with COPERT4 and COPERT street level, a case study

Kouridis Chariton (EMISIA SA, Greece)

An investigation of evaporative VOC emissions from petrol light duty vehicles in Europe using different oxygenated fuels

Mellios Giorgos (EMISIA SA, Greece)

Physical characterization of fine and ultrafine particle emissions from non-exhaust road transport in urban and suburban areas. New project development

Khardi Salah (IFSTTAR, France)

Experiences and Results with different PEMS

J. Czerwinski (University of Applied Sciences, Switzerland)

Quantifying the air pollutants from construction and service life of roads

Younes Mohamed (Menoufia University, Egypt)

12:30 Lunch Break

14:00 Amphitheater

Real driving emissions (RDE)

Chairmen: Pr Sergio Sanchez (Clean Air Institute) and Harikishan Perugu (Univ. of Cincinnati, California Air Resources Board, USA)

Measurement of late-model diesel automobile real driving emissions of reactive nitrogen compounds with on-board FTIR analyzer

Vojtisek Michal (Czech Technical University in Prague, Czech Republic)

Modelling exhaust emissions of normal driving and crossings, respectively, using the PHEM model

Janhäll Sara (Swedish National Road and Transport Research Institute, Sweden)

High-resolution mapping of vehicular emissions for the entire municipality of Beijing based on real-world dynamic traffic data

Yang Daoyuan (State Key Joint Laboratory of Environment Simulation and Pollution Control, Tsinghua University, China)

Experiences and Results with different PEMS

J. Czerwinski (University of Applied Sciences, Switzerland)

Why do diesel cars emit more NOX on the road than during certification?

Bart Degraeuwe (European Commission, JRC - Institute for Environment and Sustainability, Air and Climate Unit, Italy)

Study of Traffic Real Driving Emissions in Madrid in 2015 and conclusions

De La Fuente Josefina (Remote Sensing Laboratory, Spain)

14:00 Room B

Air quality measurement, monitoring and modelling

Chairman: Aurélie Charron (IFSTTAR, France)

Ultrafine particle measurement and characterization for air quality monitoring

E. Zimmermann (CEA, France)

Assessment of the area affected by particulate matter generated by freight transportation over unpaved roads using computational fluid dynamics

Prato Daniel (Instituto Tecnológico de Estudios Superiores de Monterrey, Mexico)

Dust absorption performance of urban trees in roadsides of Ho Chi Minh city

Huynh Trong Nguyen (Ho Chi Minh City University of Technology, Vietnam)

Influence of Gaps Between Buildings on Air Quality in Cities, Two Case Studies

Gruber Karin (consulting gruber, Austria)

Analysing impacts of intense ethanol fuel use on urban VOCs burden and composition

Dominutti Pamela (Department of Atmospheric Sciences - University of São Paulo, Brazil)

Determination of the influence of meteorological parameters on the ambient VOC concentrations in an industrial town located Aegean coast of Turkey

Doğan Güray (Akdeniz University, Turkey)

14:00 Room C

Economic impacts and technological instruments

Chairman: Rochdi Trigui (IFSTTAR, France)

Why Own a Hybrid? A Global Total Cost of Ownership Analysis for the Private and Company Car Driver

Palmer Kate (University of Leeds, United Kingdom)

Personal mobility choices and climate change: which incentives are effective?

Raux Charles (Laboratoire d'économie des transports, France)

Economies of scale and density in the public road transport sector in Tunisia

Ezghani Amine (Department of Management, University of Sfax, Tunisia)

Can electric delivery vans compete with internal combustion engine ones? A constraint analysis

Camilleri Pierre (IFSTTAR University of Paris-Est, France)

Parametric study on trajectory optimization

Setareh Javanmardi (IFSTTAR, France)

An Investigation for the Fuel Price Escalations on Optimum Speed in Maritime Transportation

Eda Turan (Yildiz Technical University, Turkey)

15:45 Coffee Break

15:45 - 16:30 Amphitheater

TAP 2016 CLOSING PLENARY SESSION

Chairman: Thomas Bütler (Automotive Powertrain Technologies Laboratory, EMPA, Switzerland)

+ others to be confirmed

POSTER SESSION 1

Day 1: Tuesday 24th May 2016 from 13:30 (for 24 hours)

Title	Author
ERMES - Providing Consolidate Emissions Factors for European Road Transport	<i>M. C. Galassi (Institute for Energy and Transport of the Joint Research Centre (EC, DG JRC), Italy)</i>
Light Duty Vehicle Emission Modelling for Indian Cities: Application of US-EPA'S MOVES Model in Hyderabad, India	<i>Perugu Harikishan (Univ. of Cincinnati, USA)</i>
Study of NH ₃ - Standard SCR reactions over a commercial catalyst on powder and mini-SCR forms	<i>Molina Gonzalez Sonia (IRCELYON, France)</i>
NOX Emission Performance of Vans in Real Urban Driving Using A Remote Sensing Device	<i>Rushton Christopher (Institute for Transport Studies, University of Leeds, United Kingdom)</i>
Fe zeolite supported catalysts for the SCR-NH ₃ reaction	<i>Anguita Paola (IRCELYON, France)</i>
Methods to comply with sulphur regulation for shipping and resulting particle emissions	<i>Fridell Erik (IVL Swedish Environmental Research Institute, Sweden)</i>
Impact of aftertreatment device and driving conditions on PAHs, BTEX, Carbonyl compounds, black carbon, ultrafine particle and NO ₂ emissions for Euro 5 Diesel and gasoline vehicles	<i>Liu Yao (IFSTTAR, France)</i>
Manganese-based catalysts for toluene combustion	<i>Sihaib Zakaria (IRCELYON, France)</i>
VOC emissions from the vehicle evaporation process: species and underestimation	<i>Man Hanyang (School of Environment, Tsinghua University, China)</i>
A semi-empirical comparison of CO ₂ emissions and energy demands of vehicles under the NEDC and WLTP type approval test procedures	<i>Pavlovic Jelica (European Commission, Joint Research Centre, Italy)</i>
Identification of anthropogenic and natural sources of atmospheric particulate matter and trace metals in Constantine, Algeria	<i>Ali-Khodja Hocine (Université des Frères Mentouri, Algeria)</i>
Mixing state and size distribution of aerosols during the tropospheric evolution of urban and industrial plumes	<i>Deboudt Karine (ULCO-LPCA, France)</i>
The interactions of the Exhaust Ultrafine Particle with the vehicle near-wake flow	<i>Mehel Amine (Laboratoire de l'Ecole Supérieure des Techniques Aéronautiques et de Construction Automobile, France)</i>
Assessment of traffic congestion in arterial roads of Tunisian Metropolitan City	<i>Benhassine Sana (Ecole Supérieure Commerce Tunis, Tunisia)</i>

Effect of Road Grade, Vehicle Speed and Vehicle Types on NO ₂ Emission in Urban Roads in Jordan	<i>Al-Rifai Jawad (Philadelphia University, Jordan)</i>
Traffic emissions study and development of a legal framework in Spain	<i>De La Fuente Josefina (Technet, sostenibilidad en transporte, Spain)</i>
Improved catalyst for decreasing methane emissions from natural gas vehicles	<i>Caravaggio Gianni (Natural Resources Canada, Canada)</i>
Metrological characterization of a remote sensing equipment for on-road emission measurements: Considerations for detecting high-emitter vehicles	<i>Pujadas Manuel (Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas, Spain)</i>
A Combined Method of PAMS and Modelling to Quantify the Emission Benefits of Switching to Hybrid Vehicles in Taxi Fleets	<i>Riley Richard (University of Leeds, United Kingdom)</i>
Space, transport and fuel: District of Tunis	<i>Azaiez Mohamed (Faculty of Economics and management, Tunisia)</i>
Empirical study for absolute relation between GDP per capita and CO ₂ emissions from transportation, industrialization and an energy mix	<i>Akter Shamema (Bangladesh Economic Association, Bangladesh)</i>
Pre-normative Research on E-mobility: the new European Interoperability Centre	<i>M. C. Galassi (Institute for Energy and Transport of the Joint Research Centre (EC, DG JRC, Italy)</i>

POSTER SESSION 2

Day 2: Wednesday 25th May 2016 from 13:30 (for 24 hours)

Title	Author
ERMES - Providing Consolidate Emissions Factors for European Road Transport	<i>M. C. Galassi (Institute for Energy and Transport of the Joint Research Centre (EC, DG JRC), Italy)</i>
GRETA: Gridding Emission Tool for ArcGIS	<i>Schneider Christiane (AVISO GmbH, Germany)</i>
Output growth, energy consumption and reduction potential of CO2 emission in Pakistan transport sector	<i>Ahmad Izhar (China Center for Energy Economics Research, Xiamen University, China)</i>
Effects of Alternative Drivetrain Technologies and -Fuels on CO2-Emissions from Road Traffic in Germany	<i>Piasecki Conrad (Bundesanstalt für Straßenwesen, Germany)</i>
Evolution of traffic related air pollutants in Veszprém County over the past 15 years	<i>Georgina Nagy (University of Pannonia, Hungary)</i>
Non-Intrusive Reduced Basis Methods Applied to Outdoor Pollutant Transport Models	<i>Hammond Janelle Katharine (Laboratoire Instrumentation, Simulation et Informatique Scientifique, France)</i>
PMx traffic resuspension estimation over a Milan area domain	<i>Pepe Nicola (Politecnico di Milano, Italy)</i>
Impact of train braking systems on particle levels in the Paris subway	<i>Molle Romain (RATP, France)</i>
Polybrominated Diphenyl Ethers (PBDEs) Levels in Indoor Dust	<i>Basaran Bilgehan (Dept. of Environmental Engineering, Kocaeli University, Turkey)</i>
Risk estimation of halogenated POPs in indoor dust in an industrialized city	<i>Civan Mihriban (Kocaeli University, Turkey)</i>
Analysis of spatiotemporal ozone concentrations considering traffic flows and solar radiations in Seoul, Korea	<i>Kim Youngkook (Youngkook Kim, South Korea)</i>
Photocatalytic Oxidation of VOCs for Cleaning Vehicle Cabin Air	<i>M. Bouhatmi (IRCELYON, France)</i>
Contribution of traffic to local PM10 concentrations in urban space? example of Wrocław, SW Poland	<i>Muskata Piotr (Department of Climatology, University of Wrocław, Poland)</i>
Real world performance of ventilation systems for reducing nitrogen oxides or particulate matter levels in road tunnels	<i>Vidal Bruno (CETU, France)</i>
Innovative and efficient novel smart sensors for air pollution monitoring in urban area	<i>Fertier Laurent (ECOLOGICSENSE, France)</i>

Comparative study of three digestion methods for airborne PM10-bound metallic elements in an urban site	<i>Ali-Khodja Hocine (Université des Frères Mentouri-Constantine, Algeria)</i>
Monitoring, assessing, and following up on people's health of air pollution emissions from transport in urban area in Moldova	<i>Stratulat Tatiana (Grigori Friptuleac, Moldova)</i>
Estimation of atmospheric pollutant emissions by transport at Mytilene, Greece, during the tourist season	<i>Kotrika Anna (Inst. for Environmental Research and Sustainable Development, Greece)</i>
Sustainability evaluation of electric taxi fleet in the city of Poznan	<i>Merkisz-Guranowska Agnieszka (Poznan University of Technology, Poland)</i>
Development of Eco-Friendly Vehicle Choice Model	<i>Hahn Jin-Seok (Hye Ran Kim, South Korea)</i>
Pre-normative Research on E-mobility: the new European Interoperability Centre	<i>M. C. Galassi (Institute for Energy and Transport of the Joint Research Centre (EC, DG JRC, Italy)</i>

Timetable summary

	8:00	8:45-10:30	10:30-10:45	10:45-12:30	12:30-14:30	13:30-14:30	14:30-16:00	16:00-16:30	16:30-18:00	19:30
Day 1 Tuesday 24 th May 2016	Registration Coffee	Opening session Plenary session (A)	Coffee Break	Scientific sessions (A, B, C)	Lunch	Poster session 1 (hall)	Scientific sessions (A, B, C)	Coffee Break	Scientific sessions (A, B, C) Press conference (D)	Welcome Cocktail
	Press conference									
Day 2 Wednesday 25 th May 2016	Registration Coffee	Plenary session (A)	Coffee Break	Scientific sessions (A, B, C)	Lunch	Poster session 2 (hall)	Scientific sessions (A, B, C) Special session HEV (Room C)	Coffee Break	Scientific sessions (A, B, C) Special session HEV (Room C)	Gala Dinner
	Networking event - Room D						Round table (private session - Room D) Press conference			
Day 3 Thursday 26 th May 2016	8:00	9:00-10:00	10:00-10:30	10:30-12:30	12:30-14:00	14:00-15:30	15:30-15:45	15:45-16:30		
	Registration Coffee	Plenary Session (A)	Coffee Break	Scientific sessions (A, B, C)	Lunch	Scientific sessions (A, B, C)	Coffee Break	Closing plenary session (A)		

A: Amphitheater - B, C and D: Meeting rooms

Contact

Salah KHARDI, PhD HDR

TAP2016 Chairman

Research Director

Transport and Environment Laboratory (LTE)

The French Institute of Science and Technology for Transport, Development and Networks
(IFSTTAR)

25 avenue François Mitterrand

69675 Bron

France

Tel : +33 4 72 14 24 79 Fax : +33 4 72 37 68 37

Salah.khardi@ifsttar.fr

Website : <http://www.ifsttar.fr/>