5th European Battery, Hybrid and Fuel Cell Electric Vehicle Congress

Geneva, 14th - 16th March 2017

Tuesday, 14th March 2017

8.30 - Registration & Welcome Coffee

Foyer

9.30 - Opening Session - European Authorities' Perspective & Views from the Rest of the World
Chair: Frédéric Vergels, Electri-city.mobi, BE

Room C

Welcome Words

EEVC's Mission and Goals
Frédéric Vergels, Electri-city.mobi, BE

Setting the Scene
Michaël Thémans, EPFL, CH

Worldwide Context

Crossing the Chasm - Electric Vehicles Development in 25 Years of the Technical Collaboration Group "Hybrid and Electric Vehicles" of the International Energy Agency (IEA)
Urs Muntwyler, International Energy Agency, CH

The European Commission's Action Plan

DG for Mobility and Transport (MOVE)
Hugues Van Honacker, Dir. C - Innovative and Sustainable Mobility, Unit 1 - Clean Transport and Sustainable Urban Mobility Innovative and Sustainable Mobility, BE

DG for Internal Market, Industry, Entrepreneurship and SMEs (GROW)
Joanna Szychowska or Philipp Troppmann, Dir. C - Industrial Transformation and Advanced Value Chains, Unit 4 - Automotive and Mobility Industries, BE

11.00 - Coffee Break

Foyer

11.30 - Plenary Session 1 - Visions from European Organizations and Platforms
Chair: François Vuille, EPFL, CH

Room C

ERTRAC, the European Road Transport Research Advisory Council
EGVIA, the European Green Vehicles Initiative Association
Jean-Luc di Paola-Galloni, Valeo, FR

POLIS, the European Network of Cities and Regions Working Together to Deploy Innovative Technologies and Policies for a more Sustainable Mobility
Karen Vancluysen, BE

AVERE, the European Association for Battery, Hybrid and Fuel Cell Vehicles
Bert Witkamp, BE

ACEA, the European Automobile Manufacturers' Association
Petr Dolejsi, BE

UITP, the International Association of Public Transport
Pauline Bruge, BE

EURELECTRIC, the Union of the Electricity Industry
Senan McGrath, ESB, IE

13.15 – Lunch

Foyer

14.45 - Round Table RT1 - Infrastructure: Where do we Stand?
Chair: Rune Haaland, EVUnion, NO

Room C

CharIN e. V.
Claas Bracklo, BMW, DE

CHAdeMO
Tomoko Blech, CHAdeMo, FR

The Bus TOSA
Bruce Warner, ABB, CH

Delta Energy Systems
Krzysztof Puczko, Delta Energy Systems, FI

Inductive Charging Station for Electric Vehicles in the City of Rotterdam
Bram van Eijsden, Stichting Elaad, NL

EURELECTRIC
Senan McGrath, ESB, IE

Reasons to Focus Already Now on 150kW, not More and not Less, DC-Fast Charging
Marco Piffaretti, GOFAST, CH

16.45 - Poster Session *& Welcome Reception*
D1: Technical Solutions
D2: Policies and Market Dynamics

Foyer

Dialogue D1: Technical Solutions

Advanced Carbon Fiber Components Structural Parts for Light Weighting of a Battery Electric Vehicle (BEV): Understanding Environmental Performance Using Life Cycle Assessment Study
Venkata Krishna Kumar Upadhyayula, Umea University, SE

Efficient Cabin and Powertrain Preconditioning for EVs with a Water-to-water Heat Pump Dystem
Andres Caldevilla, Denso Automotive, DE

Improved Safety Level of Battery Circuits in Electric Vehicle by Using Triggered Fuse
Mitja Koprivšek, ETI Elektroelement, SI

Benefits of Material Science in Electrical Vehicle Applications
Nicolas Batailley, Solvay Engineering, FR

Least Squares Based Capacity Estimation for Li-Ion Battery Cells
Evangelos Bakas, TNO Powertrains Department, NL

Highly Integrated Fuel Cell Analysis Infrastructure for Advanced Research Topics
Stefan Brandstätter, HyCentA Research, AT

Predictive Control Strategy of Vehicle Drive
Josef Morkus, Czech Technical University in Prague, CZ

Fatigue Design of Thermoplastic Matrix Composites Components - A Simplified Approach
Antonio Fernandes, University of Porto, PT

Using EV Telematics Data to Monitor Real-World Battery Health for EV Owners and Fleet Operators
Daniel Savu, FleetCarma, CA

Detection of Elevated Self-Discharge Processes in Automotive Battery Packs
Hendrik Zappen, ISEA RWTH Aachen, DE

Lifecycle Screening of Nanomaterials for Sustainable Electric Vehicles
Christine Roxanne Hung, NTNU, NO

Possibilities for Hydrogenization of Road Transport in Poland
Gis Wojciech, Motor Transport Institute, PL

Piezoelectric-Charging Structural Supercapacitor
Pavlos Giannakou, University of Surrey, UK

Dual Motors - Dual Shaft Electric Drive with Multi Speed Gearbox
Arkadiusz Hajduga, Warsaw University of Technology, PL

Active Suspension Control of an In-Wheel Electric Vehicle Using Luenberger Observer
Galip Cansever, INAL YTU, TR

Integrated Electric Drive System based on High Speed Switched Reluctance Motor
Saphir Faid, Punch Powertrain, BE

Novel Carbon Reinforced Car Door Obtained within the ENLIGHT European Project
Antonio Fernandes, University of Porto, PT

Fault Diagnosis of a Lithium Ion Battery via Electrochemical Model and MMAE
Sohel Anwar, Indiana University Purdue University Indianapolis, US

Modelling and Control of Auxiliary Loads in Medium Duty Vehicles
Mehmet Göl, 2RYA Automotive, TR

EBSF2, the European Bus System of the Future 2 project
Yannick Bousse, UITP, the International Association of Public Transport, BE

48 V – The Future of Automotive Traction
Florian Bachheibl, Volabo, DE

Portable Range Extender
Valerian Croitorescu & Liviu Giurca, University of Bucharest, RO

Integrated Propulsion System
Valerian Croitorescu & Liviu Giurca, University of Bucharest, RO

Dialogue D2: Policies and Market Dynamics

BICAR: Sharing Mobility for the Last mile
Hans-Jörg Dennig, Zurich University of Applied Sciences, CH

NeMo, the Hyper-Network for electro-mobility
Angelos Amditis & Evangelia Latsa, ICCS, GR

Managing Stakeholder and Data Collection in Living Labs for Sustainable Transport Systems
Frida Hermansson, Lindholmen Science Park: Test Site Sweden, SE

The Key for Reducing Cost and Improving Safety without any Performance Compromises
Grzegorz Pilatowicz, LEM Switzerland, CH

Comparing Elecytric Vehicles and Fossil Driven Vehicles in Free-floating Car Sharing Services
Frances Sprei, Chalmers University of Technology, SE

How to Take an Active Role to Promote Electric Mobility in Haute Savoie
Frédéric della Faille, Automobile Club du Mont-Blanc, FR

Fuel Cell Plug-In Hybrid to Overcome Market Barriers
Paul Kammhuber, Proton Motor Fuel Cell, DE

Hydrogen Region 2.0 - Heavy Duty Vehicles on Hydrogen
Wouter van der Laak, WaterstofNet, BE

The Size and Range Effect: Lifecycle Greenhouse Gas Emissions of Electric Vehicles
Linda Ager-Wick Ellingsen, Norwegian University of Science & Technology, NO

Stimulating Innovation through Projects in Engineering Education – The growth and Success of the Ecorace-Challenge project
Gerben Peeters, KU Leuven, BE

Why Do Consumers Shun EVs? A Question of Rationality?
David Morris, Coventry University, UK

A Tour-Oriented Refuelling-Station Location Model for an Electric-Scooter Tourism System - The Case of the Penghu Island
Ying-wei Wang, National Penghu University of Science and Technology, TW

Can a Light Electric Vehicle Be a Car or a Van?
Luc Vinckx, Elephant Consult, BE

Dundee City Council: A City's Electric Vision
Fraser Crichton, Dundee City Council, CA

The IRU Project: A Lighthouse for Electric Taxis
William Denous, International Road Transport Union, BE

Modeling of 2015 Car Sales and Prices in Some European Countries
Matthieu de Lapparent, EPFL, CH

EVs in Private or Public Extended Areas
Valerian Croitorescu & Liviu Giurca, University of Bucharest, RO

Wednesday, 15th March 2017

8.00 - Registration & Welcome Coffee

Foyer

8.30 - Parallel Sessions:

1A: Regional and Global Introduction Scenarios
1B: Batteries - Modeling & Safety
1C: Hybrid & FC Vehicles

Lecture 1A - Regional and Global Introduction Scenarios

Chair: Andres Caldevilla, Denso Automotive, DE

Room K

Charging Infrastructure for PEVs in Sweden - Developments and Current Policies
Martina Wikström, Swedish Energy Agency, SE

ERA-NET Cofund Electric Mobility Europe (EMEurope)
Marcia Giacomini, TUV Rheinland Consulting, DE

ChargePlace Scotland: The Development of a National Electric Vehicle Charging Network
Laurence Kenney, Transport Scotland, UK

Conceptualizing an Agent-Based Model Framework for Electric Vehicle Adoption in Brussels
Quentin De Clerck, MOBI - VUB, BE

Power Line Communication Applied to EV or EV Charger in Yet Installed Electric Systems in Emplacements with no Wireless Cover
Javier Sanchez Rios, JSR - Consulting, ES

Accompanying the Deployment of Electric Buses in Cities
Pauline Bruge, UITP - the International Association of Public Transport, BE

10.30 – Coffee break

Foyer

Lecture 1B - Batteries - Modeling & Safety

Chair: Huw Davis, Coventry University, UK

Room F

Lithium Batteries Safety: a New Approach to Regain Confidence?
Claude Chanson, Recharge, FR

PSO Based Real-Time Estimation of SOC of a Lithium Ion Battery Cell
Sohel Anwar, Indiana University Purdue University Indianapolis, US

In-operando Techniques for Battery Monitoring and Safety Issues Prevention
Guillet Nicolas, CEA Liten, FR

Thermal Management of Lithium-Ion Battery Packs for Different Design Configurations
Elham Hosseinzadeh, WMG - University of Warwick, UK

An Hybrid System for Battery Thermal Management for Electric Vehicles
Lucia Ianniciello, Mines ParisTech, FR

A Table-driven Li-Ion Battery Model for a BMS Development Platform – Modeling, Measurements, Implementation and Validation
Carlos Ziebert, Karlsruhe Institute of Technology, DE

10.30 – Coffee break

Foyer

Lecture 1C - Hybrid & FC Vehicles

Chair: François Badin, IFP Energies Nouvelles, FR

Room G

A Compensation Method for Production Tolerances in Electric Drive Systems Using an Extended Open-Loop Torque Control
Markus Ott, Daimler AG, DE

Fuel Cell Buses: A solution to Meet Zero Emission Regulations for Transit Agencies
Oben Uluc, Ballard Power Systems, CA

Fuel Cell Electric Vehicles – Can OEMs Rely on an Established Supply Chain?
Franz Lehner, E4tech, UK

A Scalable PEM Fuel Cell Modelling Approach to Support FCEV Component and System Development
Reinhard Tatschl, AVL, AT

HYACINTH: HYdrogen ACceptance IN the Transition pHase - Public and Stakeholder Acceptance of Fuel Cell Electric Vehicle in Europe
Alcalde Gema, CNH2, ES

10.30 – Coffee break

Foyer

11.00 - Parallel Sessions:
2A: Good Practices
2B: Market Analyze & Perspective
2C: Smart Grid

Lecture 2A - Good Practices
Chair: David Hellwig, AVL, DE

Room F

Probabilistic Modeling of Public Electric Vehicles Charging
Mahmoud Shepero, Uppsala University, SE

Trip Patterns and Corresponding Energy Consumption of Battery Electric Vehicles - A Fleet-Based Survey
Sören Christian Trümper, University of Technology Hamburg, DE

Residential Smart-Charging Program in Toronto: Results of a Utility Controlled Charging Pilot
Eric Mallia, FleetCarma, CA

Driving Characteristics' Effects on EV Energy Consumption - A Case Study in Beijing
Kezhen Hu, Tsinghua Univeristy, CN

Results of an Electric Vehicle Suitability Assessment in a Fleet of a Large Electricity Grid Company
Edwin Bestebreurtje, FIER Automotive, NL

12.40 - Lunch

Foyer

Lecture 2B - Market Analyse & Perspective

Chair: Martina Wikström, Swedish Energy Agency, SE

Room K

SCORE – A European Initiative Determining the Competiveness of European Transport Industry

Julia Kaltschew, VDI/VDE Innovation & Technik, DE

Charging Information Services for BEVs – Two Competing and Complementary Business Models

Sinan Deniz, School of Economics & Management, Lund University, SE

A Disaggregated Approach to Model International Passenger Car Markets and their Interdependencies

Jens Brokate, DLR Institute of Vehicle Concept, DE

How Car Batteries Disrupt the Energy and Automotive World

Marcus Fendt, the Mobility House, DE

Comparison of the Market Depreciation of Electric and Gasoline Vehicles in USA and Europe

François Vuille, EPFL, CH

12.40 - Lunch

Foyer

Lecture 2C - Smart Grid

Chair: Marc Trahand, Nuvve Europe, FR

Room G

ICT Systems for Intelligent Wireless Dynamic EV Charging
Angelos Amditis, ICCS, GR

Smart Solar Charging: Bi-Directional AC Charging in the Netherlands
Baerte de Brey, Elaad, NL

Assessment of Vehicle to Grid Economics for EV users
Franz Lehner, E4tech, UK

Jedlix: Most Beneficial Smart Charging with Connected Cars
Taco Van Berkel, Jedlix, NL

Smart Charging in Practice
Harm Weken, FIER Automotive, NL

12.40 - Lunch

Foyer

14.00 - Parallel Sessions:

3A: Infrastructure & V2G Vehicles
3B: Learning from Incentives and Policy: Sharing our Experiences
3C: From Industry to Racing and the Reverse

Lecture 3A - Infrastructure & V2G Vehicles

Chair: David Morris, Coventry University, UK

Room F

A Techno-Economic Analysis of Fast Charging Needs in Germany for Different Ranges of Battery Electric Vehicles
Simon Funke, Fraunhofer ISI, DE

Mega-Batteries for Fast DC Charging and Hydrogen Production - Fuelling Both Electric and Fuel Cell Cars
Hubert Girault, EPFL, VH

Nuvve's V2G fleet deployments in Europe
Marc Trahand, Nuvve Europe, FR

R&D Status of Vehicle-to-Grid
Dirk Lauinger, EPFL, CH

Smart Charging in the Netherlands
Milan Tamis, Amsterdam University of Applied Sciences, NL

15.40 – Coffee break

Foyer

Lecture 3B - Learning from Incentives and Policy: Sharing our Experiences
Chair: Huw Davis, Coventry University*, UK*
Edwin Bestebreurtje. FIER Automotive, NL

Room K

I-CVUE - Presenting the Final Results!
Harm Weken, FIER Automotive, NL

Dutch E-mobility Incentive Policies and Public Fleet Mentoring - Reflection on the Work Done by I-CVUE
Frank ten Wolde, Ministry of Infrastructure and the Environment, NL

What Drives the PEV market? – An International Comparison of PEV Market Diffusion Models
Till Gnann, Fraunhofer ISI, DE

Low Carbon Cars in the 2020s: Consumer Impacts and EU Policy Implications
Alex Stewart, Element Energy, UK

Electric Vehicle Integration in Business Fleets: Case of Urban Logistic
Ammar Oulamara, University of Lorraine, FR

15.40 – Coffee break

Foyer

Lecture 3C - From Industry to Racing and the Reverse
Chair: Thierry Deflandre, ACT, BE

Room G

Formulino E Electric Racing Vehicle
Saphir Faid, Punch Powertrain, BE
Jos Claes, Dallara, IT
Miguel Dhaens, HeronSports, BE

FSAE: Electric Vehicle Innovation within Formula Student Racing Cars
Beth Lily Georgiou, Evodays, BE

Electric Racing on Two Wheelers, the FIM Experience
Oriol Gallemi, International Motorcycling Federation, CH

E Karting: How Mild Hybrid OEM Supply Can Become Affordable Drive Line to Karting
Peter Wirtz, Bosch Engineering, DE

E-Rod: Electric Drift made by Kyburz, supplier of Swiss Post
Martin Kyburz, Kyburz, CH

Electric GT: From Standard Tesla to Racing Car and Its Safety Features
Agustin Paya, Electric GT Holdings, ES

Formula E: How It Started, Where It Us and Further Technical Evolutions / Safety and Cost Control as Excellent Proofs of Concept
Benoit Dupont, Formula E Holdings, UK

15.40 – Coffee break

Foyer

16.10 - Parallel Sessions:

4A: Markets & New Technologies
4B: Energy Efficiency and Life Cycle Analysis
4C: IEA HEV Task27: Electrification of transport logistic vehicles

Lecture 4A - Markets & New Technologies

Chair: Urs Muntwyler, International Energy Agency, CH

Room K

Hydrogen Mobility Europe (H2ME) – Creating the European Vision for Hydrogen Transportation
Alex Stewart, Element Energy, UK

Mileage Electrification Potential of Different Electric Vehicles in Germany
Simon Funke, Fraunhofer ISI, DE

Ground-Level Feeding Systems: from Rail to Road Transport
Philippe Veyrunes, Patrick Duprat, Alstom Transport, FR

Hydrogen & Fuel cells – From Current Reality to 2025 and beyond
Franz Lehner, E4tech, UK

Feasibility and Profitability Outlook on European Cell and Battery Manufacturing
Stefan Haevemeier, P3, DE

20.00 – Gala Dinner

(Please note that separate registration is requested to attend the gala dinner)

Lecture 4B - Energy Efficiency and Life Cycle Analysis

Chair: Sten Karlsson, Chalmers University of Technology, SE

Room F

On Specific Fuel Consumption of both Conventional and Electric Buses on Real Urban Applications

Villante Carlo, University of Aquila, IT

The Variation of BEV Energy Use and Range Depending on Climate and Driving Behaviour in Real Conditions in Sweden

Sten Karlsson, Chalmers University of Technology, SE

LionTelligence - Intelligent Battery Life Cycle Management

Alexander Kohs, CTC Cartech Company, DE

Well to Wheel Analysis of Imported Renewable Hydrogen Using Different Energy Carriers

Yuki Kudoh, National Institute of Advanced Industrial Science and Technology, JP

Joint ANL-JRC Experimental Campaign - Laboratory Testing of a Range Extended Vehicle

Cristina Galassi, European Commission JRC, IT

20.00 – Gala Dinner

(Please note that separate registration is requested to attend the gala dinner)

Lecture 4C - IEA HEV-TCP Task27: Electrification of Transport Logistic Vehicles
Chair: Catay Bülent, Sabanci University, TR

Room G

In-Use Evaluation and Characterization of Class 8 Battery Electric Drayage Trucks
Robert Prohaska, NREL, US

Current Status of the Electrification of Transport Logistic Vehicles - Early Niche Markets and Commercialization Opportunities
Development of a Transport Application based Cost Model for the Assessment of Future Commercial Vehicle Concepts
Florian Kleiner, German Aerospace Centre, DE

Electric Freight Vehicles in City Logistics: Insights into Decision-Making Process of Frontrunner Companies
Martijn Altenburg, University of Applied Sciences Amsterdam, NL

Heavy Duty Electric Truck Deployment in Europe
Harm Weken & Edwin Bestebreurtje, FIER Automotive, NL

Effects of Operating Conditions on Range and Energy Consumption of Electric Freight Vehicles
Tugce Yuksel, Sabanci University, TR

20.00 – Gala Dinner
(Please note that separate registration is requested to attend the gala dinner)

Thursday, 16th March 2017

8.30 - Registration & Welcome coffee

9.00 - Round Table RT2 - IEA HEV Task 28: Vehicle-to-Grid Technologies
Chair: Sara González Villafranca, Catalonia Institute for Energy Research, ES
Room C

IEA HEV Task 28 in Facts
Manel Sanmarti, IREC, ES

How EVs Can Provide Grid Services through V2G Technologies (RES, EMS)
Eduardo Mascarell, Nissan Europe, FR

The Grid Integrated Electric Vehicle
Peter Bach Andersen, DTU Elektro, DK

How Can Standards Help V2X Technology Development?
Tomoko Blech, CHAdeMO Europe, FR

DSO Point of View, Main Challenges and Opportunities for EV and V2G Grid Integration
Brian Carroll, ESB, IE

SEEV4City Project Insights
Bert Witkamp, AVERE, BE

Technological Challenges for V2X Deployment
Narcís Vidal, ENEL, IT

10.30 - Coffee break
Foyer

11.00 - Round Table RT3 - Reasons of the Dutch Success
Chair: Harm Weken, FIER Automotive, NL

Room C

E-mobility Policy in the Netherlands
Frank ten Wolde, Ministry of Infrastructure and the Environment, NL

E-Mobility Cooperation and Developments in the Netherlands
Bert Klerk, Formule E-Team, NL

Charging Infrastructure, Smart Charging and Standardization
Jurjen de Jong, eViolin, NL

Automotive and E-mobility Industry
Edwin Bestebreurtje, FIER Automotive, NL

Analyzing Charging Behavior in the 4 Big Cities in the Netherlands
Effectiveness of Clean Taxi Priority Incentive at Amsterdam Central Station
Robert van den Hoed, Amsterdam University of Applied Sciences, NL

Fiscal Barriers for Smart Charging
Baerte de Brey, Stichting Elaad, NL

Managing Parking Pressure Concerns Related to Charging Stations for Electric Vehicles: Data Analysis on the Case of Daytime Charging
Rick Wolbertus, Amsterdam University of applied Sciences, NL

13.00 - Lunch

Foyer

14.00 - Round Table RT4 - Different Countries, Different Approaches… What is the Best in the Long Term?

Chair: Rafael de Mestre, Electromaps, RO

Room C

Did the Netherlands Find the Way?
Harm Weken, Fier Automotive, NL

An Empirical Investigation of Barriers to the Adoption of Battery Electric Vehicles in the UK
David Jarvis, Coventry University, UK

Switzerland: a Pragmatic Approach!
Krispin Romang, TCS/Swiss eMobility, CH

Myth Busting – How Norway Reached the World's Highest BEV Share of the Total Passenger Vehicle Fleet?
Erik Figenbaum, Institute of Transport Economics, NO

Holistic Approach to Assess the Impacts of Electric Mobility at Country Level
François Vuille, EPFL, CH

15.15 - Closing Session

Chair: Frédéric Vergels, Electri-city.mobi, BE

Room C

Snapshots:
Lessons Learnt from EEVC
Quick Reports by the Session Chairmen

Around the World in Electric Vehicle
Rafael de Mestre, Electromaps, RO

Next steps
Frédéric Vergels, Electri-city.mobi, BE

15.45 - Visit to the CERN

(Please note that separate registration is requested for the visit)

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