

# Hybrid & Electric Vehicles Forum 2012

*Future Trends & Opportunities for E-mobility*

1<sup>st</sup> - 2<sup>nd</sup> February 2012, Hotel Boscolo Carlo IV, Prague

## CONFERENCE INTRODUCTION

Hybrid&Electric Vehicles Forum 2012 is designed to get the industry and the policy makers on one platform to discuss the importance of e-mobility and to share opinions as to the future development plans. In particular, examples of practical solutions implemented in some cities will be presented in the fields of hybrid & electric vehicles, infrastructure development, battery development etc.

## KEY TOPICS

- ▶ Electrification of Transportation – from Vision to Reality
- ▶ European Market for Electric & Hybrid Vehicles
- ▶ Advances and challenges of battery development
- ▶ Battery Cost Reduction
- ▶ Charging Infrastructure Development
- ▶ Standards and Regulations Within the Industry

## WHO WILL ATTEND

CEOs, Presidents, Vice-Presidents, General Managers, Heads of departments responsible for EV Mobility/E-mobility Business Development, of Automobile and Battery Manufacturers, Energy Producers and Distributors, Presidents, Secretary Generals, Representatives of Professional Associations, Regulatory Bodies and Technology Institutes

**Ján Lešínský, Slovak Society of Automotive Engineers (SAITS) (Slovakia)**  
President

**Frank M. Rinderknecht, Rinspeed (Switzerland)**  
Chief Executive Officer

**Maurizio Cisternino, GM Powertrain Europe (Italy)**  
Hybrid Manager and Technology CE

**Mike Richardson, Jaguar and Land Rover Engineering Centre (United Kingdom)**  
Manager Advanced Hybrids

**Tohru Hashimoto, Mitsubishi Motor R&D Europe (Netherlands)**  
President

**Paul Braun, University of Illinois (USA)**  
Professor of Materials Science and Engineering

**Michel Gardel, Toyota Motor Europe (Belgium)**  
Vice President Communication, External & Environmental Affairs

**Olivier Paturet, Nissan Europe (Switzerland)**  
General Manager, Zero Emissions Business Unit

**Petr Dolejší, European Automobile Manufacturers' Association (Belgium)**  
Director Mobility & Sustainable Transport

**Fabio Mingrino, IVECO (Italy)**  
Vice President Product Engineering

**Paul Mulvaney, ESB (Ireland)**  
Managing Director ESB ecars

**Tom Oefler, RWE Effizienz (Germany)**  
International Sales E-Mobility

**Tomáš Chmelík, ČEZ Group (Czech Republic)**  
Head of Clean Technologies, E-mobility project manager

**Federico Caleno, ENEL Distribuzione (Italy)**  
Head of Special projects and technological development in the Network Technologies department

**Wolfram Münch, EnBW Energie Baden-Württemberg AG (Germany)**  
Director Research and Innovation

**Carl Friedrich Eckhardt, Vattenfall Europe Innovation (Germany)**  
Head of Business Development

**Jakub Ditrich, Ekolo.cz (Czech Republic)**  
Managing Director

**Bernard Fleet, Faculty of Environmental Applied Science & Management, Ryerson University (Canada)**  
Adjunct Professor

**Matthias Vetter, Fraunhofer Institute for Solar Energy Systems ISE (Germany)**  
Project Manager

**Peter Badík, MyENERGY (Slovakia)**  
Managing Director

**Václav Procházka, Czech EV Association & European Association for Battery, Hybrid and Fuel Cell Electric Vehicles (Czech Republic)**  
Board Member & Representative

**Zdeňka Petáková, Czech Geological Survey (Czech Republic)**  
Head of Department of Mineral Resources

SPEAKERS

EXPERT ADVISORS

Media Partner:



Day 1, 1<sup>st</sup> February 2012

**8:30 Registration and Coffee**

**9:00 Opening remarks from the Chair**

**E-mobility becomes a reality**

**9:10 KEYNOTE ACEA on E-mobility**

- E-mobility becomes one of major trends for future mobility. Automotive industry contributes significantly to the development of electrically chargeable vehicles, but broader market uptake should be part of global, overall strategies on national and European level
- Participation and involvement of wide range of stakeholders is needed to reach higher consumer acceptance
- It is crucial to see e-mobility as a broad new concept, requiring several challenges to be met in the area of vehicle technology, infrastructure, transport policy and energy management

**Petr Dolejší, European Automobile Manufacturers' Association**  
Director Mobility & Sustainable Transport

**9:50 History of Mitsubishi Motor Corporation EV**

- i-MiEV (our currently sold EV) outline and sales situation
- Impact of Governmental support to EV sales
- i-MiEV future technology (V2X)
- Mitsubishi Motor Corporation EV future line-up (EV, HEV and PHEV)

**Tohru Hashimoto, Mitsubishi Motor R&D Europe**  
President

**10:30 Morning Coffee and Networking**

**11:00 CASE STUDY Is Hybrid Vehicle just a Temporary Solution?**

- Hybrid vehicle power train configurations
- Environmental issues
- Road safety for cyclists and pedestrians

**Michel Gardel, Toyota Motor Europe**  
Vice President Communication, External & Environmental Affairs

**11:40 Acceleration in the deployment of the EV Charging Infra-structure: Status & Example**

- Private investments in the field of EV charging infrastructure
- Latest developments in the field of Wall box installation and mode3 charging
- Quick Charging networks in Europe

**Olivier Paturet, Nissan Europe**  
General Manager, Zero Emissions Business Unit

**12:20 The Role of Alternative Traction for Sustainable Urban Mobility**

- Key trends for urban mobility
- Mission-based integrated approach
- Alternative traction solutions

**Fabio Mingrino, IVECO**  
Vice President Product Engineering

**13:00 Luncheon**

**14:00 CASE STUDY Electric Vehicle Operator – Pilot Project**

- Economically acceptable solution employing current state-of-the-art
- One-stop-shop for client = the complex system covering all aspects
- Lessons learned from preparation of the pilot project

**Peter Badik, MyENERGY (Slovakia)**  
Managing Director

**14:40 Electric bicycles - the reality of e-mobility**

- How e-bikes are taking off in Europe and Asia
- User expectations vs. bike performance
- EU legislative news
- All about e-bike batteries and future trends

**Jakub Ditrich, Ekolo.cz**  
Managing Director

**15:40 Afternoon tea and networking**

**16:00 Interactive Panel Discussion**

- The audience has an opportunity to ask questions and open an interactive discussion with the speakers from the morning session
- Discussing main challenges in the field of electric & hybrid vehicles

**Future of Automotive Battery Technology**

**16:40 KEYNOTE High-rate charging and high power discharging batteries through electrode nanoengineering**

- Fundamentals of nanostructured batteries
- Fabrication of nanostructured battery electrodes
- High-rate charging and high power discharging batteries
- Vision for the future for nanoengineered batteries

**Paul Braun, University of Illinois**  
Professor of Materials Science and Engineering

**17:20 Battery System Technology – From cells to systems**

- Battery module and battery system design
- Connection methods (e.g. laser welding)
- Cooling systems
- Battery and energy management (including algorithms for state of charge and state of health determination)
- Test results of the developed battery systems

**Matthias Vetter, Fraunhofer Institute for Solar Energy Systems ISE**  
Project Manager

**18:00 Interactive Panel Discussion**

- The audience has an opportunity to ask questions and open an interactive discussion with the speakers from the afternoon session

**18:30 Closing remarks from the chair**



Speakers and delegates are cordially invited to attend a

**Networking Cocktail reception**



Day 2, 2<sup>nd</sup> February 2012

**8:30 Registration and Coffee**

**9:00 Opening remarks from the Chair**

**E-mobility Infrastructure development**

**9:10 SPECIAL INSIGHT FROM CANADA: Prospects for the Electric Vehicle Industry - a Canadian Perspective**

- Battery prospects – price, performance and safety concerns
- Changing public perceptions of EVs
- Role of government in providing industry, consumer incentives
- An object-oriented modeling approach to the 10-year cost of ownership for EVs and alternative power-trains
- A country-wide survey of policies from major provinces to create an EV infrastructure

**Bernard Fleet, Faculty of Environmental Applied Science & Management, Ryerson University (Canada)**  
Adjunct Professor

**9:50 KEYNOTE Smart Charging Infrastructure for Electric Vehicles in Germany and Europe: Planning Custom Solutions in Time to Optimize Costs**

- Electromobility offers a chance for a climate-friendly and low-noise mobility in our cities
- In Europe, local authorities have to opt now for environmentally sound and economical infrastructure solutions
- Smart charging infrastructure is a key factor to promote cross-country and cross-border roaming solutions
- Experiences of RWE's pilot projects in Berlin and North-Rhine Westphalia and conclusions of infrastructure tenders like the build-up of charging infrastructure in Amsterdam help to develop concepts to suit specific local situations, e.g. traffic low, urban planning, energy mix

**Tom Oefler, RWE Effizienz**  
International Sales E-Mobility

**10:30 Morning Coffee and networking**

**11:00 CEZ E-mobility project: assessing the business model for electromobility implementation**

- Background - e-mobility as one of the „smart energy“ trends affecting utilities
- Overview of CEZ activities in electromobility and smart grids
- Key assumptions of the business model to be tested in the pilot phase
- Our offering towards partners in the pilot project

**Tomáš Chmelík, ČEZ Group**  
Head of Clean Technologies, E-mobility project manager

**11:40 CASE STUDY E-Mobility Italy Project: A Smart EV Recharging Infrastructure to Enable the EV Market Development**

- The Enel-Daimler E-Mobility Italy Project
- The Enel recharging infrastructure
- The role of the DSO for the recharging infrastructure deployment
- The new EV projects in Italy

**Federico Caleno, ENEL Distribuzione**  
Head of Special projects and technological development in the Network Technologies department

**12:20 CASE STUDY Green eMobility powered by Vattenfall – strategic importance, first results and perspective**

- Understanding how effective grid projections can be drawn from initial trial findings

- Overcoming the problem of excess supply when integrating renewable energy sources
- Understanding how utilities can enable the charging of multiple EVs at one spot
- “Vattenfall” wind to vehicle application and local load management technology

**Carl Friedrich Eckhardt, Vattenfall Europe Innovation**  
Head of Business Development

**13:00 Luncheon**

**14:00 ecar Ireland – a national programme**

- Overview of the ecar Ireland Programme
- The elements required for a successful integrated national programme - Energy, environment and economics, Technology, Business, Communications/Stakeholder Management
- Creating the right value proposition

**Paul Mulvaney, ESB**  
Managing Director ESB ecars

**14:40 Power plants, renewables, grids: towards the smart energy world**

- Electric cars need a smarter grid
- For charging cars power is more challenging than energy
- Smart energy devices allow for both electromobility and a large share of renewables

**Wolfram Münch, EnBW Energie Baden-Württemberg AG (Germany)**  
Director Research and Innovation

**15:20 Interactive Panel Discussion**

- The audience has an opportunity to ask questions and open an interactive discussion with the speakers from the morning session
- The future strategies and policy in infrastructure development

**15:40 Afternoon tea and networking**

**Policy and Strategies**

**16:00 Raw materials and electrification of the transportation**

- The most important raw material for electric road transportation is lithium. No significant problems with lithium sources can be expected, mineral deposits as well as seawater are at disposal,
- The energy sources for electric transportation can never be limited by raw materials if the nuclear energetics will be developed (even for the present types of fission reactors, there is enough uranium for hundreds of years),
- The amount and quality of petroleum mined will be decreasing
- The European Union supports demanding and controversial projects like the "geological disposal of CO<sub>2</sub>" which indicates that effective measures to lower CO<sub>2</sub> emissions, like the electrification of the transportation, are strongly unfavoured by the EU (and similarly USA)

**Václav Procházka, Czech EV Association & European Association for Battery, Hybrid and Fuel Cell Electric Vehicles**

Board Member & Representative  
**Zdeňka Petáková, Czech Geological Survey**  
Head of Department of Mineral Resources

**16:40 Closing remarks from the chair**

**16:50 Farewell Coffee and Networking**

