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# Efficient Mobility Technology

# Expo Hannover 21–25 April 2008



NORD/LB



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#### Foreword by Minister Sigmar Gabriel

The transport sector is facing major challenges: how can we cut emissions of CO<sub>2</sub> and other pollutants and reduce our dependence on oil, while at the same time ensuring a high degree of mobility? Electromobility may provide an answer to these questions. In view of the rapid developments in battery technology, this area is considered as having significant



potential which also needs to be looked at from an environmental perspective.

Using electrical energy in the transport sector holds many advantages. For example, such energy can be obtained from many primary sources and thus could substantially reduce our dependence on oil imports. In particular the use of renewable energies in electricity generation would considerably improve the CO2 balance in the transport sector. The higher efficiency factor of the electric motor means that this energy would be used very efficiently.

Moreover, electrically powered vehicles do not cause any local pollutant emissions, while noise emissions are restricted to tyre-road and wind noise. This can contribute to significantly improving quality of life, especially in built-up areas.

The huge potential of electrically powered vehicles prompted the German government to take up the topic of electromobility in its Integrated Climate and Energy Programme. By the summer of this year we will develop a National Electromobility Development Plan aimed at initiating and advancing a concerted research and development strategy. As early technology testing in a real or everyday environment is vital for targeted research, the German government will conduct field studies on plug-in hybrid vehicles in cooperation with the automobile and energy industries.

I am thus convinced that, alongside the potential of alternative fuels and enhanced efficiency in conventional drives, electromobility is an important component of a future sustainable mobility.

Sincerely

Sigmar Gabriel Federal Environment Minister

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Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit

## CLEAN MOVES EXPOSITION

Hall 27, Hannover Messe, 21-25 April 2008

- Featuring the entire spectrum of market proven energy efficient mobility solutions
- Focus on sustainable biofuels, electric drive, natural gas and optimised diesel technologies
- Strategic pole position in Hall 27, next to official Hanover Fair partner country Japan
- Cross-sector synergies at the largest global technology trade fair



## CONFERENCE & WORKSHOP PROGRAMME

The Clean Moves Conference will bring together leading technology and market experts with hands on expertise and as well senior policy makers to advance the market penetration of energy efficient transport technologies. The integrated conference & industry workshop platform is positioned right at the centre of the Clean Moves exposition in the Energy Hall 27 at Hannover Messe.

# "Winning the End of Oil Game"

DAY I Tuesday, April 22nd 2008

HÁNNOVER MESSE, Germany, Hall 27 The Patron: Sigmar Gabriel, Federal Environment Minister

11.00 Welcome remarks

Ralph Kappler, Clean Moves Manager 11.05 Conference Opening Address New EU legislation and Germany's position in rapidly changing global markets Michael Müller, Parliamentary State Secretary, Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) 11.20 Conference Keynote Address

Matthias Ruete, Director General EU Directorate-General for Energy and Transport\*



#### DAY I Session I Natural Gas Powered Vehicles and Infrastructure

- 11.40 Panel "Latest natural gas technology trends and market experiences — Trägerkreis Erdgasfahrzeuge"
  - Dr. Ulrich Müller (Chairman), Stefan Schrahe (FIAT Teamsys), Peter Weisheit (Volkswagen) and Klaus Hablik (OPEL Special Vehicles)

#### Session II

#### **Electric Drives & Smart Energy Storage**

- 12.10 Toyota vision on efficient hybrid mobility and plug-in vehicles Hans-Peter Wandt, Manager Advanced Technology, Toyota Deutschland
- 12.30 Electrification of the Powertrain Dr. Böhm, Volkswagen AG, Research & Engine Development
- 12.50 Vehicle2Grid: grid requirements for large scale electric car mobility Roger Kohlmann, Managing Director, BDEW, Bundesverband der Energie & Wasserwirtschaft
- 13.10 An independent assessment of market proven electric drive solutions Frédéric Vergels, Vrije Universiteit Brussel VUB\*
- 13.30 Energy storage breakthrough with the latest lithium battery technology Dr. Andreas Gutsch, Managing Director, Li-Tec Battery GmbH & Co. KG
- 13.50 Networking & Refreshments

#### Session III

# Industry Responses to Climate Change and Raising Fuel Prices

- 14.20 National Hydrogen and Fuel Cell Technology Innovation Program —Preparation for Commercialization Dr. Klaus Bonhoff, Managing Director, NOW
  14.40 Sustainable Large Scale Ethanol Production Klaus Sauter, Managing Director, VERBIO AG
  15.00 New Fuel Technologies and Products Dr. Armin Günther, Head of Renewables, LURGI GmbH
  15.20 Optimizing mass motorization and driver behavior Alexander Skibbe, Head of Communcations, SEAT
- 15.40 Ford experiences with biopower & flexfuel cars Norbert Krüger, Ford Werke AG

#### Session IV

#### **Biofuel Finance & Certification**

- 16.00- Economics behind electric drives, ethanol, butanol and biodiesel Ajit Nazre, Kleiner Perkins Caufield & Byers, Palo Alto\*
- 16.20 Cash flow related lending of biofuels projects a lenders perspective Björn Heinemeyer, Assistant Vice President, Structured Finance Europe, NORD/LB
- 16.40 TÜV NORD Emission Trading & Biofuel Certification Günter Rump, TÜV NORD
- 17.00 Panel Discussion "OVERCOMING INERTIA" ADAC, BMELV, FNR, LAB, Verkehrsclub Deutschland, VERBIO\*
- 17.20 End of Conference Networking Reception

#### DAY II Wednesday, April 23rd 2008 PROGRAMME

10.00 Opening Address "How economy meets ecology with realistic low emission solutions" Walter Hirche, Minister of Economic and Transport Policy, Government of Lower Saxony

#### Workshop Invest in Germany

Investment Opportunities in Clean Mobility Chair: VDA - German Association of the Automotive Industry, tbc

- 10.30 The Pentalco Project: Developing Second Generation Ethanol Processes
  Eckhard Boles, University Professor; Marco Keller, Research Associate J.W. Goethe University, Frankfurt/Main
  10.50 Biomethane - A High Potential Biofuel Franziská Müller-Langer, Head of Biofuels; Michael Seiffert, Project Manager Bioenergy Systems, Institute for Energy and Environment Leipzig
- 11.10 The Role of Hydrogen for Sustainable Transport
  Dr. Ulrich Schmidtchen, Secretary, German Hydrogen and Fuel Cell Association
  11.30 Ethanol Growth: Opportunities in Europe, Second Generation and Sustainability
  Alberto Carmona Bosch, Business Development Director,
  Abengoa Bioenergy Trading Europe
  12.00 Invest in Germany Investors reception (-13.30)

#### Workshop NORD/LB

### Financing of biofuels

Moderator: Björn Heinemeyer, Assistant Vice President, Structured Finance Europe, NORD/LB

- 14.00 Opening Remarks
- Heiko Ludwig, Head of Energy Origination, Structured Finance Europe, NORD/LB 14.10 **Bioethanol, a Sustainable Biofuel** Dr. Ricardo Arjona, Europe Program Director, Abengoa Bioenergy New Technologies
- 14.30 Active Resource Management in the Biodiesel sector with Futures and Options Matthias Gloystein, Abteilungsdirektor, Financial Markets Sales, Bremer Landesbank
- 14.50 Networking Break
- 15.20 Biodiesel in Europe Experiences and Market Perspectives Prof. Giersberg, CFO, EOP Biodiesel AG
- 15.40 Structuring & Financing for Renewables in Europe - Trends, Best Practises Marco Wedemeier, Associate Director, and
- Holger Reinicke, Assistant Vice President, Structured Finance Europe, NORD/LB
- 16.00 Workshop closing remarks Heiko Ludwig, Head of Energy - Origination, Structured Finance Europe, NORD/LB

#### DAY III Thursday, April 24th 2008 PROGRAMME

Bioethanol Outlook Moderator: Dörte Bieler, Project Manager LAB e.V.

Session I Latest Bioethanol Trends

- 11.00 Market Conditions and Political Frameworks Dietrich Klein, Secretary General, LAB e.V.
  11.15 A Bioethanol Manufacturer's Perspective on Climate Change and Sustainability
- Dr. Lutz Guderjahn, COO, CropEnergies AG 11.30 **Bioethanol Fuel Standards** Dr. Jörg Bernard, Dept. R&D, Südzucker AG
- 11.45 Discussion

Session II Market Proven Bioethanol Technology

- 12.00 Bioethanol Feedstock: Grain André Hamers, Officer (Procurement), Prokon Nord Energiesysteme GmbH
- 12.15 Bioethanol Feedstock: Sugar Beet Dr. Albrecht Schaper, Commercial Manager, fuel21 GmbH & Co. KG
  12.45 Discussion
  - End of Conference

Conference Language: German/ English \*invited



