

April 2 & 3, 2008

Futuroscope - Poitiers (France)



# AEA 2008

## 4<sup>th</sup> European Conference on Alternative Energies for the Automotive Industry

# PRELIMINARY PROGRAMME



In partnership with

ADEME



Agence de l'Environnement  
et de la Maîtrise de l'Energie



## Context and objectives

The success of the 2006 edition of the conference on "Alternative Energies for the Automotive Industry" (AEA) revealed a valued overview of new technologies in the field of alternative energies. The constantly rising global warming threat and increasing oil prices strengthen the need for addressing the latest developments of such fast growing technologies and for deepening the debate on these thematic issues.

In partnership with the French Environment and Energy Management Agency (ADEME), the French Society of Automotive Engineers (SIA) and the Mobility and Advanced Transportation Competitiveness Cluster (MTA Cluster) decided to jointly organise the 2008 edition of this conference with special emphasis on Alternative Energies for passenger and freight transport, and technologies under development to reduce Greenhouse Gases and specifically CO<sub>2</sub> emissions. Special emphasis will be made on the latest technology developments in the thematic sessions.

The call for papers will be focused on 2 topics:

**1. Technologies for Hybrid and Electric Vehicles, including Fuel Cell Vehicles:** Electric energy storage, vehicle configurations for hybrid powertrains, applications and projects related to hybrid vehicles (cars, light/heavy duty trucks, buses, etc.) as well as the prospective actions and the experience feedbacks about HEV.

**2. Alternative fuels capable of meeting low CO<sub>2</sub> emission targets:**

Synthetic fuels, fuels stemming from lignocellulosic biomass, gaseous fuels such as hydrogen, etc

**This conference is expected to gather automotive industry engineers, experts, and researchers worldwide during a two day schedule. It is also an opportunity to exchange information on the latest technological achievements.**

## Organising



## Partners



## Organising Committee

**François BADIN** - IFP

**Patrick COROLLER** - ADEME - French Environment and Energy Management Agency

**Emmanuel d'ORSAY** - SIA - French Society of Automotive Engineers

**Pierre DURET** - IFP School

**Patrick GUILLEMOT** - Mobility & Advanced Transportation Competitiveness Cluster - MTA

**Jean-Luc LECOQ** - PSA PEUGEOT CITROEN

**Gonzalo HENNEQUET** - RENAULT

**Michel LIFERMANN** - VALEO

**Gérard Marie MARTIN** - VALEO

**Philippe PINCHON** - IFP

**Paul TERRIEN** - Mobility & Advanced Transportation Competitiveness Cluster - MTA

**Bertrand VAYSSE** - Continental Automotive France

## Scientific Committee

**Yoshitaka ASAKURA** - TOYOTA MOTOR CORPORATION

**François BADIN** - IFP

**Joseph BERETTA** - PSA PEUGEOT CITROEN

**Jean-Christophe BEZIAT** - RENAULT

**Neil CHEESEMAN** - Zyte Systems Limited

**Emmanuel d'ORSAY** - SIA - French Society of Automotive Engineers

**André DOUAUD** - CCFA - French Automotive Manufacturers Committee

**Mike EVERETT** - Maxwell

**Steven FARMER** - QINETIQ

**Masato FUKINO** - NISSAN MOTOR CORPORATION

**Richard GORDON** - Ricardo

**Philippe GRAND** - IRISBUS-IVECO

**Patrick GUILLEMOT** - Mobility & Advanced Transportation Competitiveness Cluster - MTA

**Heinz HASS** - FORD

**Gonzalo HENNEQUET** - RENAULT

**Thomas JUSTIN** - RENAULT TRUCKS VOLVO 3P

**Horst KORNEMANN** - CONTINENTAL AUTOMOTIVE SYSTEMS

**Jean-Luc LECOQ** - PSA PEUGEOT CITROEN

**Michel LIFERMANN** - VALEO

**Jean-Louis LISKA** - JOHNSON CONTROLS-SAFT

**Didier MARGINEDES** - BATSCAP

**Xavier MONTAGNE** - IFP

**Andre METZNER** - DAIMLER

**Manfred NIETHAMMER** - DELPHI

**Philippe PINCHON** - IFP

**Peter PRENNINGER** - AVL

**Marcelo Khaled POPPE** - Centro de Gestao e Estudos Estratégicos - CGEE

**Remy SCHMITT** - Robert Bosch

**Thierry STADLER** - Industries & Agro Ressources - Competitiveness Cluster - IAR

**Jean-Marie TARASCON** - University of Picardie Jules Verne - LRCS -

**Paul TERRIEN** - Mobility & Advanced Transportation Competitiveness Cluster - MTA

**Kazuaki UTSUMI** - NEC LAMILION ENERGY

**Bertrand VAYSSE** - Continental Automotive France

**Denys de VILLOUTREYS** - Robert Bosch

**Jörg WIND** - DAIMLER

## 8h30 Participants registration

9h00 **Opening session**  
Held together with MUTA  
Led by **Denis CHEISSOUX** - Journalist  
with **Jean-Pierre RAFFARIN** - Senator, Former French Prime Minister  
**Ségolène ROYAL** - President of "Poitou-Charentes Region"  
**Alain FOUCHÉ** - President of "Conseil Général de la Vienne"  
**Marc GASCON** - Chairman of CEVEQ and Mayor of City Of Saint Jérôme, Canada  
President of the "Communauté d'Agglomération de Poitiers"  
**Jean Pierre COURONNE** - President of the SIA  
**Paul RIVAULT** - Chairman of Mobility and Advanced Transportation Competitiveness Cluster

10h00 **Keynote Speech**  
Towards the massive deployment of electric cars  
**Jérôme PERRIN** - Renault

10h30 **Keynote Speech**  
Evolution of the Toyota Hybrid System  
**Gerald KILLMANN** - Toyota Motor Europe

### Session 1 : Hybrid Vehicles

11h00 Valeo Systems And Technologies For Affordable Solutions In Micro And Micro-Mild Hybrid Applications.  
**Daniel RICHARD** - Valeo

11h30 Plug- In Hybrid Electric Vehicle in motorized solution.  
**Danut Gabriel MARINESCU** - University of Pitesti

12h00 Synergies among FC and ICE Hybrid Vehicles  
**Markus ESPIG** - RTWH Aachen

## 12h30 Lunch, Exhibition visit, Vehicles demonstration

14h00 The Application of Hybrid Technologies to Defence Sector Vehicles  
**Richard GORDON** - Ricardo

14h30 Hybrid trucks : from concept to field demonstration  
**Thierry PERRET, Thomas JUSTIN** - Renault Trucks

### Session 2 : Advanced Batteries

15h00 **Keynote Speech**  
Li-ion for Hybrid Vehicle, ready for market introduction  
**Jean-Louis LISKA** - Johnson Controls Saft

15h30 Development of Laminate-type Mn Li-Ion Battery for Large-current Rapid Charging System of Electric Vehicle  
**Kazuaki UTSUMI** - NEC Lamillion Energy

16h00 Low cost Lithium-Ion batteries for hybrid & electric vehicles.  
**Steve FARMER** - QinetiQ

## 16h30 Refreshment break, Exhibition visit, Vehicles demonstration

17h00 A fatigue-like methodology study of high-power Lithium-ion batteries.  
**Christophe DUDEZERT** - Renault

17h30 Proposal of Accelerated Cycle Life Evaluation Test Method for Lithium Batteries for Plug-in Hybrid Vehicles in STLING Project  
**Nobuo KIHIRA** - CRIEPI

18h00 Advances in model-based SoC determination for HEV traction batteries  
**Antonio SCIARRETTA** - IFP

## 18h30 Exhibition visit, Vehicles demonstration

20h00 **Social Event - Gala diner**  
A shuttle service will be arranged from the Conference center to the diner place

## Session 3 : Alternative Fuels

- 09h00 **Keynote Speech**  
Are Alternative Fuels Really Alternatives?  
**Joseph BERETTA** - PSA Peugeot Citroën
- 09h30 Biofuels and Automotive Industry : Potential and Challenges  
**Gladys MOREAC** - Renault
- 10h00 What role can alternative fuels play in achieving the ACEA 120g/km CO2 emissions target?  
**Andrew CLOSE** - Global Insight
- 10h30 VEHGAN for VEHicule Hybride au GAZ Naturel : Benefits to use downsized CNG engine in hybrid concept.  
**Stéphane VENTURI** - IFP

## 11h00 Refreshment break, Exhibition visit, Vehicles demonstration

- 11h30 Bio-oils from hydroliquefaction of lignocellulosic compounds.  
**Frédéric BATAILLE** - Valagro
- 12h00 Hydrogen production and supply : Which markets, which processes  
**Paul LUCCHESI** - CEA

## 12h30 Lunch, Exhibition visit, Vehicles demonstration

Session 4: Hybrids Simulation Systems		Session 4 bis: Auxiliary Power Unit
14h00	Complete vehicle model to optimize mild hybrid and thermal strategies and to predict CO2 emissions: development, validation and analyses <b>Hervé DUPONT</b> - Continental	Solid Oxide Fuel Cells for APU applications <b>Helge HOLM LARSEN</b> - TOPSOE
14h30	Optimal Energy Management of a Mild-Hybrid Vehicle. <b>Grégory ROUSSEAU</b> - IFP	Development Update on Delphi's Solid Oxide Fuel Cell Auxiliary Power Unit (SOFC APU) <b>Jérôme MULOT</b> - Delphi
15h00	Model-based design for hybrid control functions <b>Philippe POIGNANT GROS</b> - Renault	

## Session 5: Batteries

- 15h30 Recent Advances and future trends on Li-ion Battery  
**Jean-Marie TARASCON** - University of Picardie Jules Verne - LRCS
- 16h00 IIT Plug-in Conversion Project with the City of Chicago.  
**Peter SVEUM** - Illinois Institute of Technology
- 16h30 Development of High-performance Battery System for Next-generation Vehicles in Japan.  
**Kazushige INOUE** - NEDO
- 17h00 **Conclusion Speech**  
**Gérard Marie MARTIN** - VALEO / President of the SIA Technical Committee Equipment, Components and Systems
- 17h15/18h00 Vehicles demonstration

*The organisers reserve the right to make changes to the programme should they be deemed necessary*

**"Mobility & Sustainable Transportation : time for actions"**

**AEA 2008**

**4<sup>th</sup> European Conference on Alternative Energies for the Automotive Industry**

- Technologies for Hybrid Electric Vehicles
- Alternative Fuels for Low CO<sub>2</sub> Emission Targets

[www.sia.fr/evenements.htm](http://www.sia.fr/evenements.htm)  
clemence.benoit@sia.fr

**Forum MUTA 2008**

**6<sup>th</sup> International Urban Mobility & Advanced Transportation Forum**

- Today's Solutions to Tomorrow's Mobility Needs
- Urban Transportation Systems
- Automotive Clusters and Innovation

[www.muta2008.com](http://www.muta2008.com)  
contact@muta2008.com

**April 2 & 3 2008**  
**Futuroscope Poitiers - France**

## Posters exhibition

A poster area will be especially dedicated to the posters exhibition of more than 10 companies, laboratories and other Industries specialised in the field.

**L. BOUCETTAOUI, Batscap, France**

The Electric battery as an alternative to internal combustion engine for vehicles in the urban and suburban traffic

**Phillip GOTT, GLOBAL INSIGHT, USA**

Paths to Sustainability: Are We On the Right Track?

**Robert CLAVEL, CERTU, France**

Electric buses with embedded batteries in France

**Fabien JAULMES, Sherpa, France**

Air flow control for PEM fuel cell applications

**Ronan CROSNIER, EC NANTES, France**

Analysis and optimization of hybrid electric powertrains

**Karine ROUELLE, The MathWorks, France**

Using simulation to innovate and validate Hybrid Electric Vehicle concepts

**Robert ROUGET, SCPS, France**

Nickel -zinc battery for high power applications

**Pierre BEUZIT, France**

A fuel cell vehicle for the next decade

**Jean Jacques SANTIN, Université de Valenciennes, France**

Current limits of physics and technology to lower the fuel consumption of vehicles. The example of PAC-Car II

**Raphael MORENO, DGA, France**

Reducing fuel consumption and emissions for French Military Vehicles

**Alain BOUSCAYROL, Université de Lille, France**

Modular and macroscopic modelling for hybrid electric vehicles

**Thomas PELS, AVL, Austria**

Hybrid - One word for a diversity of options

### VEHICLES EXHIBITION AND TEST DRIVE

A major exhibition gathering clean vehicles, hybrid and electric vehicles, and biofuels vehicles will also be held jointly with AEA 2008 and MUTA2008.

Participants will have the opportunity to learn about the latest innovations in urban mobility and see demonstration vehicles in action.

Tests will be carried out during the breaks : Toyota RX400h, Toyota Prius, Start-Stop Valeo, Honda Civic IMA, Smart Vehgan IFP, Cleanova SVE, etc.

### URBAN MOBILITY AND ADVANCED TRANSPORTATION FORUM (MUTA)

The Conference on Alternative Energies for the Automotive Industry will be held together with the Forum MUTA at the same Conference centre. Congress delegates can enjoy free access to all MUTA conferences and exhibition.



The sixth edition of the international Forum MUTA aims at being the reference event for sharing experiences and solutions in the field of advanced transportation.

Industry representatives, public organisations, local authorities, transport operators, transportation focused competitiveness clusters, town planners, users' associations, and key players in the transportation area will have the opportunity to discuss and debate, in a concrete and interactive way, new mobility perspectives geared towards sustainable development.

For more information on these sessions in common and the programme: [www.muta2008.com](http://www.muta2008.com)  
[Yann.dechaine@pole-mta.com](mailto:Yann.dechaine@pole-mta.com)



## Official language

English

## Hotel accomodation

Near the Conference Centre  
(within 3 min walk)

### Hôtel ALTEORA \*\*\*

Tel: +33 (0)5 49 49 09 10

Fax: +33 (0)5 49 49 09 11

Mail : info@hotel-alteora.com

### Special rate (B&B):

69€ single room\*\*\*

62€ single room\*\*

Mention "MUTA / AEA Congress" while booking.

## Access

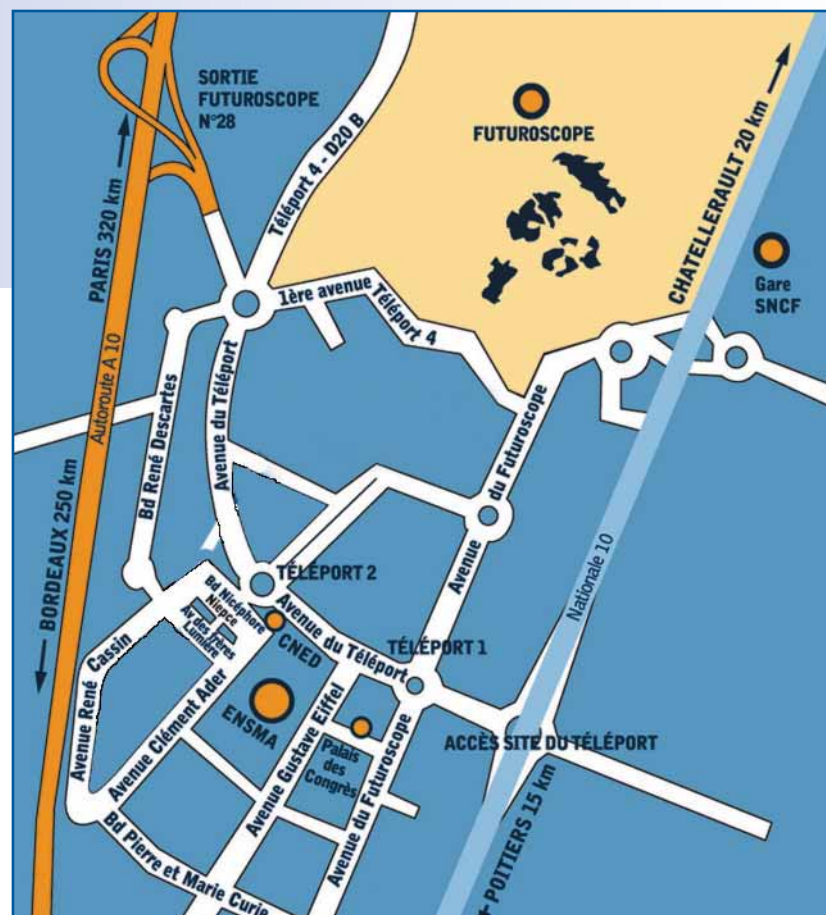
**by car :** Highway A10 Paris-Bordeaux, way out Futuroscope (n°28)

**by train:** From Paris-Montparnasse by TGV  
Bus connection to Futuroscope Conference Centre

**by plane:** The conference site can be easily reached from Poitiers-Biard airport by taxi (15 min). Possible connections to many cities Europe.

## Venue

The Futuroscope Conference Centre  
Téléport 1 - 86960 Futuroscope Cedex - France  
Tél. +33 (0)5 49 49 38 00 - Fax +33 (0)5 49 49 38 38  
www.futuroscopecongres.com





**ALTERNATIVES ENERGIES  
FOR THE AUTOMOTIVE INDUSTRIES  
2 & 3 April 2008 – Poitiers, France**  
Ref: 2008-03



**REGISTER DIRECTLY ON LINE: [www.sia.fr](http://www.sia.fr)**

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**Registration fees Tick as appropriate:**

- 1004,64 € VAT Incl.** (840 € VAT Excl.) Members of SIA
- 1136,20 € VAT Incl.** (950 € VAT Excl.) Non Members
- 502,32 € VAT Incl.** (420 € VAT Excl.) Speakers, Session Chairmen, Researchers

Preferential rates for students and retired – For further information, contact us

**Payment**

- By cheque** in Euros made payable to: "Société des Ingénieurs de l'Automobile"
- By bank transfert** in Euros made payable to: "Société des Ingénieurs de l'Automobile" (please attach a copy)  
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**REGISTRATION CONDITIONS**

- Registration fees include participation in the conference, MUTA exhibition, CD of proceedings, book of abstracts, refreshment breaks, lunches, and diner.
- Where it is not possible to send the payment together with the form, each registration should be accompanied by an official purchase order. Failing reception of an official purchase order or payment on the day of the symposium, we regret that you will not be allowed entry to the symposium.
- When we have received the registration form, we will send you a confirmation and an invoice. Please indicate the accounts department address where necessary.
- In case of cancellation before March 15, 2008, 30% of the registration fees will be retained by the organisers. After this date, the entire registration fee will be retained. Registered participants not able to attend may nominate a substitute. Written notice must be provided.