



# Press Release

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## **Future Mobility – Mobility Concepts on the Basis of Renewable Energies at the Solar Summit Freiburg 2010**

**From the 13<sup>th</sup> to the 15<sup>th</sup> October 2010, internationally renowned representatives from industry and science will discuss electric mobility in Freiburg, Germany**

Future mobility based on renewable energy is the focus of this year's international Solar Summit Freiburg congress, taking place from the 13<sup>th</sup> to the 15<sup>th</sup> October 2010 at the Freiburg Concert Hall. International experts from the automotive industry, the electricity industry, the field of hydrogen and fuel cell technology as well as from battery technology will be presenting innovative vehicle and drive train concepts. State-of-the-art approaches to solutions and reports from the practice on the topic of sustainable electric mobility will be discussed.

Today, sustainability is a key criterion for the acceptance of alternative vehicle concepts in society and for their future market success. In the evaluation of such concepts, the factors that play a central role are an environmentally friendly operation that is locally emission-free, the energy efficiency and the safety and economic feasibility of the fuel supply. Using renewable energies for generating electricity and hydrogen is the best way to achieve these goals. The rapidly growing share of renewable energies in the total power production demands that intelligent network management concepts combined with efficient storage technologies for the interim storage of renewable electricity be developed. Batteries are the most suitable for this purpose and, for large quantities of energy, hydrogen, which can be generated without any emissions. The energy system of the

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future will therefore be characterised by a diversification of the energy sources and the electrification of energy carriers. Consequently, mobility and energy provision develop into a system in which the individual components synergize, thus realizing their full potential.

The transport sector is currently responsible to a large extent for climate-relevant pollutant emissions. This situation can be improved by moving towards the electrification of the drive train coupled with the use of renewable energy carriers. Particularly for vehicle-related applications, electric drive trains combined with electrochemical storage offer unique advantages. These advantages include zero emissions locally (pollutants and noise), high efficiencies and flexibility. With solar mobility, solar energy and biogenic fuels move into the focus as sources of renewable energy. Solar power is used for charging batteries or is stored as hydrogen, until employed in fuel cells for electricity production. Biogenic fuels reduce the consumption of conventional fossil fuels in hybrid vehicles with batteries and internal combustion engines. Worldwide, researchers and developers are committed to developing new technical solutions for the use of renewable energies in the field of electric mobility. With time, mobility will gradually become less dependent on crude oil and will increasingly be based on renewable energy carriers.

The Solar Summit 2010 focuses primarily on new developmental advances towards environmentally friendly and sustainable concepts for vehicles and drive trains as well as their market implementation. Apart from the technical aspects, the challenge lies in the development of economically feasible business models leading to customer acceptance and rapid market dissemination.

Dr. Christopher Hebling, Head of the Department of Energy Technology at the Fraunhofer Institute for Solar Energy Systems ISE:

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“Solar Summit 2010 addresses the needs for the sustainable future of renewable electric mobility. With internationally leading researchers and developers as well as representatives of industry taking part, the Congress aims to provide an overview of the latest advances in renewable energy carriers and their contribution to electrical drive technology and consequently to the field of sustainable mobility in the future. A major feature of Solar Summit 2010 will be the plenary round-table sessions at which experts will discuss together with the participants the imminent technical challenges and the economic feasibility.”

Apart from the electrical drive train technology, other areas under discussion include battery systems, network integration, hydrogen generation, fuel cell technology, biogenic fuels and the development of urban mobility. The general political framework underpinning electric mobility and the requirements on the urban infrastructure are the further issues to be addressed.

The chief technical management of Solar Summit 2010 is held by Prof. Eicke R. Weber, Director of the Fraunhofer Institute for Solar Energy Systems ISE as in the past and by the specialist Dr. Christopher Hebling, Head of the Department of Energy Technology at Fraunhofer ISE.

With a staff of over 930, Fraunhofer ISE is Europe’s largest solar research institute. In the field of electric mobility, the Institute focuses on network integration, (i.e. the interface between the electricity grid and storage facilities), hydrogen production, fuel cell technology and the processing of biogenic energy carriers.

Further information can be found on the home page at [www.solar-summits.com](http://www.solar-summits.com)

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## **About the "Solar Summit Freiburg" conference series**

"Solar Summit Freiburg" is a series of international conferences organized by Messe München GmbH partnership with the Fraunhofer Institute for Solar Energy Systems ISE as well as with FWTM - Freiburg, Wirtschaft, Touristik und Messe GmbH. This new series of conferences consists of annual events that offer the participants a look at the latest scientific findings and their commercial implementation and use in the sector for renewable and efficient energy use. It is an outstanding international platform for the transfer of know-how between researchers, industry representatives and politicians.

## **Organizers:**

Messe München GmbH  
FWTM – Freiburg Wirtschaft Touristik und Messe GmbH  
Fraunhofer Institute for Solar Energy Systems ISE

**Text of the PR and photos** can be downloaded from our web page: [www.ise.fraunhofer.de](http://www.ise.fraunhofer.de)



Animation of future mobility based on renewable energy.  
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