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## Valeo at Auto Shanghai 2011

**Shanghai, China, April 19, 2011** – Valeo announces that it is participating in the Auto Shanghai show which is being held from April 21-28, 2011.

China is an important market for Valeo, which has been present in this country for more than 15 years. Auto Shanghai 2011 gives the Group the opportunity to present its electric demonstration vehicle showcasing a wide range of innovative technologies that increase the range of electric vehicles.

This show car demonstrates the Group's expertise and that of its partners (Leroy Somer, Johnson Controls-Saft, GKN, Michelin and Leoni) in the area of electric drivetrain and thermal management, as well as in products that reduce the vehicle's energy consumption and weight.

In the field of electric vehicles, Valeo and BAIC (Beijing Automotive Industry Corporation) recently presented to the Beijing Governor an electric demo car equipped with a complete Valeo electric powertrain system.

More generally, Valeo is focused on the reduction of CO<sub>2</sub> emissions and is already developing a wide range of products for internal combustion engine vehicles and hybrids. These technologies fall into three major categories: CO<sub>2</sub> emission reduction, weight reduction and energy efficiency, and smart driving.

The technologies presented on the show car have been designed with the aim of extending the range of electric vehicles without compromising their comfort:

### **Power electronics, improving efficiency and extending range**

The electric motor is controlled by an inverter, a component with considerable impact on performance. The high efficiency of Valeo's inverter helps to extend range by reducing the consumption of the drivetrain. The inverter also shares part of its circuit with the battery charger and the motor, helping to reduce mass and cost.

### **Thermal management, optimizing energy flows**

Valeo's new thermal architecture for electric vehicles has three interacting fluid loops that recover energy where it is lost and deliver it to where it is needed. This global architecture guarantees the reliability of the drivetrain components, passenger comfort and maximum range.

### **Thermal accumulator: 10% extra range in cold weather**

Valeo's new thermal accumulator stores a considerable amount of heat when the battery is charging. This source of heat, independent from the battery, extends range by around 10% in cold weather. Alternatively, Valeo has developed a heat pump system that reduces the electricity requirement for heating and extends range even further.



### **Optimized air-conditioning compressor**

The show car's air conditioning has an electrically driven scroll compressor, which offers high efficiency, low noise and vibrations, and reduced size in order to facilitate its integration into the vehicle.

### **Thermal management of the battery to deliver maximum energy**

The temperature of the lithium-ion battery is controlled by a water loop, which is hot or cold according to the need, and which delivers maximum energy in all circumstances. Valeo also offers alternative solutions, including an air circulation system, a direct cooling system using a refrigerant, and a reversible thermo-electric hot-cold system.

### **Smart key to communicate with the vehicle**

The user has a smart key which displays the battery's charge level up to 500 meters from the car. It can also order the car to activate climate control prior to travel, by turning on the heating or air conditioning while the vehicle is connected to the grid.

### **Low consumption low beam LEDs**

20W low beam LEDs provide equivalent light to 60W halogen bulbs. When used with front and rear LED position lamps, this technology alone increases range at night by at least 2%.

### **New multifunction control panel**

The show car's dashboard has a control panel with a particularly high-quality finish. It stands out both for its style and for the ergonomics of the various user interfaces. In order to meet increasingly exacting demands for quality, the climate control and radio functions have been grouped together, reducing the size of the panel and standardizing all the functions that interface with the driver or passengers.

### **New safety and driving assistance functions**

Valeo has a system that detects pedestrians on the vehicle's trajectory and emits a sound signal targeted at the area in which they are located. In order to do this, the show car has cameras and ultrasonic sensors that ensure this as well as additional functions: automatic docking (automatic cable-free connection), semi-automatic parallel or perpendicular parking, assistance exiting a parallel parking space, automatic switching between high and low beams, BeamAtic® Premium, speed limit sign recognition and lane departure warning.

### **Revolutionary new wiper system**

In place of the traditional nozzle spray system, the AquaBlade® wiper uses a tube inside the blade to spread the washer fluid evenly across the windshield. Unlike the spray system, therefore, it preserves visibility during wiping, and halves the amount of washer fluid required. Valeo has also developed direct-drive synchronized motors with no linkage between the two wiper blades. These innovations reduce the weight of the system by a total of 3.7 kg.

**The electric vehicle show car is being presented at the Valeo booth  
Hall W4 Aisle C – booth 007**



Valeo is present in China through its 4 Business Groups – Powertrain Systems, Thermal Systems, Comfort and Driving Assistance Systems, and Visibility Systems – as well as the Valeo Service aftermarket activity. In 2010, the Group employed nearly 8,000 people in China in 15 production sites, 3 R&D centers, 8 engineering centers and an aftermarket distribution center.

*Valeo is an independent Group fully focused on the design, manufacture and sale of components, integrated systems and modules for the automotive industry, mainly for CO<sub>2</sub> emissions reduction. Valeo ranks among the world's top automotive suppliers. The Group has 109 plants, 20 Research centers, 38 Development centers, 10 distribution platforms and employs 58,000 people in 27 countries worldwide.*

**Auto Shanghai 2011**

Shanghai New International Expo Center

April 21 – 28 2011

Press days: April 19 - 20

Trade days: April 21 - 22

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For more information about the Valeo Group and its activities, please visit our web site [www.valeo.com](http://www.valeo.com).