

Detroit, January 11, 2016

Faurecia Offers Automakers Innovative Technologies to Meet Consumer Demands for Environmental Performance, Increased Connectivity During the Detroit Auto Show

[Faurecia](#) today revealed a new generation of technologies focused on Driving Well-Being at the 2016 Detroit Auto Show. The world's seventh-largest automotive supplier will demonstrate an array of advancements in automotive seating, emissions control technologies, interior systems and automotive exteriors designed to promote sustainable mobility and enhanced life onboard the vehicle that will ultimately help automakers improve the well-being of drivers and their environment. During Press and Industry Days Jan. 11-14, Faurecia will exhibit these systems at the **Crowne Plaza Detroit Downtown Riverfront hotel, across from Cobo Center.**

For its third appearance at the Detroit Auto Show, Faurecia will display a seating system that can improve the driver's physical and mental condition, a device to convert exhaust heat into electricity for hybrids, a live garden of natural materials used to produce interior components, and other unique solutions to some of the industry's most pressing challenges. Together these technologies represent new ways to make cars and trucks cleaner and lighter and new methods to enhance the driving experience.

"Today's motorists are seeking vehicles that make driving easier, more comfortable, more customizable, more economical and more sensitive to the environment—in short, features that improve their well-being while driving," said Faurecia North America President Mark Stidham. "The technologies we will display at the Detroit Auto Show place Driving Well-Being at the core of the vehicle. These latest innovations in automotive seating, emissions control technologies, interior systems and automotive exteriors change the sustainability and comfort equations from the instrument panel to the exhaust pipe, reshaping vehicle systems around the preferences of drivers, instead of requiring drivers to adapt to vehicle requirements."

A seat that makes drivers healthier

Among the most advanced systems to be exhibited by Faurecia is Active Wellness™, the world's first automotive seat that goes beyond detecting the physical and mental status of drivers and/or occupants and invokes countermeasures to restore individuals to a healthy driving condition. Active Wellness employs uniquely designed piezoelectric sensors to measure heart rate and breathing rhythms. It then uses this information to apply a specific massage pattern, combined with heating or cooling adjustments to the seat's ventilation system, to relax a stressed occupant or re-energize the driver. The goal is to help people feel better after a trip than when they entered the car.

Active Wellness™ incorporates the first biometric system that does not affect comfort or the visual design of the seat. It is also the first system capable of overcoming noise and vibrations to provide accurate feedback to mechanical, thermal, pneumatic and computer systems.

Active Wellness™ is the culmination of five years of research with the Ohio State University Spine Research Institute, the team that developed NASA's space suit sensors, and Hoana, a leading producer of medical devices.

A new era in design flexibility

Seat coverings have been reinvented by Faurecia's proprietary Cover Carving Technology (CCT), which capitalizes on a complete-seat approach to the cover and seat architecture.

This process, for which Faurecia has filed more than 15 patents, has produced the industry's first seat without foam-to-cover attachment. CCT is based on the direct compression of polyurethane on fabric, vinyl or leather. As a result, it produces shapes (concavities, marking lines, embossing, etc.) in a very repeatable and durable manner.

It is developed into two product applications: Sculpted Light Back Panels for the back of front seats and Sculpted Covers to replace traditional covers.

- The **Sculpted Cover** provides exceptional design freedom and quality, as well as breakthrough durability. Covers are consistent in quality, with no wrinkles, and provide a soft feel that is pleasing to the touch. Development time for covers is slashed from one year down to just six months. Production time is cut as well: Trimming a sculpted cover requires 32 seconds, compared to 40 seconds for traditional covers, as its 3D shape doesn't require several attachment points between the cover and foam pad.
- The **Sculpted Light Back Panel** offers weight savings of up to 50 percent per car set, compared with plastic back panels. Tooling costs are reduced 80 percent vs. rigid back panels, and the process employs a low-pressure tool that requires no heating. For rear-seat passengers, the panel's concave shape increases knee room by up to 30 mm (1.2 inches).

Intuitive, connected controls for vehicle interiors

With its Intuition demonstrator, Faurecia introduces Human-Machine Interface (HMI) advancements that incorporate full black-panel screens; high-resolution active matrix organic LED (AMOLED) screens; smart functional surfaces; new types of connectivity with mobile devices; automated comfort systems; and new decoration materials.

The ultra-thin AMOLED screens offer higher contrast and lower power draw than previous technologies, as well as greater design and packaging freedom—they can be shaped into curved displays. Additionally, a ruler-thin black-panel TFT screen can show infotainment system and phone information. Faurecia worked with its partner Magneti Marelli to integrate these displays and electronic systems.

Intuition uses switchless technology that converts aluminum, wood, plastic or fabric materials into smart surfaces. Piezoelectric technology provides haptic feedback when an occupant touches these materials, so a vibration is felt, for example, when air conditioning is activated by contacting a surface area. Faurecia also pursues new angles in lighting with a strip along the instrument panel edge that shifts from red to blue to indicate the intensity of the cooling setting.

A mobile phone can be inserted into the center console display, where it automatically charges and connects with screens that occupants can navigate by touch. Mobile devices charge wirelessly in a slide-out docking station or door panel compartment for rear-seat passengers. The center console displays can also rotate to the driver or passenger side for added convenience.

Vents as fashion features

Faurecia extends interior customization all the way to the air vents with DecoVent, which offers full design freedom by integrating the mechanical elements of the vents behind the visible surface.

DecoVent replaces classic visible air-vent vanes with a single horizontal or vertical blade and a totally hidden mechanism. Its technical performance both in pressure drop and in directivity are among the industry's best. The visible blade can be designed in many different fashions, including genuine materials, enhancing design options for vents and increasing flexibility as designers work to differentiate vehicle interiors. With the exterior of the vent accommodating a wide variety of designs, a similar architecture can be used for the mechanical components within.

A growing interest in natural materials

Within the Faurecia exhibit will be a live garden where natural materials—including representations of hemp—will grow during Press Days. This immersive display embraces real automotive parts as well. The display contains a meadow of live bamboo, abaca, and an Asian spruce planted in soil.

It provides a path with stations that signify milestones in Faurecia's innovation of natural materials for lightweight vehicle interiors, including development of real-wood Lignotoc and LignoLite, a flax-based trunk floor and NAFILean natural-fiber door panels and instrument panel. Each station features a growing plant, along with a product or prototype with detailed explanation. The final stop in the walk-through exhibit is a display of granules used in Faurecia's BioMat bio-based resin and in other injection-molding techniques. The station shows testing specimens made from the granules, as well as the finished appearance of the parts.

Reinventing the rear end of the vehicle

Faurecia's Urban Liftgate demonstrator rethinks materials, painting techniques and lighting for the rear end of the vehicle.

The composite lighter-weight liftgate introduces a smart-opening system in which the top slides over the vehicle roof at the push of a button. It lowers the liftgate profile while opening to facilitate parking in low-clearance parking or urban parking.

The spare wheel tray is fashioned from a composite thermoplastic and glass fiber, which is 30 percent lighter than its traditional steel counterpart, while the trunk floor is made of Ligneos, Faurecia's real-wood material. It weighs 20 percent less than traditional wood paneling.

Urban Liftgate also solves the design disruption inherent in current third brake lights. The new design integrates this light invisibly into the spoiler along the rear roof line. When the brake is applied, LEDs shine through the translucent paint. Rear brake lights also use translucent paint to remain dark until lights are activated.

In the area beneath the rear glazing (plastic window), and in the areas surrounding the rear air-flow ducts, Faurecia has sprayed on a metallized paint that replaces expensive chrome while creating a shiny chrome appearance. The process of spray metallization is cost-efficient, offers a larger diversity of color and is more environment friendly compared to real chrome.

A new painting technique is applied below the bumper, featuring micro-beads for a protective granulated effect similar to sharkskin for decorative and protective purposes. These textured and spray-metallized paints can be laser-engraved for personalization. Finally, the Urban Liftgate's bumper skin is more flexible, changing shape automatically to redirect air from wheel arches to relieve turbulence.

With its Urban Liftgate concept demonstrator, Faurecia intends to show how the entire rear portion of a vehicle can be integrated with innovations in materials, lighting, painting and design, all of these utilizing lightweight materials that move the rear end to the front of design considerations for more sustainable mobility.

Powering hybrids and trucks with exhaust heat

Faurecia has invented the world's first system to convert exhaust heat into electricity for hybrid cars and horsepower for commercial trucks. Using Rankine cycle principles, the Exhaust Heat Power Generation (EHPG) system employs a heat exchanger placed in the exhaust flow to produce pressurized steam that powers a turbine. The turbine's shaft can be attached to a truck's gearbox to turn the wheels, or it can be coupled with a generator that creates electricity

to be stored in the battery of a hybrid vehicle. As a result, these vehicles rely less on their gasoline or diesel engines and significantly reduce emissions. Trucks can improve their fuel economy by 5 percent or more and avoid 55 tons of carbon dioxide emissions over the vehicle's life. In hybrids, fuel economy is improved about 7 percent, with a reduction over the car's lifetime of 2.5 tons of CO₂.

A lighter exhaust pipe

Faurecia's focus on lightweighting to improve fuel economy incorporates virtually every system inside, outside and under the car—even the exhaust pipe. Faurecia's new Resonance Free Pipe™ (RFP™) contributes to this goal by eliminating the need for small silencers, known as resonators.

Resonators inside tailpipes break long sound waves to reduce unwanted frequencies. RFP™ eliminates these long waves without resonators by venting acoustic pressure at the optimum point in the exhaust system through a micro-perforated material. While most of the exhaust gas continues to exit the system through the tailpipe, this very minute venting of treated exhaust gas allows for a simpler system design that provides 4 to 11 pounds of weight savings in a more compact package. RFP™ can potentially be used in any light-duty vehicle.

Sustainable Mobility and Enhanced Life Onboard

Collectively these Faurecia innovations serve to make driving more sustainable and drivers more comfortable as vehicles become more chic, connected, customizable, and considerate of the environments in which they operate.

Visit the Faurecia exhibit during the Detroit Auto Show Press Days Jan. 11-14 at the Crowne Plaza Detroit Downtown Riverfront hotel, across from Cobo Center.

About Faurecia

Faurecia is one of the world's largest automotive suppliers, with four Business Groups: Automotive Seating, Emissions Control Technologies, Interior Systems and Automotive Exteriors. In 2014, the Group posted sales of \$25 billion. As of December 31, 2014, Faurecia employed 99,500 people in 34 countries at 330 sites, including 30 R&D centers. Faurecia is listed on the NYSE Euronext Paris stock exchange and trades in the U.S. over-the-counter (OTC) market.

In North America, Faurecia had sales of \$6.2 billion in 2014. It employs more than 20,000 people at 48 locations in the U.S., Canada and Mexico.

###

Contacts:

Tony Sapienza
Director, Communications
Faurecia North America
+1-248-606-1775
tony.sapienza@faurecia.com

Jennifer Korail
Airfoil Group
For Faurecia North America
+1-248-304-1429
korail@airfoilgroup.com