



## NEWS RELEASE

### **Visteon and 3M collaborate on consumer-driven innovation designed to enhance the driving experience**

***The two companies unveil the new European "X-Wave" concept vehicle, featuring more than 50 innovative technologies.***

Kerpen, May 14, 2008 – Visteon Corporation and 3M showcased today a jointly developed concept vehicle featuring more than 50 innovative technologies designed to enhance the driving experience of upcoming and future vehicles.

Demonstrating innovations in the core technology areas of climate, interiors and electronics, including lighting, the concept vehicle demonstrates potential commercial applications that could result from this exciting collaboration.

Announced in January 2008, the advanced technology collaboration between Visteon and 3M has paved the way for the two Fortune 500 companies to develop consumer-driven automotive products that capitalize on the expertise of each company.

3M is recognized universally as an innovator, supplying more than 1,000 products to the automotive marketplace by tapping into a broad range of technology platforms, including lighting and optical films. Visteon, one of the world's largest automotive suppliers, is known for its vehicle integration expertise and for its first-to-market innovations in automotive climate, interior and electronics systems.

"The collaborative approach is a cornerstone in Visteon's innovation strategy," said Steve Meszaros, vice president of Visteon's global electronics and innovation organisation. "Visteon and 3M are able to incorporate key insights into the innovation process because of their in-depth understanding of both the car manufacturers and the consumers who ultimately buy the vehicles."

"This relationship is exciting; it brings together two automotive companies with unique and complementary strengths," said John Jackson, technical director, 3M Deutschland GmbH. "3M and Visteon intend to use the demonstration vehicle as a centerpiece in discussions with automakers about future technology solutions."

Using proprietary research methodologies, Visteon and 3M combined the results with insights from advanced trends analysis to establish key trends impacting future automotive design: comfort, connectivity, convenience, health, flexibility (individualism) and sensorial experiences.

The technologies presented on the vehicle offer greater design flexibility for automobile manufacturers and enhanced driver awareness and health for vehicle occupants. The facilitation of user friendly connectivity solutions, improved interior comfort and enhanced visual experience through innovative Human Machine Interface (HMI) solutions offer further benefits to driver and passengers.

The technologies on display are at different stages of development, ranging from market ready to commercialization ready in the medium to longer term.

**Visteon products featured in the X-Wave include:**

The vehicle features Visteon's **Integrated Center Panel**, which shows how climate, audio and multimedia controls can be stylishly packaged for easy user interaction. This ultra-thin, twisted helix-shaped touch panel uses field-effect switches to enable a clean, "dead-front" look in situations when the center panel buttons do not need to be visible. When a user's hand nears the panel, the vehicle senses it and the buttons automatically illuminate to show an extremely user-friendly human-machine interface (HMI). When a user pushes one of the buttons to select a function, the switch is actuated and gives haptic feedback – a tactile vibration like a pulse – to lend a more natural button feel and let the user know his or her command is being processed.

A good example of Visteon's consumer-focused innovation is in the integration of portable media devices. Visteon offers wireless **connectivity technologies** that integrate personal devices such as iPods®, mobile phones and other devices via both wired USB and wireless Bluetooth® connections. This integration allows consumers to operate the portable devices by using the vehicle's audio system and controls.

To help accommodate the proliferation of electronic devices requiring connectivity solutions in the market, Visteon has designed a clever **dual-access console lid**. This armrest is unique in that it incorporates a multi-axis hinge for the dual-access feature. This lid can be flipped to serve as a connectivity hub for electronic devices – this improves accessibility, storage and safety by securely holding the devices in place, even when flipped back to its original position.

Visteon's latest application-ready R744 climate system consumes up to 25 percent less fuel than conventional R134a systems and enables a reduction of CO2 tailpipe emissions of up to 7g/km while operating the air-conditioning system. Core components of the climate system include an electrical compressor, which allows for efficient package utilization and supports hybrid applications and a heat pump for supplemental heating.

The vehicle also features two of Visteon's unique HVAC systems – **the Straight Airflow Path (SAP) HVAC and the flat auxiliary HVAC**. The packaging and compact nature of the front SAP HVAC system allowed the design team flexibility to shift the IP forward in vehicle providing for increased spaciousness in the interior compartment as well as creating space for the dual storage glove box. The unique packaging of the auxiliary Flat HVAC, under the driver's seat, provides for softer air diffusion without taking away from storage space typical of auxiliary HVAC systems in most vehicles today. In addition the Flat HVAC unit incorporates an Ion Generator to improve overall air quality (A/C odor reduction, cabin air quality improvement by cluster ion generator's anti-fungi and deodorization property, as well as improvements in overall HVAC filter efficiency)

The 3D Driver Information Cluster provides higher visibility enhancements for icons and graphics permitting the concurrent display of multiple images. Through this technology, auto manufacturers are able to offer a more immersive and customizable driving experience. This technology also has the benefit of being lower cost than alternative 3-D solutions.

To improve the perception of high quality interiors, a unique translucent TPO skin material can be used to provide driver and front passenger messaging and surface mounted branding. Not only does the 'secret-until-lit' technology delightfully surprise the passengers, but it also allows increased use of ambient lighting to create increased interior harmony.

Underhood, the vehicle's **Air Induction System** incorporates several technologies, a **low-restriction hydro carbon evaporative emission trap** to reduce environmental impact and a **Variable Noise Control** resonator to enhance engine sound performance.

### **3M products featured in the X-Wave include:**

3M, promoting development activities in the three major automobile markets of Europe, Japan and the US, is now addressing the major needs in the current and future markets:; (1) Improvement of safety (2) Creating attractive and comfortable vehicles and (3) Environmental measures for sustainable development.

To meet these needs, 3M aims to offer new solutions related to materials or intermediate materials based on the experience and technologies 3M has accumulated in the three major markets, and thereby contribute to sustainable growth in the automobile industry

To address the marketplace need to display more information within the vehicle in unique and novel ways, **3-D technologies** from 3M have been incorporated into the instrument cluster. The use of 3-D has improved the driver experience by utilizing eye catching turn-by-turn navigation graphics on the driver cluster. **Static 3-D technologies** are also displayed in badging, enhancing not only the driver experience but also reinforcing OEM brand image.

Automotive designers want to hide functional elements of the vehicle to provide a unique look and feel without compromising visual clarity of displays and lighting effects. **3M transmissive optical films** have been used on the IP to provide a sleek black panel that does not compromise design and function.

Interior lighting becomes important to underline the OEM brand image and to increase perceived quality. 3M integrated lightguide technologies like 3M Precision Lighting Elements or 3M Lightstrings in the door panels, map pockets and cockpit area to create amazing and stylish light effects with even functional features.

### **About Visteon**

Visteon Corporation is a leading global automotive supplier that designs, engineers and manufactures innovative climate, interior, electronic and lighting products for vehicle manufacturers, and also provides a range of products and services to aftermarket customers. With corporate offices in Van Buren Township, Mich. (U.S.); Shanghai, China; and Kerpen, Germany; the company has facilities in 26 countries and employs approximately 41,500 people.

### **About 3M**

A recognized leader in research and development, 3M produces thousands of innovative products for dozens of diverse markets. 3M's core strength is applying its more than 40 distinct technology platforms – often in combination – to a wide array of customer needs. With \$24 billion in sales, 3M employs about 75,000 people worldwide and has operations in more than 60 countries. For further information please go to: [www.3M.com](http://www.3M.com)

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