Thu, 6 June 2024
Weekly Newsletter

DVN Interior

NEWSLETTER #215

Editorial

Display Technology Outlook In San Jose, California

LG IMAGES

Automotive displays are undergoing a revolution in terms of design and technology, and the supply chain ecosystem is fluctuating accordingly. At Display Week in California, the automotive interior showings focused on a number of areas. The predominant focus was 'smart' full-width, pillar-to-pillar displays customizable by the driver as well as passengers. The trend is to integrate 'smart' sensors into these displays for driver condition monitoring, occupant detection, and eye tracking with sharp cutoff.

This week we bring you extensive coverage of Display Week with a broad range of display topics, and it's worth noting that automotive interior integration was a key area of interest at the show. There was a lot of material and interest about the latest advancements in automotive display technologies including OLED, LED, microLED, and zonal dimming. Sensor integration opens new applications, starting with eye tracking and DMS. Embedded sensors in screens as well as in displays and smart surfaces make for cleaner, more aesthetic packaging of sensors while maintaining full functionality. Don't miss the full report.

DVN Interior focuses on tech- and feature-watching this constellation of display, interior lighting, and sensing technologies, techniques, and applications to help you understand the direction of automotive interior HMI trends now and in the future. Stay tuned!

Cheers,

Philippe Aumont
DVN-Interior General Editor

In Depth Interior Technology

Display Week @ San Jose

DVN IMAGES IN THIS ARTICLE, EXCEPT AS NOTED

Special to DVN-I by Shammika Wickramasinghe

Display Week 2024 took place on 14-16 May in San Jose, California, with thousands of industry experts and guests attending. Our three-part coverage includes a short summary; this present in-depth article, and a complete DVN Report has been published earlier this week.

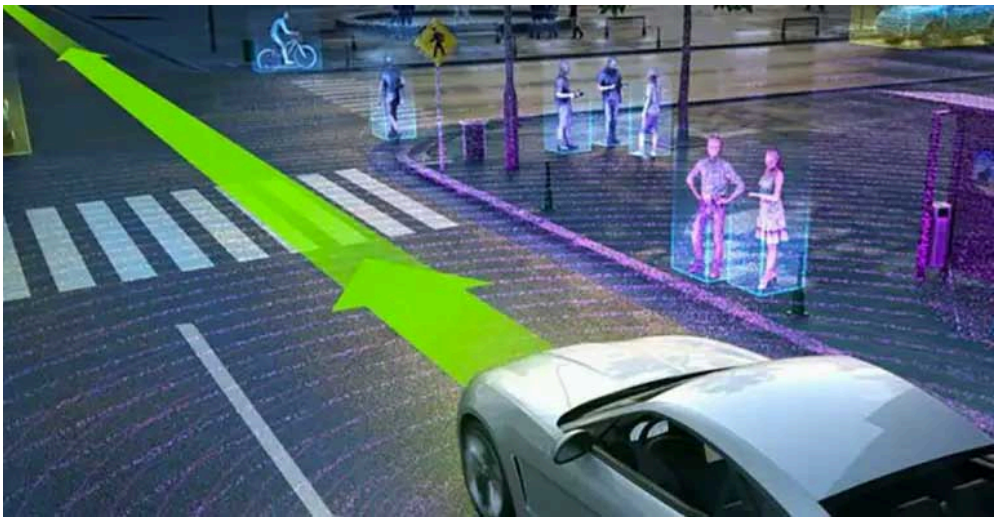
The event featured 95 technical sessions, with more than 370 oral presentations and 250 poster presentations. The program presented significant advancements covering imaging-related technologies that will become critical drivers for the future of realms including the metaverse, automotive, medical imaging, digital signage, microLEDs, display electronics, oxide TFTs, plus other new active-matrix advancements and novel methods and materials for imaging. There were over 130 suppliers displaying their products, services, and innovations.

The AR/VR/MR/XR technical discussions, presentations, and posters showcased significant strides in engineering advancements. The fast and vast advancements of near-to-eye imaging products provide insight into technologies determining the future of AR/VR/MR, holographic systems, display, and system components, along with manufacturing and critical measurement and control methods. This technology will eventually replace many smart phones, computers, and other products while enhancing and extending human sensory and memory capabilities, and allowing faster access to information.

Companies such as LG, Samsung, TDK, Meta, 3M, Tianma, BOE, and TCL CSOT were centrally placed, while German suppliers were clustered in the German Pavilion. The India Business Forum was a great display of talent and capabilities from that rapidly-developing market. Antolin had a noteworthy stand, described in this week's Interior News.

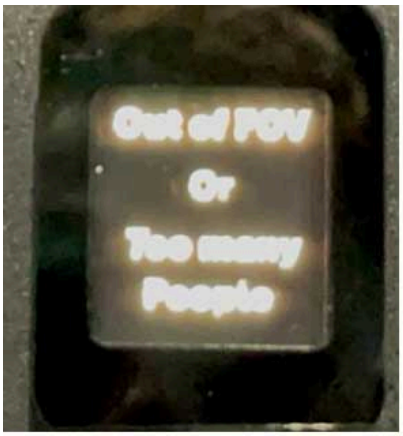
This year’s event focused on key topics:

- **Ultrahigh-bandwidth transmission and processing (UHBTP):** Novel ultrahigh-bandwidth solutions are needed to enable the next generation of beyond-8K resolution and data-intensive applications such as holography, stereovision, light-field displays, and next-generation AR/VR/MR. Achieving retina resolution at large field of view and high frame rate necessitates a significant increase in data generation, processing, and transmission bandwidth. Foveal tracking and other functions can require intensive high-speed processing in small form factors. Additionally, the inclusion of numerous sensors and cameras compounds the need for ultrahigh-bandwidth data requirements and intuitive user controls.



This is a key area of focus for eye tracking as well as real time AR/VR applications and a key enabler for L^5 automation. The sensor suite, including cameras, will require ultrahigh-bandwidth processing to achieve retinal resolution in a large field of view and high frame rate. UHBTP is one of the key enablers to meet these challenges with low power consumption, low thermal budget, low latency, ease of use, and long battery life.

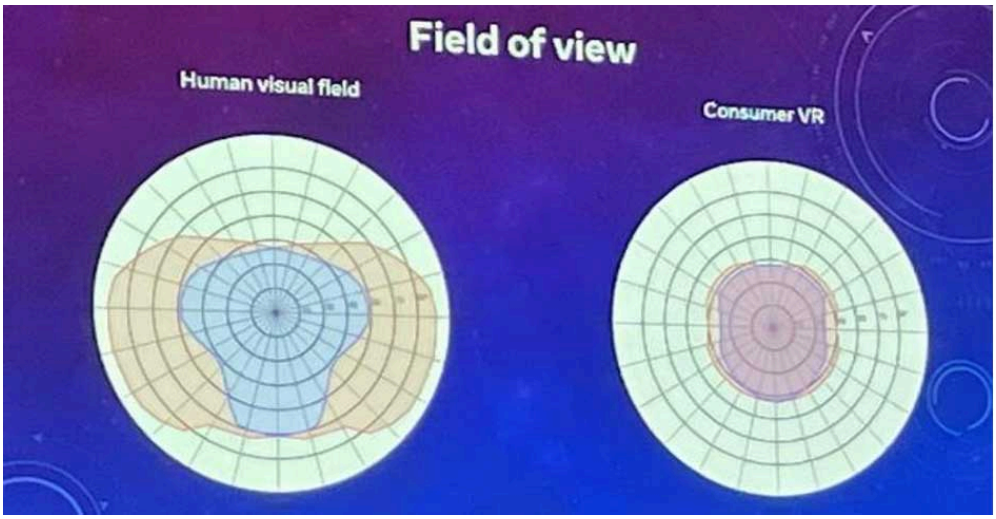
- **Sensor integration and functional displays.**



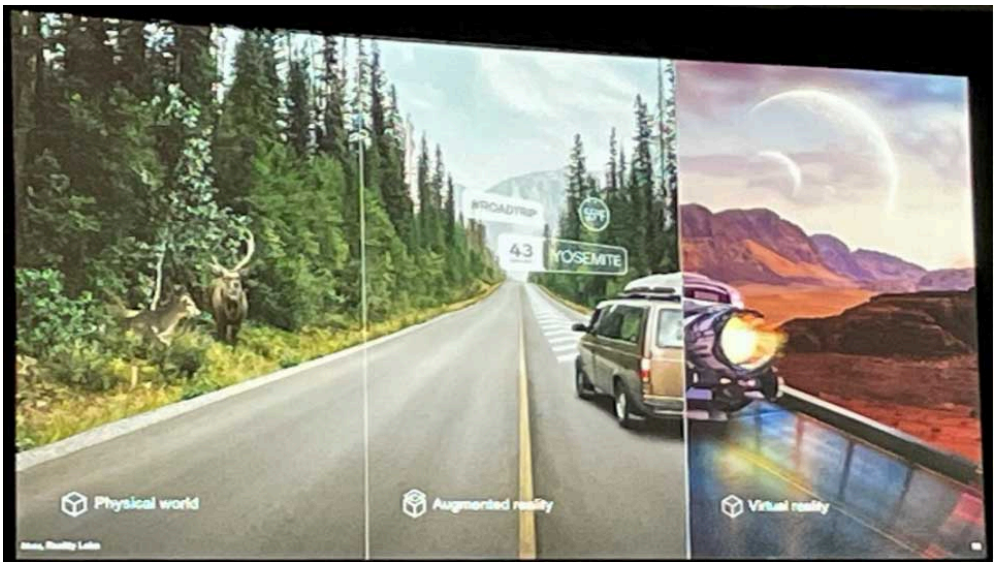
The focus for sensor integration and functional display opens new avenues with OLED technology for biometric recognition, retinal scanning, eye-tracking, and DMS-OMS. Embedding sensors in screens and displays makes for tidier packaging—the technology is less conspicuous that way, as well as less power-hungry. This creates a new dimension for security devices, and can be used in conjunction with paired devices for monitoring the presence of a person or a pet in a vehicle, for example. Other examples include displays with directly-integrated output capabilities; and touch controllers, sensors, materials, and processes; novel sensors.

- Artificial intelligence, (AI) including machine learning (ML) for imaging

AI is a popular buzzword at the moment, and there is considerable effort in research and development to apply the potential of AI. While the development initially focused on medical imaging, the technology has now evolved to be used in automotive applications—but further work is needed to match human FOV and cognition.

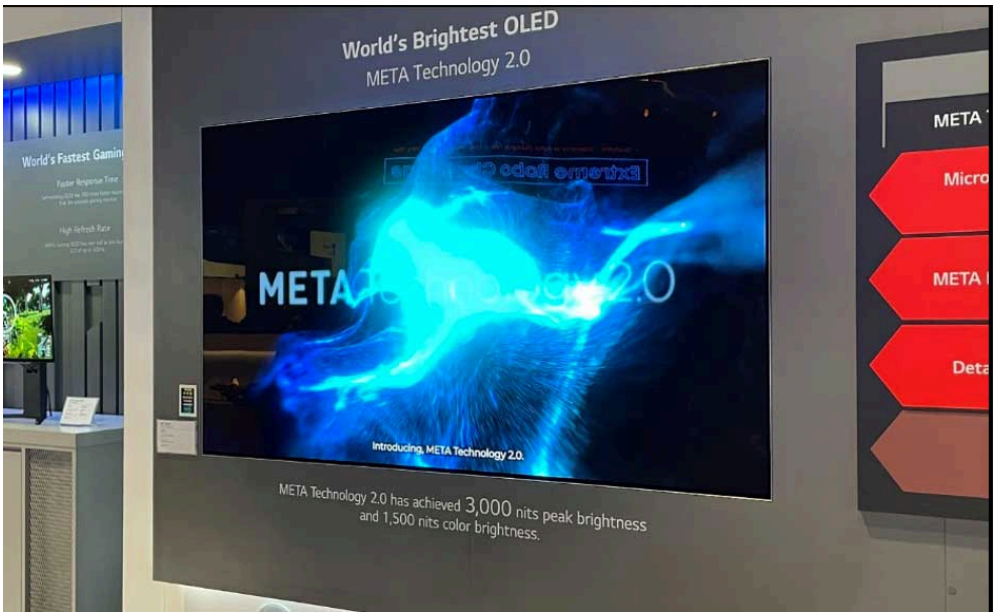


AI is becoming a more mainstream tool for typical imaging tasks such as segmentation and classification. The basic technological pillars of AI, together with machine learning methods, have brought great growth in their application to imaging and displays in recent years, and so these technologies are increasingly feasible for commercial application in autonomous driving and security. AR/VR and 'contextual AI' together with ML are expected to grow in parallel while AR/VR will start to become more mainstream, with increasing commercial applications.

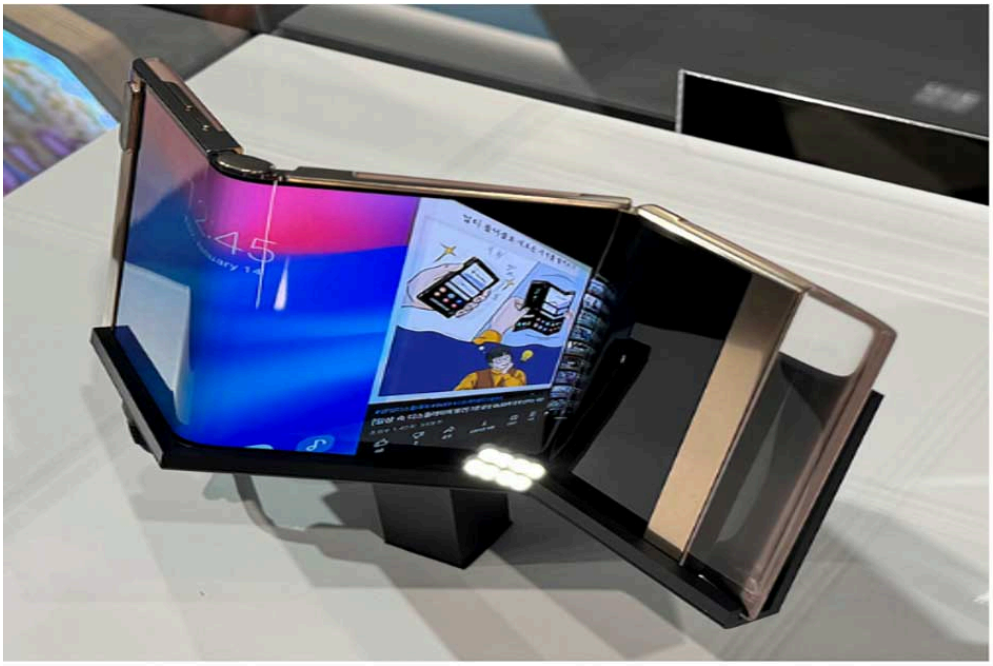


DIGITAL SIGNAGE (INDOOR AND OUTDOOR INFORMATION DISPLAYS)

There were several clear trends in this area, focusing on OLEDs, transparent OLEDs, bendable and flexible OLEDs, and large-scale µLED displays. LG Display's 77-inch, 8K Meta OLED display was most impressive!



SAMSUNG'S 77-INCH QD-OLED TELEVISION

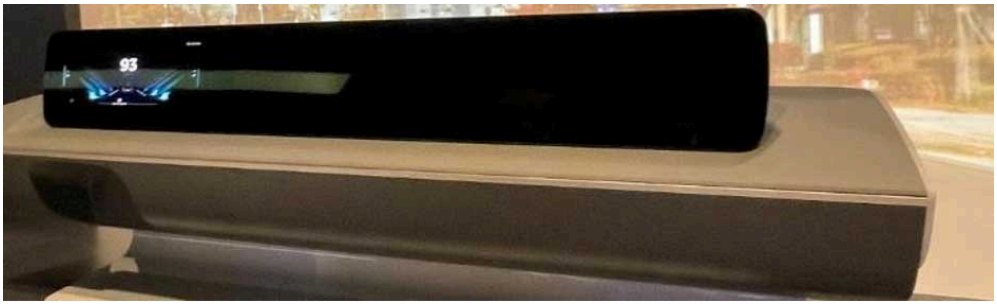


BENDABLE AND FLEXIBLE OLED DISPLAYS

BOE'S FLEXIBLE AUTOMOTIVE DISPLAYS

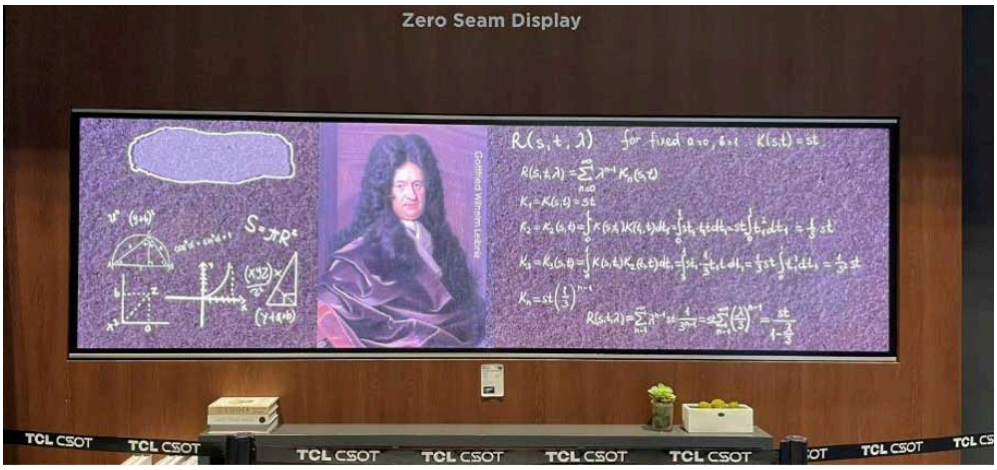
The predominant automotive focus was 'smart' full-width, pillar-to-pillar displays customizable by the driver and passenger. 'Smart' sensors are increasingly integrated for driver-condition monitoring as well as occupant detection, and eye tracking with sharp cutoff.

Direct-backlight LCD is expected to remain the main display technology for awhile, at least for the main zones, although OLED is gaining popularity. LG's 27.2" flexible OLED with 6K × 1K resolution is reportedly used in the Genesis GV80 (from Q3-23), while Lucid is expected to use a 33.9", 6K × 1K flexible OLED by LG this year. Audi and Mercedes-Benz also are expected to incorporate large OLEDs in future models.



Other developments include curved, 'smart', customized cockpit displays with integrated sensing capabilities. The separation between screens can be customized such that the driver and passenger will not see borders between them.

SMART COCKPIT DISPLAY BY BOE



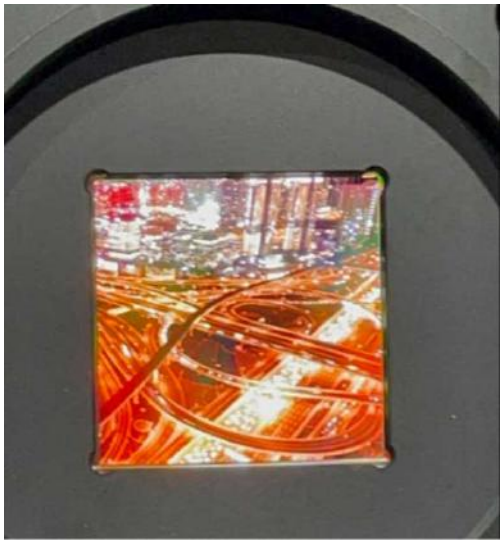
Ancillary to full-width displays are filters and sharp cutoffs with impressive seamless transition between sections and screens, as well as a unique collapsible screen that would extend to a passenger display when an occupant was present and just a driver display (DD) and center information display (CID) when no front passenger is in the vehicle. Projections on to the windshield, 3D displays, and film-based technology are being used in conjunction with microLEDs to open up new possibilities in the display space and in exterior and interior lighting.

Mobile devices have influenced the demands on displays in all areas of life, and significantly increased consumer expectations—also in vehicles. Technological innovations from the consumer market are being adopted in vehicles. Especially in medium- and high-price segments, today's vehicles have a lot of displays. The trend is toward larger displays with higher resolution, and merging multiple displays into one for a uniform, elegant overall impression.

- MicroLEDs

Great growth was on display in microLED application for displays and other areas of vehicles. Current microLED display offerings by Samsung and Sony consist of 'cabinets' which can be tiled to create a large display of any size, and the display's resolution increases with size. They also contain mechanisms to protect the display against water and dust.

MicroLEDs have garnered a lot of interest because of the potential advantages over other flat-panel display technologies, most notably their efficiency, high brightness, color saturation, fast response rate, and long lifetime.



MicroLEDs are somewhat similar to OLEDs, but with an inorganic LED structure. Compared to OLEDs, microLEDs promise much greater efficiency and brightness, longer lifespan, and a broader color gamut. MicroLEDs are based on well established LED devices, which stands to facilitate scale-up and adaptability.

MicroLED displays can be manufactured in different ways, each with challenges and advantages. There are flexible displays, 'E-paper', and wearable display technologies, including stretchable, bendable, foldable, or rollable display devices and system-level integration of such devices and printed electronics based on organic and inorganic materials. At Display Week we saw great advances in flexible-display materials, electro-optical effects, sensor technologies and interfaces, LED driving techniques, and device performance with reliability, ergonomics, and applications.

- **Film technology.** Light control through film was another topic presented mainly by 3M. Films offer to reduce weight and cost while maintaining the homogeneity and lighting functions of more traditional polycarbonate-based solutions in lighting and display applications.

Transparent displays are facilitated by the characteristics of µLEDs, as well.

All in all: it is clear that the display industry and exterior-interior vehicle lighting are rapidly converging with the evolution of µLED- and OLED-based technologies.

Interior News

Antolin, Via Optronics Show Sunrise Tech at Display Week

INTERIOR NEWS

ANTOLIN IMAGES

Antolin and Via Optronics showcased their new co-created display technology, called Sunrise, at Display Week in the German Pavilion. **See DVN coverage of Sunrise.**

Antolin is a supplier well known to the DVN community, and Via provides interactive display solutions for applications in which functionality and durability are critical differentiating factors. Their customizable technology is well-suited for high-end markets with unique specifications and demanding environments that pose technical and optical challenges for displays, such as bright ambient light, vibration and shock, extreme temperatures, and condensation. Via's interactive display solutions combine customized design, interactive displays, touch functionality, cameras, and other hardware components.

Antolin VP of Technology Solutions Jorge Juárez said, "The development of Sunrise represents a significant milestone in our partnership with Via optronics. This innovative display technology and all the HMI interfaces related showcase our commitment to delivering cutting-edge integrated products that redefine the automotive user experience".

And Via CEO Roland Chochoiek said he is "thrilled to exhibit the Sunrise vehicle cockpit, which is the result of our collaboration with Antolin, at Display Week. Our team is very excited to introduce these new, sophisticated features and functions to our customers and partners and look forward to the event".

The joint technology demonstration highlighted the collective strengths born from the strategic collaboration. The companies believe their Sunrise product sets a new benchmark in user experience and seamless display integration.

They had an exclusive session at the exhibitors’ forum, where Antolin's Bizdev Manager (North America) Javier Cuadrado, together with Via Optronics Managing Director Gene Halsey, explored the advancements in display integration and HMI.

Hitachi Astemo Works to Delete the Steering Wheel

INTERIOR NEWS

HITACHI ASTEMO IMAGE

Hitachi Astemo provides advanced mobility solutions in the areas of electric powertrains for automobiles, advanced chassis, autonomous driving/advanced driver assistance systems, and systems for motorcycles. They're working on a steer-by-wire research project to replace the steering wheel with an innovative next-generation steering system. The directional input device developed for this project can be operated with one hand, and completely dispenses with a steering column and steering wheel. It combines HMI and ADAS.

The steering system performs two central functions: it supports the driver in normal driving situations by autonomously correcting the vehicle's behavior. This includes keeping in lane in crosswinds or correcting driving errors such as oversteering.

And it communicates with the driver in situations it classifies as dangerous, then provides additional information through cues such as light and sound signals. Initial tests by Hitachi Astemo have shown that drivers have reduced the steering angle and driving speed when warned by light signals, for example, and are nudged toward a less-risky driving style.

The classic steering column and wheel take up a lot of space, and is a major injury factor in crashes. The new steering system enlarges the interior space around the driver. It also requires less physical effort to steer the vehicle, making it suitable for people of advanced age or with physical disabilities.

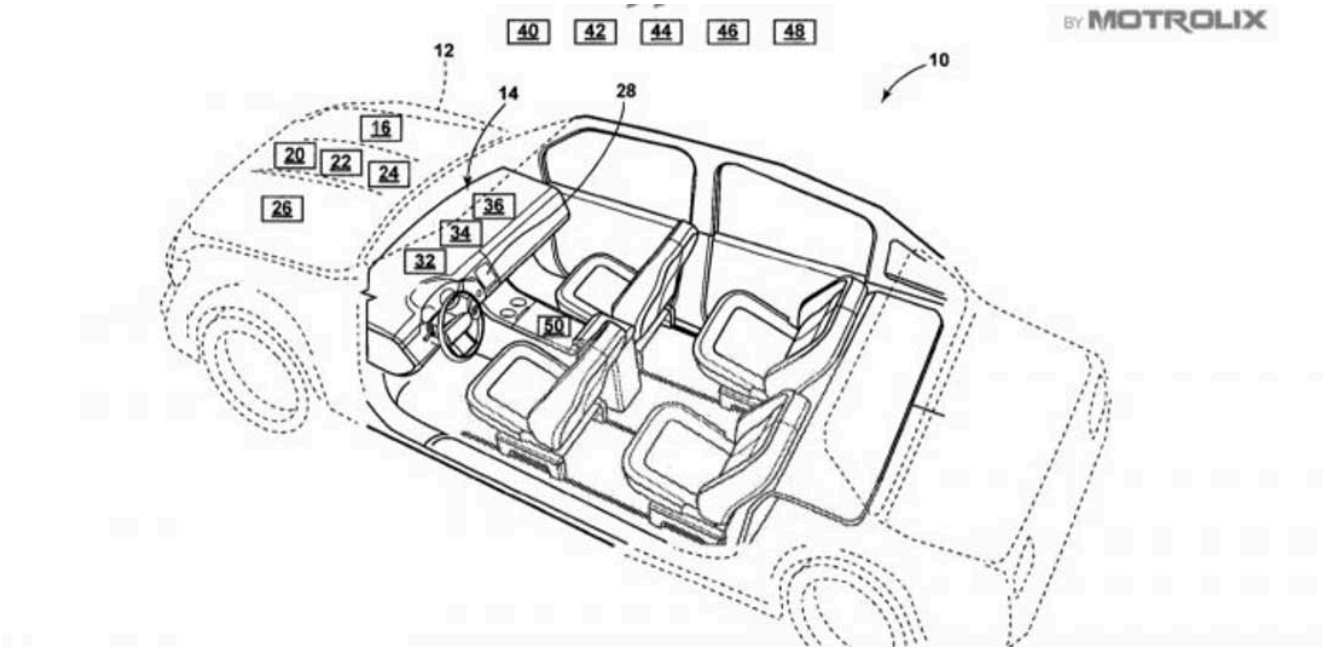
Kenichi Kirihara is Hitachi Astemo's General Manager of Next-Generation Chassis Development, and says, "Thanks to sensors, control units and software, modern driver assistance technology and steering systems are extremely powerful and are already geared towards the future of autonomous driving. It is therefore only logical to rethink the input device for steering a vehicle and herald a generational change here too".

According to Kirihara, the new concept is easier and more intuitive to operate than a steering wheel: "It provides an improved driving experience and greater safety".

Hitachi Astemo will be presenting the new steering system for the first time at Explore-to-Innovate 19-20 June, 2024 at the Institute for Driver Assistance and Connected Mobility in Benningen, Germany.

GM Patents Driver Mental-Wellbeing Detection System

INTERIOR NEWS



GM IMAGE

GM has filed a patent for a new system capable of assessing the mental wellbeing of vehicle occupants while driving, then acting to mitigate a potentially negative outcome.

The patent describes a system that integrates various advanced technologies to monitor and assess the mental wellbeing of the driver. The patent also mentions an ADAS that works alongside the wellbeing system to take control of the vehicle if the driver's mental fitness falls below a certain threshold, with the intention of enhancing overall road safety.

The system collects data from a multitude of sources, including onboard sensors and external environmental data. There's also a wellbeing module responsible for evaluating the driver's mental state by analyzing this data. Vehicle telemetry is considered as well; for example, hard braking, hard acceleration, tailgating, and excessive use of the horn could be considered indicators of a deteriorating mental state.

If the system detects that the driver's mental wellbeing is below a desired level, it can deploy various countermeasures. These might include adjusting the vehicle's speed, providing alerts, or even suggesting a break. The system can also send notifications to the driver's mobile device to encourage actions that improve their mental state. The patent also describes how the ADAS can fully take over certain driving functions if the driver's condition warrants it. The level of countermeasures deployed is directly related to driver's level of mental wellbeing, as measured by onboard modules.

This patent confirms that the industry is looking beyond DMS, to explore what can be done to leverage driver (and occupant) sensing technology towards monitoring health and wellbeing.

DVN comment: *Lose your temper? Throw a tantrum? Your driving privileges can be automatically taken away until you have thought about your behavior.*

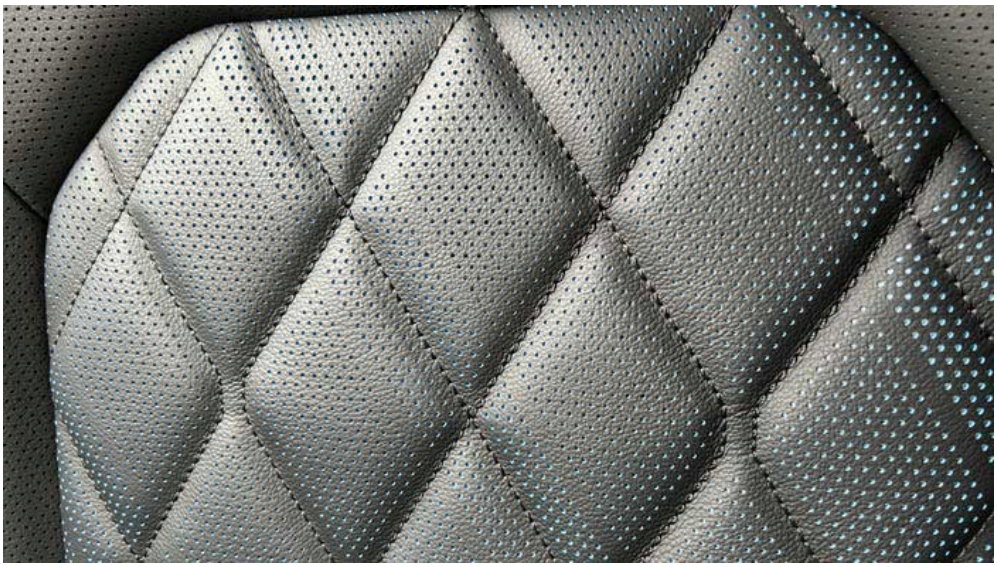
VW Atlas Cross Sport Interior Lighting

INTERIOR NEWS

VW IMAGES

The VW Atlas two-row midsize crossover features innovative interior illumination and design in a spacious, comfortable cabin. There's backlit trim on the instrument panel with laser-etched carbon fiber-lookalike trim and ambient lighting. At night or in dim lighting, a Cross Sport callout is visible, surrounded by a field of dots and dashes.

Ambient lighting can be independently controlled for brightness, color for each illuminated area, doors and footwells. It reveals blue fabric beneath perforations of varying sizes, creating a stripe-within-a-diamond appearance.



Black gloss trim and aluminum elements are incorporated, including on pedals.

Ambient lighting system adjustments complements what you can adjust with seats, head-up display and other features, via labels on realistic-looking graphics of the interior and exterior of the vehicle, accessed via the infotainment system.

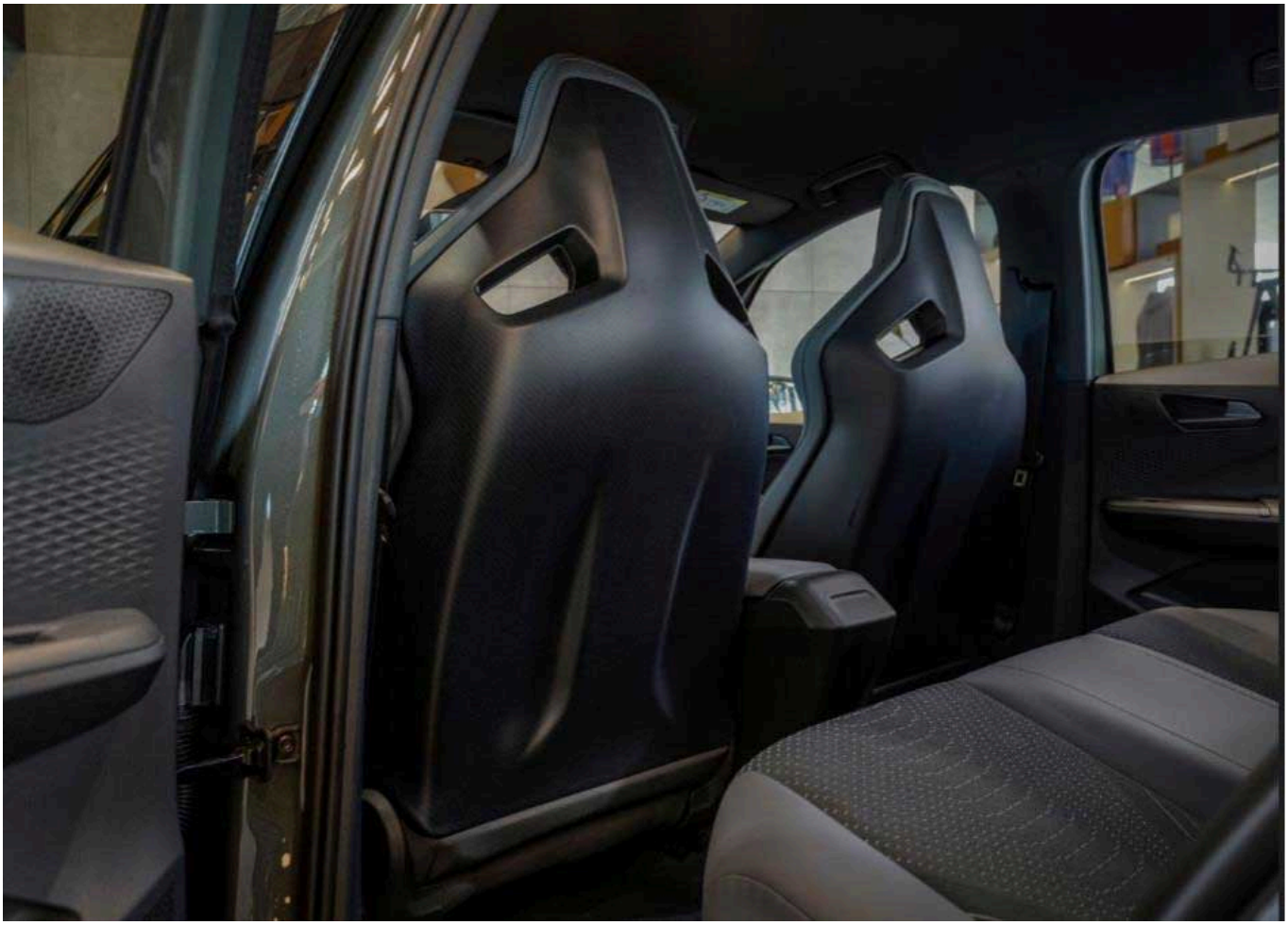
Front-row storage is substantial, with big door pockets and a large storage bin beneath the cantilevered center console.

Backseat passengers get extended legroom and heated, reclining seats. The seatbacks fold truly flat to create an even bigger cargo area.

The HMI includes a voice recognition system to command navigation, audio, and climate, find an address, change SiriusXM stations, and adjust the interior temperature.

Bcomp Bio-Composite Materials In Cupra Seats

INTERIOR NEWS



Cupra has fully natural-fiber seatbacks in their new Born VZ electric vehicle.

The new high-performance material is developed from flax-based composites, and can be seamlessly integrated into production of the Sabelt-manufactured bucket seats to halve emissions. It also lightens the vehicle to reduce energy demand, and offers end-of-life recyclability.

Bcomp's (see DVN Interior coverage) high-performance biocomposite materials provide the seat's under-structure. Cupra says it significantly improves manufacturing by reducing both waste and processing time for the part.

All top-line Cupra Born VZ models will have full natural-fiber front seats with Bcomp's high-performance Amplitex material, which is said to enable a reduction of 49 per cent of CO_2 emissions in seats' production.

Bcomp CRO Per Mårtensson says, "Everyone involved from Cupra, Sabelt, and Bcomp showcased unparalleled agility to deliver a world's first series high-performance natural fiber bucket seat within an extremely short timeframe, challenging standard automotive go-to-market timelines in favor of sustainability. We at Bcomp are happy to prove once again, that we can deliver quality competitive products for the large volume market that offer a much more sustainable solution to automotive interiors than standard materials".

And Cupra's Head of Color & Trim Concept and Strategy Francesca Sangalli says, "We've been researching the use of flax fiber for some time to integrate it in our car seats. We presented this project at the Unstoppable Impulse event in Terramar and are now happy to say that it's been successfully implemented. We are changing the sporty aesthetics to incorporate a functional part made of flax fiber in the interior of a car".

Covestro Recycling Technologies at IFAT in Munich

INTERIOR NEWS

COVESTRO IMAGE

During the IFAT Munich trade fair, which ran from 13 to 17 May, Covestro focused on waste management and recycling technologies.

The company's objective is to enhance their material cycles and increase the recycling of plastic waste. As part of this effort, they have registered as a waste dealer to meet the legal requirements to procure plastic waste for recycling.

The company showcased a portfolio of recycling technologies at the event. Alongside exhibits demonstrating current recycling solutions and partnerships, Covestro wanted to provide insights into mechanical and chemical recycling technologies to build transparency and confidence in their efficiency.

Covestro has experience in mechanically recycling polycarbonates and thermoplastic polyurethanes (TPU) and recently expanded its processing capacities for mechanically recycled products in China and Thailand.

Chemical recycling processes employed by Covestro include chemolysis, smart pyrolysis and enzymatic recycling. These methods involve breaking down polymer molecules to recover raw materials, allowing for the creation of new products of the same quality as virgin materials. These processes were elucidated at the Covestro booth during a Recycling Wheel presentation.

Through the CQ Cultural Intelligence concept, Covestro emphasized the use of alternative raw materials composed of at least 25-per-cent recycled content. With the introduction of new recycling technologies, the CQ portfolio continues to expand, including initiatives like Evocycle CQ, which focuses on the chemical recycling of polyurethane mattress foam components.

Covestro CEO Dr. Markus Steilemann says, "The chemical and waste management industries in particular must continue to grow together in the future in order to create synergies and develop solutions together".

Yanfeng, Trinseo Co-Develop Circular Interior Materials

INTERIOR NEWS

GUNNAR BÜCHTER, YANFENG VP OF GLOBAL SUSTAINABILITY (L); TRINSEO CTO HAN HENDRIKS (R, YANFENG IMAGE)

Automotive supplier Yanfeng and specialty material solutions provider Trinseo have announced a collaboration to develop automotive interior materials that align with automakers' circular economy targets and the 2030 end-of-life vehicle (ELV) requirements.

The collaboration focuses on accelerating the market launch of circular materials for automotive interiors through mechanical recycling and dissolution process technology.

Yanfeng and Trinseo plan to jointly develop, produce and commercialize these materials for future automotive applications. Both companies have signed an agreement to expedite the introduction of circular materials for automotive interiors.

“By leveraging our extensive knowledge with Trinseo’s technical expertise, we accelerate the development of circular automotive materials and offer our customers benefits along the entire value chain. Together we can provide recycled, high-quality solutions tailored to the auto makers’ needs,” said Gunnar Büchter, VP of global sustainability at Yanfeng.

The Design Lounge

Callum Teases Skye Interior Design

THE DESIGN LOUNGE

CALLUM DESIGNS IMAGES

The Skye, an electric all-terrain sports car created by Callum Designs, was shown in public for the first time at Concours on Savile Row in London on 22-23 May.

Ahead of the debut, Callum shared renderingss of the design intention for the Skye's interior.

The enclosed cabin is designed in a 2+2 formation, with a sleek, pillar-like center console bridge featuring tactile, rotary touchscreen dials that make it easy to control the HVAC and other key features. The dashboard was designed with a focus on functionality, and its central touchscreen will feature Apple CarPlay and Android Auto.

Up front are two cossetting sports seats. In the rear is a bench seat suitable for children; it can be removed to create load space. With access via a hinged tailgate, Callum says the storage area is large enough to transport luggage for long weekends away, as well as a variety of sports, lifestyle and outdoor pursuit equipment.

Design Director Ian Callum says, "In order to maximize the room, it's essential to keep the interior forms simple. The interior design intention is incredibly disciplined; we've edited our vision to only include necessary elements, giving the driver and passengers everything they need while avoiding wasted space. It uses clean yet sophisticated geometric shapes that complement the special forms showcased on the exterior. With the elegant simplicity of the interior, we retain the honesty of Skye being a capable and durable lifestyle vehicle, while offering a refined cabin experience."

GAC M8 'Space Diamond' Design for Luxury

THE DESIGN LOUNGE

GAC IMAGES

The GAC M8 has an electromagnetic suspension system that adjusts damping forces in real-time, which GAC claims provides a smooth ride over various road conditions to enhance handling and passenger comfort.

360° ALL AROUND AIRBAGS (GAC IMAGE)

The M8 comes with a ‘360° all-round airbag matrix’ that includes a rear windscreen airbag, a claimed first in the MPV class. There's a door-open warning system, and L^2 driver assistance.

Inside, the main design intent has been to create a 'mobile living room' with advanced technologies and ingenious design. The floating 14.6" center display is merged holistically with the console, which, when viewed in profile, is evocative of a flying swan. The three-spoke steering wheel is sculptural and classy. The combination of the 12.3” instrument cluster and the 14.6” center display provides a well-layered, reader-friendly presentation of in-vehicle information and entertainment.

The 7-seater M8 offers flexible seating options to suit different requirements. The third row can be folded and stowed to free up more storage room when needed. Or the space can be reconfigured into a mobile business meeting room by sliding back and folding up the second and third rows.

The 'Space Diamond' design theme also extends to the inner space. Subtle interplay of light and shadow can be found in various details of the M8, such as the door panel trims, the shifter knob, and the armrests.

Two interior color options are available. There's a black-and-white option inspired by the Baiyun Mountain and the Pearl River, the two most famous natural attractions of Guangzhou, GAC's home city. Or, there's the black, red, and gold 'Royal Opera' option. The seat upholstery and door panels are embellished with Cantonese embroidery-inspired patterns considered 'auspicious', and there's an ultrapremium-grade semi-aniline leather material to provide occupants with delicate tactile sensations and a sumptuous riding experience.

The vehicle will be first launched in the Middle East.

News Mobility

Volvo's Production-Ready Autonomous Truck

NEWS MOBILITY

VOLVO IMAGE

At the Advanced Clean Transportation fair, Volvo presented their L4 VNL Autonomous truck. It was developed by Volvo Autonomous Solutions and Aurora, who supplied their Aurora Driver system.

Every safety-critical component has a redundant system: steering, brakes, communication, calculation, energy management, energy storage and vehicle movement management. The truck is based on Volvo's VNL long-distance model range.

Aurora Driver uses an overlapping 360-degree image of its surroundings. The surrounding data is provided by a proprietary lidar, which can detect objects more than 400 meters away; high-resolution cameras and image radar. Two computers and AI software calculate and evaluate the incoming data.

The truck with the system on board has completed around 2.4 million kilometers of commercial journeys on public roads in daylight and after dark, in good and bad weather, according to Aurora. The truck drove complete routes, for example on highways and country roads.

The autonomous products developed by Volvo Autonomous Solutions are based on a transport-as-a-service model. They comprise the vehicle, a virtual driver, the infrastructure, operational and availability support and a cloud concept that controls the transportation system and manages logistics flows.

Automatophobia: An AD Constraint?

NEWS MOBILITY

PROJEKT SHUTTLE-MODELLREGION OBERFRANKEN (SMO)

Minimize traffic jams, reduce the number of accidents, save fuel and improve the CO_2 footprint: automated driving could bring considerable benefits for road traffic. As a supplement to buses, trains and the like, automated vehicles would therefore be an important component of the traffic turnaround. But there is a catch: this perspective is largely based on the assumption that the use of automated cars is without psychological barriers for the vast majority of potential passengers.

The feeling of safety is becoming an increasingly important topic in research into the integration of automated shuttles into public transport. Several studies have now analyzed the relevance of human psychology in relation to autonomous driving.

The result: fears and anxieties in connection with automated driving as a new transportation option are quite widespread among the population, as a study involving Prof. Gunther Meinlschmidt from the International Psychoanalytic University (IPU) Berlin has shown. The team found that 41 per cent of the more than 2,000 respondents expect to experience symptoms of automatophobia, 15 per cent expect to experience subliminal automatophobia, and 3 per cent expect to experience full-blown automatophobia. The results of the study indicate that autophobia differs from other specific phobias and other fears in the context of driving.

An acceptance survey conducted by the Center for Technology and Society at TU Berlin also shows that the expected level of trust in driverless shuttles is currently still low. There appears to be a large gap between the subjective feeling of safety in a highly automated shuttle with an attendant and in a fully-automated shuttle without one.

To find out more about the feeling of safety, the university had 25 citizens ride an autonomous shuttle bus on the Valeo premises in Kronach-Neuses, Germany. The shuttle bus was fully automated, with no accompanying staff to intervene. Overall, the test drive showed that the test subjects did not want to feel that they were left alone or at the mercy of the technology. The test subjects stated that they would need an emergency stop button, a defined and tested route, and remote monitoring from the control room to ensure a high level of safety when driving without an attendant.

General News

Toyota, Nissan, Honda in SDV Pact

GENERAL NEWS

NISSAN IMAGE

To keep pace with the huge upheavals in the automotive industry, major Japanese car makers Toyota, Nissan, and Honda are taking an unusual approach. Under the guidance of the Ministry of Economy, Trade and Industry (METI), the companies want to jointly drive forward the development of software-defined vehicles (SDV). This should enable Japanese manufacturers to sell 12 million such vehicles around the world by 2030, accounting for 30 per cent of the global market, according to the ministry. The target is 19 million vehicles by 2035.

SDVs are, for example, cars in which the integrated computer systems play the central role and additional services are activated via a software update. So far, Tesla and Chinese makers have taken the lead. Now Japan has declared it a national strategy to play a leading role in these new technologies.

As it would be difficult for individual companies to catch up on their own, the METI is now allowing and promoting cooperation among companies in the development of seven areas of technology. These include chips, generative artificial intelligence for automated inspections, and security measures against cyberattacks. Advances in autonomous driving are to be made, for example, through the joint development of high-resolution 3D maps and technologies for measuring distances to vehicles, objects and pedestrians. The joint research is also intended to reduce costs.

The major Japanese car manufacturers are currently spending a lot of money to keep up. Honda has just doubled their planned investments in electromobility and new technologies to $65bn by 2031, of which $13bn is earmarked for development of new software.

Geneva Show '25 Cancelled; Qatar GIMS in Active Planning

GENERAL NEWS

GENEVA 2024 (DVN IMAGE)

Since 1905, the Geneva International Motor Show has often been regarded as a springboard for the future of mobility. Time was, Geneva was the main innovative auto show, with 120,000 m^2 of hall space, 120 exhibitors, and over 600,000 visitors. Now, it seems to have reached the end of its road.

While the February 2024 relaunch edition intended to reposition and perpetuate the Geneva International Motor Show (GIMS) after a four-year absence due to COVID-19, the Board of the Comité permanent du Salon international de l'automobile Foundation has concluded the many uncertainties linked to the automotive industry, and the eroded attractiveness of the major European shows, make it too risky to invest further into the future.

Comité President Alexandre de Senarclens said, "This extremely regrettable decision should not detract from the efforts and determination with which we have tried to regain our success. However, it must be said that the lack of interest shown by manufacturers in the Geneva Salon in a difficult industry context, the competition from the Paris and Munich shows which are favored by their domestic industry, and the investment levels required to maintain such a show, sound the final blow for a future edition".

In a more favorable context and with a unique concept, GIMS Qatar continues. GIMS CEO Sandro Mesquita says, "For its upcoming festival dedicated to automotive excellence, and on the back of a successful first edition, GIMS Qatar can continue to rely on the recognized know-how and skills of the teams who initiated and developed the concept and its implementation. It's satisfying to realize that motor shows continue to appeal to brands in different parts of the world, and that the Geneva International Motor Show has reinforced its appeal in the Middle East". The next GIMS is planned in Doha for November 2025.