Thu, 21 November 2024
Weekly Newsletter

DVN Interior

NEWSLETTER #237

Editorial

Auto Interior Expo '24

AUTO INTERIOR EXPO IMAGE

DVN Interior attended the recently-held Automotive Interior Expo in Stuttgart. Together with the corresponding expo in Michigan last month, this week's in-depth coverage includes companies and technologies relevant to the DVN-Interior community. Things like high-tech and natural materials, new interior concepts, 'smart' surfaces, new kinds of finishes and decorations, backlighting, plastic metallization, haptic and other UI technologies, foams, leather-alternative materials, and so much more, from tier-1 right on through to tier-3 It's quite a vibrant ecosystem, and it's going from strength to strength.

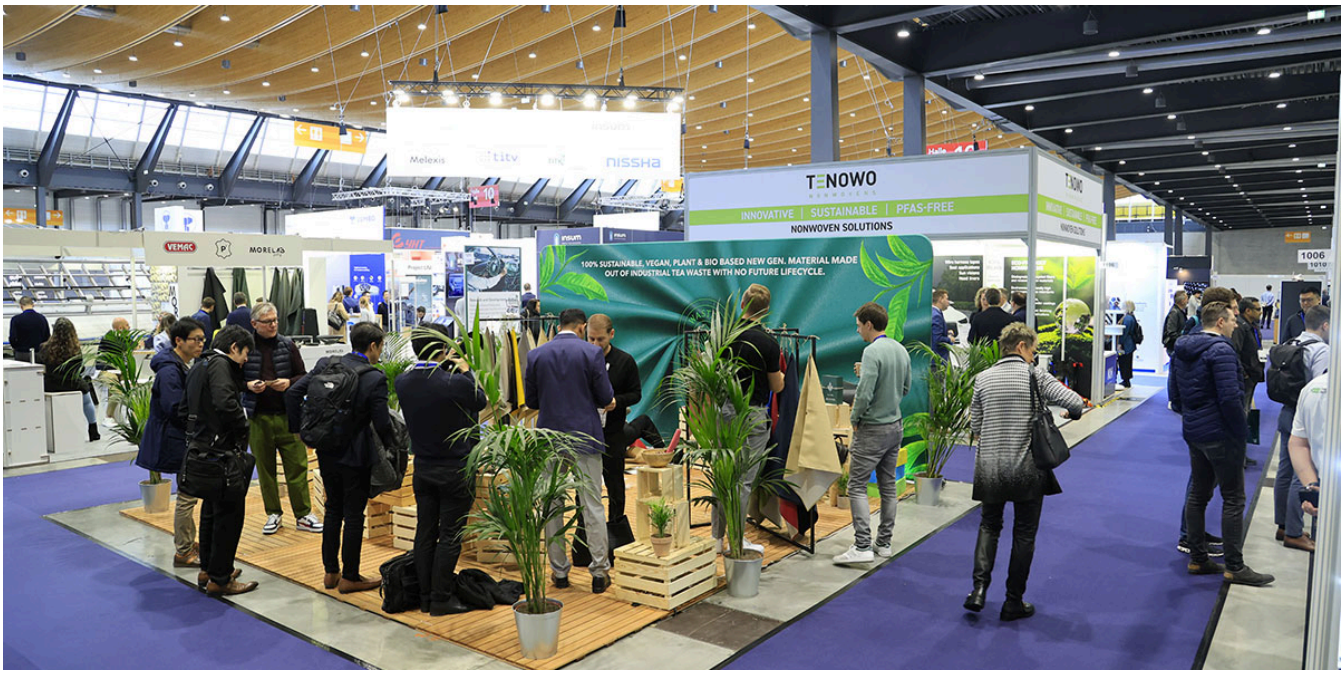
That's the context in which we are planning the next DVN Interior Workshop on 8-9 April, 2025—pencil the date! On the website, we've added more information about technical sessions, and lecture and exhibition opportunities. Stay tuned!

Sincerely yours,

Philippe Aumont
DVN-Interior General Editor

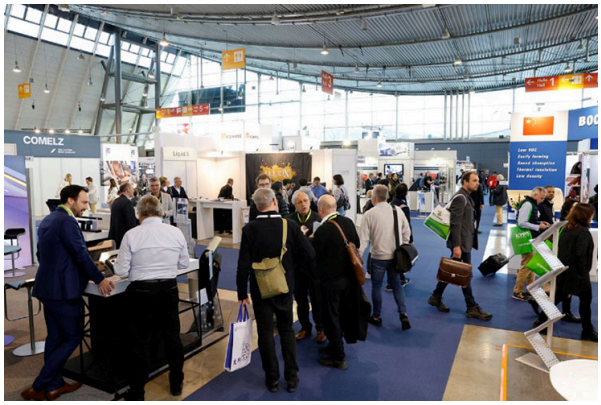
In Depth Interior Technology

Automotive Interior Expos: Europe & North America



Automotive interior shows took place recently in Michigan and Germany; here's your DVN-Interior topical look at both of them.

Auto Interiors Expo Europe (Stuttgart, 12-14 November)



This year's Automotive Interiors Expo Europe provided a grand venue for visitors to source new products and suppliers as they work to propel their user experience offerings. We could see high-tech materials, new interior concepts, lighting solutions, plastic metallization, haptic and UI technologies, UI foams, sewing and cutting machines, and much more.

DVN IMAGES EXCEPT AS NOTED

Over 120 exhibiters put on their show-and-tell alongside the free, three-day Innovation Showcase with technical sessions covering design trends, technology integration, comfort and ergonomics, sustainability, safety innovation, user experience (UX), and future mobility concepts.

Melexis

IMAGE: DVN

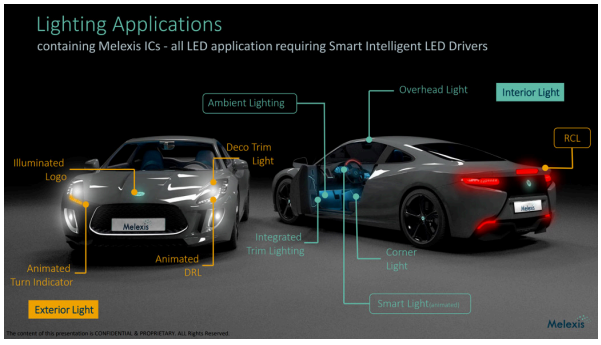


IMAGE: MELEXIS

Traditional CAN and LIN communication protocols are growing outmoded, reaching the limits of their ability to handle the demands of fast multichannel LED and RGB-LED drivers. Melexis has developed a solution they call MeLiBu. It is a fast, robust communication system designed for applications with large numbers of LEDs and intricate animations.

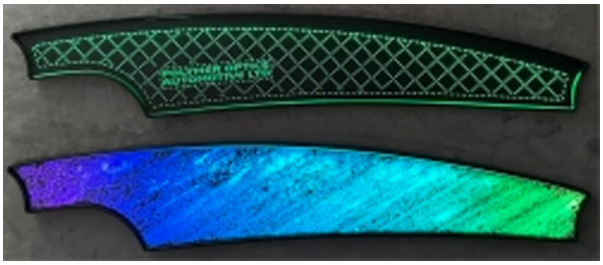
MacDermid Alpha

MacDermid Alphas presented a luxury alternative 'smart' surface called XtraForm 3D Matt. It is a low-gloss, deep-formable, hard coated polycarbonate film.

MACDERMID ALPHA IMAGE

Visually, XtraForm 3D Matt's first surface is inherently anti-glare. It can be decorated on the second surface in any color or pattern, creating many options for designers. XtraForm 3D Matt also fully supports hidden-til-lit and other 'smart' surface features common to the XtraForm Film Insert Molding (FIM) process. Unlike traditional gloss piano black finishes, XtraForm 3D Matt provides a consistent matt appearance, resulting in a luxurious contemporary finish.

Polymer Optics Automotive



POA IMAGE

Door and IP backlighting with natural and sustainable material laminates such as stone, leather and wood can be achieved with minimal LED sources. By advanced control of light distribution and uniform light extraction using Polymer Optics Automotive's (POAL) lasered structure methods, the company can produce complex illuminations with low-profile package design.

Yuan Heng Tai (YHT)

YHT IMAGE

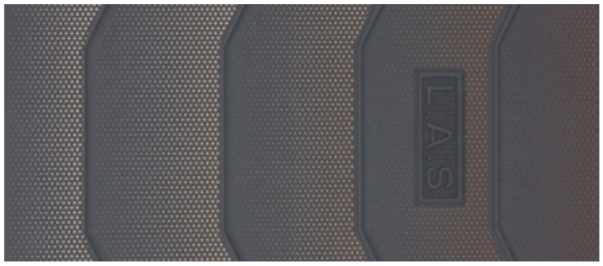
YHT has been making water transfer printing films for three decades. They showed a new IMD film product, which offers more than just a pattern. After injection molding, the surface offers realistic texture with a hardness of 2H. This harmonious blend of design, texture and durability creates decorative elements for the automotive industry.

Toppan

TOPPAN IMAGE

Toppan unveiled their latest innovative interior components to seamlessly integrate the information display with interior panels. Their new Transparent Decorative Film, crafted with proprietary printing technology, creates a surface that allows for a flawless integration of display and design.

L:A:S



L:A:S IMAGE

L:A:S' expertise is in punching. Besides laser perforation, they offer a wide array of services and materials, including laminated hot-melts, high-frequency welding for embossing or decoration; printed fabrics for interiors, and stitching and embroidery to improve the aesthetics of vehicle interiors.

H.B. Fuller

H.B. FULLER IMAGE

H.B. Fuller showed their Thermonex One 301-01A adhesive solution. This water-based PUR adhesive is used for single-side interior lamination where very good sag resistance and adhesion are required. It provides good hydrolysis stability, high heat resistance and very low odor (value 3.0 according to VW norm, per internal testing). It is suitable for substrates like animal and alternative leathers, textiles, pre-treated olefines, wood, ABS and more. It may be fixed in vacuum, press or manual lamination.

Key benefits include reduced parts handling, spray time, and overspray. The adhesive lowers the risk of pollution on the A-surface. Its single-side application generates a higher output and overall cost savings.

Helcor-Leder-Tec

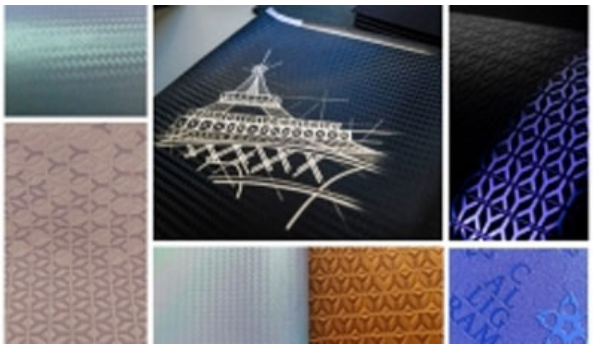
HELCOR-LEDER-TEC IMAGE

Helcor materials are used in the likes of seats, door panels, dashboards and steering wheels. Their patented finishing process offers broad design possibilities and high technical performance. A natural leather structure as well as technical surfaces such as carbon-look can be produced, and split leather treated by Helcor can be called "real leather" without any restrictions.

In recent years, alternative backing materials have been added to genuine leather and finished using the same process. These new backing materials, such as microfiber nonwovens, spacer fabrics or leather fiber fabrics, are mostly made from recycled raw materials. Helcor also uses renewable, natural raw materials such as flax. This diversity makes it possible to combine one and the same surface on different substrates and to match them for use in the vehicle.

Griffine Industries

Griffine's Calligram is an innovative process to customize synthetic leather for automotive interiors. It responds to standout market trends of customization, 'smart' surfaces, and sustainability.



GRIFFINE INDUSTRIES IMAGE

The process can create embossed and debossed patterns on the same surface, which can be colored on demand. Calligram-coated fabrics can be backlit or used in heating surfaces. The manufacturing process creates high-quality textiles such as 3D textiles and temperature-sensitive fabrics. It is a sustainable solution, using bio-based and recycled components and minimizing waste with a made-to-measure process.

Elematec

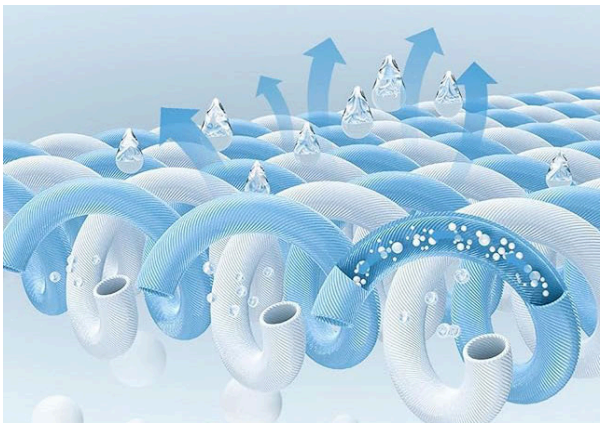
Elematec's vegan leather made from eco-friendly cork consumes up to 90 per cent less energy with 80 per cent less solvent versus conventional leather. The supplier's synthetic recycled polyester fiber/fabric is made from plastic bottles.

ELEMATEC IMAGE

Cork has a unique pattern and woodlike texture, and can be obtained repeatedly without cutting down trees. And stripped of its bark, the tree absorbs three to five times more CO_2 than usual, making it extremely environmentally friendly. Cork is lightweight, elastic, and has excellent heat and sound insulation properties. Furthermore, it is porous, and its microscopic cellular structure bonds with resin materials to provide a high degree of safety and durability.

Cyclone Technology

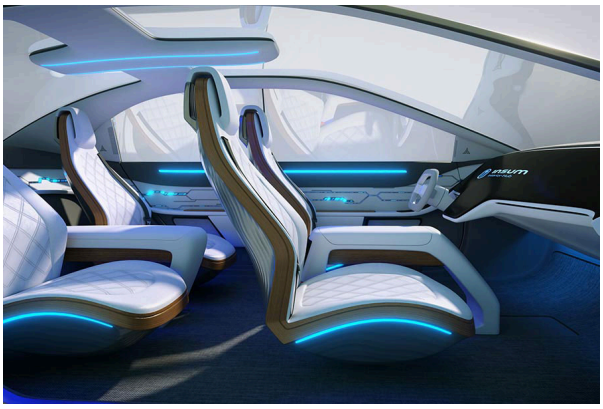
Cyclone aims to produce high-quality, functional and differentiated green fibers through recycled technology using waste bottles and waste textiles as raw materials and construct a closed-loop recycling industry chain.



CYCLONE TECHNOLOGY IMAGE

The company’s recycled fibers include recycled ocean yarn, using plastic bottles retrieved from the ocean as raw material; 100-per-cent recycled eco-friendly peachlike yarn; 100-per-cent recycled high-shrinkage fiber made with ultrafine sea island fiber; antibacterial fiber; anti-UV fiber; and flame-retardant fiber with safe and stable qualities. They can be applied in seats, inner door panels, carpets, steering wheels, handles, and other automotive parts.

InSum



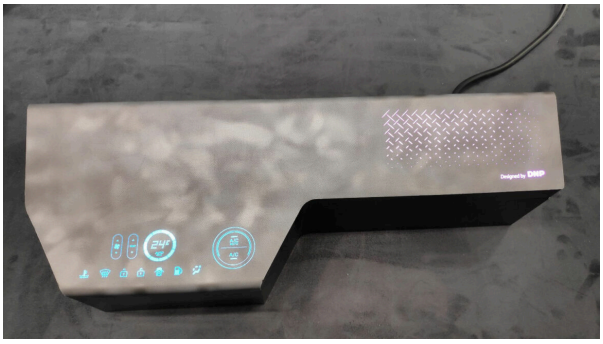
INSUM IMAGE

The InSum Interior WebApp visualizes trend scouting results, provides insights into trend topics based on components, functions and materials in automotive interiors, and highlights new business potential in the growing field of interior design.

Covestro

Covestro presented impressive illuminated samples as part of their huge product range including foams, adhesives, coatings, elastomers, TPU composites and, crucially, high-performance polycarbonates—all within their fully-circular strategy with solutions like water-based PU coatings, more sustainable EV Wallbox chargers, recycled Makrolon grades, and 'smart' interior lighting.

DNP



Polypropylene (PP) is used in large quantities of automobile parts, and can be recycled. Further growth is expected in the future. However, when PP is used as a base for decorative films, challenges have included weak ink adhesion and the difficulty of maintaining the balance of high-quality design, physical properties, and moldability. DNP has overcome these challenges by dint of the printing technology and expertise they've cultivated over many years to establish a mass-production technology for PP-based automotive decorative films.

Mocom

Mocom showed many impressive samples and applications selected from their diverse portfolio of over 4,000 products. Material techniques in their scope include PPS, PA-HT, PA, PC, PC blends, ABS, PP, TPV with special properties in terms of temperature, mechanics, optics, conductivity, tribology, surfaces, and numerous other aspects.

L TO R: MR. FUNKE (MOCOM), C. REILING (TOYOTA BOSHOKU), C. BEFELEIN (DVN), K. MASCHKE (MOCOM)

Auto Interior Expo North America (near Detroit, 22-24 October)

AUTOMOTIVE INTERIORS EXPO IMAGE

North America's show introduced the Innovation Showcase and the InteriVision Summit alongside the exhibition. The Innovation Showcase hosted special short sessions. Chris Williams, mobility sales manager at Sefar (precision fabrics from monofilaments), started things off with his presentation on innovative heating for interior components; Andrew Dubel, business development manager at Fujikura America (seatbelt reminder and seat heater) , spoke about accomplishing more with less and designing smarter; Jaiprakash Ramani, chief marketing officer for automotive at Supreme Group, talked about sustainable nonwovens for automotive interior plating; Taiyo Manufacturing's global sales supervisor, Pablo Javier Ramos Cuevas, looked at the sustainability of chromate in terms of trivalent and hexavalent chromium-free plastic plating; and Karen Guzmán, automotive and sustainability manager at Covestro, explored the evolution of decorative and structural parts with functional integration.

Dow presented their LuxSense multilayer composite silicone leather as the first PU, PVC, or silicone synthetic leather to compete with natural leather on performance and exceed it on sustainability. The silicone-organic hybrid materials involved combine the advantages of silicone (aesthetics, flame, stain, chemical and UV resistance, durability) with those of organics (outstanding abrasion resistance) in a cost-effective, sustainable system—lower VOC, free of plasticizers, DMF, and harmful solvents. It meets automotive interior specifications, including car seating applications, and Dow says it hits the right spot on a '4S' basis: sight, smell, sensation and sustainability.

Adhetec displayed their Adheform system as a tailor-made solution for high-volume production, seamlessly integrated into any manufacturing process. Program manager Léonard Berne said, "Our company offers a comprehensive range of products designed to protect a wide variety of materials, including PP, NFPP, ABS, PC/ABS, natural and synthetic leather, TPO, PVC, mesh fabric, sponge, PET fabric and textile fabrics. Our streamlined processes are designed to meet the specific deadlines our customers require, whether for samples, prototypes, or full production launches".

Toyobo showed their high-strength resins for metal replacement and lightweighting, including Glamide JF-30G – a 70% glass-filled nylon material. Company representative Alex Geelhood said his company's high-strength resins provide weight reduction, cost savings, and other advantages.

AUTOMOTIVE INTERIORS EXPO IMAGE

The one-day InteriVision conference brought speakers from the likes of VW Design Center, Forvia, Pebble Mobility, Yanfeng, and JLR. Discussions included humancentric design philosophy, the evolution of the 'smart' cockpit, mobility for all, and the creative synergy between engineering and design.

Yanfeng CTO Patrick Nebout spoke on how to innovate for intuitive automotive interiors user experience; Maggie Kasper, advanced sales manager at Forvia Interior Systems, spoke about leveraging automotive interior surfaces for an intuitive user experience; and Nishatha Nagarajan, a semiconductor engineering technical specialist at JLR, gave a presentation on ADAS and UX-driven semiconductor advances and 'AI' in automotive.

Vehicle-supplier association MEMA represents more than 1,000 companies which supply original-equipment components, aftermarket parts, and heavy-duty equipment to the global vehicle manufacturing industry. “We’re here to connect with our valued members and explore how we can continue to support their growth,” said Alison Trumble, director of marketing and membership at MEMA. “By engaging directly with key stakeholders, we aim to learn about the latest trends, technologies and challenges in the sector, ensuring that MEMA remains a trusted advocate and resource for the entire supplier community.”

Lori Mavis, associate director of product management at Publicis Sapient, led a session that explored pioneering features from the 1970s to the present day and the trends shaping the smart cockpits of today and tomorrow.

Taiyo Technology developed their Chrome-6-free plating, because automakers like Ford, Stellantis, and GM, Rivian, and Lucid, are taking a very active approach toward the adoption of (much less toxic) trivalent chrome for their new chrome colors.

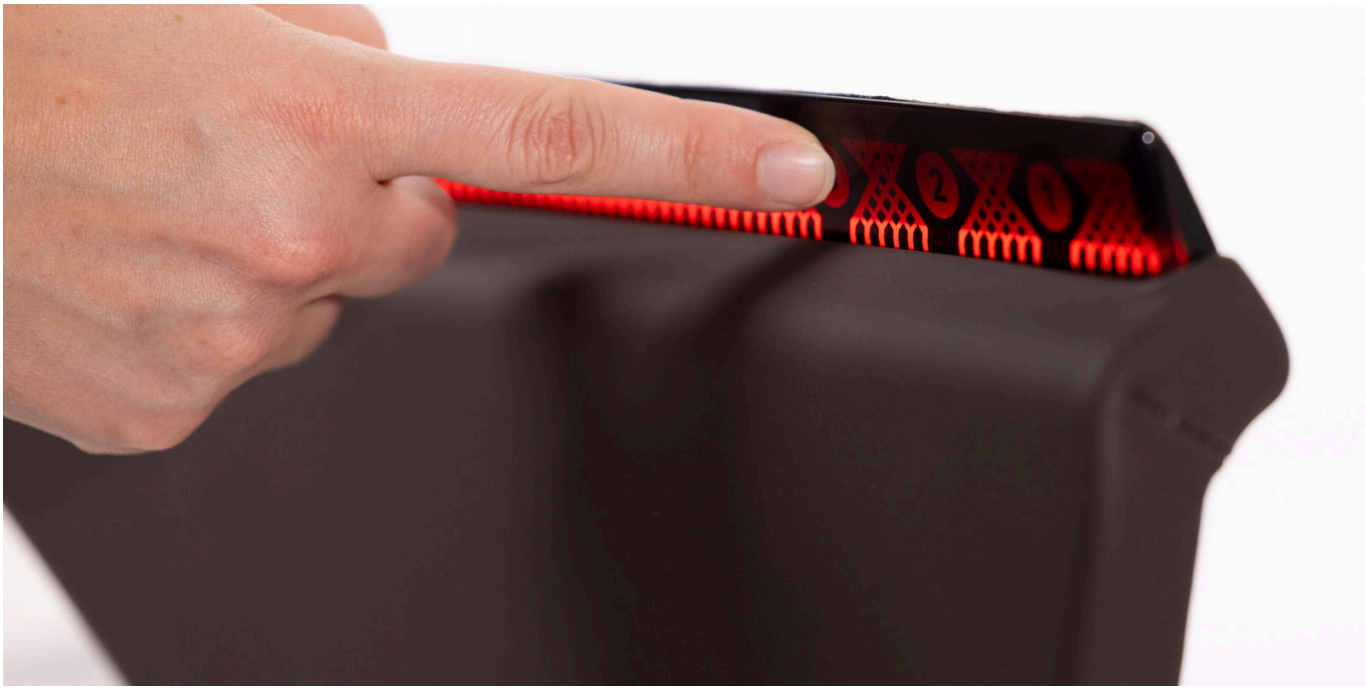
Nick Flannery, a senior engineer at Toyota Boshoku America, spoke about providing an overview of TBA’s vision for future mobility, encompassing the company’s current products and capabilities, and highlighting its focus on creating accessible and inclusive mobility.

A presentation from the VW Design Center discussed creative synergy between engineering and design to unleash innovation and highlighted the pluralistic and interconnected nature of design through examples from the automotive industry, product design and architectural history. "I value and work always side by side with engineering in a very inclusive synergy", said Rodrigo Galdino, interior design lead at VW Design Center. "New tools like Blender and AI revolutionized the design process, and seeing how CMF became one of the biggest player, nowadays changed the whole perception of car as a product, together with new technology on board with the EV rise in recent years and AI on board."

Interior News

Dräxlmaier: Seamless Touch for Interior Lighting

INTERIOR NEWS



DRÄXLMAIER IMAGE

Dräxlmaier has developed a technology for capacitive-touch surfaces with haptic and optical feedback. With the 'Seamless Touch' concept, the Dräxlmaier Group integrate LED technology and touch operation directly into the respective interior component to link the light directly to an operating function.

Specifically, a semi-transparent sensor film is attached under the surface. Behind the film are LEDs and light guides that provide the desired lighting effects. A functional PET film with printed conductor tracks is applied to the back. All operating elements are displayed exclusively via the LEDs; physical buttons or similar are no longer necessary.

Dräxlmaier integrates the switch surfaces under leather, artificial leather, fabric and plastic surfaces. The light is used to backlight the switches with corresponding symbols or as contour lighting. Transparent, translucent or perforated surface materials ensure that the light reaches the surface. Light, touch, force detection and haptic feedback are controlled via a single controller, which enables minimal latency times.

The exchange of information from the touch control unit is transferred to the vehicle's system via a CAN interface. As all functionalities are combined in one controller, the required communication with the vehicle is reduced to a minimum, as the signal processing and signal evaluation already takes place in the touch control unit.

To distinguish between integration into hard and soft surfaces, the sensitivity of the touch surface is adjusted by an appropriately designed sensor geometry and parameterization of the software. The pulse strength of the haptic feedback is adapted to the different layer structures. In addition to the capacitive sensor system, the force sensor system provides redundant detection of the user input. The signals can be evaluated more robustly and unambiguously, meaning that user input is recognized correctly and operating errors are avoided.

Seamless Touch offers redundancy through the combination of force sensor and capacitive sensor technology, which even improves functional reliability compared to established operating elements. In combination with proximity sensors or situational algorithms, the seamless touch surfaces are only visible when required. This puts the focus on the interior design concept. The controls, on the other hand, remain in the background and only come into focus in the case defined by the OEM. At the same time, the visualization of the control element through light offers significantly more design options than a physical switch.

Preh's Interior Lighting for Safety Functions

INTERIOR NEWS

PREH IMAGE

Lighting design, music, scents, temperature, ergonomics—vehicle occupants can be exposed to specific stimuli that subconsciously influence their mood. If lighting effects are also to be used for safety-relevant functions, then pure surface design by itself won't do; electronics and FUSA expertise is required here.

From 2026, Euro-NCAP will award a five-star safety rating only for vehicles wherein at least the turn signals, hazard warning lights, horn, wipers, and e-call system can be triggered with a physical button or lever. But even without this requirement, there has already been a selective return to conventional controls by car manufacturers, so that haptic controls are also being used again. It was a reaction to massively negative customer feedback on touch-sensitive elements without haptic feedback—things like volume controls, steering wheel buttons, and climate controls.

A good combination of touchscreens, physical buttons and/or rotary dials seems to prove its worth in the cockpit and counteract excessive driver distraction. Preh has shown near-production concepts on how to balance look-and-feel with intuitive operability in the vehicle interior. Dr. Matthias Lust, Head of Pre-Development and Patent Management, says, "If brands are increasingly differentiating themselves through their car interiors, they need something more than conventional lighting effects. We have developed solutions that enable 3D light with depth effects without displays". The predevelopment sample is called 'Preh Advanced Light'.

Ambient light, or mood lighting, appears statically or dynamically in the interior and creates a pleasant atmosphere, as wellbeing has a positive effect on the driver's concentration. Studies show a low (warm) color temperature can improve the feeling of comfort, while alertness benefits from a high (cool) color temperature. Ambient lighting, once pure surface design and mood lighting, has become a complex package of requirements comprising LED light sources, circuit boards, the control unit for light control, a bus system for synchronization with the overall interior, light guides, a corresponding structural design of the system and the requirements of functional safety up to ASIL D.

MOVABLE AND TILTABLE DISPLAYS (PREH IMAGE)

The best possible positioning of all operating elements is of considerable practical benefit. Preh's Dr. Lust says, "Thanks to movable and swiveling displays, fully adjustable center consoles and removable and rotary dials, every driver can configure their environment ergonomically to suit their body size, seating position and operating habits. For the brand-specific differentiation of the interior, we are increasingly developing series projects in lighting effects and kinematics in addition to the 'right mix' of touchscreens and proven haptic operating elements".

Antolin Ultrasense Pact for Smart Surfaces

INTERIOR NEWS

Antolin has signed a strategic development agreement with UltraSense Systems, a Silicon Valley-based expert in 'smart' surface HMI solutions (See DVN's **CES 2024 report**). This partnership aims to create a wide range of SmartSurface touch systems specifically designed for automotive applications, significantly enhancing user experience both inside and outside the vehicle.

The collaboration will focus on designing, developing, and producing state-of-the-art SmartSurface HMI touch systems for various applications, including center console infotainment, HVAC controls, in-door seating controls, overhead systems, and exterior applications like smart emblem access for front and rear trunks.

As vehicle technology evolves from mechanical interfaces to digital interactions, consumers increasingly demand intuitive and immersive experiences in their cars that do not detract in functionality. Recognizing this trend, Antolin and UltraSense will provide next-generation touch systems that seamlessly integrate into automotive interiors and exteriors while enhancing functionality and user-focused features.

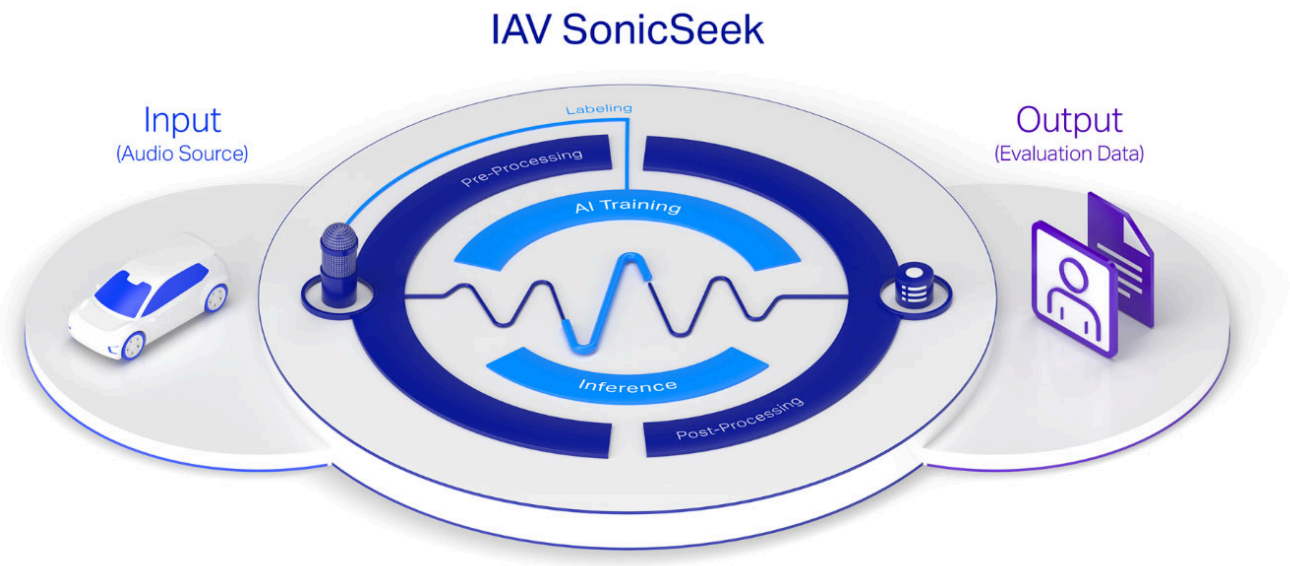
UltraSense cofounder and Chief Business Officer Daniel Goehl said, "We are excited to announce this partnership with Antolin, one of the automotive industry's foremost tier suppliers. Their acknowledgment of our SmartSurface HMI controllers and system design expertise underscores our ability to revolutionize the automotive touch experience for our joint customers; this collaboration is a game-changer in delivering superior HMI solutions that set new performance standards in the market."

Jorge Juarez, Executive Vice President Technology Solutions at Antolin, said, “By merging Antolin's extensive experience in developing and industrializing automotive interior solutions with UltraSense's cutting-edge SmartSurface HMI semiconductors, we aim to reshape the vehicle experience and set new benchmarks for user interfaces and integration.”

Through this collaborative effort, Antolin will leverage UltraSense’s HMI design expertise in integrating multi-mode touch sensing, backlighting, and haptics solutions across various automotive applications. Together, the companies aspire to deliver an extensive range of interactive touch solutions that offer a premium experience with hidden solid-surface buttons that become visible only when needed.

IAV SonicSeeK Interior NVH Solutions for Quieter Perception

INTERIOR NEWS



Ratles and other irregular noises caused by vibrations in a car's interior—such as from panels, doors, and dashboards—are particularly bothersome, especially in new vehicles. Some noises can be reconducted though to acoustical anomalies in technical systems, and this need to be distinguished from unwanted but harmful rattling noises from the car interior components. Noise, vibration, and harshness (NVH) from the engine or during brakeing can signal safety issues, while interior rattling serves no beneficial purpose. It negatively impacts audio performance, detracts from the driving experience, and harms the car manufacturer's reputation.

The identification and localization of acoustic anomalies in technical systems is proving to be a highly complex task across all industries. Despite numerous attempts, a universal solution has yet to be found - until today.

With IAV SonicSeek, normal noises can be distinguished from abnormal noises. The system not only helps to prevent potential damage, but also reduces the number of unnecessary maintenance and repair jobs.

In collaboration with the Technical University of Braunschweig, IAV have researched a variety of neural network structures to find out which are best suited to tackle acoustic diagnosis challenges. SonicSeek 'learns' various acoustic signatures, trains corresponding neural networks and, on this basis, enables acoustic anomalies to be detected and categorized into predefined classes.

SonicSeek can be integrated into vehicles through infotainment systems, using onboard microphones to capture live acoustic data for cloud analysis. Acoustic recordings are then created and annotated, manually or semi-automatically, to suit specific projects and represent the input for the customized neural network. Cloud-based pipeline helps to find the optimal configuration parameters to optimize the resulting detection and error rates.

With complementary tooling such as the IAV SonicSeek Audio Analyzer, details van be visualized to evaluate if a certain class was or was not detected.

This method allows for quick identification of errors and prevents potential damage. The technology has a scalable cloud implementation, with an ongoing optimization through AI training and processing. It is easily integrated into existing systems; it monitors almost any machine or system that involves moving parts and detect malfunctions in real-time.

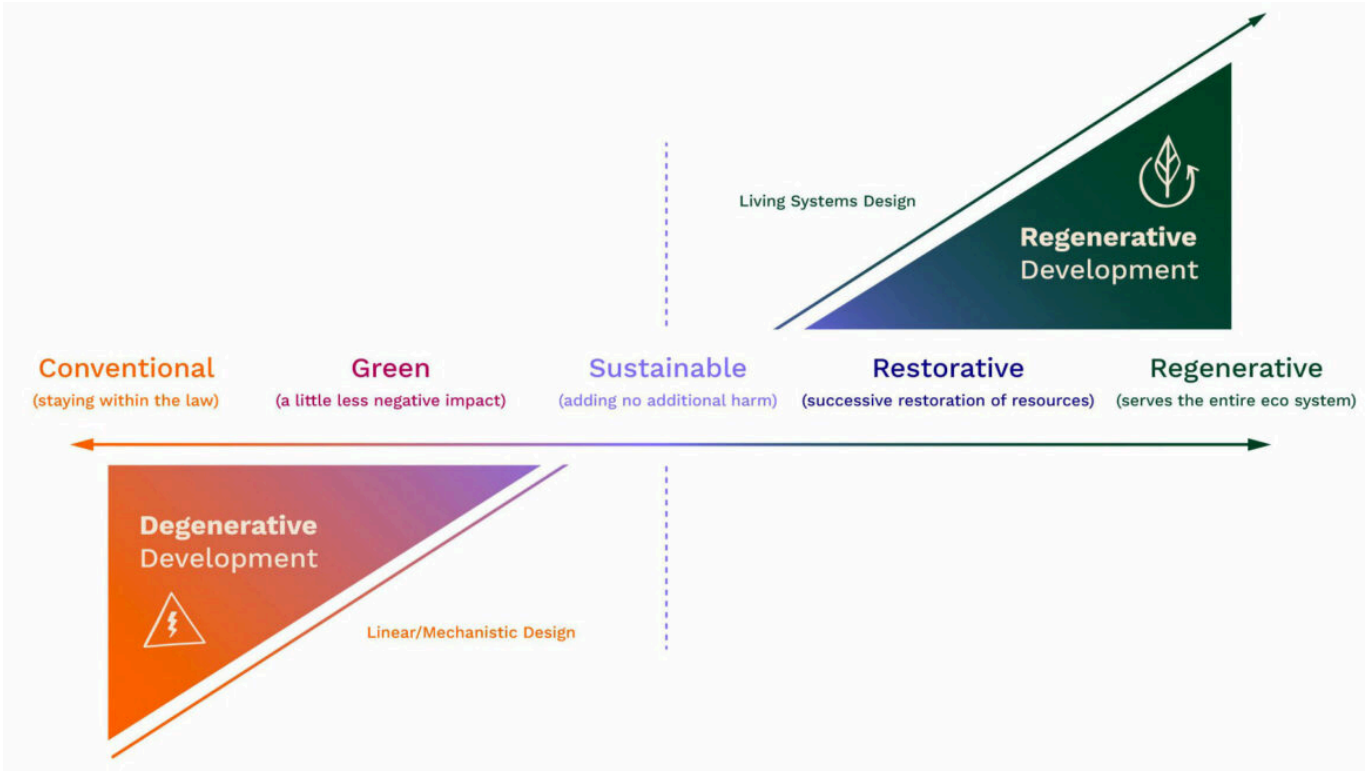
Soniseek is easily expandable and adaptable concept for a wide range of applications, from the marine field to aerospace and robotic. By using IAV SonicSeek, companies benefit from improved fault diagnosis, enhanced predictive maintenance, and overall increased quality assurance in production processes.

Mycel: Bio-Based Materials Through Biomimicry

INTERIOR NEWS

MYCEL IMAGES

Regenerative business is a hot topic lately. A transition from degenerative to regenerative systems can provide positive influence over earth's ecosystem and biosphere (including us humans). Regenerative systems process wastes into raw or resource materials—a closed loop.



Fungi—the planet's most abundant type of organism—are at a nexus of this kind of regenerative business.

During the late carboniferous age, higher fungi emerged to impel the circulation of natural resources. Wood waste, for example (dead trees…) are decomposed by fungi, and the resultant nutrients fuel other organisms.

Born in 2020 as a spinoff from the Hyundai Motor Group, Mycel produces bio-based materials by exploiting the physiological, biochemical and physical characteristics of fungi, developing materials applicable to multiple sectors, from packaging to automotive to fashion.

Mycelium, the vegetative-growth part of mushrooms, is known for its characteristic network-form growth. Leveraging this network form, mycelium decomposes various resources as well as wastes and absorbs them after altering to water-soluble form.

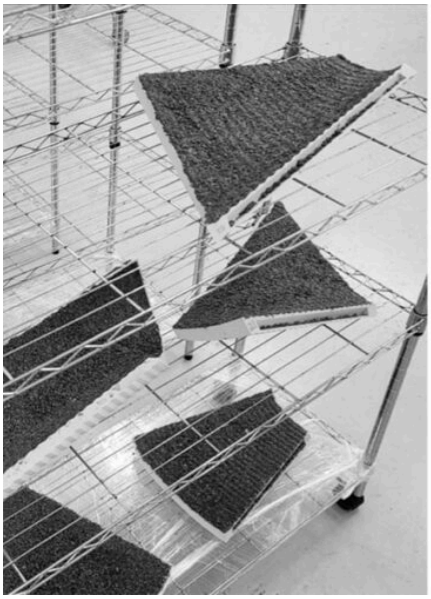
Mycelium also has the special ability of diverse enzyme substances and new valuable substances to decompose. Fungi have been proven to be a cheap, effective and environ- mentally sound way for removing a

wide array of contaminants from damaged environments or wastewater. Fungi can decompose plastics and industrial waste within the natural circulation system and turn them into new resources.

Mycelium is mainly composed of natural polymers like chitin, cellulose, and proteins, so it is a natural polymeric composite fibrous material. Mycel's unique bio-process built upon liquid medium can produce products like leather and proteins as the process' main stream, as well as fermentation-based aromatic compounds and enzyme substance and leathering solution based biodegradable film and plastic as the process' side stream.

Due to its unique structure and composition, the production of large amounts of mycelium-based materials have developed; one of them is called Anolea. Among its sustainability characteristics, Anolea surpasses both synthetic and animal leather in terms of biodegradability, aiming to reach 100 per cent.

Compared to animal leather, there's less than 1 per cent of CO_2 emission and water consumption for the culture of raw material and the entire process of Mycoleather production.



Mycel's product can substitute animal leather with mushroom fungi to grow as a self-organized mat after 3 to 4 weeks' surface fermentation. Mycel's eco-friendly leatherization process enables the rebirth of cultured mushroom mycelium to the leather. There is no solid waste from the process, nor concentrated chemical waste.

Kia's CMF team has been using mushroom mycelium leather fabric in a projectthat focuses on expressing the true potential of mycelium-based materials via natural design simulations and completion of various structures using 3D printing technology and cultivation of mycelium in structure molds.

Škoda Partners with Readly App

INTERIOR NEWS

SKODA IMAGE

Moving to an autonomous driving mode, passengers and drivers will likely spend most of their riding time working, reading or listening to music. But reading is already one of the most favourite leisure activities for car passengers, especially since car interiors started to offer the possibility to ride in a comfortable and relatively silent environment.

Škoda decided to support this nice habit in partnering with the Readly app, providing owners with two months of free access to an extensive library of over 7,500 digital magazines and newspapers. This unique collaboration is the first in the automotive market and is available to both new Škoda customers and those who purchased a vehicle within the last four years, provided they have a compatible online infotainment system with a display larger than nine inches.

Readly is the European category leader for digital magazines. The company offers a digital subscription service that gives customers unlimited access to 7,500 magazines and newspapers. Readly has subscribers in more than 50 countries and content available in 17 different languages.

To access the offer, owners can scan a QR code from the Offers menu in their infotainment system, which directs them to a Readly landing page for free access. Marie-Sophie von Bibra, Chief Marketing Officer at Readly, noted that this collaboration allows new car owners to enjoy reading or puzzles on long journeys, enhancing their driving experience.

The Offers infotainment app is seamlessly integrated into Škoda's system, providing users information on local offers and deals. Readly also partners with brands like Barclays, Samsung, McDonald's, and Lidl.

The Design Lounge

Bertone Runabout: A Neo Retro Masterpiece

THE DESIGN LOUNGE

BERTONE IMAGES

In 1969, Bertone shocked the automotive design world with the debut of the Autobianchi A112 Runabout at the Turin International Motor Show. Over 50 years later, they're reintroducing this legendary model with the all-new Bertone Runabout—a celebration of timeless design, reinterpreted for the modern era. This revival is the first model in the Bertone Classic line, showcasing the brand's commitment to honoring its rich heritage with state-of-the-art engineering and craftsmanship.

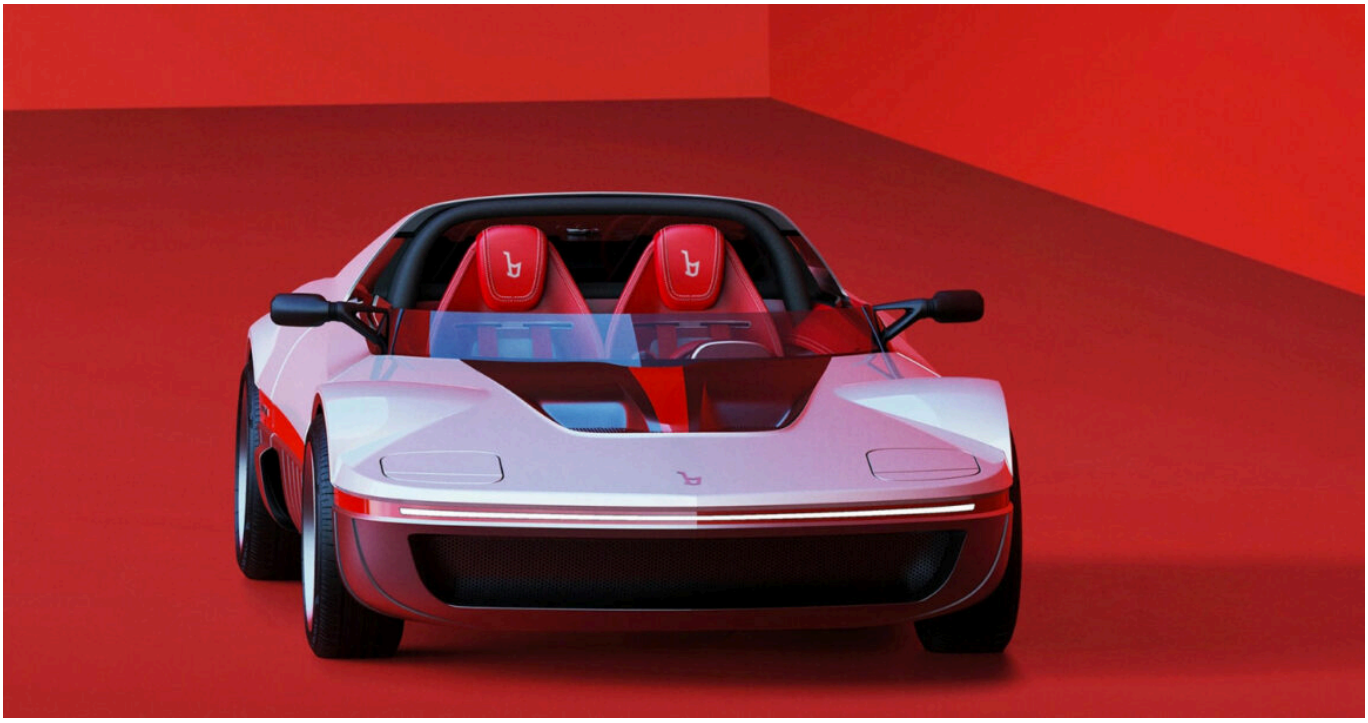
The original 1969 Runabout was inspired by the racing boats of the 1960s. It had a 55-horsepower, 1.1-liter engine and a striking wedge-shaped design, inspiring future classics like the Fiat X1/9 and Lancia Stratos.

Today's Bertone Runabout features a 500-horse V6 engine. Designed for two, the cabin emphasizes exclusivity with a near shoulder-to-shoulder seating arrangement, and, unlike its 1969 predecessor, now includes side-door access.

To honor Bertone's legacy, the new Runabout offers a choice between two configurations, both celebrating the spirit of freedom and driving pleasure. The Barchetta is a roofless, open-air model, and the Targa is a removable-roof variant.

The original 1969 Runabout has a special place in car design history. It is one of the most iconic wedge designs, and a prime example of the master's ability to execute a spectacular shape with brilliant simplicity.

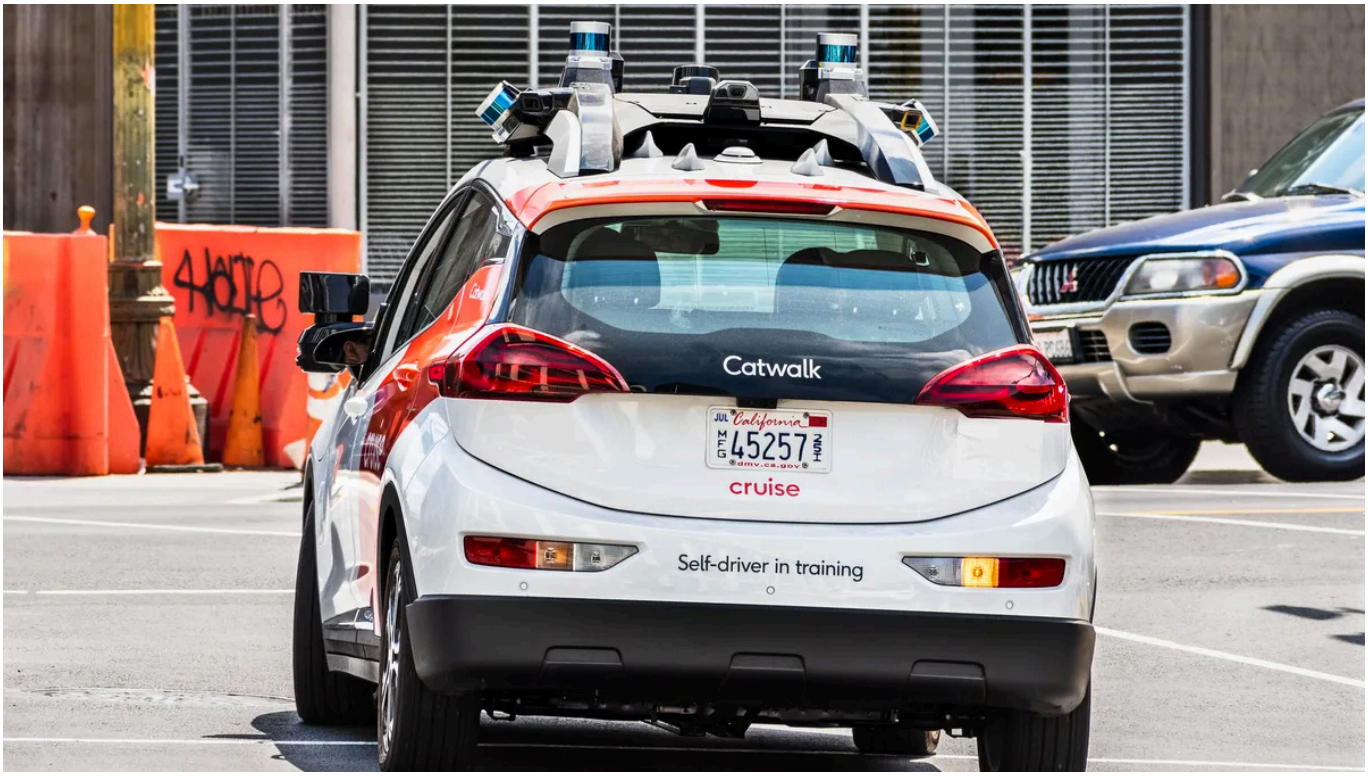
Andrea Mocellin, Bertone's lead designer, shares his vision: "The challenge was maintaining the spirit and purity of the original 1969 model while integrating modern high-performance technology. The new Bertone Runabout is a perfect blend of design heritage and modern performance, created for those who celebrate the good life and the pleasure of driving". True to Bertone’s legacy of exclusivity, the new car will be produced as a limited series.



News Mobility

A Robotaxi Ride Converts Skeptics: JD Power

NEWS MOBILITY



A CRUISE SELF-DRIVING VEHICLE DURING A TEST IN SAN FRANCISCO (CRUISE IMAGE)

Fear about autonomous driving technology tends to subside after a person experiences it for themselves, a J.D. Power study says.

While self-driving technology has been slow to take hold with robotaxi companies, including Waymo, and Cruise consistently posting losses, 76 per cent of study respondents who rode in an autonomous vehicle reported confidence in the technology, versus 20 per cent who had never experienced a driverless ride.

The study suggests that consumers may warm to driverless vehicles as familiarity grows with technology beyond test markets.

“The robotaxi segment is still anyone’s game, given that most people are not familiar with robotaxi brands and haven’t formed a clear associative imagery,” Kathleen Rizk, senior director of user experience benchmarking and technology at J.D. Power, said a press release.

“We believe in autonomy in general, but I think we want to make sure we’re investing in autonomy as efficiently as possible,” GM CEO Mary Barra said during the company’s Q3 earnings call on Oct. 22.

Tesla CEO Elon Musk claimed during his company’s Q3 earnings call on Oct. 23 that its Cybercab and Robovan robotaxi service could receive regulatory approval in California and Texas sometime next year.

In September, ridesharing giant Uber announced they will launch self-driving vehicles in Austin, Texas, and Atlanta in 2025 in partnership with Waymo. The fully automated fleet will join those cities’ human Uber drivers. Uber’s deal with Waymo follows its August announcement to partner with Cruise next year to deploy autonomous vehicles on Uber’s platform.

J.D. Power surveyed 733 riders and non-riders in Dallas, Las Vegas, Los Angeles, Phoenix and San Francisco, as well as a national sample of 3,000 respondents that included those living outside the cities in in which robotaxi service has already launched.

The study explored five categories relevant to the robotaxi experience: comfort and convenience, initiating the ride, availability and cost of the ride, experience of riding in the vehicle and the vehicle's technology. Users rated the overall experience of riding in a robotaxi at 8.53 points on a 10-point scale.

The highest scoring category was the vehicle's technology, with the robotaxi's ability to obey the law, scoring the highest of all technological attributes, according to J.D. Power.

Survey respondents named safety as the most important factor for a successful robotaxi experience, with 78 per cent of riders and non-riders prioritizing a safe ride. Respondents also noted that they desire robotaxi safety features such as emergency call buttons and location sharing.

Self-Driving Waymos Cost More, Take Twice as Long: Study

NEWS MOBILITY

WAYMO IMAGE

A new study conducted by Forbes has found Waymo still lags considerably behind human-driven ridesharing services in two key transport metrics: time and money.

Over 50 rides, not only were Waymo rides more expensive, but they also took twice as long compared to a ride hailing service like Uber or Lyft.

"The current status of [autonomous vehicles] means that cost and time sensitive customers still choose rideshare," reads the *Forbes* report. "For the time being, AVs will not be the low-cost solution to transportation companies initially promised."

Forbes' test compared rides offered by Waymo, UberX, and Lyft in Los Angeles, and included various pick up and drop off points from morning till evening. They were graded on the price at booking, quoted time to pick up, and estimated time of arrival.

Across the fifty samples, the average human-driven ride-hail price was $28.14, while an identical ride with a Waymo robotaxi cost $9.50 more — though that didn't include a tip for the human driver. Assuming you added 20 percent gratuity, you'd still be paying about $3.87 more.

That's notable but not necessarily deal-breaking. Speed is where the gap broadens. The average time to pick up for Waymo was 7.2 minutes, compared to 3.4 for ridesharing, meaning that you'd be waiting twice as long on your robot-ride.

And most egregiously, the average trip time in a robotaxi was 33:58 minutes, when hopping in an Uber or Lyft would take you only 15:20 minutes, 120 percent difference.

Granted, these numbers aren't an indictment of robotaxis for all time to come. They are a sobering reflection of the current state of the technology, however, and in a tech industry that a) thrives on unchecked hype to court billions of dollars, and b) is premised on driving out human labor, a harsh reality check is never out of order.

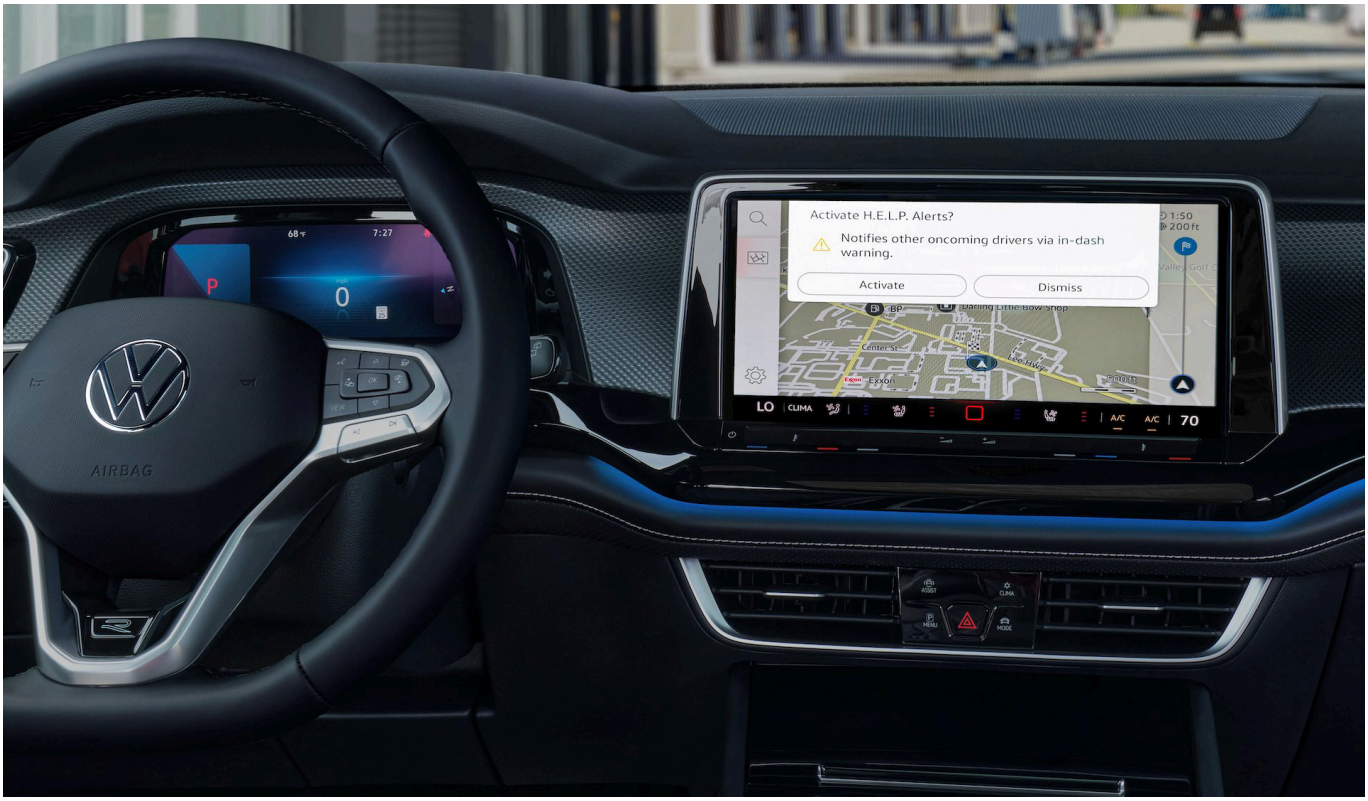
In Waymo's case, its robotaxis can only operate in specific cities where extensive, manual mapping has been done by the company's engineers. While its cars can drive up to highway speeds — some competitors don't — they do not drive on highways.

In general, Waymo robotaxis drive conservatively, which can be a pro or con depending on how much you value speed versus safety. Still, being a stickler for speed limits doesn't mean they can't screw up; crashes have happened.

General News

Volkswagen Collision Avoidance Alerts to Car-Net Services

GENERAL NEWS



VW IMAGE

New collision-avoidance alerts that can provide warning of hazards to drivers have been introduced by Volkswagen of America. Starting later this year, the feature will be included with VW Car-Net Safe & Secure subscriptions at no extra cost for most 2024- and 2025-model Volkswagens.

VW say they are the first auto maker in the United States to integrate Hazard-Enhanced Location Protocol (HELP) and road awareness collision avoidance alerts within a suite of connected vehicle service

When a Volkswagen vehicle is disabled on the road, the driver can activate Vehicle HELP, which will send digital alerts to certain oncoming drivers notifying them that they are approaching a disabled vehicle. Vehicle HELP can be switched on manually when the driver turns on their hazard lights or automatically when airbags deploy.

With road awareness alerts, Volkswagen drivers can receive digital notifications when they are approaching disabled vehicles or in the path of an emergency vehicle. These alerts are delivered through cellular-vehicle-to-everything (CV2X) technology and give drivers advanced warning, allowing them time to prepare for the danger on the road.

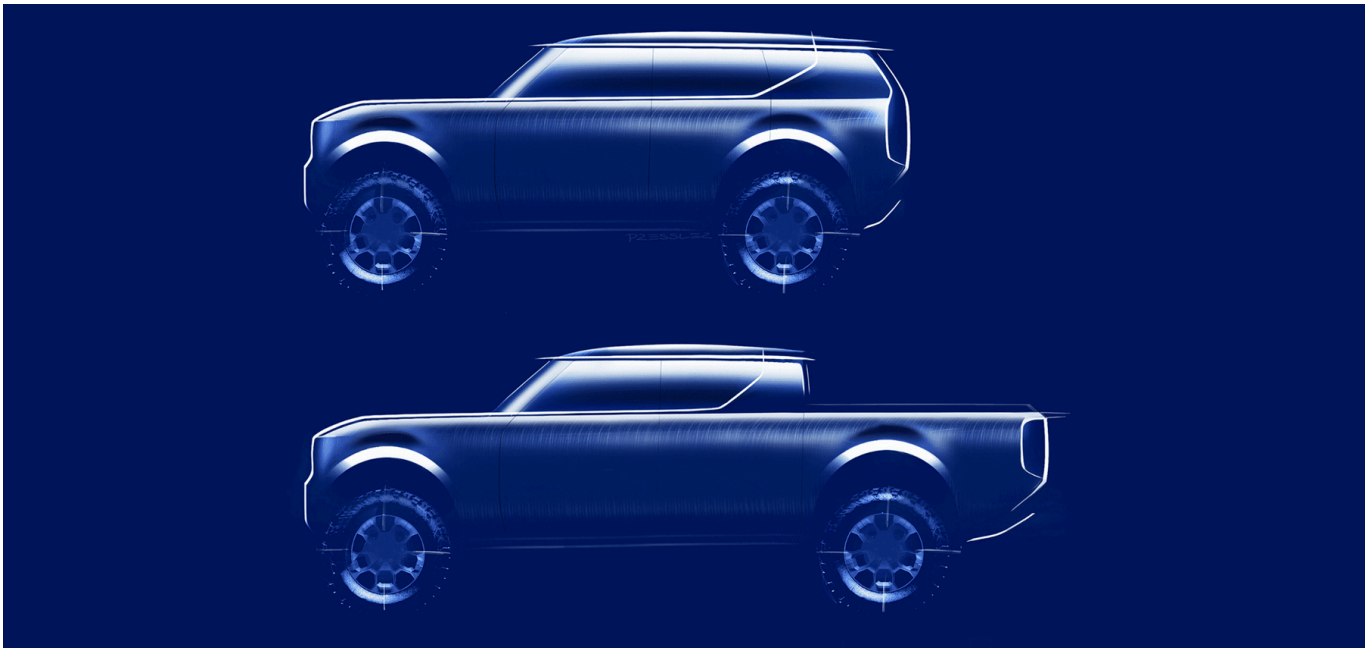
“By working with Emergency Safety Solutions to implement HELP, Volkswagen continues to deliver on our mission to help make roads safer and lead the way in automotive safety technology,” says Frank Weith, director of engineering connected services at Volkswagen Group of America.

These features will be added to the Volkswagen Car-Net Safe & Secure plan for most MY24 and new vehicles at no cost for the first five years after the vehicle’s date of purchase. Safe & Secure allows owners to access emergency assistance through the SOS button in the vehicle, putting the driver in contact with the Volkswagen Response Center through a secure cellular connection for emergency assistance on the road.

Volkswagen’s investment in CV2X technology offers a more advanced and accurate experience than other driving applications currently on the market. While external driving apps rely on crowd-sourced data, this technology uses real-time vehicle-to-everything (V2X) data that is more accurate.

Reborn Scout Brand Will Start With Electric SUV, Pickup

GENERAL NEWS



SCOUT IMAGE

Volkswagen has named Scott Keogh, formerly the head of VW in the U.S., to lead its efforts to build and grow the Scout brand, based on the model name of an American off-road-capable vehicle built by International Harvester and much loved by its buyers.

Scouts were part of the original wave of SUV interest in America. From 1961 to 1980, IH—a company founded to build tractors—built body-on-frame SUVs and pickups known for their tough 4-wheel-drive systems and reasonable prices.

International Harvester sold the Scout from 1961 to 1970 and the lightly-refined Scout II from 1971 to 1980. They were boxy. They were torquey. You could get them with a removable roof and doors. Along with the original Ford Bronco and the pre-Wrangler Jeeps, they pioneered the market for today's sport utility vehicles.

IH left the car business in 1980 to focus on commercial trucks and school buses. It has been sold and resold several times, most recently landing with the Volkswagen Group in 2016.

VW, at the time, didn't buy the company to resurrect the Scout name. They bought it for some assets having to do with diesel truck engines. But they recently decided the Scout badge could be useful. But not as a gasoline-powered counterpart to Ford's Bronco; the new Scouts will be electric. Keogh told Automotive News that the brand plans two electric vehicles (EVs) — a pickup, and what he called a "rugged SUV" to be built in the States.

Automotive News reports that both Scouts will ride on a new platform, which likely means won't share architecture VW's current EVs such as the ID.4

The Wall Street Journal reports that VW hopes to sell 250,000 Scouts yearly, which would be a huge commitment. VW sells about 350,000 cars in the U.S. annually under its own brand.