Thu, 29 September 2022
Weekly Newsletter

DVN-I
Automotive Interior

NEWSLETTER #129

Editorial

High-Tech Polymers For Automotive Applications At K Plastics Fair

COVESTRO CONCEPT INTERIOR 2019 (COVESTRO IMAGE)

High-tech polymers and plastics in general are omnipresent in today's auto interior, and seats and interior trim represent a significant part of the vehicle's mass. Sustainability is becoming a paramount value of the industry, and that's especially true for plastics. The K Fair—the world's top trade show for plastics and rubbers—will happen next month in Düsseldorf, Germany. It covers all industries using polymers and elastomers, including automotive, and will surely be a fantastic opportunity to learn about the innovative new materials and technologies. In the runup to the fair, DVN Interior talked with Covestro—a longtime DVN member and leading supplier of high-tech polymers across wide swaths of the automotive world. This week's in-depth article brings you a preview of Covestro's K Fair showcase. It's a sparkling demonstration of what this important supplier is working on. And at the end of October we'll be presenting you with a detailed report on the relevant exhibits and innovations at the K Fair.

Because of the abundant news this week, we're holding off until next week on coverage of the DVN Workshop held in China last week.

Hope you enjoy this week's newsletter. Please always feel free to send in your questions and comments; we welcome your feedback as we work to make DVN-I better and better!

Sincerely yours,

Philippe Aumont
General Editor, DVN-Interior

In Depth Interior Technology

Sneak Preview: Covestro at K Fair 2022

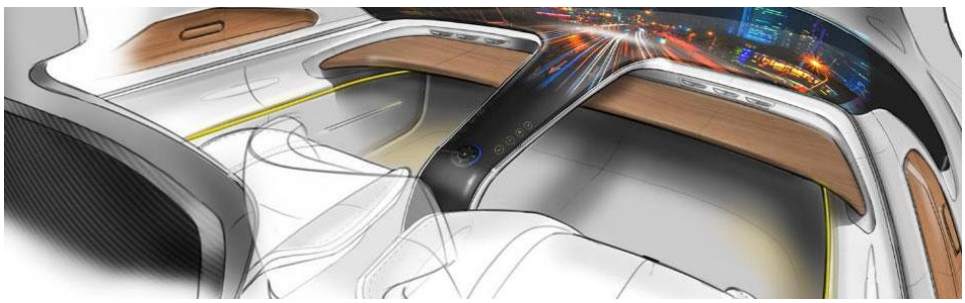
Covestro is one of the larger manufacturers of high-quality polymer materials and their components. Covestro supplies their products around the world in key industries such as automotive/mobility; building and living, and the electrical and electronics sector. In addition, polymers from Covestro are used in sectors such as sports and leisure; cosmetics; and health, as well as in the chemical industry.

DVN Interior had the chance to talk with Covestro's global interior technical marketing manager Ciro Piermatteo, to preview what Covestro will be showcasing this year at K 2022, the world's most relevant trade fair for the plastics and rubber industry, in Dusseldorf, Germany between October 19 and October 26.

At K 2019, Covestro gave the world a glimpse of what the auto interiors of tomorrow would look like and the role materials could play. Now they are planning to show how materials; technologies, and expertise come together to bring the latest trends to life.

In the last three years, and along the development process, several new interior solutions have moved to higher TRLs (Technology Readiness Level), from "what if" to "possible now".

Interior Demonstrator

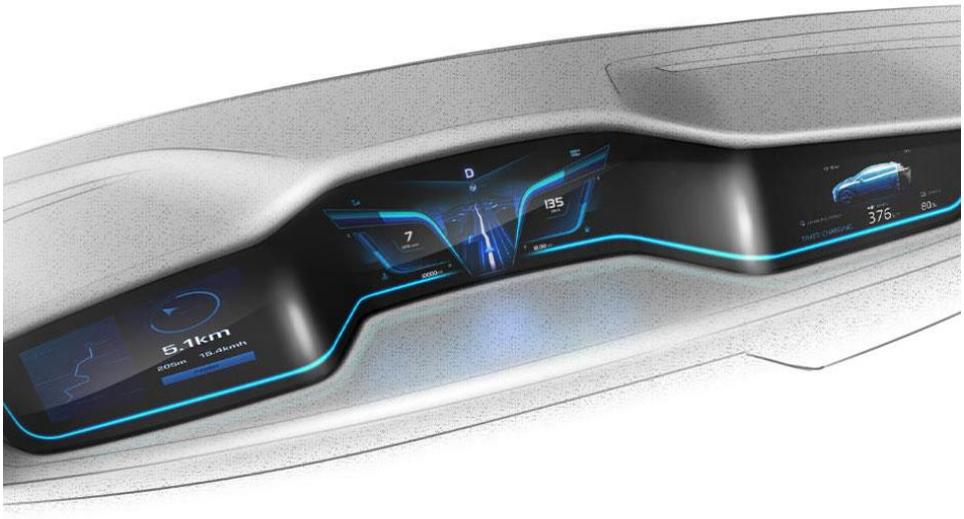


COVESTRO IMAGE

Covestro will showcase an interior mockup full of trend-setting designs, materials, and technologies. This product showcase is intended to demonstrate properties including slim design; touchscreens; ambient lighting effects; genuine materials, and more. These are a few of the overall trends driving automotive interiors that Covestro seek to embrace.

Automotive applications have to package a lot in a limited space. Functional integration benefits volume management and simplifies complex parts, while achieving lightweight properties and design aesthetics. It's all about offering real materials to provide a living room atmosphere in the vehicle. Material surfaces will become functional. With interior parts, which would be backlit and which would be touch-sensitive? Too much information and light could become annoying, disturbing, distracting…antithetical to safe driving. Therefore, drivers need a black-panel effect, meaning information hidden until the moment it is needed.

New design opportunities



COVESTRO IMAGE

Functional integration could include surface heating to help improve time-to-comfort during cold weather. Functional integration also includes potential backmolding of genuine materials, which can therefore follow almost any shape that a designer would think about.

Functional integration with light; sensors, and switches opens the door to distinctive and disruptive design possibilities. Covestro has developed a new glass-fiber filled blend material that is dimensionally stable; transparent, and heat resistant: Makroblend® OM 845G polycarbonate blend. This material—the first glass-fiber filled blend in an optical lighting portfolio to offer these properties—can be back molded and backlit in textured, 3D shapes, whatever enters the designers' imaginations.

Haptics are also important for user experience, and soft-touch coatings create surprising textures. Covestro offers a versatile toolbox of hard to flexible two-component (2K) waterborne polyurethane dispersions that offer the combination of high design freedom, from soft to hard. By combining this 2K polyurethane technology with edge-lit Makrolon® Ai materials, it's possible to create a wide range of tantalizing textures that invent new interior ambience and experience.

Smart surfaces will bring comfort to the interior while at the same time answering designers' needs for materials that meet design and performance requirements.

COVESTRO IMAGE

Center Console

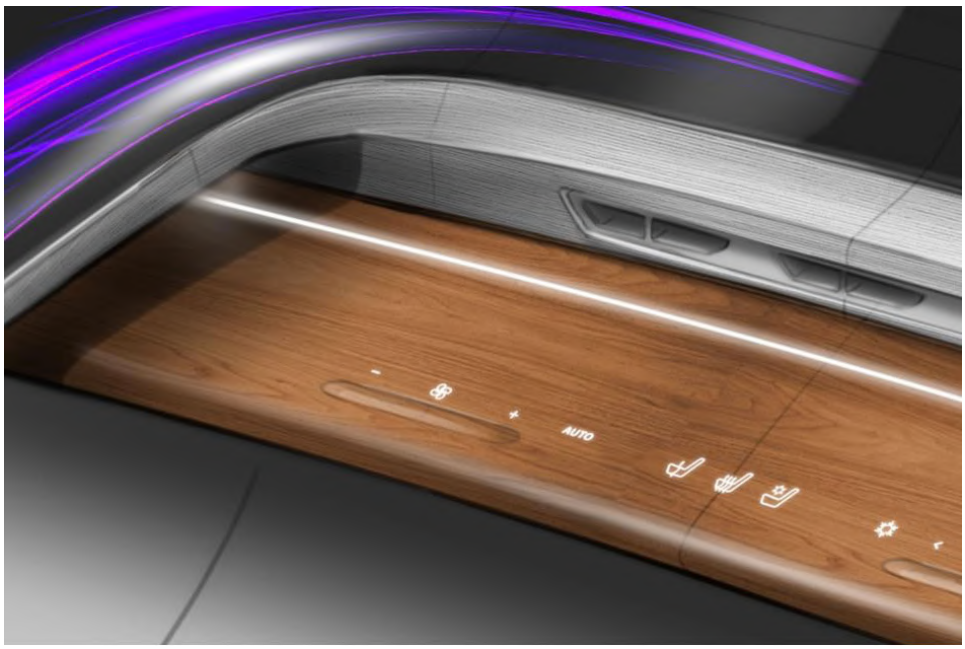
EV architecture will allow more open and spacious interiors, as Covestro will demonstrate with their virtual reimagined center console. Pairing this material solution with Maezio® lightweight composite in this flying center console results in slim, sleek, and stylish components that creates a new occupant experience during the drive.

Interior Lighting

COVESTRO IMAGE

Makrolon® Ai polycarbonate is a special edge-lit material that can go from transparent to translucent. This versatile material gives designers many options for ambient and dynamic auto interior lighting.

Shy-Tech



COVESTRO IMAGE

Covestro will showcase injection-molded parts that look and feel like wood; stone, or other materials. These parts could be backlit and transparent, with potential buttons and controls integrated and hidden in the 'stone', 'wood', or other surface until they are needed.

Lightweight Plastic Seatback

In the future, a car will be a multi-functional mobile space that syncs life and work and is more comfortable and spacious. A safer interior will become increasingly important. Being one of the biggest and heaviest interior components, car seats still require a lot more optimization. Ensuring safety while keeping the frame structure light has been a focus of major car seat manufacturers for decades.

Covestro, together with a Chinese automaker and a Chinese supplier, have jointly designed a new generation of thin; light, and strong carbon fiber car seats. Covestro provides materials and computer-enhanced engineering to optimize the design and processing solutions. This seatback is strong, saves space (knee room for rear passengers!), and reduces weight without compromising safety.

The seatback is formed from Maezio® lightweight composite and features the latest design trend—marble flakes—produced from post-industrial recycling materials. It was produced using a pilot production process, was assembled on real seats, and has passed many automaker-specific tests.

Using lightweight materials that are strong; easy to process, and cost less to transport can help the automotive industry optimize production processes; improve product performance, and reduce production costs. In addition, driven by the concept of green travel, the automotive industry has an increase in demand for low-carbon and environmentally friendly materials.

Roll-up shade

Covestro's roll-up shade concept illustrates how lighting and heating can be integrated into an extremely thin and flexible shade. It has been designed with an EV in mind. Beyond LED lighting, the shade’s embedded circuitry would provide radiant heating—particularly important in EVs, which lack the heat from an internal combustion engine.

Door Panel

Covestro material technology helps Northern Works, a design agency based in Finland for door panel development. CEO Miika Heikkinen says, "As a recognized global leader in design services, we strive to take a future-driven, holistic approach that meets tomorrow's realities as well as placing end user needs at the heart of our designs. This concept door panel shows how material technologies can open up new future-oriented designs that are not only more sustainable but also bring added value for consumers by simplifying interiors to make them relaxing and more purposeful, resulting in truly seamless journeys".

Front End

A new Covestro front-end concept integrates electronic functions and extends the possibilities of vehicle lighting. Covestro has been developing their own concepts for novel polycarbonate automotive exterior panels since 2014. The latest concept will be on exhibit at the K plastics trade show in Düsseldorf next month.

COVESTRO IMAGE

The front grilleboard concept, developed in collaboration with Hella, is based on Makrolon® injection-molded optical components which enable a wide range of designs, functionalities and use cases. The concept features double-sided FIM made with Makrofol® DE; 3D surfaces, and pedestrian communication. Integrated lighting effects using edge-lit, clear-until-lit and hidden-until-lit techniques showcase how emblems and other styling elements can be revealed on demand.

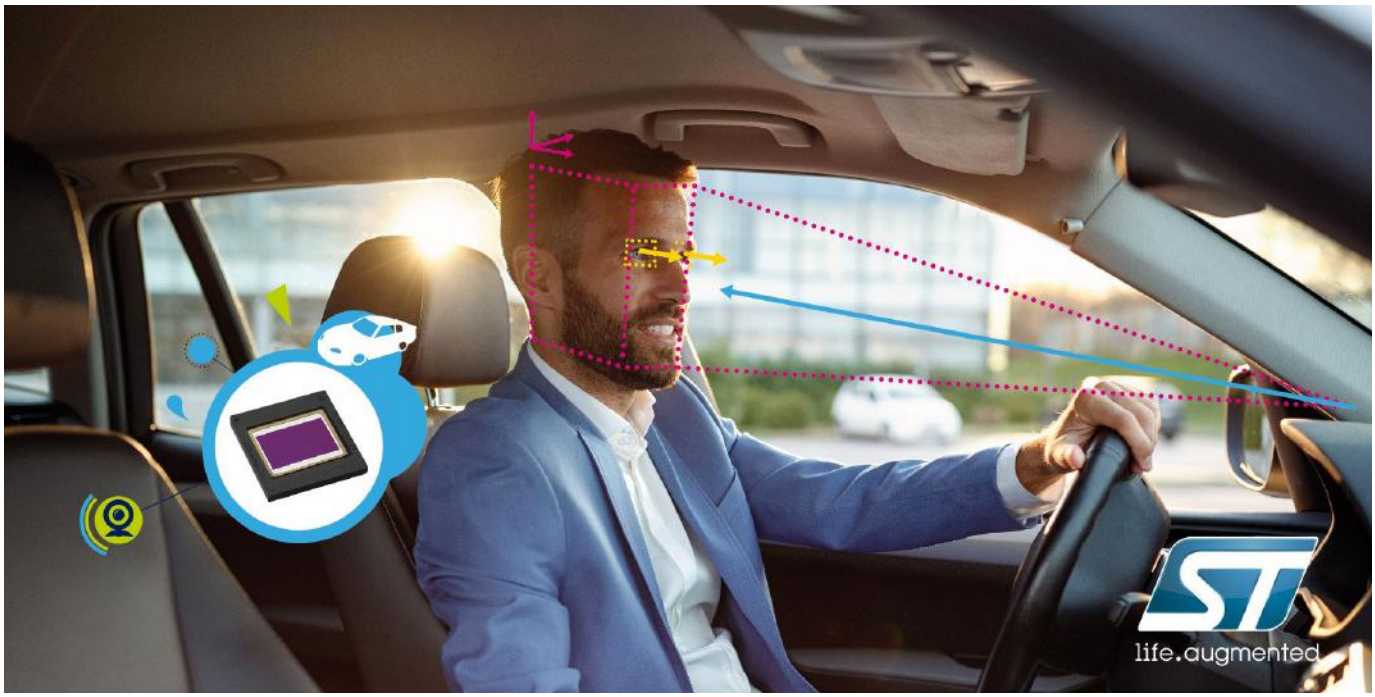
Covestro joined up with Lumileds to explore the possibilities of direct overmoulding of LED headlamp modules to validate the viability of this new assembly process. In parallel, Covestro teamed up with Asyst to showcase how light module adjustability and heat management can be integrated into a single, scalable module.

The transition of what used to be the radiator grille to a grilleboard as an integral part of a seamless frontal design offers the possibility of modular integration of various electronic, design, and regulated safety functions.

Interior News

STM's New Hybrid Sensor for Full DMS

INTERIOR NEWS



STMICROELECTRONICS IMAGE

STMicroelectronics (STM) is a semiconductor company of French and Italian origin—the largest European semiconductor contract manufacturing and design company. They're headquartered in Plan-les-Ouates, near Geneva, Switzerland, and listed on the French stock market.

While DMS (Driver Monitoring Systems) promise greater road safety by assessing driver alertness, STM's new VD/VB1940 dual image sensor monitors the full vehicle interior, including the driver and all passengers. New applications enabled by STM's new image sensor include passenger safety-belt checks; vital-sign monitoring; child-left-behind detection; gesture recognition, and high-quality video/picture recording.

STM's imaging subgroup general manager Eric Aussedat says the DMS market is growing at a double-digit pace, and STM's new image sensor is "set to push that forward by enabling brands to create new services and deliver even greater value for vehicle users, leveraging complete in-cabin monitoring that covers multiple occupants".

The new sensor delivers a cost-effective solution that combines the sensitivity and high resolution of infrared sensing with high dynamic range (HDR) color imaging in a single component. It can capture frames in rolling- and global-shutter modes. With 5.1 megapixels, it captures the HDR color images needed for an occupant monitoring system, in addition to the high-quality near-infrared images typically captured by standard DMS sensors to analyze driver head and eye movements in all lighting conditions.

Offered in both bare wafers (VDB1940) and packaged in BGAs (VB1940), samples are available now and mass production is planned to meet demand for the model-year 2024 vehicles now being designed.

Harman's Ready Care Keeps Driver Eyes, Mind On Task

INTERIOR NEWS

HARMAN IMAGE

Harman's Ready Care system aims to combat cognitive distraction and provide optimal routing and personalized comfort. Its integrated solutions can work together or independently to improve safety and reduce driver stress.

In addition to using cameras to detect driver drowsiness, Ready Care measures real-time driver cognitive load to identify when potential distractions arise, then offers tailored interventions. The experience is powered by newly-developed algorithms, which gather and process data from in-vehicle cameras and sensors to monitor a driver's state. Ready Care can then generate customized in-vehicle cabin prompts to trigger a range of behavioral responses to increase awareness and alleviate stress.

Key features include:

- Eyes and Mind on Road: Ready Care measures driver eye activity and infers state of mind with an active-illumination infrared camera to survey the driver's facial expressions; gaze; eyelid opening, and more;
- Alternate route selection to lower elevated driver stress levels in response to factors like traffic jams or weather, and
- Advanced 'machine learning' technology to provide personalized intervention strategies tailored to the individual and their driving experience.

Harman International senior automotive product management VP Armin Prommersberger says, "Ready Care is essentially a co-pilot, spotting when distractions could turn into dangerous situations and intervening to avoid them (…) we are incredibly proud of and excited by the impact Ready Care will have for drivers, passengers, and everyone on the road".

Emotion 3D, Veoneer Win Safety Award for Restraint Controller

INTERIOR NEWS

Emotion 3D and Veoneer were share-awarded the *Most Innovative In-Cabin Perception Application* award at AutoSens Brussels 2022, for the two companies' Smart-RCS (restraint control system) we previously **reported on**.

Smart-RCS detects vehicle occupants' body positions and characteristics to adjust airbag deployment in real time. It straddles between passive and active safety—just before a crash it optimizes protections to the maximum possible degree, then a few milliseconds later it works to minimize the effect of the crash.

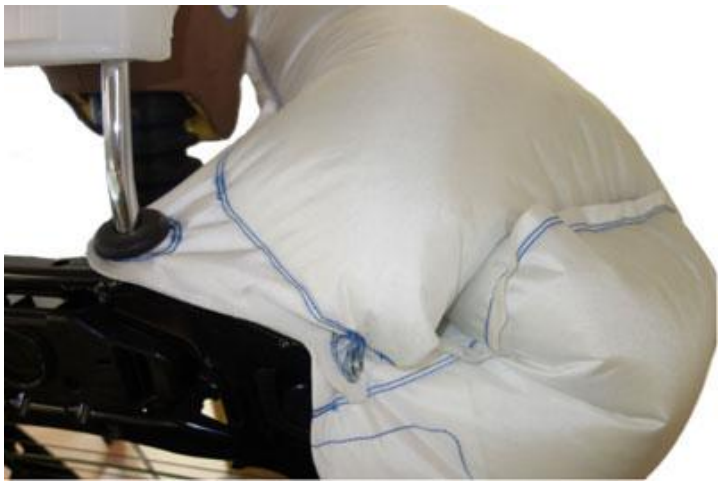
ZF's Between-Seats Airbag Needs No Console

INTERIOR NEWS

ZF IMAGES

Airbags between the front seats are often housed and supported by the center console. But now comes ZF with a new transverse center airbag for cars without a center console.

Volume production cars like the Škoda Octavia already feature the new bag, which is designed to provide enhanced protection for occupants in the event of a far-side crash. The center airbag may also mitigate the severity of an occupant-to-occupant collision, particularly important in small cars with less space between the two occupants. But those same cars often don't have room for much of a console, if any, and so ZF engineers developed a seat anchorage for their new transverse airbag. The airbag fabric has a third anchorage point that extends right into the upper head chamber.



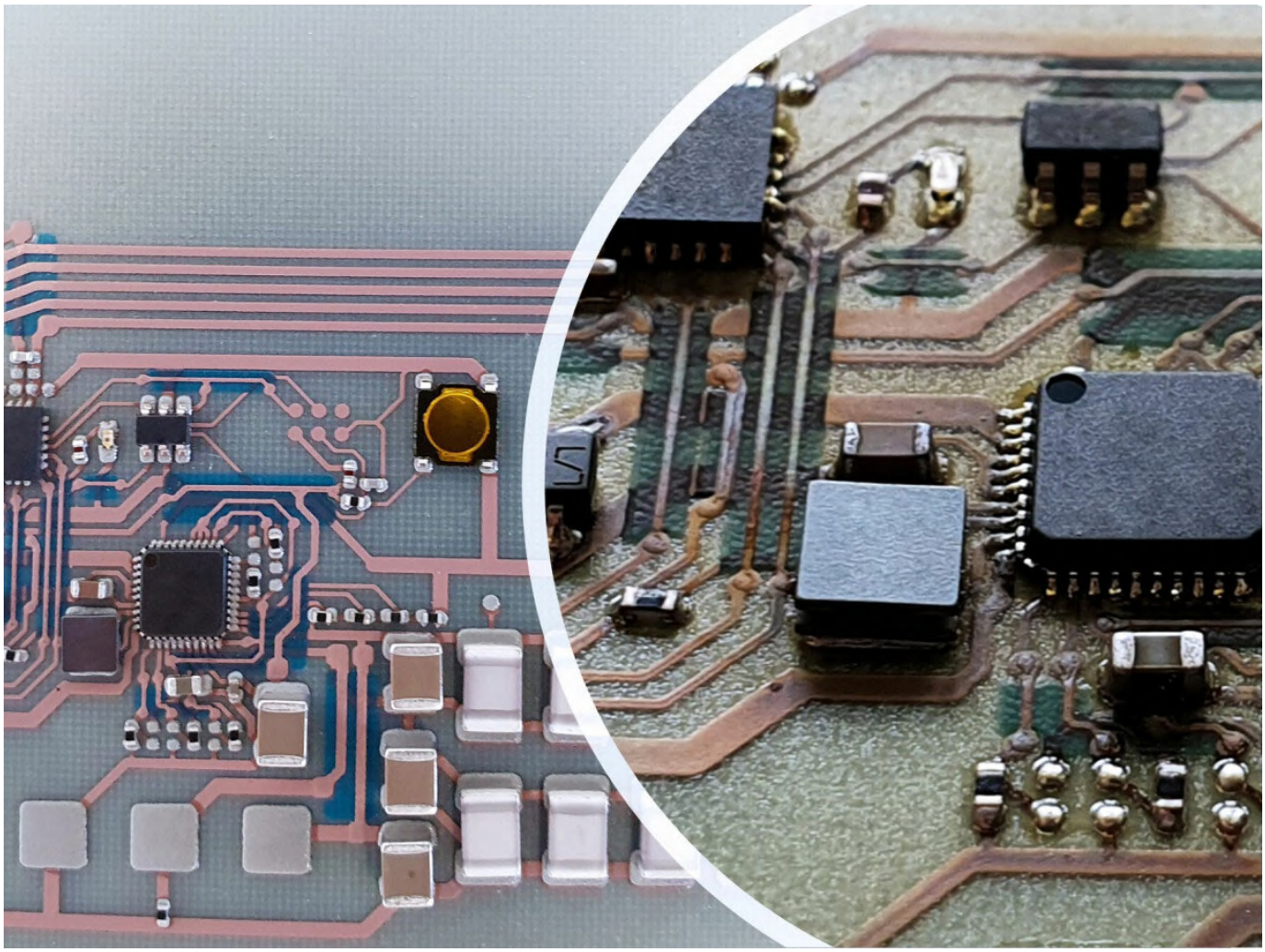
ZF's new airbag features a dual anchorage on the top of the seat structure, with the airbag secured directly through the fabric. This eliminates the need for support from the center console and the adjacent passenger seat to apply the required support force in the event of a far-side crash.

The lateral stiffness this protective cushion provides from the seat during testing is at least on a par with previous center airbag systems; seat integration tests confirm it.

ZF's side/center airbag engineering manager Dominique Acker says "Vehicle manufacturers can also use the inner headrest sleeve for support. This is ideal because it is simple and strong".

3D PCBs for Lower Costs, Reduced Dependence

INTERIOR NEWS



INNOVATION LAB IMAGE

Today’s interiors are full of printed circuits to make all the electronics work. A new production process makes it possible to print copper conductor tracks directly on electronic circuit boards—a new way to make PCBs with less material and energy, according to its inventor Innovation Lab.

The Heidelberg, Germany-based company says they have succeeded in producing solderable circuits using a screen-printing process as part of the SmartEEs2 research project. The circuit boards are said to be compatible with conventional reflow processes; a copper ink ensures high conductivity.

This is a process that will lower costs and reduce logistical dependence on suppliers. The process does not require toxic etchants, and energy consumption is said to be lower than conventional production methods. The circuit boards are produced at a temperature of about 150 °C. In addition, the substrates, which are as little as 7 per cent of the ordinary thickness, reduce material consumption and create less production waste.

Innovation Lab has produced a physical prototype containing the main components of a smart label. Multi-layer printing of metal and dielectric material was used to realize the desired functions: a low-power temperature sensor and logger; an NFC communication interface via a printed antenna, and a compact battery. This is charged with a printed solar cell, making the product completely self-sufficient.

Innovation Lab's head of printed electronics Janusz Schinke says, "This is a production process that will lower costs and reduce logistical dependence on suppliers. We expect to scale this process to high volumes by the end of this year." The goal, he said, is to produce at least one million solderable traces.

Genesis G90 Sparkles With UI, UX Elements and Mood Curator

INTERIOR NEWS

GENESIS, NETCARSHOW IMAGES

The Genesis G90 presents with its first full model change in three years, representing a new interpretation of the brand's luxury design identity. The model introduces assistance features that make driving easier, along with a variety of new technologies that enhance UX.

Drawing attention at the front of the vehicle's interior are slim air outlets which, combined with the winglike shapes and Genesis' newest infotainment system, the Integrated Cockpit, integrate the cluster and navigation into a panoramic display.

The center console uses glass and aluminum materials. The electronic dial-type shift selector and a dial-type central control panel are differentiated to enable drivers to distinguish between them by feel while driving—and the shift dial wards off accidental selection by vibrating when the driver selects Reverse.

Two panoramic sunroofs located can be controlled separately. The ambient lighting installed on the left and right ends of the sunroofs are linked with other ambient lighting navigation in the vehicle.

The rear seats feature high quality materials, and the left and right seats in the second row can be reclined. There's a variety of storage spaces, including magazine-and-book trays in the C-pillar area of the second row.

New garnishes have been applied to the center fascia, to the backs of the front-row seats, and to each seat's door trimming. Genesis' philosophy of sustainable luxury is reflected in the use of Newspaper Crown Wood and Newspaper Stripe Wood, made by reprocessing wastepaper from daily life, including newspapers.

When a driver approaches the G90 with their smart key, they're greeted by automatic door handles popping up. Once the driver enters the vehicle, the EasyClose system closes the door without passengers needing to reach out and grab it. This feature is activated with a press of a button located in a number of easily-accessible places, including the first row's center console; the second row's armrests, and the door trims in both rows.

A fingerprint authentication system in the center console enables keyless engine start and driving. It automatically loads a driver's personal settings and can be used as an identity verification method for Valet Mode. The car is also equipped with

Digital Key 2, letting customers access and turn on their vehicle by simply touching the door handle when their smartphone is nearby. It also features a hands-free smart trunk system, which automatically opens the trunk when a driver or passenger stands near the sensor located on the rear part of the trunk for three seconds.

The infotainment system includes a new 'Mood Curator' in-car personal assistent (video); Bang & Olufsen 3D sound system, and a Virtual Venues system to tailor the interior mood to one's taste and whim.

The Design Lounge

Polestar 6: Premium Fun and Sustainability

THE DESIGN LOUNGE

POLESTAR O2, A DESIGN STUDY FOR THE POLESTAR 6 (POLESTAR IMAGES)

The Polestar 6, based on the brand's O_2 electric roadster concept, presented earlier this year, is the maker's assertion that the premium choice, the fun choice, and the sustainable choice are one and the same.

Polestar decided to bring the O_2 concept to life as the Polestar 6 LA Concept edition, with every build slot quickly reserved. However, It is still possible to join a build slot waiting list for this exclusive launch edition, which has an expected release date in 2026.

The interior of the O_2 takes all the advancements made with Precept and applies them to a roadster. It features a contextualized infotainment system that adapts to the driver's movements, woven flax composite panels, 3D knit upholstery, and other sustainable material innovations. Paired with carefully-curated color combinations, it elevates comfort to a new level.

Mixed materials must be separated before recycling, making the process more difficult. The O_2 demonstrates that a car interior based on single material components can pair style with sustainability.

Conventionally, vehicle interiors consist of a wide variety of materials. At the end of the vehicle's life, these combinations are hard to separate, making it extremely difficult to recycle them back to their original quality (and using lots of energy in the process). In contrast, all of the soft components of the O_2 interior are made from one base material: highly recyclable thermoplastic. Therefore, the foam, the adhesive, the 3D knit upholstery and the non-woven lamination can all be recycled without energy-intensive separation or loss of attributes.

The first 500 units of the Polestar 6 will come in a limited "LA Concept" edition featuring a unique "Sky" exterior color; custom-designed 21" alloy wheels like those on the O_2 concept, special bodyside graphics, and an animal welfare-traced leather interior.

The automaker started taking reservations on 15 September in China, where it's priced at C¥1.68m (€242 000), and where only ten units will be sold.

Aston Martin DB6 Volante: A Royal Ride Shows the Whey

THE DESIGN LOUNGE

COFFEE CORNER
DVN
Interior

DAVE_7 IMAGE AT WIKIMEDIA COMMONS

The splendid 1969 Aston Martin DB6 Volante Mk II, powered by a 4-liter DOHC straight-six engine, is known as being Charles' favorite among his impressive automobile collection. He has let only one other person to drive it, once: his son Prince William, to drive from his wedding to Kate Middleton. The two-seater's black leather interior, with its wooden steering wheel, would not be complete without the big red EJECT button at the center of the dashboard. King Charles has explained that this stands just as a joke. A blue-sapphire textile canopy electrically covers the cockpit in perfect harmony with the Seychelles Blue body paint. The entire masterpiece is often seen by the press as the most 'effortlessly cool' Aston.

However, the British monarch had to endure some sleepless nights once his beloved vehicle had to face modernity. The up-to-date standards want all vehicles to be eco-friendly in order to match the forthcoming mobility values. Known as a strong advocate of sustainable initiatives, Charles in 2008 took the decision to convert his dream car into an environmentally friendly vehicle. Not many were present at the meeting with his engineers, but it seems to have taken quite some effort to convince them to modify the car so as to run on 85 per cent bio-ethanol and 15 per cent unleaded gasoline —E85, in other words, but not regular old, boring old, normal old E85 made with corn or sugar cane ethanol; this is royal E85 crafted with ethanol made of waste from the British wine and cheese industries. King Charles facetiously stated in a BBC documentary, 'the car smells delicious as you drive along'.

The use of natural materials in various applications is among the most popular automotive trends. Cork, Soy foam, wheat straw, kenaf fiber, coffee grounds, 'vegan' leather, coconut fiber and rice hulls constitute a new extensive vocabulary as never before in automotive history. It is difficult to imagine what it takes though to implement all these natural resources into a scaled and unified industrial process. At the moment, if someone could do it, surely King Charles III could!

News Mobility

How Will Robo-Taxis Communicate?

NEWS MOBILITY

JAGUAR LAND ROVER IMAGE

Nonverbal communication is often complicated and subtle between two human drivers, or between a driver and a pedestrian or cyclist. Machines pose even greater challenges in communicating with other road users: no voice; no facial expressions, and no body language!

If self-driving cars are to avoid posing a new safety threat to humans, the AVs will have to learn a comprehensible language to communicate with us. Research is currently underway into what this might look like.

Each prototype and study has pursued its own approach. Swedish supplier Semcon, for example, put a face on the radiator grilleboard screen that smiles in a friendly manner at passers-by to invite them to go ahead and cross the road. A similar approach: the giant electric eyes from JaguarM; including eyelid, iris and pupil to make eye contact with other road users.

As internally coherent and interesting as the ideas are, wild diversity of technique won't work in road traffic. When autonomous cars roll onto the road in large numbers, they need a uniform language. One that humans can easily learn to comprehend and trust.

Engineer Stephan Cieler is looking for the universal form of communication for robot cars. He works at Continental, and is active in the ISO committees on the standardization of external and dynamic human-machine interfaces. He is concerned with the safest way for robot vehicles and living road users to communicate with each other in the future. At crosswalks, for example, where the most important question is whether the car will actually stop when you step onto the road. Or at bottlenecks, where two drivers have to agree on the right of way.

Cieler and his team initially developed rules for human-machine interfaces—something like the basic rulebook of communication between the car and its animate environment. The car's signals must be unambiguous and, moreover, consistent with the car's other behavior.

Bosch Last Mile E-Mobility

NEWS MOBILITY

BOSCH IMAGE

Bosch is now starting volume production of a new drive unit for light commercial vehicles, consisting of an electric motor and an integrated inverter. The inverter controls the electric motor and provides the connection to the high-voltage battery. Bosch management board member and mobility solutions business unit chair Dr. Markus Heyn says "Compared to its predecessors, the new unit provides even higher power and torque density and is even lighter and more compact". Together, the motor and inverter weight is around 80 kg. Bosch has reduced electrical losses by more than 20 per cent using new power semiconductors, which enables an inverter efficiency level of 97 per cent, thereby increasing the range of an equipped vehicle. Thanks to the flexible construction, it is also now even easier to integrate the drive module into existing and new vehicle models.

The electric drive will make its debut at Daimler Truck, supplemented by a DC/DC converter and the vehicle control unit from Bosch for the drivetrain. The unit's maximum power is 129 kW, while the continuous power is 100 kW. For a short time, the permanent-magnet synchronous machine can generate a peak torque of 430 Nm. Even at a vehicle weight of 8.5 tons, this ensures superior driving performance in every situation, including in hilly cities such as Tokyo, Rome, or San Francisco.

The Bosch engineers have based the design of the electric motor and the inverter on the technology used in the passenger car segment. By embedding the electric drive module in the vehicles' existent water-cooling circuit, an oil-based cooling circuit is no longer necessary. Furthermore, the high rotative speed capability of the electric motor ensures a single-speed transmission to be sufficient to meet all requirements. The smaller dimensions of the new electric drive mean that a battery made up of a single part can now be used. New microcontrollers offer considerably more computing power to process the complex control algorithms of the electric drive within milliseconds. In this context, the software is largely responsible for the behavior of the electric drive and can be tailored to customers' specific requirements. The drive module will roll off the production line in Hildesheim, Germany, the Bosch lead plant for electric drives.

General News

Faurecia-BYD JV Makes 10,000th Auto Seat Set

GENERAL NEWS

FORVIA IMAGE

Shenzhen Faurecia Automotive Parts, a joint venture between Faurecia and BYD, saw their sixth factory open for business on 19 September. The factory is located at Xiatang Industrial Park in Hefei city, the capital of Anhui province, and is also the joint venture's third factory put into operation so far this year.

At the event, the Hefei-based factory witnessed its 10,000th set of automotive seats roll off the production line. The company pushed ahead with the construction and production of the Hefei factory at a pretty rapid pace. It determined the factory's location this past may. The factory completed equipment installation and debugging, and started production only 45 and 55 days, respectively, after the decision was made. On 20 July, the factory produced its first automotive seat.

The joint venture has been up and running since the end of October 2017. It's owned 70 per cent by Faurecia and 30 by BYD, and works to develop and manufacture advanced seating solutions for BYD-affiliated auto brands.

VW Mobility Unit to Focus on EVs, AVs

GENERAL NEWS

ID.BUZZ CONCEPT, 2018 (VW IMAGE)

Volkswagen's passenger car business is reorganizing to combine the emerging fields of electromobility and digitalization into a New Mobility division under the leadership of Thomas Ulbrich (photo), the brand's current development chief.

In his new role, Ulbrich will be responsible for VW's current ID battery-electric cars and future models that will be based on VW Group's new, highly scalable SSP platform, including the VW brand's upcoming full-electric, self-driving car being developed under the Trinity project.

Ulbrich will also join the supervisory board of Cariad, VW's software unit, tasked with ensuring close cooperation between Cariad and VW brand's development division.

VW brand CEO Thomas Schaefer said the restructuring is aimed at creating a strong foundation for "systematically driving forward the company's transformation toward a software-oriented mobility provider". With the new division, "we are

bundling the strategic action areas of electric mobility and software, thereby increasing our pace of innovation," Schaefer said.

Ulbrich's role as VW brand's technology boss will now be headed by Kai Gruenitz, who moves to the role from his current job as head of development at Volkswagen Commercial Vehicles, where he was responsible, among other things, for the development of the ID.Buzz electric minivan.

Ulbrich and Gruenitz will cooperate and they will involve engineers from VW's traditional development department unit in projects such as battery cells, the SSP electric platform, and digitalization, including autonomous driving functions, as well as further complex projects that are on the horizon.

VW did not say how large the New Mobility division will be, but it is likely to involve development engineers and an interdisciplinary team focused on batteries and software, as well as development, production, purchasing and controlling.