Thu, 26 May 2022
Weekly Newsletter

DVN-I
Automotive Interior

NEWSLETTER #113

Editorial

More Interior Discussions At November DVN Seminar

RENAULT SCENIC VISION, AS INTRODUCED AT CHANGENOW (RENAULT IMAGE)

It has been a month since we had our Köln Interior Workshop. The format and content were great, and it was so good to meet and exchange with so many people and companies.

We've begun complementing the successful DVN Workshop concept with events of a different format and different objectives, called the DVN Interior Seminar. The idea is to have a smaller, more interactive group of experts—not just listening to lectures, as interesting and informative as that is. We'll get into great discussions on topics of general interest to the whole community. We'll talk and listen with each other on how to build a more advanced common perspective on hot automotive interior topics.

The first DVN Interior Seminar could focus on HMI; lighting, and sustainability. We are tentatively planning to have it around 15 November 2022, somewhere between Köln; Frankfurt, and Stuttgart. We'll keep you informed as we develop the event. How does the idea strike you? What would you like to see and do at the event? Please **send us your thoughts**.

In the meantime, we hope you'll enjoy this week's Newsletter. If you've not yet watched the Köln Workshop videos, just click the Video tab on the **Workshop page** of the DVN website.

Sincerely yours,

Philippe Aumont
General Editor, DVN-Interior

In Depth Interior Technology

HMI Screens Gain Functional Flexibility

GOOGLE ANDROID SCREEN VERSATILITY (GOOGLE IMAGE)

Tesla introduced a screen-only cockpit in 2013. Mercedes recently introduced their giant Hyperscreen. Polestar has determined that people in cars prefers to enjoy the outside view, and BMW designers are thinking outside the screens. And this is just a small sample of many statements about in-car touchscreens that seem at least a little contradictory. Are there leading trends within these options, or is it only marketing USPs that automaker designers are creating? Let's try to get a perspective, looking to recent news in the interior market.

BMW and Polestar: shy tech and smaller screens

POLESTAR IMAGE

During a **livestream** from cardesignnews.com—attended by executives from Italdesign; Automobili Pininfarina, and ELeather—BMW's head of i-series interior design Matthias Junghanns said, "Is it the big screen that counts? I'm personally convinced that these black glass surfaces in the car interiors…we will leave that behind, sooner or later. Where you have all the intelligence of your car at your fingertips, but interfaces that just appear when you need them, and when you want them".

In our fast-moving world, more and more people are experiencing technology fatigue, a sense of never being able to switch off from the various gadgets that have come to dominate our lives. Perhaps the single most important time for people to disconnect from technology is while driving, yet this creates a challenge for car manufacturers.

As BMW seems to be steering towards the concept of shy tech, comments from Polestar interior design manager Conny Blommé suggest that the infotainment screen shouldn't even be a focal point: "Everything has its peak, and probably screens have. Most of the time, you're traveling in a car, and you enjoy the view more than you enjoy the screens".

In recent years, luxury brands have moved most of the controls for the sound and HVAC systems onto the touchscreen. The comments from BMW and Polestar executives match those that have been made by other brands such as Jaguar and Honda, who have chosen to ignore the trend completely in favor of physical buttons. This also reveals that not everybody in the industry is down with the trend, which was essentially started by Tesla with the Model S. Everybody made fun of it; then they copied it, and now it seems people are having a more careful think about whether everything-on-the-screen is the right way to do it.

Tesla's New Swivel Screen

Tesla is trying to keep hold of their trendsetter position: they have updated the Model S and Model X with a new motorized swivel function for the center screen. This, they say, enables a better in-car viewing experience. Over the last few years, Tesla has been putting a lot of efforts into entertainment inside its vehicles. From Tesla Theater for streaming services to video games, there have been a lot of software updates to bring new features to entertain riders—so the Models X and S have a big new horizontal center display better suited for watching videos, and a new backseat display powered by a gaming computer.

It's not clear when Tesla made the change, but the equipped vehicle is said to have been produced during the last week of April, so it seems reasonable to assume cars produced since then are equipped with this new version of the center display. As you can see, the swivel gives enough of an angle to either make the screen face more toward the driver or full-on face the front passenger.

The change enables a better driver-focused experience, but the degree to which it can swivel to the right also makes it perfect for the front passenger to use the screen. Tesla currently disables video playback on the center display when the vehicle is out of Park, but that's expected to change in the future as Tesla achieves a higher level of autonomous driving.

Shy Tech by Continental Wins iF Design Award

SHY TECH LIVES HERE (CONTINENTAL IMAGE)

Those as-and-when-needed controls mentioned by BMW's Matthias Junghanns are generally called "shy tech"—it hides except when in actual use, and it clearly is a trend with traction. Continental's recent iF design award for it is a clear example of a jury rewarding the idea.

Continental's shy tech displays enable a new cockpit design, while being extremely user-friendly and safe while driving. They hide potential distractions, as information and functions appear only when needed. Shy tech screens are capable of being hidden literally anywhere in the interior, and they create an exciting user experience.

THE SAME PIECE SHOWN ABOVE, NOW DISPLAYING INFORMATION (CONTINENTAL IMAGE)

Continental's shy tech displays are leading the way in purist dashboard design and enhanced UX. The high-resolution dashboard displays seamlessly are integrated into a 2D surface that simulates genuine wood. The displays become invisible and content only appears when needed, allowing the driver to keep their eyes firmly on the road.

MBUX Hyperscreen: SID Week Display Award

MBUX HYPERSCREEN (MERCEDES IMAGE)

The 59th International Display Week symposium and seminar, presented by the Society for Information Display (SID), took place in San Jose, California, on 8-13 May. Display Week is the world's leading event focused on emerging electronic display and visual information technologies from concept to market. It covers displays wherever they are used, including automotive.

Awards at the event reflect what the experts are recognizing, expecting to be also what end-users will favor. In the category Display Applications of the Year, Mercedes' MBUX Hyperscreen won the Display Industry Award by the Society For Information Display.

Mercedes-Benz CTO and management board member Markus Schäfer says, "This is a great honor because the trophy is not an automotive-specific award and we were up against competitors from almost every major industry: Aerospace, consumer electronics, retail, shipping, education, transportation, to name just a few. There's no question the MBUX Hyperscreen is one of the highlights of our EQS and EQE models. It's naturally an eyecatcher, because the large screen unit stretches across almost the entire width from the left to the right A-pillar".

With a width of 141 cm, this unique screen unit consisting of three apparently seamlessly merged displays is the largest human-machine interface built by Mercedes-Benz to date. It also is by far the most intelligent—aesthetically impressive, radically easy to operate, and downright eager to learn. The cover glass is curved three-dimensionally and allows a distortion-free view across the entire width.

For haptic feedback during operation, twelve actuators are located under the touchscreen surfaces. If a finger touches certain areas, the applied force is measured and a noticeable vibration of the cover glass is triggered according to the selected menu.

The trophy was presented by Society for Information Display marketing chair Sriram Peruvemba to Mercedes' head of body & comfort electronics and UX components Dr. Stefan Blossey, who represented the entire R&D team in accepting the award.

Google's Refreshed Android Auto UI

GOOGLE IMAGE

Screen and HMI improvements are possible beyond just new hardware. At Google's annual "I/O" developer's conference, Google made a bunch of announcements about hardware, but also about software—including on Android Auto. They announced that it will now be available for all users with refreshed UI. After the update, Android Auto's UI will now be able to adapt to different car screen sizes and orientations with a default split-screen look. Google aims to help users get directions faster; control media more easily, and have more functionality at their fingertips.

According to Google, the split-screen display mode will allow Android Auto users to access features like navigation, media player, and messages from just one screen. The current split-screen display mode is available for limited users only, but will be available for all users starting this summer.

In addition to the split-screen mode, it will also get the ability to adapt to any touchscreen, no matter its size or shape. Whether any particular car has a portrait or widescreen infotainment display, users will be able to access Google Assistant, notifications and apps library easily.

Google also revealed their voice assistant will now suggest quick replies for conversations that include sharing user's estimated arrival time with their contacts. Newer Volvo; Ford, and GMC models with Android Auto built in will get new parking features like the ability to watch videos on YouTube; Tubi, and Epix Now from the car display. Google says "As we work to add more capabilities to cars with Google built-in in the future, you'll be able to not only browse the web directly from your car display, but also cast your own content from your phone to your car screen".

Interior News

Munda: Aunde-Mentor JV for Textile Lighting

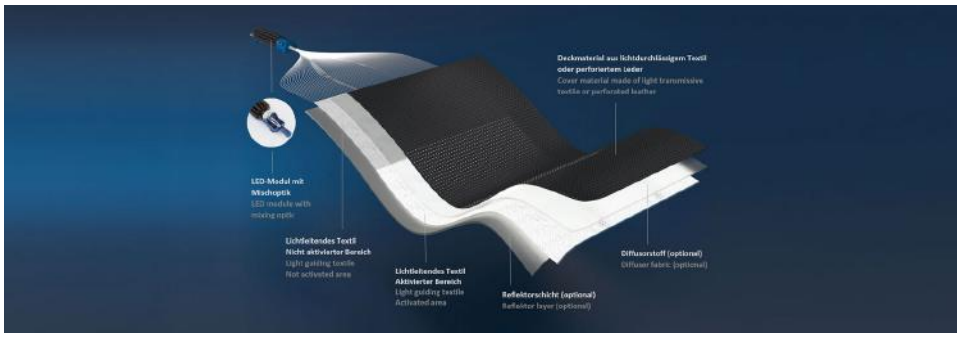
INTERIOR NEWS

MUNDA IMAGES

Interior textile specialists Aunde and interior lighting experts Mentor have founded a joint venture, called Munda and based in Erkrath, Germany, that uses textile light guides to bring new design freedom to automotive interiors.

Aunde, founded in 1899 as Achter & Ebels in Mönchengladbach, began to specialize in the production of textile for the automotive industry in 1920. They currently have 120 sites in 28 countries with 25,500 employees. They're contributing their technical textile expertise and their network in the interior components value chain, thanks to decades concentrated on yarns; technical textiles, and seat covers, and acquisitions along the way—Isringhausen commercial-vehicle seat systems and technical springs; Fehrer foam pads and vehicle interior components, for example.

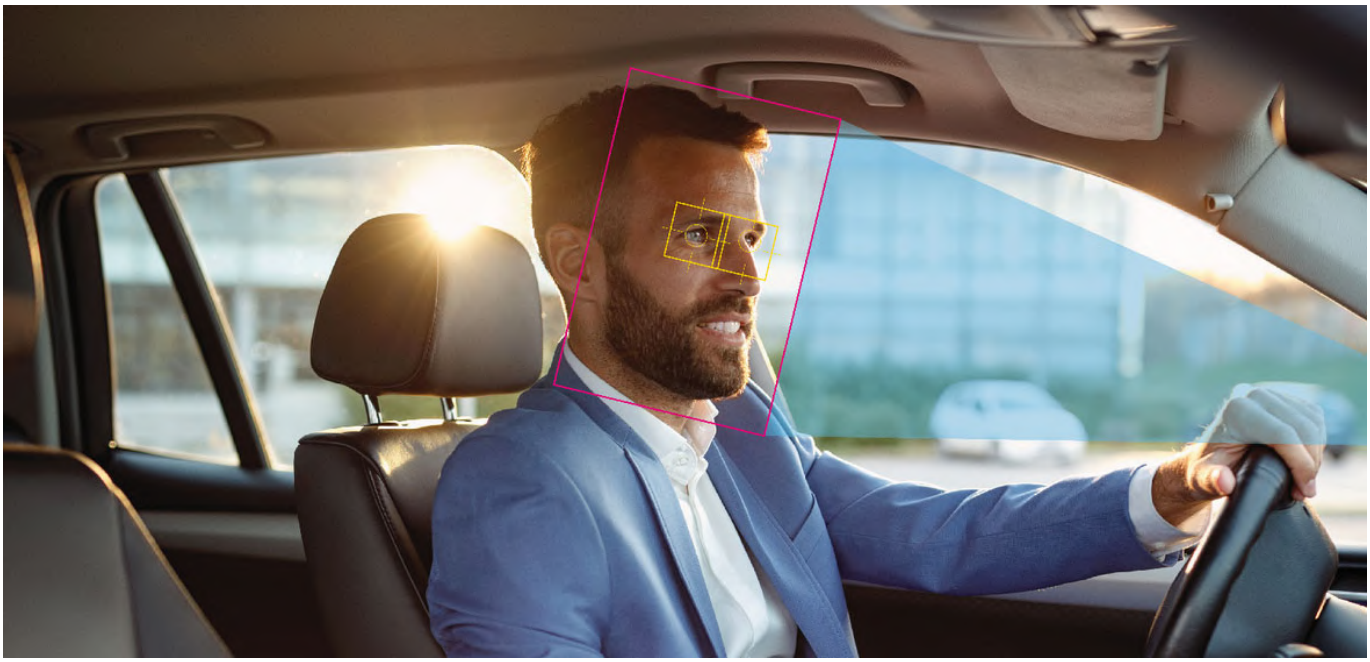
Mentor, founded in 1920, is an owner-run family business known in the automotive industry as a specialist for interior lighting solutions. Whether storage compartments, armrests, door sills, consoles or instrument panels, LED-based colored light from Mentor is used as area, line or point light and is controlled via the associated RGB base modules. The desire for individual lighting that drivers can adapt to their preferences, is gaining in importance. In addition, dynamically-adaptable colored light scenarios are in demand, whose color world should cover as wide a range as possible in the RGB color spectrum. **See video**.



Textile optical fibers are constructed very similarly to the glass fibers used for data transmission. A fiber core made of PMMA is encased in a cladding. The fiber conducts light according to the principle of total internal reflection. Where the cladding is removed, light escapes. Such light guides can be connected to multiple sources. This creates chaser lights and color scenarios. Because they are flexible, they can be incorporated into soft materials and integrated into almost any contours. Textile surfaces can be backlighted and, in the case of surface lighting, light can be transported all the way to the last edge. In this way, the light-conducting fibers open up new design possibilities for designers and a flexible approach to the often-limited space available in interiors for developers—and without component-specific tooling costs.

STMicroelectronics Global-Shutter Sensors for Better DMS

INTERIOR NEWS



STMICROELECTRONICS IMAGE

Switzerland-based electronics and semiconductors maker STMicroelectronics has released details of itheir latest global-shutter image sensors for DMS (driver monitoring systems), which keep track of a driver's head movements to recognize signs of drowsiness and distraction, enabling systems in the vehicle to generate warnings that can preserve the safety of occupants.

Eric Aussedat, STM's executive VP and imaging general manager, says "Our latest global-shutter sensors deliver sensitivity and compactness, simplifying DMS hardware and reducing the overall system cost. This enables our customers and partners to deliver high-performing and reliable DMS systems reaching the legislation expectations".

The company's VB56G4A global-shutter sensor has leveraged in-house investment in manufacturing of advanced 3D-stacked back-side illuminated (BSI-3D) image sensors. These are more sensitive, smaller and more reliable than conventional front-side illuminated (FSI) sensors typically used in first-generation DMS.

Global-shutter sensors offer notable advantages over rolling-shutter imagers. By simultaneously exposing all pixels to the image, a global-shutter sensor allows simple synchronization with NIR illumination, improving the illumination-subsystem power budget. Moreover, the sensor achieves high Quantum Efficiency (QE), reaching 24 per cent at 940 nm near-infrared wavelength, with linear dynamic range up to 60 dB. This enables a simple low-power, non-visible LED emitter to provide adequate illumination for the sensor. Operating outside the visible spectrum also ensures consistent response in day or night driving and in bright or overcast conditions.

The sensor's high QE, combined with a pixel size of just 2.6µm, helps optimize total power consumption and camera size. In addition, integrated automatic exposure control eases use and simplifies the application-software design by minimizing system interaction with the sensor.

The sensor also provides flexible operating modes that help optimize system features and performance. These include programmable sequences of four-frame contexts, illumination control outputs synchronized with sensor integration periods, an input for an external frame-start signal, automatic dark calibration, dynamic defective-pixel correction, image cropping, and a mirror/flip-image readout.

External connections include eight programmable general-purpose I/O (GPIO) pins and a dual-lane MIPI CSI-2 transmitter interface operating up to 1.5 Gbps per lane. The sensor can operate at up to 88 frames per second (fps) at full resolution and typical power consumption is 145 mW at 60 fps.

Grammer's Multifunctional Center Console

INTERIOR NEWS

GRAMMER IMAGE

Grammer, based in Ursensollen, Germany, provides off-road seating; interior components, and seating for passenger; commercial, and railway vehicles. They have designed a new center console for the VW Multivan combining lightweight construction with innovative features and operating functions.

The gear selector and handbrake have been relocated from the center tunnel to the instrument panel thanks to a shift by wire system, and designers have used the vacated space to install a rail system that runs from the first to the third seat row on which the center table can be moved freely.

“We were able to contribute our expertise in the form of an innovative self-locking spring system which we also patented for our customer,” said Juergen Gerl, head of the supplier’s automotive division.

The complete center table module can be moved and locked in any position thanks to what Gerl calls an "intuitive" lever system. And the table can be used at different heights—for example, a classic low shelf between the front seats or at working height in the rear. It can be extended upwards and expanded on either side, and cup holders and storage compartments are included.

The increase in functionality does not come at the expense of weight, however: Grammer achieves best-in-class figures with the complete assembly thanks to consistent lightweight construction.

Volvo's Air Purification for Occupant Health

INTERIOR NEWS

IMAGE: VOLVO

According to the World Health and World Allergy Organizations, hundreds of millions of people around the world suffer from allergies, asthma and air pollution. Volvo is going to bat for those people with a new advanced air purification system aimed at preventing allergies; asthma, and the harmful effects of air pollution.

Called CleanZone Advanced, this air purifier is central to the IAQ system of new models such as the XC60; S60; V60, and XC90 produced from the second quarter of this year. It purifies the air entering the vehicle cabin, removing up to 99.9 per cent of grass; tree, and herb pollens. It has been certified as asthma and allergy friendly by Allergy Standards Limited (ASL), an independent certification which helps consumers with asthma and allergies identify products that are right for them. It also removes more than 97 per cent of airborne viruses that enter the cabin through the air filter, and reduces existing viruses in the vehicle by up to 95 per cent with an air ionizer.

This system also has other benefits; Volvo occupant health expert Dr. Maria Bernander says “In addition to the personal health benefits, studies have shown that cleaner air can also promote concentration, which can help you stay more focused during the journey". Through a control app on the vehicle's touchscreen, users will also be able to decide whether or not to activate cabin air purification based on real-time information on pollen levels and outdoor air quality—a first for a car manufacturer.

Volvos with this new air purification technology also have a sensor that measures the levels of fine particles smaller than 2.5 microns in diameter (PM2.5) in the passenger compartment, as well as outside. This function makes it possible to assess the air quality by evaluating the level of fine particles, which can be present in large quantities in certain urban environments. The CleanZone Advanced system captures up to 95 per cent of PM2.5 particles, thanks to a synthetic-fiber filter and an ionization process.

Faurecia, Veolia Recycling Materials for Interiors

INTERIOR NEWS

FAURECIA IMAGE

Faurecia and Veolia—a France-based group of 180,000 employees in the field of water management, waste management and energy services—have signed a cooperation and research agreement to jointly develop innovative compounds for automotive interior modules. The aim: to achieve an average of 30 per cent of recycled content by 2025. The strategic partnership will leverage the companies' complementary expertise across sustainable compound formulations; stringent automotive architecture requirements; sourcing, and innovative treatment of industrial and post-consumer plastic waste.

Today, automotive interiors are mostly made of virgin material. The use of recycled plastics is one of the key challenges for the ecological transformation of the automotive industry as it plays an important role in reducing CO_2 emissions and improving the environmental performance of the car. The two companies will work together to accelerate the deployment of sustainable materials for interior instrument panels, door panels, and center consoles in Europe. Next year, Veolia will start the production of these secondary raw materials at its existing recycling sites in France.

Veolia has been providing polypropylene compounds to the automotive industry in France for over five years. This collaboration project with Faurecia will allow Veolia to expand their automotive product range to vehicle interiors.

In 2011, Faurecia was the first automotive supplier to introduce a complete range of bio-composite cockpit solutions, called NAFILean®. More than a decade later and in around 13 million vehicles, these products' CO_2 footprint is 28 per cent lower than that of conventional counterparts.

Bentley Bentayga EWB: Airline Seat, Diamond Illumination

INTERIOR NEWS

BENTLEY IMAGES

The second-generation Bentley Bentayga EWB—as in "extended wheelbase"—stretches that distance by 7" (It's a British car! 178 mm). The increased length is all in the rear door, creating what Bentley says is the most cabin space in its segment, for a 209" (5.31m) total length.

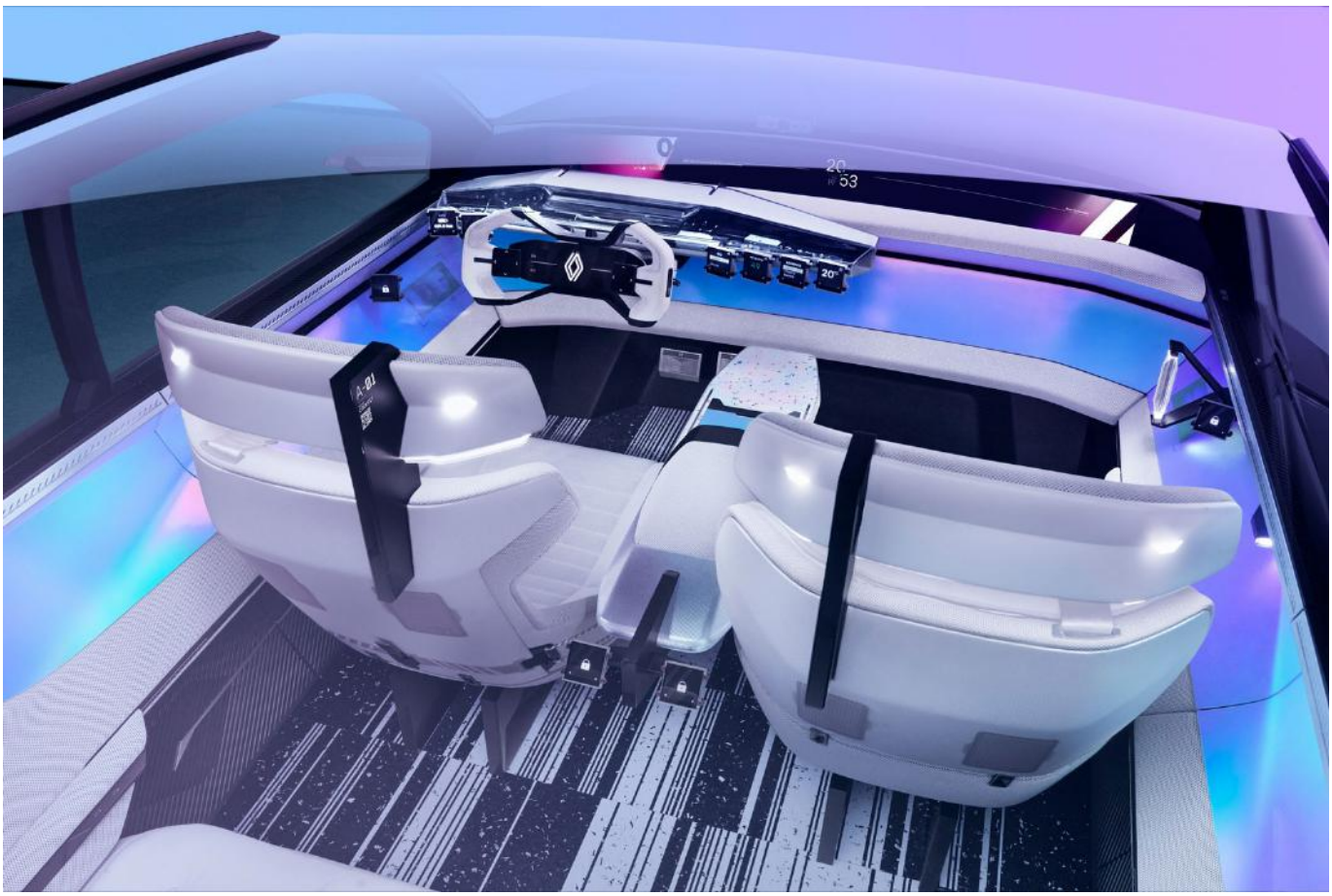
It features Bentley's new Airline Seat specification with 22-way adjustment and claimed world-first in an auto climate sensing system and postural adjustment technology. In Relax mode, the seat can recline to 40° while the passenger seat is motored forward and a leather-trimmed footrest deploys from the back of the front passenger seat. In Business mode, the seat moves into its most upright position to aid deskwork. Bentley claims their auto climate seat senses occupant temperature and surface humidity and then determines whether to apply heat; ventilation, or both simultaneously to keep the occupant at optimum thermal wellbeing. Meanwhile, the posture adjustment system automatically fine-tunes to the occupant's seating position and pressure points by measuring pressure across the seat surface. The system claims to apply 177 individual pressure changes across six independent pressure zones over a three-hour period to aid comfort and reduce fatigue on long journeys.

The illuminated treadplates welcome you on your way into the car. Electrically powered doors close softly behind you as you take your seat. Handstitched leather upholstery is on display throughout the cabin—even the roof lining and pillars—while the Azure model features a new, elongated interpretation of Bentley's renowned diamond quilting. Other new interior atmospheric touches include Bentley Diamond Illumination, where light is emitted through small perforations in the soft-feel door trim.

The Design Lounge

Renault Scenic Vision: Action Plan for Sustainability

THE DESIGN LOUNGE



RENAULT IMAGES

The automotive industry is one of the key drivers of innovation. Car makers are those who make innovation reliable and accessible to all. Today, Renault put this lever at the service of sustainability, introducing at the ChangeNOW summit held last week in Paris. ChangeNOW is the world's largest gathering of innovations for the planet. Over three days' time, the summit puts the spotlight on the most concrete and innovative solutions to face the world's biggest challenges.

Renault is reinventing themselves in every aspect. They aim to reach carbon neutrality in 2040 in Europe and 2050 worldwide by decarbonizing the entire life cycle of their cars, from cradle to grave.

They showed off a new Scenic prototype which straddles categories. It is not really an SUV, nor a station wagon and even less a sedan. "You shouldn't just see in the Scenic a silhouette, but a concept of use", explains Gilles Vidal, Renault Design Director. The "car for living", Renault's old slogan, seems to be back more than ever.

Renault described theirs as the first concept car embodying their new sustainability strategy and its three main pillars:

1. Environment—it's electric, with a hydrogen range extender, reducing by 75 per cent the carbon footprint and made of 70 per cent recycled and 95 per cent recyclable materials.

2. Safety—thanks to the Safety Coach, Renault says the risk of accidents is cut down by up to 70 per cent.

3. Inclusion—for example its sound bubbles, which enable all passengers to communicate easily.

Designwise, externally it looks just like the next generation of Scenic coming in 2024, and internally it projects you in the onboard experience of the future car generations.

While this Scenic should be a commercial reality in 2024, to find an interior close to this what they showed will take a longer wait—probably until around 2028. In addition to new technologies, such as cameras which make it possible to increase the field of driver's vision by 24 per cent for greater safety, a large number of recycled materials are used. For example, the cabin floor is made of 45 per cent milk bottles and 55 per cent recycled plastic pipes. More broadly, 70 per cent of the concept's materials are recycled and more than 95 per cent is recyclable, including the battery. The rate of incorporation of elements from recycling in the production version will be lower, but Renault wants to quickly move forward on the subject while ensuring that the equation remains profitable. That said, Renault is aiming for 33 per cent recycled materials in the mass of future vehicles by 2030.

They started working on the sound of this car and other future models with French composer, performer, and record producer Jean-Michel Jarre—a pioneer in the electronic, ambient and new-age genres, known for organizing outdoor spectacles featuring his music accompanied by vast laser displays, large projections and fireworks. He reflects the Renault spirit, pushing the technology to the edge of creativity.

News Mobility

Standards are Key to Connected Mobility

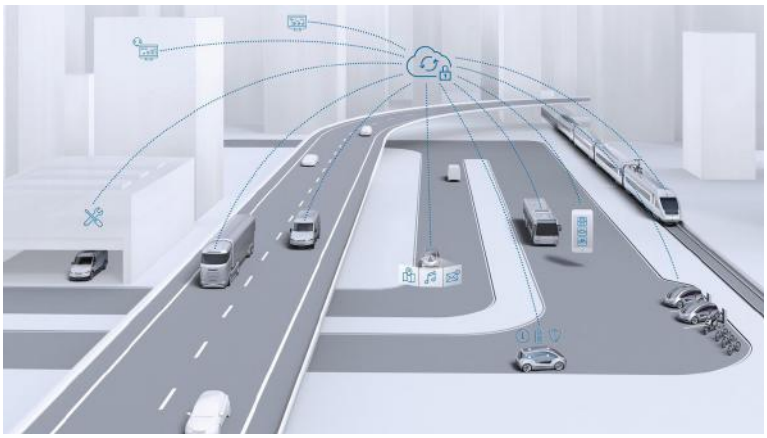
NEWS MOBILITY

BOSCH IMAGE

During the Mobile World Congress in Barcelona this past March, the 5G Automotive Association (5GAA) presented the latest global advancements in Cellular-Vehicle-to-Everything (C-V2x) on the journey towards 5G-V2x.

Johannes Springer is connected-car CTO at T-Systems, a part of Deutsche Telekom for information technologies and digital transformation. He spoke to *TU-Automotive* about the event and discussed the latest trends, including about the Third Generation Public Partnership Program (3GPP), which has standardized the V2x term. The trend is towards ubiquitous connectivity, where every person, every car, every cyclist, and every pedestrian is connected to a cellular network. The association is developing many services based on this trend.

The second trend, he explained, is about the integration of direct communications: “To allow vehicles to communicate directly with each other, or with the traffic infrastructure.” This trend is particularly apparent in China, the US and in Europe. “We see a third trend, which is that traffic infrastructure such as traffic lights and signs, can be accessed by other traffic participants. This a slowly growing trend, because the road operators need to make smart investment decisions.”



TELEFONICA IMAGE

Telefonica, a Spanish telecoms company providing fixed and mobile telephony, broadband, and subscription television, says “V2X communication is essential to redefining mobility towards 'smart mobility' by providing real-time, highly reliable, and actionable information flows to enable a safer, more efficient, and more enjoyable driving experience. C-V2x is the only V2x technology with a clear and forward compatible evolution path to 5G for advanced use cases. C-V2x will continue to evolve as part of the 5G roadmap to improve performances. With 3GPP Releases 16 and 17, 5G will add advanced V2x features with longer range, higher density, very high throughput and reliability, sub-meter positioning, and ultra-low latency.” Telefonica sees four emerging use cases:

- Hazard ahead warnings: roadside infrastructure can use C-V2x to warn vehicles of queues, road works, slow vehicles, accidents, or any hazard ahead of them, so they can slow down smoothly and avoid hard braking;
- Avoiding collisions: every vehicle on the road could use C-V2x to broadcast its identity, position, speed, and direction. An edge-computing intelligence could combine all this data and alert the driver of any potential collisions;
- Cooperative driving/intention-sharing: vehicles can use C-V2x to work together, exchanging intention and sensor data for more predictable, coordinated autonomous driving. Platooning is the ultimate expression of cooperative driving;
- Real-time infrastructure updates: real-time sharing of 3D HD map and other information between vehicles and infrastructure.

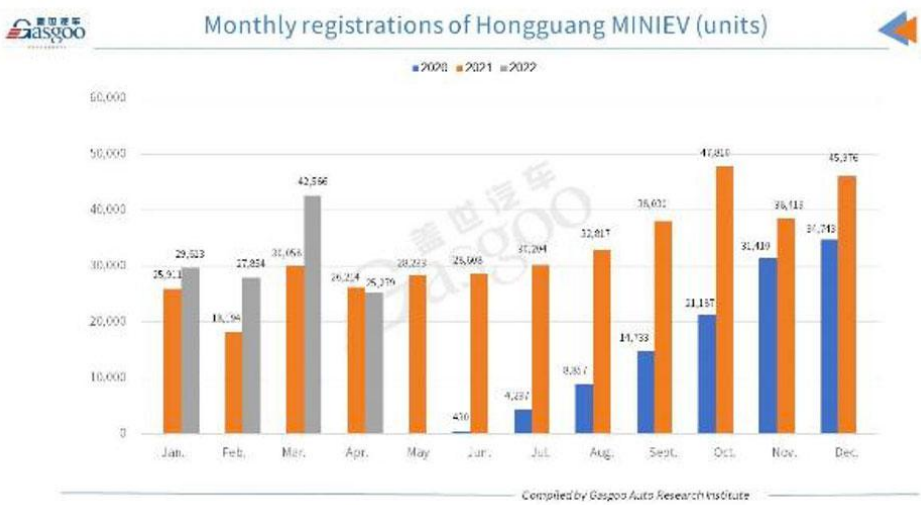
Talking on behalf of the 5GAA, Springer says all new cars are now able to connect to a cellular network. The advancements are particularly focused on vehicle safety. The key components to create it involve "communication and connectivity led by 5G mobile networks with great capabilities in terms of massive connectivity, higher bandwidth and ultra-low latencies". The ability to exchange information with C-V2x between vehicles and infrastructure as well as to share data and information to enable them to work cooperatively is vital. To ensure that the C-V2x solution work effectively and efficiently, data processing has to occur in real-time while achieving speed, security and reliability. Absolute success can only come with standardization because the automotive and telecoms industries are global enterprises.

Wuling Mini EV Sales Performance per City

NEWS MOBILITY

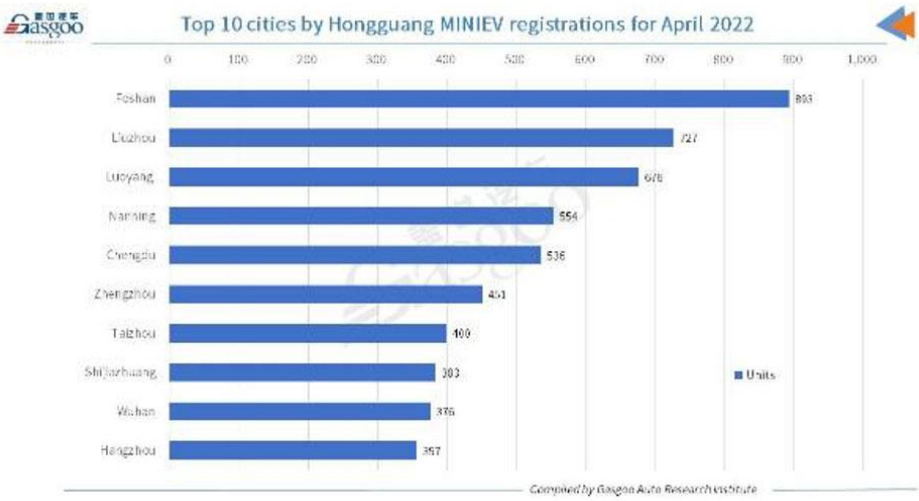
WULING IMAGES

In April 2022, the registrations of the Wuling Hongguang Mini EV, a mini all-electric car model from SAIC-GM-Wuling (SGMW), stands at 25,297 units, edging down 3.6 per cent YoY, while also plunging 40.6 per cent month on month, according to the data compiled by Gasgoo Auto Research Institute (GARI)



Regarding April 2022 registration volume, the Mini EV was still the best-performing locally-made new energy passenger vehicle (NEPV) model in China. It was also the only China-made NEPV model whose registrations exceeded 20,000 units last month. As of April 2022, the cumulative registrations of the Mini EV added up to 631,383 units, of which 125,312 were registered in the first four months of the year.

It is interesting to see these numbers split per city. Foshan and Nanning are considered 2nd-tier cities; Liuzhou and Luoyang are 3rd-tier, and Chengdu a 1st-tier city. It would need further investigation to better understand, but there's for sure a car/city correlation.

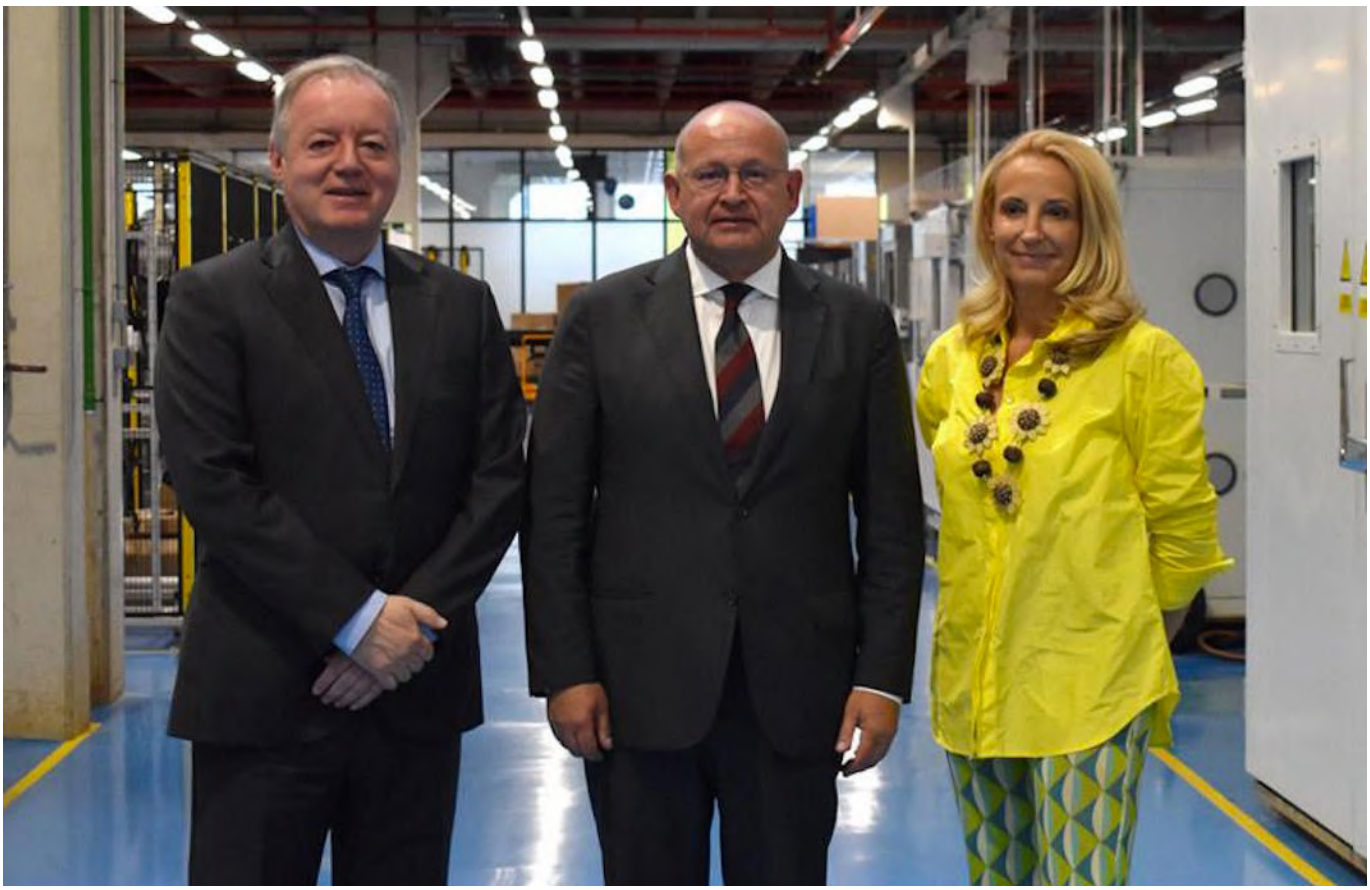


With 893 units registered in April, Foshan was the №1 city by monthly registrations of the Mini EV. Compared to the previous month, Liuzhou, where the car is mass-produced, dropped one spot to № 2.

General News

Ramón Sotomayor is New Antolin CEO

GENERAL NEWS



ANTOLIN IMAGE

Grupo Antolin's Board of Directors, at their meeting last week, unanimously approved the appointment of Ramón Sotomayor Jauregui as Chief Executive Officer. He will be responsible for giving new impetus to Grupo Antolin's transformation process and updating the business strategy whose objective is to consolidate the company as a global provider of technological solutions for vehicle interiors, improving the company's competitive position.

Sotomayor, who has been an advisory director of Grupo Antolin for the last four years, has an extensive experience in the management of companies and a clear strategic business vision, having held executive positions of maximum responsibility in multinational industrial companies in the past, as well as having been part of different boards of directors. Chairman Ernesto Antolin says “Ramón Sotomayor knows the company, its teams and the challenging situation of our industry for his excellent work supporting and advising the Board of Directors from the Advisory Board. He also has the training, management skills and management experience necessary to lead this new stage, which involves spearheading the transformation that the automotive industry is undergoing from the automotive interior business and accelerating the creation of value for all stakeholders”.

Sotomayor has a degree in Industrial Engineering from the University of Portsmouth (United Kingdom) and an MBA from Rutgers University (USA). He began his professional career at Ercross Spain and subsequently joined the ThyssenKrupp Group where he held various positions of responsibility, including CEO for EMEA: Southern Europe, Africa and the Middle East. Since 2017, he was a member of the Advisory Board of Grupo Antolin, where he was also part of its Appointments and Remuneration Committee. Currently, he was also an Independent Director and Chairman of the Appointments and Remuneration Committee of Velatia and a member of the Board of Directors of Grupo Lantero and Levantina y Asociados de Minerales. In addition, he is member of the Advisory Board of ABE Capital Partners and Sidenor.

He replaces Jesus Pascual, CEO since 2015, whom the Board of Directors has sincerely thanked for his valuable work and commitment to the company during all these years. Pascual, who will leave all his executive functions, will continue to advise the company.

BYD Overtakes VW JVs in China

GENERAL NEWS

BYD HAN EV (BYD IMAGE)

Chinese carmaker BYD sold more cars in China in February than the former № 2 in the market, SAIC-Volkswagen (Shanghai VW). And BYD could soon take the lead completely by surpassing the previous market leader FAW-Volkswagen as well, according to Chinese media. While sales are currently going down for the whole local industry and VW companies due to delivery bottlenecks and Covid lockdowns, BYD—backed by US financier Warren Buffet, among others—is experiencing an unprecedented wave of success.

BYD's result in March 2022 was, from the perspective of Chinese analysts and automotive journalists, a long-awaited moment of emancipation of the Chinese automotive industry in which once overpowering foreign JVs are overtaken by a homegrown Chinese company. In April, BYD again sold more cars again than SAIC-VW and only slightly less than FAW-VW.

BYD sold 57,000 pure electric cars in China in April—250 per cent more than a year ago—and 48,000 plug-in hybrids, 440 per cent more than in April 2021. In March, BYD announced they would be the first major automaker in the world to stop making cars with internal combustion engines as their sole powertrain, effective immediately. This means BYD's strategy of focusing early on e-cars and at the same time heavily on hybrid vehicles is paying off as long as charging stations are still hard to find in China and elsewhere.

In April this year, BYD's sales increased by 89 per cent year-on-year despite the difficult environment. FAW-Volkswagen; SAIC-Volkswagen, and Beijing Benz saw their sales fall by 64, 66, and 55 per cent, respectively.

The reason, according to analysts in Beijing and Shanghai, is an important part of BYD's corporate strategy: the strong vertical integration of their components—they make their own computer chips and batteries, for example. BYD is also strong in the production of complete e-drives. Will this kind of both-an-automaker-and-a-supplier business model gain traction in the industry at large? We will have to wait and see!