Thu, 25 April 2024
Weekly Newsletter

DVN Interior

NEWSLETTER #209

Editorial

Technology For Comfort Everywhere In The Cabin

DVN IMAGE

The Köln DVN Interior Workshop just ended yesterday, so watch for detailed coverage next week. It was a grand success: 170 participants gathered across two days to show and see, listen, talk, and learn about innovations and technology and technique perspectives on the future of automotive interiors.

This event came five years into DVN Interior's existence, with more than 200 Newsletters—today's is number 209! It's a sturdy start to a solid track record of great value for your DVN-I Dollar (or Euro, or Yuan, or Yen, or Won…). This week's Workshop confirmed how networking with the community supports your smart strategic development. If you're not yet a member, come join in! Subscribe **here.** Have questions about subscribing? We'll be happy to answer them for you; just **ping us**.

A wide array of diverse topics were covered at the Workshop, including HMI, smart surfaces, interior lighting, seats, and design. All of them are high contributors to UX and comfort. We took the opportunity, thanks to DVN Interior Editor Olimpia Migliore, to bring you in this week's in-depth several startups, whose innovations in audio, acoustics, safety, thermics, and connectivity are all adding a new level of performance and comfort while traveling.

Sincerely yours,

Philippe Aumont
DVN-Interior General Editor

In Depth Interior Technology

Startups Bring Comfort Everywhere In The Cabin

TOYOTA AVALON (TOYOTA IMAGE)

Comfort, comfort, comfort—this is one of the mantras of car interior design, equipment, and specification for today and tomorrow. As autonomous driving moves (slowly and fitfully) from a silly dream to something partially real—at least, autonomous motorway driving—the possibility to enjoy the car ride in a more relaxed way becomes a reality.

If and when the car will operate mostly without human intervention, comfort (often paired to safety) will be increasingly important; vehicle occupants will be able to enjoy a good book in a cocooning seat and feel fresh and rested even after long hauls, watching films and listening to music on demand or surfing the internet with voice commands, as though comfortably sitting on the sofa at home.

If we look at the car interior technologies which can affect riding comfort, we can find a variety of features undergoing quick, fast development:

Seating comfort features: active suspensions to detect and counteract vibrations and road imperfections, massage functions to relieve muscle tension fatigue.

Adaptive climate control: advanced climate control systems automatically adjusting temperature, humidity, and airflow based on occupants' preferences and environmental conditions, ensuring optimal comfort throughout the journey.

'Smart' fabrics and materials: memory foam, gel-infused cushions, and breathable fabrics to create seats which contour to passengers' bodies, providing better support, and regulate temperature for improved comfort.

Noise-cancelling technology: active noise cancelling systems using microphones and speakers to counteract engine, road, and wind noise, creating a quieter cabin environment and reducing driver and passenger fatigue.

Ambient lighting: Ambient lighting systems enhancing the mood and atmosphere inside the cabin, offering customizable colour options and intensity levels to create a relaxing and visually appealing environment.

Personalized cabin settings: gesture control interfaces, facial recognition systems and user profiles allowing drivers and passengers to adjust various comfort settings, such as seat position, mirrors, climate temperature and entertainment systems, reducing distraction and enhancing convenience.

Active body motion control: systems using cameras and sensors to monitor occupants' body movements and adjust seat positions, lumbar support, and suspension settings in real time, providing optimal comfort and support.

IAQ Management: interior air quality continually monitored and optimized by integrated air purification systems filtering out pollutants, allergens, and odors, ensuring a clean and healthy environment for occupants —particularly beneficial for those with respiratory issues or allergies.

With all this in mind, we scanned a bit the startup world to capture the innovation landscape, and found some interesting products, some of them real breakthroughs. Here's a sample of some creative companies:

Silentium's Noise Cancelling Technology

SILENTIUM IMAGE

An interesting startup specializing in noise-cancelling technology for cars is Silentium. They're an Israeli-based company that has developed active noise control solutions specifically tailored for the automotive industry.

Silentium's Active Road Noise Cancellation (ARNC) technology employs proprietary algorithms to reduce road noise as perceived with cabin of a vehicle by the occupants. The system uses transducers strategically located in and around the vehicle to capture the structural aspects of road noise as perceived by the vehicle occupants.

This information is transmitted to a processing unit which uses these input signals and pre-defined calibration in response to vehicle speed and road input to produce a sound in antiphase that will cancel the noise. The sound produced is passed to the infotainment amplifiers where it is used to drive the vehicle’s loudspeakers.

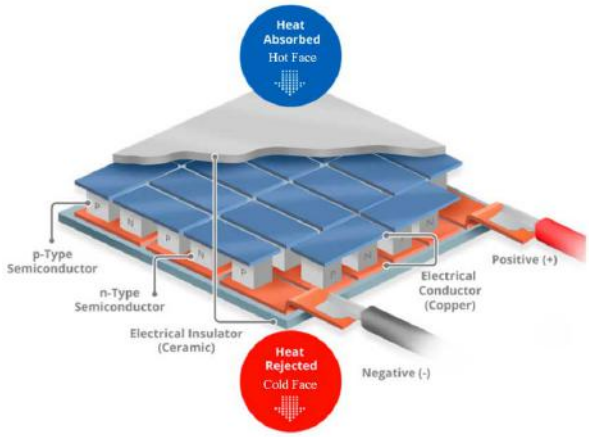
It provides in-cabin noise reduction over a broad frequency range: 30 Hz to 1KHz, with more than 5dB(A) noise reduction across the entire audible spectrum and more than 10dB(A) at the dominant frequencies.

Silentium offers two solutions for the automotive industry. Their Quiet Bubble system is embedded into seats and/or using existing audio speakers to create a personal quiet zone around the passenger’s head by reducing noise from tyres /wind /powertrain. And their at-the-source solution, integrated into products so as to bring significant in-cabin reduction in noise, for example through the HVAC system.

Key features are: multi-zone noise cancellation, adaptive noise cancellation, customizeable sound profiles, integration with vehicle systems, and energy efficiency.

Overall, Silentium's technology seems a promising solution for improving cabin comfort and reducing driver and passenger fatigue by creating a quieter and more enjoyable driving experience.

Promthient's Thermavance for Better Heat Management



PROMETHIENT IMAGE

Promethient, a startup based in western Michigan, was founded in 2012 by Charles Cauchy, an expert in solid-state temperature regulation with thermoelectric devices. They offer individual heating and cooling solutions for automotive interiors. They've developed a thermoelectric solid-state heat pumping technology combined with thermally-conductive, flexible, lightweight graphene in their temperature regulation solution called Thermadvance. It directly heats and cools vehicle occupants through car seats and other interior surfaces.

The thermoelectric device, a special semiconductor, exploits the Peltier Effect created at the junction of P and N type of semiconductor elements laminated between two ceramic plates. Depending on the polarity of the applied voltage, one plate will cool and the other will heat or vice versa. Via direct thermal conduction, heat is pumped from the person, cooling them, or pumped to the person, warming them.

Baby Safe's Wireless, No-Hands Reclining Infant Seat

BABY SAFE IMAGE

The automotive world is paying increasing attention to child safety in cars, introducing more devices to improve comfort during ride or sensors to monitor baby's position or alerts parents in case they accidentally forget their baby in the rear seat.

A British startup, Baby Safe, has focused on sharp movements of a sleeping infant's head during acceleration and deceleration. Their solution reduces or avoids the risks of neck injuries, breathing issues, and muscle strain.

The Baby Safe concept is an innovative reclinable car seat for children up to 4 years old, which can be reclined with a simple touch of a button form the driver's position. It features Isofix attachments, which reduce the risk of installing the car seat incorrectly and have proven safer in side collisions and under sudden braking. Other features include a 90°-rotable seat easing child emplacement, a 5-point harness which distributes collision forces across the rigid body parts and into the seat, effectively protecting the softer body parts, and a padded head support for more sitting comfort. There's a rechargeable battery and LED power battery indicator to make sure the tilting device is always working.

Baby Safe was founded by Lisa Walford, a mother with firsthand experience, dealing with road traffic accidents as a Metropolitan Police Officer in London.

Octaspring: Car Seats as Luxury Sofas for Self-Driving Cars

OCTASPRING IMAGES

Octa-tech, a Slovenian startup, is offering what they call Octaspring technology. It is a patented foam spring which combines the support and comfort of foam with the functionality of a spring, while using 50 per cent less material. The foam springs are placed individually and move 3-dimensionally, resulting in improved weight distribution, pressure relief and comfort. Springs of varying density can be used in the same layer to create targeted zones, which increases comfort thanks to better pressure distribution, and extends the structure's lifespan. Smart body zoning helps create ergonomically designed seats with better support for the back. This allows the spine to take its natural shape, the shoulders to relax, and circulation to improve. The open spring structure ("Octavent Air") acts like hundreds of little air pumps expelling hot, humid air and drawing in cool fresh air, up to 3°C cooler—the makers say this improves ventilation eightfold.

Each Octaspring is about half the weight of a foam block, cutting seat weight by up to 30 per cent. This cuts fuel consumption and transport costs, and reduces CO_2 emissions.

The Octaspring seat cushion has passed stringent aviation requirements, and Octa-tech says their automotive solutions are ready to be implemented.

Octaspring won a prestigious Crystal Cabin Award for best aircraft interior material; was nominated best passenger comfort innovation by APEX, won the Edison Gold Award for best comfort design, and was nominated as best new seating solution in the Yacht and Aviation Awards.

CarMedia for Internet Connectivity

CARMEDIA IMAGE

CarMedia, a startup in Madrid, Spain, has a connected infotainment platform with geolocated contents and added-value digital services. The solution has been specifically developed to interact with passengers free from driving duties. The system merges hardware and software with geo-targeted dynamic content and supplementary digital services, such as advertisements. The platform also utilizes its back-end engine with real-time analytics, as well as the internet of things (IoT), to offer solutions for public transportation networks.

The solution is customizable, modular, scalable, and can be adapted to any channel wanting to offer an interactive multimedia experience to its audience in mobility. There are several elements within the platform, providing full support to customers depending on their needs:

- **Hub** allows users to watch information and geolocated entertainment contents in real time.
- **Cloud** is the back-end system aiming to monitor remotely, in real time and centrally, all the CarMedia Hub screens deployed in every area. It enables to control each single device and allows to have a cloud environment, centralizing any required operation and maintenance.
- **Box** is designed to enable CarMedia platform within customers that already have their own embedded displays, and are willing to add the required software to offer centrally contents and services to their customers.
- **Services** is the unit focused on providing a direct support to CarMedia partners, handling all the needed contents and services adaptation to the requested multimedia channel.

Blueto's NLP Increases Car Journey Comfort

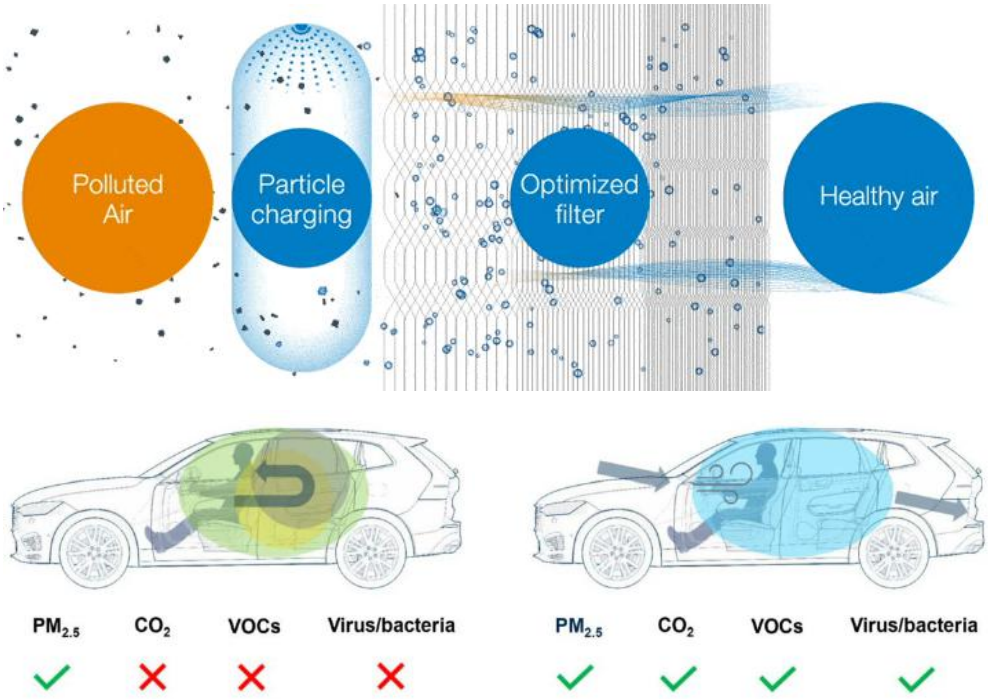
Blueto is an Israeli Startup offering *Miri*, a mobile app-accompanied and car-connected voice assistant. *Miri* speaks in natural language, is automatically activated when you get into the car, and accompanies you in every trip—you're never alone. Say "Hello Miri" with your request and it's done, like Siri but on wheels.

Miri allows drivers and passengers to manage navigation, play music, dial contacts, read messages, activate automatic parking, and order food, among other useful functions. Miri uses AI, of course, for the likes of automatic image creation, a feature which makes it easy to create images from text with one click: ask something and watch as Miri AI generates an image that corresponds to what you described, in case the need arises during a car trip.

Miri AI also offers a travel experience tool, to get information on any subject in text, voice, and images.

Miri is simple to install on Android or iOS, and easy to connect to a car's multimedia system by scanning a one-time QR code.

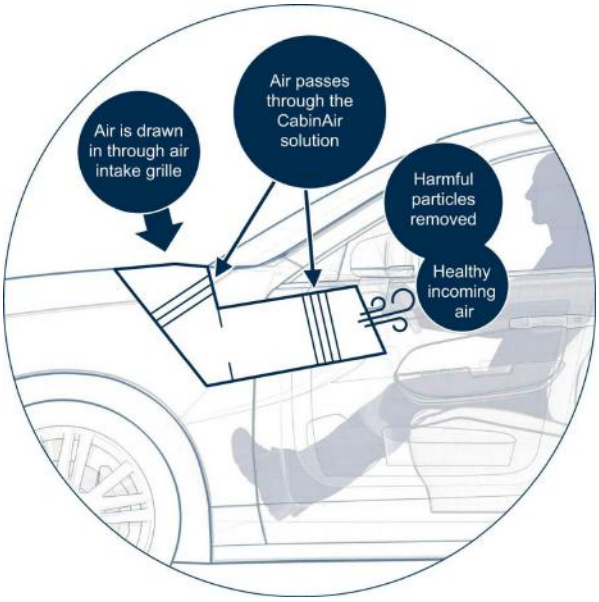
CabinAir Brings Clean, Fresh Air



CabinAir is a startup working in IAQ, interior air quality. With expertise from engineers and environmental scientists, they develop advanced solutions for clean, fresh air during travel.

The technology consists of a combination of active particle charging technology and mechanical filtration, which traps the smallest and most harmful airborne pollutants such as viruses, bacteria, exhaust smoke, and ultrafine particles.

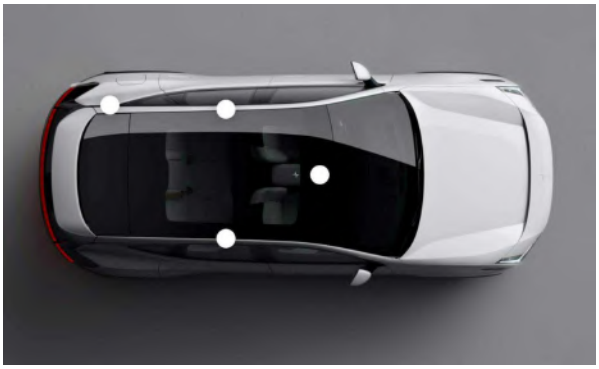
CabinAir integrates smart sensor technology into its air purification systems to continuously monitor air pollutants such as particulate matter, volatile organic compounds, and CO_2, as well as humidity and temperature. Real-time data from these sensors allows for dynamic control of air purification settings to attain and maintain top IAQ.



CabinAir's solutions include intelligent airflow management algorithms that optimize air circulation patterns within the vehicle cabin. By directing airflow and adjusting ventilation settings based on sensor feedback, CabinAir ensures uniform distribution of purified air throughout the cabin, minimizing pollutant hotspots and maximizing passenger comfort.

User experience is also prioritized, with an intuitive and user-friendly interface which integrate with existing vehicle systems, including HVAC systems and infotainment platforms, or with smartphone apps.

Acconeer's In-Cabin High Tech Sensing



Acconeer is a Swedish startup specializing in radar sensor technology. Founded in 2011, they develop ultra-low power, high-performance radar sensors for a variety of applications, including automotive acoustic sensing.

Once integrated in the car environment, the sensors can be used for applications such as occupancy detection, gesture recognition, driver monitoring, and presence sensing—like a child sleeping in the back seat—contributing to improved safety, convenience, and comfort.

Acconeer's radar sensors are designed to operate with minimal power consumption, making them suitable for battery-powered devices and applications where power efficiency is critical, but despite their low power consumption, they offer high performance in terms of range, resolution, and accuracy. They are also small, easing integration into various devices and systems with minimal space requirements.

Acconeer works closely with their customers to provide customized solutions tailored to specific application requirements. They also offer software development kits (SDKs) and reference designs to facilitate the integration of their radar sensors into third-party products and systems.

Neosonic: Customized Sound Design

Neosonic's expertise is in automotive active sound design, from research, customer perception and sound design to the corresponding hardware and software implementations for tooling and vehicle series integration.

They offer innovative audio processing algorithms and hardware solutions aimed at creating immersive and customizable audio experiences, packed in a sound designer software suite complete with ready-to-use prototyping hardware and comprehensive ECU support.

Sound design is becoming increasingly important for EVs; automakers are being required to equip electric vehicles with an acoustical vehicle alert system (AVAS) to replace the engine noise absent on EVs, so as to prevent accidents with pedestrians. Apart from this legal requirement, active sound design is used to increase the driver feedback, improve interaction, address emotions, increase sound quality, and establish a brandmark sound.

Neosonic delivered the world’s first interior sound generation system for mass-produced electric vehicles in 2013. Their tech has also been integrated into mobile platforms like Android, enabling drivers to use their own mobile devices like smartphones and tablets to fully create and tune active sound designs.

Neosonic's technology could be also leveraged to create personalized audio zones within the car cabin using tailoring audio content to individual preferences and seating positions. This could enhance in-car entertainment and communication systems, providing a more enjoyable and comfortable experience for passengers.

Interior News

Continental's Door Panel Concept

INTERIOR NEWS

CONTINENTAL IMAGES

Continental, through their ContiTech division, has introduced a door panel concept: a compact model featuring five different functional surfaces. It earned a CMF (Color, Materials, Finish) Design Award in 2023.

Its functional surfaces enhance the user experience, for example, breathable surfaces improve comfort on long journeys, and surface illumination technology enables expanded human-machine interfaces.

Continental has integrated their new 'heat-able' technology concept into the DPC, offering a practical heating solution directly within the surface material. This technology efficiently warms the area close to the body, benefiting drivers and passengers. It can be applied to various surface materials including seats, backrests and armrests, due to its slim and lightweight design, Continental says.

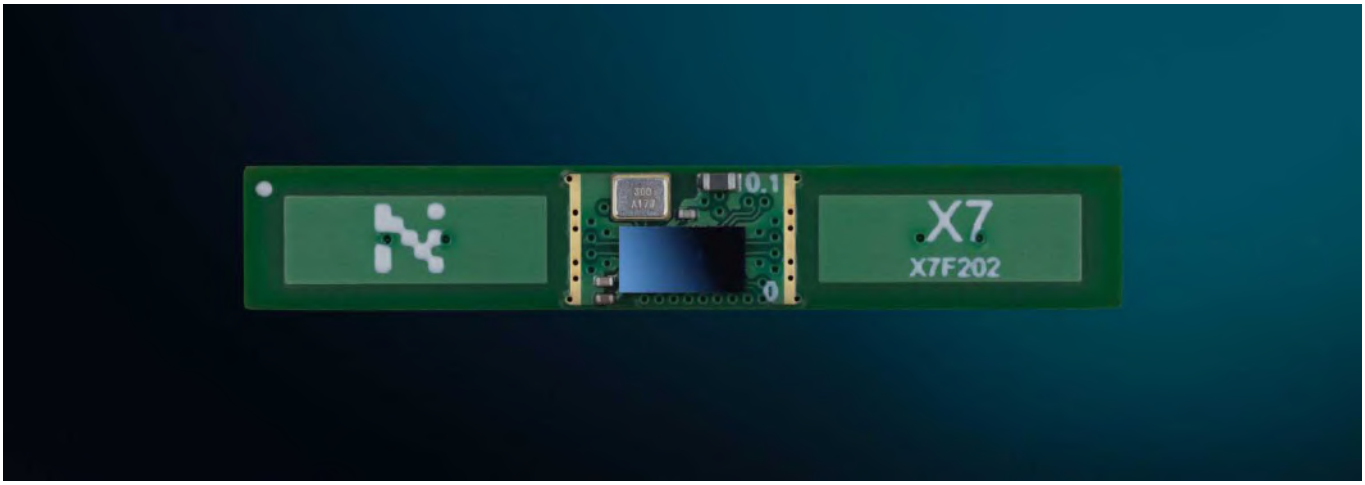
The DPC also features Xpreshn Hylite, which provides mood and task-dependent ambient lighting. This translucent recyclable material integrates into the vehicle interior to enhance HMI and enable personalized vehicle designs.

In (partially) autonomous vehicles with quiet electric drives, drivers and passengers no longer must focus so much on visual or acoustic impressions from outside.

ContiTech develops, produces, and markets multi-material, eco-friendly, safe, and convenient industrial and service solutions. With approximately 46,000 employees, ContiTech uses expertise in development and materials to create products and systems made of rubber, polyamide, metal, textile, and electronic components.

Novelda Seat Presence Detection With UWB Frequencies

INTERIOR NEWS



NOVELDA IMAGE

Novelda, headquartered in Oslo, Norway, was founded in 2004 and is today recognized as a world's leading expert in UWB short-range radar sensor design. For human presence detection, Novelda is showing the multi-target seat occupancy detection feature of their X7 UWB In-Cabin Sensor at Embedded World in Nuremberg, Germany, on 9-11 April.

UWB frequencies are designed to offer simpler mechanical integration compared to other in-cabin sensing radars as UWB can penetrate car seats and materials with centimeter wavelengths.

Novelda says their UWB sensor technology consumes less than 50 microwatts in a one frame-per-second configuration, surpassing other radar IC in efficiency and performance.

The X7 could already perform low-power presence detection, child presence detection, and vital-signs monitoring, and now also offers seat occupancy detection through a software upgrade. Novelda says this enhancement enables a single UWB sensor to accurately detect human presence in each seat within a car cabin.

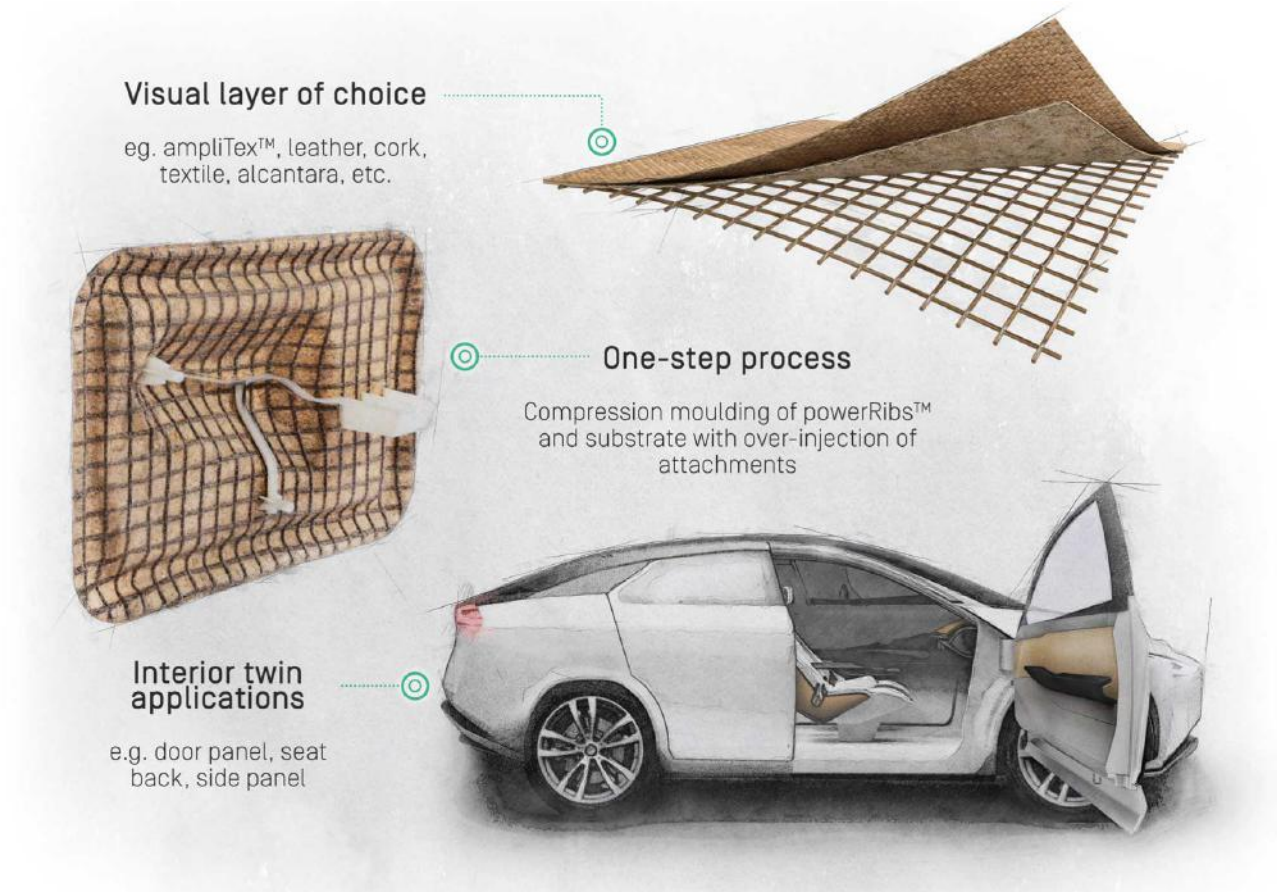
A single X7 SoC can do multiple things, including presence and intrusion detection, pediatric heatstroke warning, and heartbeat detection, which may help detect car crash survivors.

With a wide field of view of nearly 18°, the X7 aims to reduce the number of sensors in vehicles.

By detecting minute motions like breathing and heartbeat, the solution is designed to discern between people and objects, to prevent false seat belt alarms triggered by objects placed on seats.

Bcomp NF Composites Continues Development

INTERIOR NEWS



BCOMP IMAGE

Bcomp, whose expertise is in high-performance, natural fiber composites with industrial-scale applications at Volvo and Polestar, has closed their CHF 36m (€37m) Series C funding round. The funding will help Bcomp scale their production capacity to expand in the automotive sector, tap into additional verticals and support their entry into Asian and North American markets.

Originally developed to lighten and reinforce backcountry skis, Bcomp's bio-based composites have been adapted and field-tested in motorsports to deliver performance benefits and positive sustainable impacts. Automakers are already using powerRibs and ampliTex. For example, ampliTex fabric is used in visible interior components in the new electric Volvo EX30, and BMW is using both products in the design of performance interior and exterior parts for the M4 GT4.

The company's innovative materials contribute significantly to decarbonization by allowing, for automotive interiors, a reduction in plastic content by up to 70 per cent and weight savings of up to 50 per cent compared with traditional materials and techniques. The use of these natural, high-performance materials can also reduce the quantity of CO_2 emitted from build plant to junkyard by up to 60 per cent, and parts can be recycled and repurposed to serve a second life in another set of components. With certifications including IATF 16949 and ISO 9001, the thermoplastic product range is also a drop-in solution that can be seamlessly integrated into volume production processes.

The Swiss-based company will also build on its leadership position in the bio-composite market by introducing lightweighting and sustainable solutions for additional verticals that include rail, buses, aviation, aerospace, and consumer goods.

Besides banks, institutional investors being part of the funding round, automotive funds are part of it, including BMW i Ventures, Porsche Ventures, and Volvo Cars Tech Fund.

More Comfort, Convenience in New Hyundai Tucson

INTERIOR NEWS

NETCARSHOW IMAGES

The new Hyundai Tucson has improved comfort and convenience by dint of updates to the in-car experience for the driver and passengers. Apart from the seats and the center door trim, the interior was completely redesigned, including the dashboard, center fascia, steering wheel and center armrest.

The seats have received a new pattern and new material options (cloth and leather combination). A new interior color is also offered: Cypress Green.

The Tucson N Line has red stitching and details, such as a red ring around the engine start/stop button, and black textile suede and trim.

There are new dual curved 12.3-inch displays for the cluster and infotainment. There's a 12-inch projection HUD, putting the most relevant information right in the driver's line of sight to minimize distractions.

The crash pad has been redesigned to adopt a horizontal layout with an open tray. The dual automatic temperature control also has a new display. Other interior changes include a new armrest, a shift selector on the steering column, and an updated design to the upper door trim. OTA updates aim to simplify maintenance and software patches.

Later this year, the Tucson will support Hyundai Digital Key 2.0, featuring Ultra-Wide Band. This digital key technology eliminates the need for traditional keys, enabling Tucson to be unlocked from a few meters away and started without needing to place the smartphone on the wireless charging pad.

Off Road Cockpit in Mercedes G-Class

INTERIOR NEWS

MERCEDES AMG G63 (NETCARSHOW IMAGES)

The latest Mercedes-Benz G-Class (the Geländewagen) features electrified drive systems, modern driver assistance technologies, enhanced comfort, and advanced digitalization.

Inside the vehicle, there's new focus on quality and design. Elements from the exterior transition into the interior, such as the side air vents and the grab handle on the passenger side inspired by the round headlamps.

The redesigned off-road control center now offers quick access to features like the Offroad Cockpit, to enhance the off-road driving experience. Standard features include a multifunction steering wheel upholstered in Nappa leather, ambient lighting and comprehensive leather upholstery.

The new G-Class has the latest MBUX infotainment system with 12.3in driver and media displays. Smartphone integration via Android Auto Wireless or Apple CarPlay, digital radio (DAB+) and USB-C ports aim to maximize connectivity.

MBUX Augmented Reality for Navigation is also part of the standard equipment. The system superimposes graphical navigation and traffic information onto live images on the media display, which can help drivers find their way in complex traffic situations.

MBUX also brings voice assistance into the G-Class. Certain actions can now be triggered without the “Hey Mercedes” wake term, with around 20 voice commands created exclusively for the vehicle.

Additional comfort features include temperature-controlled cupholders, wireless charging and the MBUX high-end rear seat entertainment system with dual touch displays. Keyless-Go enables convenient access and startup, and the dashcam captures traffic footage for added safety and documentation.

The standard Burmester 3D surround-sound system reportedly delivers improved audio quality, complemented by Dolby Atmos for an immersive experience. Dynamic Select allows for easy adjustment of vehicle characteristics, while three additional off-road driving programs cater to various terrains.

The optional Manufaktur package of the AMG reportedly transforms the cabin into a luxurious lounge, with additional Nappa leather trim, diamond design elements and active multi-contour seats with massage function and seat climate control.

The new Offroad Cockpit provides essential data for off-road driving, displayed on the driver and media displays. The ‘transparent bonnet’ function, in conjunction with the 360° camera, offers a virtual view under the vehicle, enhancing visibility over obstacles.

Hongqi E-HS9: Electric Chinese Luxury

INTERIOR NEWS

HONGQI IMAGES

Hongqi, the luxury brand of FAW, for decades mainly built limousines for nomenklatura. A few years ago, the company opened up to the general public. The E-HS9 SUV is the first model available in Germany.

The Hongqi E-HS9 makes its first, quite impressive appearance even before you get in. The car greets its driver with a choreography of light after being opened with the remote-control key, which also includes the illuminated, stylized red flag in the middle.

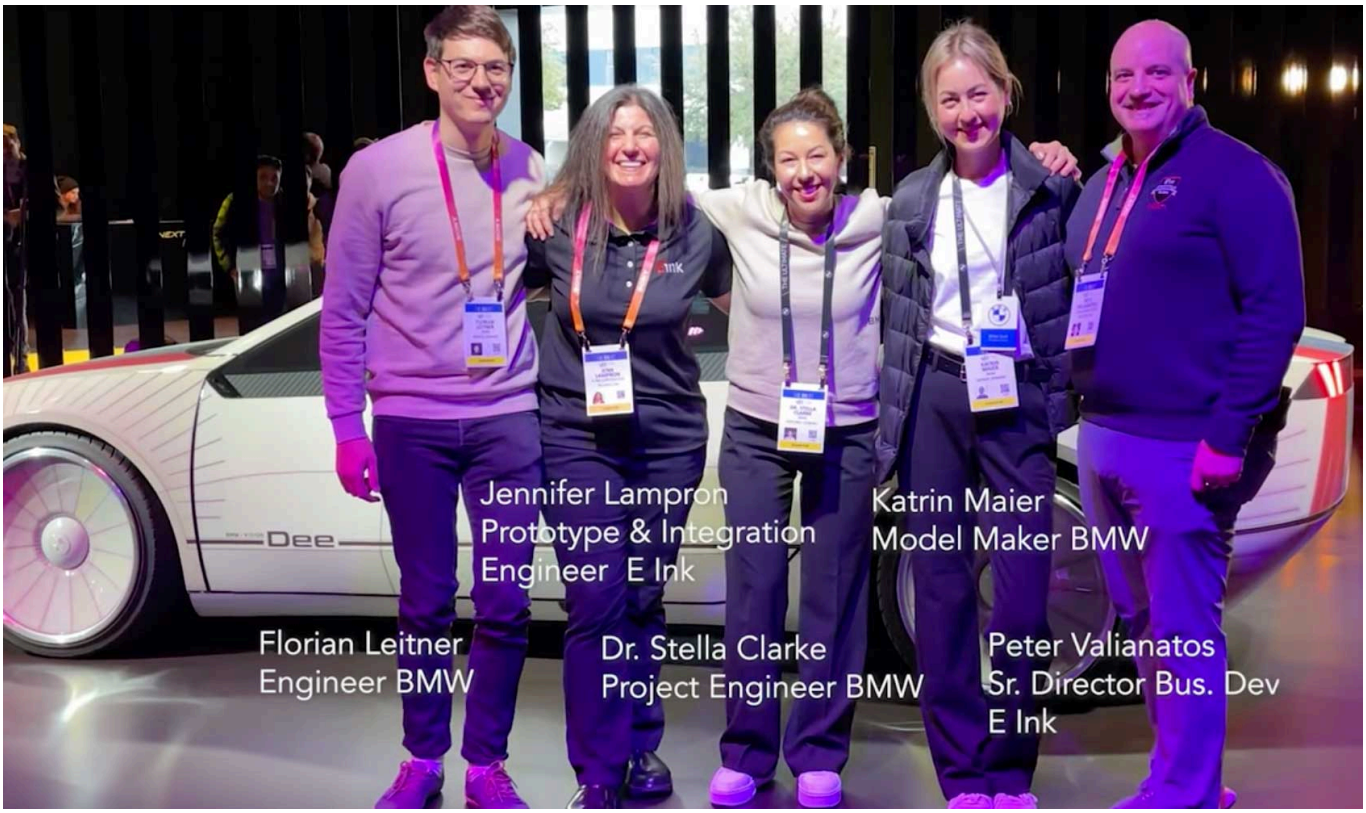
Inside, there is leather, wood and matte chrome. Everything looks very high-quality and harmonious. The three 16-inch displays, which are spread across the entire width of the dashboard, are striking. In addition to the instrument display and the classic central infotainment touchscreen, there is also a separate entertainment screen for the front passenger. There is also a fourth display for controlling the heating and air conditioning in the center console. Among other things, there are various presets for the vehicle air conditioning, for example one for smokers. If you touch the "Smoke" field, the windows roll down a little, among other things—cigarette smoking is still rampant in China.

The second row is particularly comfortable if you choose the six-passenger version with the multi-adjustable luxury seats instead of the standard seven-seater configuration. The seats are large and soft, they snuggle up to the occupants, massage at the touch of a button in the first row and are also heated and ventilated in the second row. Cushions are strapped to the headrests.
The price list starts at €79,995 for the Premium version, and at least €103,000 for the Exclusive Long-Range version.

The Design Lounge

BMW HMI Solution with E-Ink Prism 3

THE DESIGN LOUNGE



E Ink (Electronic ink) is a brand of electronic paper (e-paper) display technology commercialized by the E Ink Corporation, which was co-founded in 1997 by MIT undergraduates.

E Ink Prism 3 is the next generation Prism film, which bridges the gap between traditional static materials and digital technology with dynamically changing materials. Fully programmable, designers can now integrate endless materials with changeable colors and patterns. At CES 2023, BMW used Prism 3 to create a multicolored skin on their new i Vision DEE concept car—the first use of Prism 3 in automotive applications. (see video)

E Ink Prism 3 allows product designers to choose from eight colors and combine them with patterns to create rich, dynamic surfaces. Additional benefits include:

- Low energy consumption – E Ink's renowned bi-stability means that power is only consumed when displays are updated; no power is consumed once the color is displayed
- Priority on personalization – Designers have the option of combining intricate patterns and colors onto the surface to further enhance their products
- Thin and durable – Rugged design provides a thin and light solution for surface displays

For interiors, new HMI must rethink interaction in middle consoles, center stacks, overhead consoles, and door panels. Shytech buttons and interactive, decorative backside illuminated animations can appear when the user looks at them or moves their hand nearby. Three-dimensional surfaces allow blind controllability, whereas taking the eyes off the street would be too dangerous.

Displays are limited to certain surfaces. They suffer from reflections, do not allow freeform geometries, and are expensive for areas with a dedicated set of functions.

BMW says the adaptive display can reduce vehicle heating and, thus, current requirements, increasing range. If this is implemented in production, the control of the e-ink display panels will need to be integrated with the battery management system and central controller, as well as the user interface if customization is used.

News Mobility

Volkswagen ID.Buzz Robotaxis for Hamburg

NEWS MOBILITY

VOLKSWAGEN/MOIA IMAGES

Recently, Volkswagen Commercial Vehicles CEO Carsten Intra said, “We want to offer test drives for customers in Hamburg this year, under real conditions.” This will be happening, through Volkswagen Group subsidiary MOIA.

Self-driving ID Buzz vans have been testing in Munich and Hamburg since 2021, but they haven’t yet carried passengers. Naturally, as Waymo and Cruise had done, Volkswagen/MOIA will start off with safety drivers present who can intervene if needed, but plans to phase them out quickly.

“If we are satisfied with the feedback, we will then open it up to everyone,” Intra also said, perhaps meaning means anyone in the city where these are testing who gets the MOIA app and requests a ride. If things get to that stage, it is expected to be in 2026. VW may use them also as delivery vehicles.

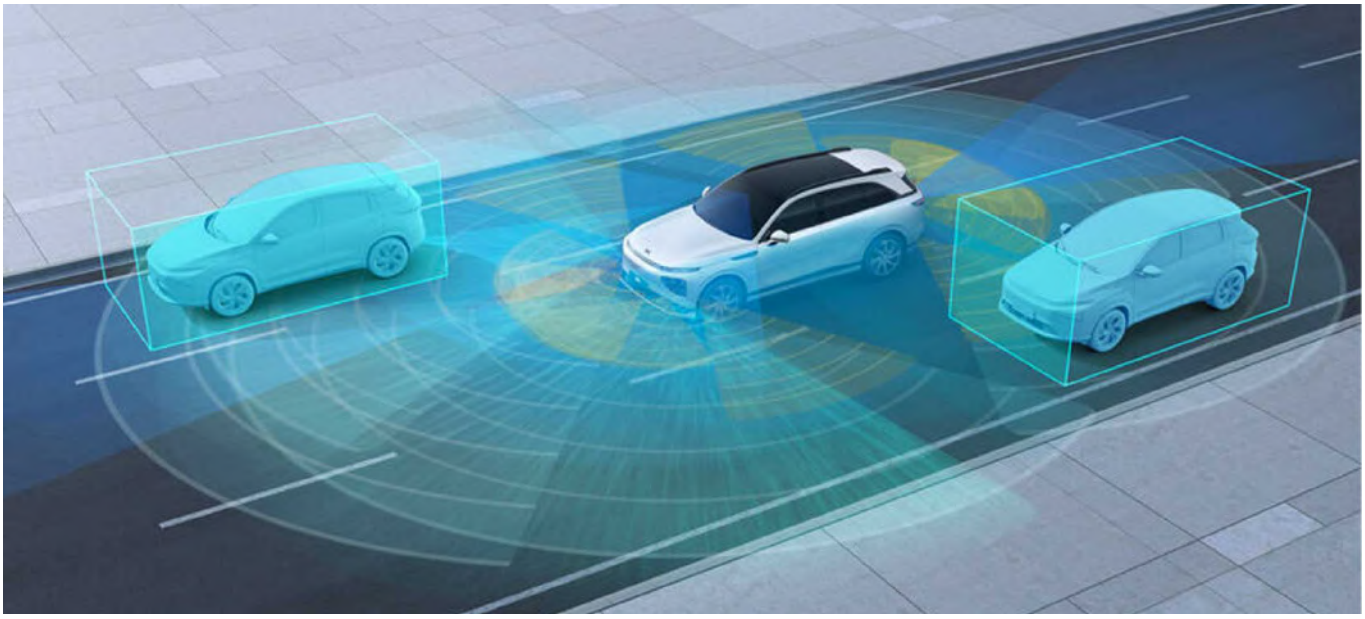
For the core tech, VW is relying heavily on Intel’s subsidiary Mobileye. Previously, VW also worked with Argo AI for similar aims, but Argo AI has since failed.

"The logistics market has grown significantly in recent years due to the increasing share of e-commerce,” VW notes. “Delivery capacity is already one of the biggest challenges the industry is facing due to the driver shortage. Autonomous transport will therefore be a possible solution to ensure long-term delivery capability and participate in market growth.”

“The hardware suite bound for the ID. Buzz AD appears to be heavy on sensors: 13 cameras, 9 lidar units, 5 radar units, and two independent high-performance computers. The vehicles will also feature a constant online connection to cloud computers,” Autoweek wrote.

Chinese OEM Shifting Semi-Auto Driving to Cities

NEWS MOBILITY



XPENG IMAGE

In China, 2023 was the year when vehicle autonomy made a first leap from the highway to the city. NOA or "Navigate on Autopilot", a version of L^2 autonomy, is offered by several Chinese manufacturers in at least three city centers this year, according to Chinese automotive newspaper Zhongguo Qiche Bao. A human driver must still constantly monitor and correct any errors.

Among car manufacturers in China, it is considered certain that the function will have many users very quickly. Many other functions in the smart cockpits of the new generation of electric cars are therefore "nice to have". In the case of the NOA functions, on the other hand, test drivers very quickly got used to the urban autopilot, according to the manufacturers.

As a result, fierce competition has broken out among automakers, and autonomous driving is spreading faster than expected. NOA has already been activated in Shenzhen; Shanghai is to be added soon, and in Beijing, "City NOA" will be possible on part of the road network. In order to implement the autopilot function in China's often chaotic cities, most manufacturers no longer rely on high-precision maps, but rely almost exclusively on the visual recognition of obstacles.

All providers want to use the autopilot in the city to change drivers' attitudes towards such services. So far, the response to the highway solution has been cautious. However, "good NOA really is a function that can completely change consumers' perception of their cars", a Chinese expert has been quoted as saying.

General News

Honda's New EV Sparks Debate Before Market Launch

GENERAL NEWS

HONDA IMAGES

Honda unveiled their latest pure EV Model, the 烨 ("Ye") at a public event In China. Alongside this reveal, they introduced two newcomers to the lineup: the P7 and S7. Amidst the excitement, the name烨/Ye has stirred up controversy on the internet—certainly an unusual place for arguments to break out, but reportedly it is actually happening.

Honda says the name means "bright, shining," aligning with their vision to enhance the joy of driving, ignite inner desires, and promote authenticity. But the word is said to be challenging for many people to recognize and correctly pronounce (we're told it's approximately like English "Yeah"). And the symbold/word can be interpreted as "Fire & China," which carries potentially negative symbolic meanings and sensitivity for certain groups—presumably those disfavored by the Communist Party of China, such as Uyghers or Tibetans or Taiwanese.

Names hold immense importance in Chinese culture and daily life, particularly for businesses, and a controversial name could potentially harm the reception of this new car model, especially amidst the fierce competition in the Chinese EV market. It's crucial for foreign brands to consider using native, simple, and positive meaning names for products in China to navigate cultural sensitivities and ensure successful branding efforts.

On one hand, the name is already sparking controversy. On the other hand, there is the theory that any publicity is good publicity ("You can say anything you want about Ford cars, as long as you say it three times an hour!" might be apocryphal, but the notion still carries weight). In a different case with some similarities, Alfa Romeo applied a last-minute rename to the Milano after that name drew peevish political reactions; it's now called the Junior.

Microchip Acquires ADAS, Digital Cockpit Connectivity VSI

GENERAL NEWS

Microchip Technology completed their acquisition of Seoul, Korea-based VSI, experts in providing high-speed, asymmetric, camera, sensor and display connectivity technologies and products based on the Automotive SerDes Alliance open standard for in-vehicle networking.

Market growth these equipment is driven by the increased adoption of ADAS, in-cabin monitoring, safety and convenience features (e.g., 360-degree surround view, E-Mirrors) and multi-screen digital cockpits for next-generation software-defined vehicles These applications will require more highly asymmetric raw data and video links and higher bandwidths, making current, proprietary serializer/de-serializer (SerDes)-based solutions no longer adequate, both commercially and technically. In response to these developments, the Automotive SerDes Alliance was formed in 2019 and released the first open-standard ASA Motion Link (ASA-ML) specifications.

Today, ASA has over 145 members, including Microchip, a promoter member. With 11 automotive manufacturers including BMW, GM, Ford, Stellantis and Hyundai-Kia, the alliance also includes an ecosystem ranging from tier-1 suppliers, semiconductor and imager vendors and test and compliance houses. In addition to being an open standard, ASA-ML brings link layer security and scalability to support 2 Gbps to 16 Gbps line rates. Furthermore, the upcoming specification update will enable ASA-ML to support Ethernet-based architectures.

In March 2024, BMW Group announced at the Automotive Ethernet Congress in Munich they would shift to using standardized ASA-ML for upcoming start of productions.