Thu, 15 June 2023
Weekly Newsletter

DVN-I
Automotive Interior

NEWSLETTER #165

Editorial

Sustainability Is 'In'!

VW ID.BUZZ (VW IMAGE)

A couple of weeks ago, we extensively spoke about CMF, driving User Experience within the vehicle. CMF contains of course M, M for Materials. Nowadays, Materials for the future means Sustainable Materials, that's the topic of this edition's In-Depth. PET bottles, Seaqual yarn, Green Electricity made, bio-fabricated, recycled materials, etc., we see the industry, OEMs, Tiers, shooting in all directions to identify the best recipe. We are not there yet, but it reflects all the endeavor of the different players. DVN will keep informing our members about all these developments.

The constant evolution of these materials, in parallel with financials, societal matters, and ethics is rapidly affecting our everyday lives and car interiors is reflecting it. This week Coffee Corner explains how it influences Design, being not about aesthetics, but a complex synthesis of technical and economic factors that will, at the end, have an aesthetic appearance. Good design is when there is coherence between the two. More to come!

In the meantime, don't forget to register for the DVN Interior Deep Dive in San Francisco on August 29/30.

Sincerely yours,

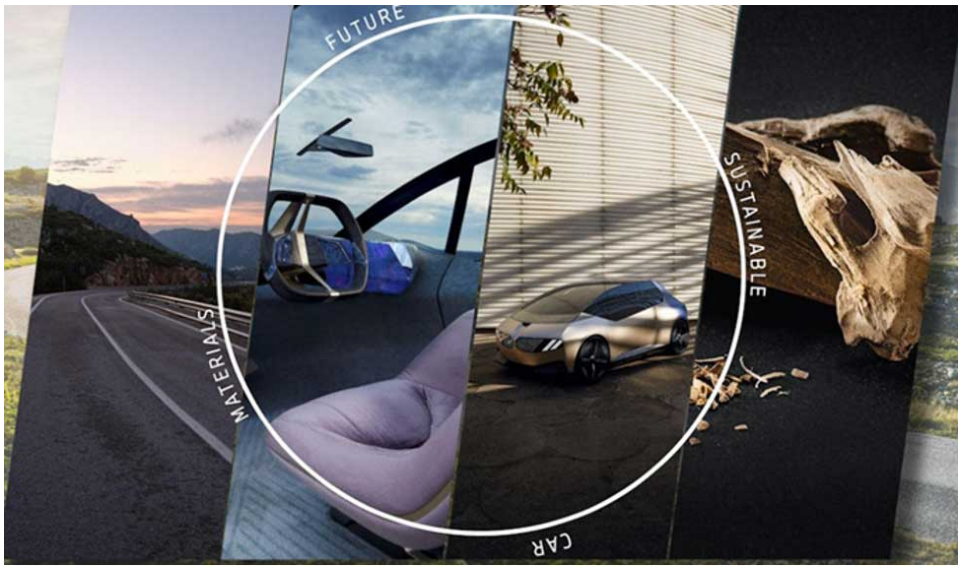
Philippe Aumont
General Editor, DVN-Interior

In Depth Interior Technology

New Interior Materials Contribute to Sustainability

A couple of weeks ago, in our introductory piece on CMF—that's color · material · finish—we focused on new materials which are supporting the industry's sustainability goals. To that end, initiatives; tests, and concepts are popping up seemingly every minute, so let's have a look at recent announcements:

BMW's Future Sustainable Car Materials Initiative



BMW IMAGE

The BMW Group is leading the new FSCM consortium (future sustainable car materials), which aims to develop innovative process routes and material concepts across large parts of the value chain. In addition to recycling plastics and metals, the focus will also be on new types of bio-based recyclables. Martin Derks is BMW's complete-vehicle head of plastics, and project manager of FSCM. He says, "Currently, it is particularly challenging to provide materials from different recyclable material streams in a consistently high

quality for the cycle. In the project, partners with different competencies in materials development will work closely together to develop solutions for this".

Evonik Operations; ThyssenKrupp; the Technical University of Munich, and the ICT and WKI Fraunhofer institutes, among others, are also involved in the FSCM project.

In a new initiative developed in cooperation with the Denmark-based Plastix company, the BMW Group is pursuing maritime plastic waste recycling. Separated fishing nets and ropes undergo an innovative process which results in plastic granules, thus creating new application possibilities for recycled plastics. Injection-molded components made of the granules are trim parts for use in visible and non-visible areas of the exterior and interior of new vehicle models, starting in 2025.

Mini Countryman Uses PET Bottles and Green Electricity

BMW IMAGE

BMW's latest Mini Countryman EV, set to enter production this November, will feature an interior produced using green electricity to significantly reduce the CO_2 emissions created during manufacture.

To make the vehicle’s production as environmentally friendly as possible, BMW has removed all decorative elements in the interior and exterior. The surfaces of the dashboard; steering wheel; headliner; floor, and floor mats are made with recycled polyester from waste PET bottles and carpet offcuts. This reduces CO_2 emissions along the value chain by up to 85 per cent, emphasizing BMW's focus on reducing their vehicles' environmental footprint.

Volkswagen ID. Family with Seaqual Yarn, Recycled PET

VW IMAGE

This year, VW's ID.3; ID.4; ID.5, and ID.7 will receive innovations first used in production of the ID.Buzz, including Seaqual yarn for the seat cover material. This sustainable yarn is made of 10 per cent marine debris and 90% recycled PET. The CO_2 emissions from production are nearly one-third lower than for conventional seat cover materials.

Other sustainable innovations in the ID.Buzz cabin include ArtVelours Eco seat covers with 71 per cent recycled-material content. The headliner and floor coverings are made entirely of recycled polyester, and recycled plastics are used in the carpet's insulating layer—PET bottles and old fishing nets are processed into granulates before being reused.

Chrome is no longer used for the trim parts on the doors; instrument panel, or steering wheel; to facilitate recyclability, these are now finished with a liquid chrome-look paint with a bio-based binder.

Porsche's Sustainable Leather Efforts

In an effort toward sustainable leather sourcing, Porsche has joined the Leather Working Group (LWG), a non-profit organization advocating transparency and universal environmental and social standards in the global leather supply chain.

They apply material-specific specifications that are mandatory for all new contract awards for leather suppliers. Among other things, they must disclose the country of origin of the raw material and be externally audited in terms of an LWG leather sustainability standard.

Clearly, market pressures are making it effectively mandatory for suppliers to respect animal welfare and ensure responsible production and processing of leather.

Kia's Ten Sustainability Must-Haves

KIA IMAGE

After integrating sustainable materials—bioplastics and sugar cane bio-fiber—in the Soul EV in 2014, Kia has a list of ten must-have sustainability items for all future models, starting with the EV9. A first major step is to

phase out leather in all new models, as they invest in testing and development programs to speed up the implementation of bio-fabrication.

A variety of sustainable materials are applied in the EV9 interior, including dashboard; console; pillar, and trim parts made of bioplastics from renewable biomass sources such as vegetable oils; corn extracts; sawdust, and sugar cane. Recycled plastics have been incorporated into the door trim, with bio-polyurethane replacing leather on the seats and other interior coverings, and bio-PU foam in the headrests.

Recycled PET is used in the seats; headliner; sunvisors; garnish; and headrests, and 100-per-cent recycled PET in the carpets, with a portion of this material coming from recycled fishing nets. Recycled PET yarn is even used for the seat stitching, and PET felt in the luggage board.

Kia is partnering with startups and innovators to develop bio-based materials. Successful tests have been carried out with mycelium—the root structure of mushrooms.

Stellantis to Boost Recycled Content

CITROËN IMAGE – SEE DVN ARTICLE

Stellantis is looking to upgrade their medium-term target from 35 per cent for the minimum amount of recycled material in their vehicles. In their business plan, Stellantis has set a goal to tenfold-boost revenues of their recycling business, to over €2bn, by 2030. They say the project will help meet their carbon net-zero target set for 2038.

It will also help the automaker keep prices lower, and cope with potentially prolonged shortages of raw materials in their supply chain. CEO Carlos Tavares has said scarcity of raw materials will continue in the next decade, and that it is crucial for his company to extend the life of materials they use.

Stellantis has picked the Mirafiori complex in Turin to launch their main circular economy hub next year, focusing on reconditioning and dismantling vehicles and reusing components. 200 Italian employees will be recruited to start operating with three main activities that implement the four strategic areas of remanufacturing parts; repairing and reconditioning vehicles; reusing whatever can be, and dismantling end-of-life vehicles for effective recycling. Circular economy hubs will run alongside local loops, allowing products and materials to remain within countries and speeding up the business.

Sustainable Interior Design in Lancia’s Pu+Ra HPE Concept

LANCIA IMAGE

Lancia's Pu+Ra HPE, which features a futuristic interior space, was presented at the Milano Design Week, as we previously reported. As part of ‘Sustainability by Lancia’, every element within the vehicle’s interior—in the maker's words—'reflects the idea of an elegant and simultaneously sustainable home feeling'. Lancia partnered with many Italian brands to bring sustainable materials to the cabin, with up to 70 per cent of the touchable surfaces made with eco-sustainable materials.

They chose ochre velvet as a wool cloth upholstery with GreenGuard certification, based on the low emissions of chemicals and global warming potential. Door panels are covered with Marm\More, a material consisting of up to 50 per cent waste from marble dust and recycled fabric. The solution is soft to the touch and waterproof, and is produced by Limonta and startup Fili Pari. The in-cabin table is made from M49 Renew bioacetate by Mazzucchelli; it's a bio-based cellulose acetate. The rear shelf is fashioned from an upcycled raw material. The car’s natural-wool carpet is completely handmade, with no waste. Its circular shape accompanies the styling of the dashboard and the table.

Renewables and Recyclates in the Volvo EX30

VOLVO IMAGE

Volvo has been striving to reduce the carbon footprint of their upcoming and electric EX30 small SUV. A significant contributor to that effort is Volvo’s clever use of materials throughout the interior. Recycled and renewable materials upholster the seats; dashboard, and doors—including denim; flax, and a wool blend which also contains approximately 70 per cent recycled polyester.

To produce the denim interior materials, Volvo used long shredded fibers from recycled jeans. Overall, 17 per cent of all plastics used for the car's interior come from recycled materials.

53 Recycled Bottles per JLR Vehicle

KVADRAT INTERIOR, RANGE ROVER VELAR (JLR IMAGE)

Jaguar Land Rover (JLR), will use Econyl nylon for floor mats and other trim parts. This material is made from recycled industrial plastic; fabric offcuts from clothing manufacturers, and abandoned fishing nets recovered from the ocean.

A eucalyptus textile interior is also currently available in the Range Rover Evoque, which—along with the Range Rover Velar and the electric Jaguar I-Pace—offer the option of seat upholstery material made by Danish company Kvadrat. It's a durable blend of wool and suede made from 53 recycled plastic bottles per vehicle.

And more:

These we've just presented are representative examples; there are many more. Mercedes-Benz uses Econyl in the floor mats of the new S-Class; they say this reduces emissions in production by 90 per cent. And Audi offers A3 seat upholstery and interior carpets made from a yarn of up to 89 per cent recycled PET bottles .

TU/Ecomotive Circular Economy

LUCA INTERIOR (TU/ECOMOTIVE IMAGE)

In addition to automakers and suppliers, research institutions are also supporting the sustainability drive. One interesting example is Netherlands-based TU/Ecomotive, from the University of Technology of Eindhoven. They've recently produced the Luca EV to demonstrate the full potential of recycled materials.

TU/Economotive PR manager Matthijs van Wijk says the Luca "has two very comfortable, custom seats with cushions made out of a combination of coconut fiber and horsehair. The fabric surrounding the cushions is made from recycled PET but looks and feels as if it is suede".

The central tunnel contains a plastic additive made from household waste. Other parts demonstrate the utility of small pieces of flax pressed together with waste plastic from the ocean. According to van Wijk, the TU/Ecomotive team was motivated to manufacture the Luca model because “humanity is producing 2,100,000,000 tons of waste each year, while also using too many resources,” he says. “We believe that it is necessary to move towards a circular economy and think that using our resources better is an important step for this. That is why we wanted to show that waste is still a valuable material that can be used in many complex applications. The main challenge for us was the use of plastic out of the ocean. This is quite hard to work with since it consists of different plastics and has been in the ocean for many years. Fortunately, we have great partners with lots of experience that can help us with this kind of challenge".

EU Project: Recycling the Automotive Interior

An EU-backed initiative is developing solutions for recycling old clothes made from mixed fibers into new yarns and fabrics for use in the automotive industry. The *Recycling the Automotive Interior* project is a consortium consisting of spinning lab Texperium; machine manufacturer Trützschler; FBBasic, and C2C-Expolab. Weaving tests have already shown the yarns to be suitable for use in seat covers, and applications in the field of interior door panels, dashboards and other trim pieces are also considered.

Interior News

Borgers PET Fibers for Sustainable Parts

INTERIOR NEWS

WHEEL ARCH LINER MADE FROM OCEAN PLASTIC (BORGERS IMAGE)

Automeum is a company with expertise in absorbers and insulation. Their Borgers division is attracting attention in the automotive environment with cycle-oriented products. Recycling; resource conservation, and environmental protection are integral to the company's philosophy, which is reflected in the *Blue Label by Borgers* brand. This has resulted in the first textile wheel arch liner made from sea-bound waste such as PET bottles. The wheel arch liners, which are blue for demonstration purposes, are manufactured without waste and are fully recyclable at the end of the vehicle's service life. With each vehicle equipped, 120 used PET bottles are recycled. To date, Borgers has made more than 200 million of these textile automotive components.

One product of lightweight construction activities is the textile material Propylate. It's a blend of recycled natural and/or man-made fibers from recycled beverage bottles and packaging waste. Propylate is a non-woven textile material for interior components. Components made of Propylate can be designed with optimized weight; are acoustically effective, and have a high ecological efficiency. In contrast to previous nonwovens, which are usually bonded by binders made of powder or latex, Propylate is bonded by binder fibers, which brings significant advantages in production; functionality, and properties. Propylate contains a mixture of synthetic fibers (polyester, polypropylene) and, depending on the application, natural fibers such as cotton or bast.

Borgers is developing these automotive components further. For example, Blue Label wheel treads capable of absorbing fine dust are currently being produced in Bocholt, Germany. This is an important and future-orientated topic, as particulate matter is also produced by electric vehicles. The abrasion of tires and brakes is increased by high torque, which is one thing EVs have quite a bit of. The makers say this wheel arch liner absorbs the particulate matter at the source—while also attracting and sequestering fine dust already present on the road. The fine dust is transported from the tire into the textile wheel arch liner by the high air flow in the wheel arch. The structure of the wheel arch liner is designed like a filter, so that fine dust is absorbed and retained inside.

Škoda X Develops In-Car Digital Services

INTERIOR NEWS

ŠKODA IMAGE

For around six years, IT specialists have been researching communication between vehicles, users and the environment in what was previously called the DigiLab in Prague. Now the company is called Škoda X, and they're rolling out the services they has developed. Škoda wants to provide vehicle users with offers from partners, tailored to the route driven and user behavior. Škoda X will manage these digital services.

Škoda X plans to offer the service, which can be used via infotainment system and smartphone, as an everyday feature soon. Since its launch twelve months ago, around 45,000 customers have already signed up. The carmaker's 'premium partners' are currently contributing around 130 different offers—free coffee at the gas station, discounted wellness weekends, and more. The offers are allocated to participants based on GPS location data on frequently-driven routes and, less transparently, 'through other vehicle data'. They are available to all users of the participating car; not just those registered via the My Škoda app or Škoda Connect. The offers are displayed on the screen in the car. Anyone who clicks on them gets a barcode on their smartphone and can redeem it at the relevant partner.

In cooperation with providers such as Easypark and Aral, Škoda X is currently also rolling out pay-to-park and pay-to-fuel. The former is already usable in 1,500 cities in nine European countries, including Germany. By the end of 2023, it'll be 15 countries and around 400,000 locations, according to Škoda X CEO Jaroslav Pelant.

Information about the car—vehicle identification number; technical data; mileage; service agreements and warranty extensions already paid for, maintenance history—is included in DigiCert, a complete collection of data on a specific vehicle, which is already available in all European markets. According to Škoda, it is intended to provide transparency during resale and thus increase resale value. The Hoppy Go car-sharing service, which private individuals can also use, for example, before selling their Škoda: They offer the car to interested parties for extended test drives of two or more weeks with a subsequent purchase option, or a dealer brings his demonstration cars to a new owner in this way.

Digital Bulldog is Mini’s Personal Assistant

INTERIOR NEWS

BMW IMAGE

BMW, in furtherance of Mini’s carefully-cultivated persona, has launched a digital dog as the new in-cabin personal assistant. "Spike", heralded as the canine friend of the brand, is reimagined and brought to life in the digital world. Suitably as a British Bulldog, he is there to guide users through the operating concept of the future Mini model family.

Spike has been accompanying the British brand’s story since the modern version of the Mini first debuted in 2001. Aside from a huge mannequin, or art toy, Spike will also be appearing as an active protagonist in the cockpit of the new Mini Concept Aceman appearing to the public for the first time on the circular OLED central display and dashboard. The launch of the brand’s new model family hopes to strengthen the vehicle’s connection with drivers’ individual lifestyles.

Oliver Heilmer, head of Mini design, says “Mini will always be synonymous with emotions and remarkable experiences. That’s why we are now taking Spike into the future as a digital character. And he is not just a design experiment – he is becoming a characterful companion for the user experience.”

Nvidia, MediaTek Partner for Automotive Interior Innovations

INTERIOR NEWS

NVIDIA IMAGE

During a press conference at Computex, MediaTek CEO Rick Tsai and Nvidia founder and CEO Jensen Huang announced that the companies will partner to develop the next generation of in-car experiences, by fusing Nvidia's AI and ADAS technology with MediaTek's Dimensity Auto platform.

Launched this past April, Dimensity Auto is MediaTek's new portfolio designed for the future of SoC-integrated, connected vehicles.

The platform includes:

- Dimensity Auto Cockpit: Designed to be the fastest smart cockpit, using MediaTek's smartphone and vehicle entertainment experience to ensure maximum performance and power efficiency
- Dimensity Auto Connect: Wireless communication tech portfolio including 5G, WiFi, Bluetooth, GNSS navigation, NTN (Non-Terrestrial Network) satellite communications to stay connected;
- Dimensity Auto Drive: Using MediaTek's AI Processing Units (ADU) as a backbone for partners to bring intelligent assist and ADAS features to the market.

In addition to their current system-on-chip (SoC) offerings for automotive and robotics applications, Nvidia will now, with the addition of the new GPU chiplet, be able to extend their GPU and computing solutions to other markets. Through the partnership, MediaTek will also work on the development of automotive SoCs which will integrate Nvidia's GPU chiplet—featuring Nvidia AI and graphics—within the design architecture. Each chiplet will be connected via an 'ultra-fast and coherent chiplet interconnect technology'.

To deliver a new range of connected infotainment and in-cabin convenience and safety functions, MediaTek will run Nvidia Drive OS; Drive IX, and TensorRT software on the newly-developed automotive SoCs. As a result of the partnership, more in-vehicle infotainment options will be available for automakers using the Nvidia Drive platform.

Basemark, FIC in Immersive Mixed Reality Pact

INTERIOR NEWS

Finland-based AR software company Basemark and Taiwanese HUD supplier First International Computer have entered a partnership to develop automotive mixed-reality (MR) solutions.

By projecting important information such as collision warnings and navigation instructions directly onto the windshield, the need for drivers to constantly look down is being reduced, allowing them to keep their eyes focused on the road.

To enable immersive AR and MR projections on the windshield of a vehicle calls for a high-contrast, high-brightness display with large virtual image and distance perception. FIC's AR-HUD provides exactly that, and Basemark's Rocksolid AR software integrates seamlessly, facilitating rapid and easy development of series production quality AR applications.

FIC is a global provider of automotive electronic design, manufacturing services, supply chain management, and system integration solutions for automakers and tier-1 suppliers. They are recognized as a leading provider of AR HUDs; IVIs, and instrument clusters. FIC's AR HUD uses laser technology combined with optical glass to display rich virtual images, resulting in increased driving vision and high-contrast, high-brightness imagery. A new generation of AR HUDs from FIC has a longer image distance perception (VID 25 – 20 meters) and a large virtual image (FOV 20 – 50 degrees).

Basemark founder and CEO Tero Sarkkinen says, "We're excited to welcome FIC to the Rocksolid Partner Ecosystem. We invite any company interested in seeing our latest & greatest AR solution to schedule a meeting with us for a demonstration to experience how AR and MR increase safety and comfort, as well as trust between the driver & the car".

And FIC innovation manager Alex Dee says, "It's a great honor to partner with Basemark, a well-known AR software development company in Finland. We believe our cooperation will bring both of us to the next step of successful business".

Nio Updates Banyan Intelligent Vehicle System

INTERIOR NEWS

NIO IMAGE

Nio recently unveiled the new version of their Banyan in-car system, called Banyan 2.0.0, touting its focus on efficiency; understanding, and freedom.

According to Nio, the new system integrates the computing power of the 8155 chip; Orin X, and the N scalable architecture, resulting in significant improvements in startup time; loading speed; application launch, and touchscreen responsiveness.

The upgraded system features a redesigned dynamic panel for user interface and interaction logic. After initiating navigation, users have the option to choose a customized charging route and can communicate with their service concierge in real-time to address any concerns or issues while on the road.

The new version introduces the Nomi feature that provides intelligent reminders based on specific moments such as time and location. Additionally, the system upgraded will introduce the BEV model, leveraging the Nio Aquila Super Sensing's high-definition camera capabilities to provide a 360° view of the vehicle's surroundings, including signal lights and other relevant information. Users will also enjoy the convenience of using the Nio App to remotely control parking using the high-definition cameras equipped on the vehicle.

Nio has announced the specific shipment timeline across its vehicle lineup. In late June, the upgraded system will be shipped to the ES7, ET7, and ET5 models from the late June, while the EC7 and ET7 models will run on the system upgraded by the end of June. Additionally, the new system, along with intelligent driving capabilities, is set to be introduced to the ES6 at the end of June as well.

Stellantis System Alerts Drivers to Nearby Emergency Vehicles

INTERIOR NEWS

A hearing-impaired employee of Stellantis' U.S. operations had a scary driving experience involving the sudden presence of an emergency vehicle they hadn't heard coming. It prompted them to submit a suggestion to a company program that rewards employees' innovative ideas. It was picked for development and is now commercialized as an 'emergency-vehicle alert system' (EVAS).

Now a standard feature on Stellantis' Uconnect infotainment system in the U.S. and Canada, EVAS visually and audibly notifies drivers of an active nearby emergency vehicle, such as an ambulance or fire truck. The system is on nearly two million Chryslers; Dodges; Rams, and Jeeps in North America. The alerts demonstrate two of the goals Stellantis wants to achieve with software: continuously improving vehicles and using vehicles to create conveniences for customers, said Yves Bonnefont, Chief Software Officer for Stellantis.

A Stellantis representative said, "The widespread deployment of EVAS in North America demonstrates how Stellantis is harnessing the power of V2X (vehicle to everything) connectivity and in-vehicle technology to make mobility safer for our customers".

The warnings first were tested without sound, then—based on customer feedback—beeps were added to grab a driver's attention. Stellantis wants to expand the alerts by adding disabled vehicles to the list of hazards drivers can be notified of. The Hazard Enhanced Location Protocol feature, or HELP, comes from Emergency Safety Solutions Inc. and uses the EVAS Alert Safety Cloud.

Stellantis said it gives 15 to 20 seconds of warning that a disabled vehicle is ahead, which means motorists would be notified about a quarter-mile away when driving at highway speed.

The Design Lounge

Mutations

THE DESIGN LOUNGE

CITROËN / ALPINE IMAGES

By Athanassios Tubidis

At the place of the interior visor, the concept car Renault Alpine A290, has an overhead console, grouping headlight and lighting control switches. I suspect because a camera today can do the job of a visor and therefore that space is liberated for a different use. Due to run flat tire technology, some time ago, the spare tire compartment converted, with no return, into additional storage or in some cases foldable or pop-up seating. Car interiors have been partially mutating, ever since a new application came about. In times, the degree of change was such that the overall cabin changed to the point that new architectures and layouts decrypted an unexpected form language.

In the case of Citroën Oli, the entire vehicle was conceived as an ensemble of many local ‘zone’ innovations, all united under the premise of the lowest possible environmental footprint. It was stated that “Each constituent element was redesigned from A to Z with priorities on cost, durability and reparability”, getting on board all its designers in a virtuous rollercoaster.

The vertical windscreen for instance, contributes in reducing significantly the weight and as a side effect, limits the heating of the cabin in summer time. Thus, it allows a compact, light, and cheaper air conditioning unit. The instrument panel with plug-in nomad Bluetooth speakers and smartphones, becomes a technology port, or a display receptacle, redefining any up-to-date perception of IPs.

The seats are a central element and one of the main accomplishments. Foam is eliminated and the tubular structure is redesigned to be visible while a 3D print comfort-element fits over it. Composed of only 8 parts, compared to 34 for an equivalent SUV seat, it is fully recyclable without undermining comfort, one of Citroen brand’s priorities.

In a parallel universe, just at the opposite side of the same building, another group of designers is up to a very similar challenge yet, under different brand values. In the case of Peugeot inception, the brand’s

announcement is clear: ‘Our process will enable us to reduce 70% of Peugeot’s carbon footprint by 2030. Design is fully involved in this transformation.”

The bodywork is completely smooth and visibly separated of all technical elements. Light plays a big role in the perception of shapes and depending on its orientation, the different sections will appear imposing, inside out the vehicle. The continuity between seats and floor is attained with a single material. Headrests are below the beltline and seats have real adjustable shoulder mats. Comfort is ensured by electro-welded airbags that adapt to any morphology. The easy-to-recycle metallic effect upholstery, comes from anything inflatable that is recovered from classic seat airbags, lumbar adjustments, or massage units. These immersive seats have little in common with current car seats to the point that could almost challenge the definition of the car seat itself. In addition, from 2025 onwards, Peugeots will no longer have a steering wheel, but a control called Hypersquare. This is a steering module in the form of a screen with four recessed circles for gripping but also integrating controls. Thus, clearly separating technology from the rest of the single-material upholstered interior.

The constant evolution of tech applications, new materials, financial schemes, societal matters, and ethics is rapidly affecting our everyday lives and car interiors constitute the surrounding set of our itinerant habits. Design today is not about aesthetics, it is a complex synthesis of technical and economic factors that will inevitably, at the end, have an aesthetic appearance. Good design is when there is coherence between the two.

GM's Buick Proxima EV Design Concept for China

THE DESIGN LOUNGE

GM DESIGN STUDIO IMAGES

GM, through their Design Center in Shanghai, shared their Proxima EV design concept based on a new architecture designed for future electric models in China. It happened in Shanghai during a special event called Ben Se ('Creative Essence'), where GM treated attendees to an immersive experience with cutting-edge EV designs developed for internal research. Among those developments is the Proxima project as a new design concept from Buick. Proxima means “next” in Portuguese and Spanish, embodying the GM China Advanced Design Center’s commitment to designing innovative solutions for the next generation of customers in China.

“We experiment with design as a solution for technology evolution and celebrate technology as a key driver behind innovative design,” said Design Vice President of GM China and GM International, Stuart Norris, in a statement. “The rapid technology development in China is empowering designers to reimagine vehicles and reshape their own career paths".

The Buick Proxima Design Concept is the first developed by the recently-recruited young talent at the expanded and renovated GM China Advanced Design Center, which opened in July 2021. GM says the Proxima completely reinvents the philosophy and the proportions of Buick’s flagship sedan, enhancing interior spaciousness and elevating cabin ride comfort by adopting a next-generation electric powertrain.

The car presents the first interpretation of an all-electric full-size sedan from Buick, which until now has only featured zero-emission crossovers and the coupe-bodied Wildcat EV Concept. Although GM only revealed a couple of images from the front, we see that the Proxima Concept includes new design ideas including signature lighting and striking gullwing doors.

GM China’s advanced design center features full-process development with design ideas; a 3D creative platform, and digital and clay models. It also includes a painting workshop and material studio.

GM CHINA DESIGN STUDIO (GM IMAGES)

The company says the studio works on future designs “in China, for China”, and shares consumer insights and suggestions from the booming Chinese EV market with GM’s global design team.

News Mobility

MAN, Mobileye Develop Autonomous City Bus

NEWS MOBILITY

MAN TRUCK & BUS IMAGE

MAN Truck & Bus—part of the VW Group—and autonomous-driving component and system experts Mobileye plan to deploy an autonomously driving city bus. Mobileye will contribute their Mobileye Drive self-driving system, which includes various cameras; radars, and lidars. MAN will develop the vehicle architecture.

The first automated MAN bus of the Lion's City E type is to operate automatically in Munich's city traffic from 2025, accompanied by a safety driver. The route is heavy on tourism and leisure, and runs through the Olympic Park. According to Mobileye, this is the first city bus in which the company is using their autonomous driving technology.

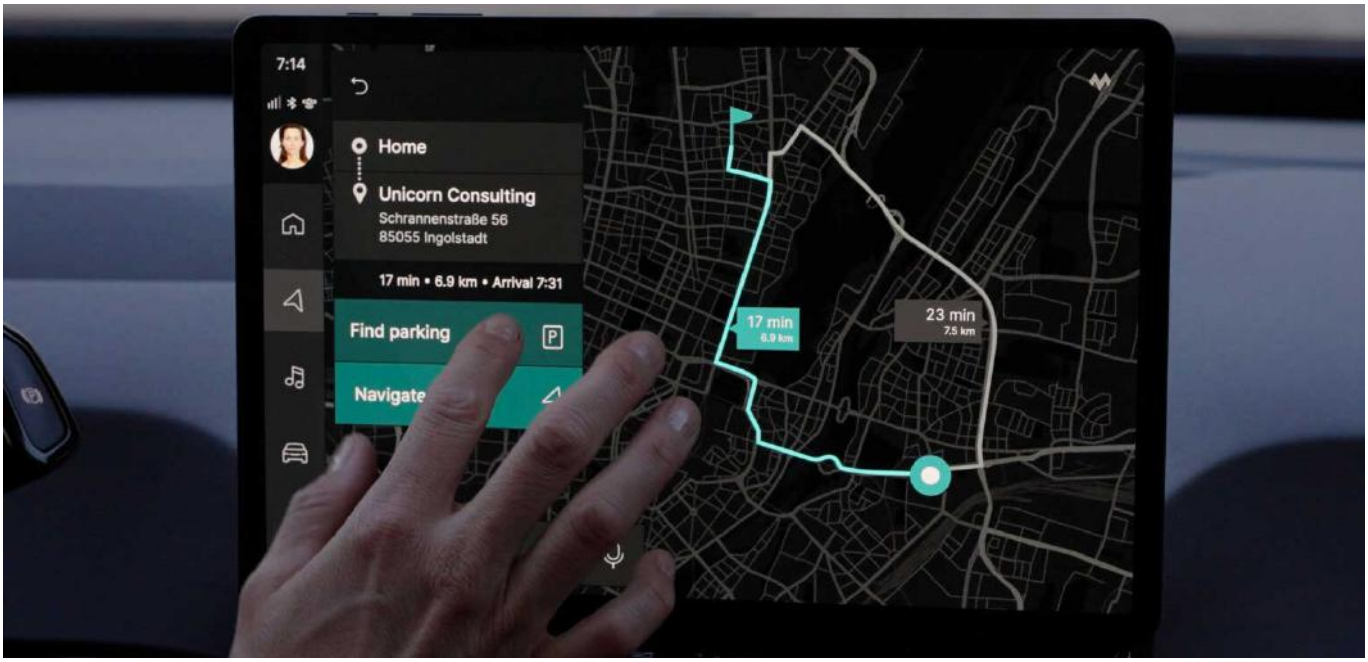
However, the automation of the bus involves more than just driving. MAN wants to integrate the autonomous vehicles into an ecosystem; a representative says, "Just think of other activities of the driving personnel, such as communication with passengers including ticket sales, behavior at the bus stop, de-escalation in conflict situations or even reaction to unexpected events such as detour or accidents…through the increasing possibilities in the area of digitalization".

MAN cites the major potential savings in total cost of ownership; and the driver shortage as primary reasons for using autonomous buses. Following the project, MAN Truck & Bus plans to test further pilot vehicles in actual customer use, and eventually to achieve full production readiness by the end of the decade.

According to MAN, largely automated, networked and emission-free urban transport will also improve air quality and reduce congestion and noise. In addition, parking space that is no longer needed can be converted into living space.

Parkopedia-Valtech for Parking; Charging, In-Car Commerce

NEWS MOBILITY



PARKOPEDIA/VALTECH MOBILITY IMAGE

A partnership between Parkopedia and Valtech Mobility will deliver vehicle-centric digital services to drivers by combining Parkopedia's parking; charging, and payment processing knowledge with Valtech Mobility's app creation; integration, and back-end development expertise. They will work together to help drivers find and pay for parking; charging; fueling, and road tolls. The partnership's end-to-end service provided to automakers covers the entire in-car transaction, from point of interest data through to user registration and payment processing.

Vehicles equipped with the partnership's software will benefit from integrated in-car services, achieved by providing accurate parking, charging and cost information in addition to Parkopedia's integrated payment platform, which enables occupants to pay for services without exiting the vehicle or using a smartphone.

The partnership will also enable a deeper integration with in-vehicle systems and sensors superior to a detached white-label app-only offering, enabling automakers to completely customize the user experience to suit differing types of driver. Parkopedia and Valtech services can be accessed within Google Automotive Services, with other environments to be added soon. The services can be accessed using voice commands.

"Parkopedia prides itself on simplifying everyday vehicle-based tasks for both auto makers and their drivers," said Markus Dohl, Parkopedia's VP of European sales and business development.

Norman Palmhof, business director, Valtech Mobility, says, "Already during the first workshop we could see that our teams and portfolios complement each other very well. We are very pleased to have found a partner in Parkopedia that has similar ambitions to ours and the ability to deliver consistently excellent data quality even at such scales".

General News

Intellias, Elmos Combine Software Competence

GENERAL NEWS

ELMOS IMAGE

Software engineering service provider Intellias has entered a partnership with Elmos Semiconductor. Intellias is a global technology partner with 20 years' experience delivering product engineering and consulting services to Fortune 500 companies. Automakers and tier-1 suppliers; transportation and mobility service providers including Here Technologies; Elmos; NNG; DKV, and Rand McNally rely on Intellias to co-create custom solutions and digitally transform their businesses.

Apart from the contribution to automotive quality grade software, Intellias' team will support Elmos with the implementation and optimization of processes; methods, and tools to guarantee improved operations, increased quality of software products, and strictly controlled project implementation. This collaboration will enable both companies to offer more complete solutions to automakers and tier-1 suppliers, with increased efficiency and safety of critical vehicle functions.

Furthermore, the Intellias team will support the semiconductor manufacturer not only with automotive software, but also with the implementation and optimization of processes, methods, and tools. The aim is to guarantee improved processes, increase the quality of software products and strictly control project implementation, the statement continues.

Magna Completes Veoneer Buy

GENERAL NEWS

MAGNA IMAGE

Magna has finished buying Veoneer Active Safety from SSW Partners. (see our **previous coverage**). The deal, which closed last week, positions Magna as one of a few suppliers equipped to tackle the increasing complexity coming from advanced software, system and integration challenges by delivering a complete set of offerings to customers.

Projected to generate more than $3bn in sales in 2024, the combined business builds a more comprehensive active safety portfolio across all relevant sensors, central computer systems and software solutions for Magna in one of the fastest growing market segments in automotive.

"Adding experienced talent and complementary capabilities to our strong foundation in active safety is core to our strategy of bringing more horsepower to this growing market," said Magna CEO Swamy Kotagiri. "This strategic move enables us to provide even more options and advanced solutions to a broader range of customers. We look forward to the opportunities ahead as we continue to innovate and advance mobility for everyone and everything."

The electronics team, now with more than 7,200 employees, including 3,500 in engineering, can better accelerate the development of premium features and functions at scale. Magna will also benefit from an expanded geographic footprint and customer reach in key automotive regions around the world with nine facilities and 30 engineering/sales locations dedicated to active safety.