DVN-I
Automotive Interior

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Editorial

Automotive Interiors Bristle With Technology

ROLLS-ROYCE INTERIOR

Electric vehicles, increasingly, are not just repowered versions of regular cars. Interiors in EVs don't have to be built around the packaging requirements of a combustion-engine powertrain technology, and automakers are learning to leverage that new freedom to provide space and innovative configurations responsive to today's needs and wants. We look at these phenomena in this week's in-depth, with a focus on premium EV Interiors.

In parallel, there are strong signals towards mobility services supplanting traditional car ownership. We've got coverage this week on what we're seeing to that end, and what it implies for automotive interiors.

Starting next month, we'll be reaching out directly to DVN Interior community members to better understand your needs and wants. Your responses will drive the topics and content of our forthcoming DVN-I Reports, and of our next workshop, planned for next April. Meanwhile, if you haven't already registered for next month's DVN and DVN-Interior Workshop near Detroit, you'll want to **do so** while there's still space for you!

Sincerely yours,

Philippe Aumont
General Editor, DVN-Interior

In Depth Interior Technology

Future Premium EV Interiors

LUCID AIR (IMAGE: LUCID)

German premium automakers have released quite a bit of information lately about their future car interiors, and—in accord with pending European regulations—they're jockeying for position as premium EV brands, amidst an influx of new brands.

A car is a development compromise. In the past, it was often the bulky combustion engine and transmission—usually in the front—that determined the vehicle's basic proportions of the vehicle body. The interior was required to be functional: a control center, often compact and subdivided by the center tunnel, control elements, and airbag positioning. This required reconciling conflicting needs: seat comfort suitable for long-distance trips versus lateral acceleration, space for passengers versus a sufficient luggage compartment or larger fuel tank, a bright sense of hominess versus multifunctionality in every corner, acoustic quietness versus weight and performance, and so on—all realized at the perceived and real quality levels expected by the intended buyer targets of whatever automobile was being developed.

New technologies are changing people and the way we want to move, as well as the technical solutions implemented to address these preferences. Electric vehicle technology obsoletes old constraints; power can be put to the ground by motors built into the wheels, the battery can be installed underneath the body, the floor can be flat…all this means the interior can now have levels of roominess and layout flexibility that just weren't possible with combustion-engine motive power. At the same time, people's expectations are changing. Just as the auto interiors of the past mirrored the greater world of the past with switches, levers, knobs, dials, and light bulbs, the auto interiors of today and tomorrow mirror the world as it's been evolving. Smartphones have shaped a complete new set of technology interaction expectations, and…just look inside production and concept cars: touch screens and voice and gestural control; OLEDs and colored light everywhere. New technologies are changing the technical solutions we’re using in automotive interiors.

And of course, digitalization and connectivity add several layers of potential with user experience, automation, and networking. All of this means the interior realm is setting the pace for the vehicle overall, with focus on integration of technology, spaciousness, and wellbeing. Various operating philosophies—voice and gesture control as well as touch-sensitive surfaces and new sophistications in light and sound are replacing traditional controls, displays, and amenities.

Audi

IMAGE: AUDI

Audi recently showed the first images of their Grand Sphere sedan concept. Expected to be revealed next month at the IAA in Munich, it's envisioned as the electric replacement for the current A8. In parallel, they'll reveal a sports coupe called the Sky Sphere, and an SUV called the Urban Sphere.

IMAGE: AUDI

The silhouette has the advantage of maximizing interior space. The car has clearly been designed for travel, with a focus on passenger comfort. At this concept stage, it has rear-hinged rear doors to facilitate ingress and egress. It's a spacious rolling lounge with first-class seats—sliding ones in the front and a sofa-like bench in the rear—as well as quality materials and an autonomous driving system. When this is engaged, the retractable steering wheel folds into the dashboard to further increase livability. A production version is slated for around 2025.

IMAGE: AUDI

Audi's Sphere concepts could also illustrate technologies and interiors destined for self-driving production cars.

Mercedes

MERCEDES EQS (IMAGE: MERCEDES)

Mercedes has already started deploying their EQ range with the EQA and EQC, and now they're teasing the EQE, the electric version of the E-Class slated to go on sale next year. Reveal is expected at the IAA Munich auto show on 6 September. It uses Mercedes' EVA electric platform that also underpins the EQS, the electric version of the S-Class.

IMAGE: MERCEDES

In parallel, they are preparing to launch a new EV prototype called Vision EQXX to push the boundaries of EV driving range (1000+ km). Lines look thin and curved, optimized for aerodynamics, and announcing a stylistic and strategic direction change for Mercedes. In addition, there will be a Mercedes-Maybach sedan concept that will showcase how the ultraluxury sub-brand will enter the age of electric mobility.

There's a lot to see in the EQS interior—something to captivate every passenger. The Hyperscreen is kind of reinventing the dashboard (see DVN Interior 21 January and 22 July 2021); as a reminder, the slightly curved element consists of three digital screens covered with a single glass. It spans from door to door and measures 1.41 m in total. No more physical controls appear on the console, only two round HVAC ducts take place at the ends of the element. The counters and the screen in front of the front seat display a dimension of 12.3”, while the central panel measures 17.7”. The two tactile elements have haptic feedback.

In the rear, passengers have plenty of space and up to three additional touch screens.

The head-up display's virtual size as projected in front of the driver would correspond to a 77” screen!

BMW

IMAGE: BMW

We've already presented the new BMW iDrive; see DVN Interior 21 January 2021), showing where are we now, and what comes next. That's the subject of a BMW **blog post**.

The new iDrive is part of their new interior concept and design featured in the new iX model, and these features will also find their way to future models. Here again, technology; materials, and user experience will merge to create a seamlessly multimodal driving experience, with the objective to outpace competition.

IMAGE: BMW

Digital technology has been bundled with new architecture and user interface with a hexagonal steering wheel and a curved display, which sits on an invisible "free-floating" support, neatly tilted in the driver's favor. And these digital components are high-endily finished with premium materials like the touch-enabled wooden panels, following the philosophy of designing a comfortable, uncluttered space for humans to feel at ease and at home on the road. Remaining control elements are staged and crafted with glass, and ensure precise and comfortable interaction while driving.

IMAGE: BMW

The main impression is that the iX's control elements have been stripped down to essentials in an uncluttered cabin, which fits with the EV powertrain simplicity, and the overall soothing occupant experience.

Overall

The great variety of approaches taken by these three premium automakers begin to sketch out a tentative definition of the interior of future electric premium cars. Simplicity and intuitiveness are the main characteristics, to ensure driving pleasure. There's a great deal of talk about premium digital solutions, seamlessly embodied with first-class materials, with interfaces to make sure the driver is in full control with minimal cognitive effort. Attention to detail fosters this serenity.

Interior News

In-Car Voice Control Connects Car To Life

INTERIOR NEWS

Here Technologies is a Netherlands-based company providing mapping and location data and related services. It is majority-owned by a consortium of German automakers—Audi, BMW, and Daimler—and Intel, with roots back to Navteq, now owned by Nokia.

When a partnership between Here and Amazon Alexa was announced at CES 2019, headlines looked like “Alexa already has your home, now she wants your car". As voice activation seems to be the next natural step of HMI and infotainement, what could be the real long-term benefit for the driver and occupants?

First of all, it’s to facilitate everything you can already activate in a car, like music, telephone, navigation, and all the rest. But the real big step would be in-car voice control to enable conversations with your vehicle about nearby roads, weather, stores, restaurants, and more. This natural dialogue is where things start to get really interesting. The promise of in-car Alexa is that the driver or passenger will be able to converse far more naturally with their car’s infotainment and navigation systems. This two-way conversation with your car would inevitably integrate your car (even if it wasn't *your* car, but a shared one) closer into your life.

Examples: a conversation about points of interest or real-time road conditions, drive commands like ‘follow that taxi’, to order a coffee on the go or easily book tickets for an event, communication with home and/or office to turn on the lights or start cooking supper. A near-future scenario would be with your voice-controlled 5G-connected sensor-rich car responding intelligently and instantly to real world situations outside of the car.

That's all in the future. In the meantime, passengers will soon be able to use Alexa to set their home environment as they’re arriving home straight from the car and control every aspect of the in-car entertainment experience with simple voice commands.

Toyota Boshoku's DIL Simulator Optimizes Interiors

INTERIOR NEWS

IMAGE: DSPACE

Toyota Boshoku has shared insight into their Ansible Motion Delta series dynamic DIL (driver-in-the-loop) simulator, which was installed in Japan earlier this year in cooperation with Toyota Technical Development Corporation and Marubun, their semiconductor partner. UK-based Ansible Motion applies their expertise to design, build, deploy, and support DIL simulators.

This video demonstrates the ways Toyota Boshoku will be using their simulator to develop the next generation of vehicle interior systems including technologies for autonomous vehicles. *It explains how they simulate next-generation interior systems such as autonomous driving, incorporating a loop of cognition, judgment, and operation based on the five senses into the closed loop of the vehicle. They have built a comprehensive evaluation centered on people, with a high degree of immersion within the seating and interior environment. Dimension can be adjusted according to the actual tested vehicle.*

It includes a driver monitoring system, and interactions with the vehicle through sounds, ambiance and, of course, what the driver see through the front screen and digital mirrors, in 360° field of view. Real-time data collection is done through multiple sensors, to evaluate interior architecture and features within many different scenarios. These include two-lane lane changes, various traffic situations and sudden weather changes, and driver drowsiness and sickness due to prolonged driving. It helps to really understand the interactions between a driver and their environment for the sake of interior optimization.

Porsche Renndienst is Modular Travel Cabin

INTERIOR NEWS

IMAGE: PORSCHE

Last November, Porsche showcased 15 new concept vehicles, never before shown to the public. They'd been built between 2005 and 2019, and the Vision Renndienst was probably the most atypical one, as a family-friendly space concept for up to six occupants. A couple of weeks ago, Porsche released the first photos of the Renndienst's "modular travel cabin."

IMAGE: PORSCHE

With a central driving position, it doesn't look like an autonomous vehicle; it could even be seen as a chauffeured car. This position gives access to a massive digital instrument cluster with haptic buttons on the sides, the two passengers in the second row sit offset to the right and left in similar ergonomically shaped bucket seats.

IMAGE: PORSCHE

The configuration gives occupants a clear view of the road ahead and their own dashboard screens on either side of the steering wheel. The third row consists of a lounge-like bench seat with curved sides, with the head restraints installed in a floating position to allow a clear view through the rear window.

With asymmetrical side windows, the interior creates two distinct areas inside. Passengers can retreat to the side that is closed if they want to work or to take a nap, for example, while the other side's large window bank offers an unobstructed view outside.

How might this type of (dare we say it?) minivan enter into a future Porsche product portfolio…? Perhaps as a premium mobility service vehicle.

Melexis Intelligent OLED Controller

INTERIOR NEWS

IMAGE: MELEXIS

Melexis, a global microelectronics engineering company, has introduced the MLX81130, a highly integrated controller allowing both LEDs and OLEDs to be driven by a single device. It's an intelligent OLED controller that integrates all of the active components needed to realize combined point (LED) and area (OLED) lighting applications inside and outside the vehicle. Each MLX81130 can drive 25 LEDs/OLEDs and it supports the MeLiBu™ (Melexis Light Bus) interface. It allows simpler static and animated lighting system development, and is especially suitable for small OLED displays or rear combination lamps.

Designed to support ASIL B system integration, the MLX81130 in a QFN 5 × 5 package features 25 programmable constant current sources. It has been designed to operate in single-master and multiple-puppet configurations. Melexis Embedded Lighting Product Line Manager Michael Bender says “Lighting applications are becoming more sophisticated. Manufacturers start using also OLED technology. This offers improved uniformity, efficiency and design possibilities thanks to its smaller size; together with its MeLiBu high-speed communication interface, the MLX81130 can support both OLEDs and LEDs, allowing automotive manufacturers to realize value-added lighting features more cost-effectively".

Automotive engineers will appreciate that using LEDs alongside OLEDs typically requires two types of drivers, with two controllers and possibly two entire sub-systems that are not easily integrated. The MLX81130 overcomes this, thanks to independently programmable outputs that can drive both LEDs and OLEDs. Each device can drive up to 25 independent LEDs or 8 RGB LEDs, while supporting the extended threshold range needed by OLEDs. The MLX81130 has been designed to support multiple-slave configurations, meaning the total number of LEDs/OLEDs that can be controlled by one Master is almost unlimited.

Each constant current output is controlled through the integrated 16-bit MLX16 FX pipelined microcontroller, supported by a 32-bit math co-processor and 32 KB of Flash. Two watchdog timers with independent clocks and a 10-bit ADC are also provided. Outputs can be controlled via PWM. These output currents are programmable in steps of 1mA between 0mA and 15mA, then 2mA stepsup to 30mA per output**,** responding to the market's needs. For even more output current, multiple MLX81130 outputs can be bridged.

Balluff's Seat Assembly Solutions

INTERIOR NEWS

SEAT COLOR NUANCE CHECK (IMAGE: BALLUFF)

Balluff is a longtime partner of the automobile industry, offering electronics, sensors, identification, network and software solutions for industrial applications. Based in Neuhausen auf den Fildern, near Stuttgart, it is a midsize family company.

Mobility trends are pulling new interior functionalities, creating even more product diversity into the automotive mass production. For interior products, diversity has always been a challenge, especially as main sub-systems, such as seats are bulky. As CASE trends will even increase diversity through a high level of personalization, industrial organization of seat assembly (or any other complex assembly, such as door module, cockpit, overhead system…) needs a lot of *poka-yoke*—mistake proofing—to secure industrial operations. That's where Balluff expertise in term of sensors and software will help meeting the high expectations of automaker customers in terms of quality, reliability and process efficiency and to guarantee just-in-time delivery. Here are some remarkable examples:

RFID Headrest identification

IMAGE: BALLUFF

With RFID (automatic identification and localization of living beings and data using electromagnetic waves) every car seat receives the correct head restraint. The UHF labels integrated into the head restraints during

assembly are identified perfectly by a short-range reader because the rugged read/write head with a typical read range of 1 meter does not detect the adjacent head restraints. Also notable is its power scan function: simply pressing a button to configure the UHF reader so that it automatically adjusts itself to the data carriers.

Color nuances for textiles

To reliably check the frequent color changes of the seat materials, Balluff uses true color sensors. With the high color resolution any color, even slight color nuances can be recognized that are barely distinguishable by the human eye for a high product quality

Traceability for seat assembly

With RFID systems Balluff makes each individual work step of the seat assembly traceable. RFID data carriers attached to the workpiece carrier accompany it throughout the entire assembly process and RFID readers read out the data. Each individual step is recorded and any errors documented, so that the affected assembly is automatically sent to rework. The stand-alone readers are connected directly to the control level via Profinet or the Ethernet/IP interface.

Flexible and smart condition monitoring

Balluff multi-function condition monitoring sensor contributes to flawless operation of plant and systems. It detects physical variables such as vibration or temperature, processes them and provides the data to a host system via IO-Link. Errors and defects are detected early. When pre-defined limit values are reached, an alarm is generated. Specifying which data is communicated over the interface can avoid unnecessary data traffic. The sensor is self-monitoring for temperature, operating hours and startup cycles.

MIPI A-PHY: IEEE Standard For Interior Interfaces

INTERIOR NEWS

IMAGE: MIPI ALLIANCE

The Institute of Electrical and Electronics Engineers (IEEE) has adopted the MIPI specification asymmetric serializer-deserializer (Ser-Des) as a standard. With the so-called physical layer (PHY) described therein, automakers and suppliers can reduce the requirements for interfaces of cameras, sensors, displays and computer systems, simplify their designs and reduce costs, complexity, weight and power consumption.

The MIPI Alliance (MIPI) is an international organization that develops interface specifications for mobile and mobility-related industries. There is at least one MIPI specification in every smartphone manufactured today. Founded in 2003, the organization has over 325 member companies worldwide and more than 15 active working groups delivering specifications within the mobile ecosystem. Members of the organization include handset manufacturers, device makers, software providers, semiconductor companies, application processor developers, IP tool providers, automotive OEMs and Tier #1 suppliers, and test equipment companies, as well as camera, tablet and laptop manufacturers.

MIPI A-PHY was developed by the MIPI PHY Working Group and is available to MIPI Alliance members. It was also adopted as an IEEE standard in June 2021 and is available as IEEE 2977-2021. With a range of up to 15 meters, MIPI A-PHY (IEEE 2977) provides an asymmetric data link in point-to-point or daisy-chain topologies, with high-speed unidirectional data, embedded bidirectional control data, ultra-high noise immunity and optional power supply via a single cable. It also offers an extremely low packet error rate for unrivalled performance over the lifetime of the vehicle, extremely high immunity to electromagnetic interference (EMI) in demanding automotive conditions, and a data rate of up to 16 Gbit/s, with prospects for up to 48 Gbit/s and beyond. A-PHY also serves as the foundation of the MIPI Automotive Ser-Des Solutions (MASS) framework, which simplifies the integration of cameras, sensors and displays in a vehicle while providing functional safety.

To provide additional support to developers working with the MIPI A-PHY℠ v1.0 , the A-PHY Working Group has released an Application Note for MIPI A-PHY Specification v1.0: Profile 1 and Profile 2 (for MIPI members), providing key performance indicators to help implementers design solutions that are conform to the automotive long-reach serializer-deserializer (SerDes) physical layer specification.

MIPI A-PHY targets advanced driver assistance systems (ADAS), autonomous driving systems (ADS), in-vehicle infotainment (IVI) and other surround-sensor applications. To fit the technical attributes and cost structures of different automotive market segments, MIPI A-PHY defines two performance and immunity profiles. For each profile, the new App Note describes system validation simulation environments, noise sources considered and example simulation results, providing worst-case condition timing and electrical margins. In addition, a brief frequently asked questions (FAQs) section on just-in-time cancellers (JITCs) and stressed sensitivity / receiver interference intolerance is also included.

The Design Lounge

Back to the Future Luxury

THE DESIGN LOUNGE

1966 Aston Martin DB9

2021 Aston Martin DBX

Branding, brand image, brand language, brand heritage…everything about brands has become a key to success for the modern automaker. The task of visualizing the brand in a recognizable form language is critical to the market success of today's vehicles and thus the primary task of an automaker's design studio. But how do they balance brand heritage with exploring a new brand direction?

Over the years, this was accomplished by exploring new, or more modern, design languages so that the latest models looked fresh and appealing to future customer. Today, it seems to be accomplished by automakers entering a new vehicle segment with an applicable layout, such as Aston Martin (and Ferrari) have done with their latest SUV. This formula, successful for many makers, over time tends to stagnate the design language as they must always align with the designed-in branding of the previous generations.

This was not always the case. As an example, we can look to the Aston Martin Lagonda of the 1970s to 1990s, which tried to modernize the brand image with new technologies and form languages.

1974 ASTON MARTIN LAGONDA

Exploring a new direction that broke away from their traditional hand-crafted English roots, the Lagonda introduced a sharply creased exterior design reminiscent of origami, with pop-up hidden headlamps and the elimination of their signature grill. This created an antithesis of their earlier and more traditionally executed products offerings. Along with a new interior direction that introduced the most modern (for 1973) technologies including LED displays, touch sensitive switches and multi-function controllers which contrasted the traditional leather and wood materials.

In hindsight, we can debate if these technologies were fully developed or just not appropriate for the times as UX/HMI, entertainment, navigation, and that kind of thing were all a good 20 years away in the future. What was clear is that Aston Martin wished to position the brand as not just a fusty *ye olde English* hand-crafted company but one that could lead into the future.

ASTON MARTIN LAGONDA

ASTON MARTIN DBX

When we compare the latest DBX interior with the Lagonda, it becomes clear that Aston Martin Designers' current goal is to embrace the heritage and look-and-feel of the previous Astons of the 1960s with all of the

modern technologies required today. Function of a modern car with the look and feel and heritage of the old ones.

Most automakers use this branding approach, but how can the future brand image and brand language develop?

ASTON MARTIN LAGONDA

ASTON MARTIN DBX

When we compare the Lagonda from 1973 to the DBX form 2021, we can clearly see how the traditional approach of the 2021 vehicle dominates the interior. The technology aspect is purposefully downplayed as opposed to how the 1973 Lagonda places its technology front-and-center for the occupants with the touchpads and display integral to the vehicles interior design theme.

ASTON MARTIN DBX

The latest DBX expanded Aston Martin's market opportunity and sales potential by introducing an SUV but clearly wishes to keep their very traditional old-English-handcraft approach for their brand image and

differentiator. Moving towards a BEV future, one wonders if this traditional kind of brand heritage approach can continue to be successful. Without exploring how to apply the latest UX/HMI technologies along with a BEV architecture, their brand image, language and positioning seems to be move towards the brand's past instead of defining the brands future.

ASTON MARTIN LAGONDA

News Mobility

_Car Interiors Unplugged: On Hiatus

Car Interiors Unplugged will resume after summer.

VW's ID.Buzz: for Ride Pooling, Ride Hailing, Cargo

NEWS MOBILITY

VW ID.BUZZ RIDE HAILING FRONT SEAT (ABOVE), CARGO EXTERIOR (BELOW). IMAGES: VW

Volkswagen plans to launch versions of their EV ID.Buzz van configured for passenger ride-pooling and ride-hailing, and for cargo.

In Europe, a six-seat passenger version will be aimed at ride-pooling services. Rear seats will be individually accessible and will have a separate information screen for each passenger. America will get a ride-hailing variant, focused on customers traveling alone or in small groups. It will have only four seats, two facing forward and two rearward. A third version, the ID.Buzz Cargo, will be a commercial van, largely aimed at parcel delivery companies growing because of the online shopping boom.

During VW's Strategy 2030 presentation on 13 July, VW showed a self-driving ID.Buzz with the driver's seat facing toward the rear of the vehicle instead of toward the road ahead. The ID.Buzz is due to go is sale late next year in Europe and in 2024 in America; VW is also testing prototypes with L^4 autonomy to be ready for commercial transport of people and goods for 2025.

Toyota’s Woven Planet Acquires Lyft’s Level 5

NEWS MOBILITY

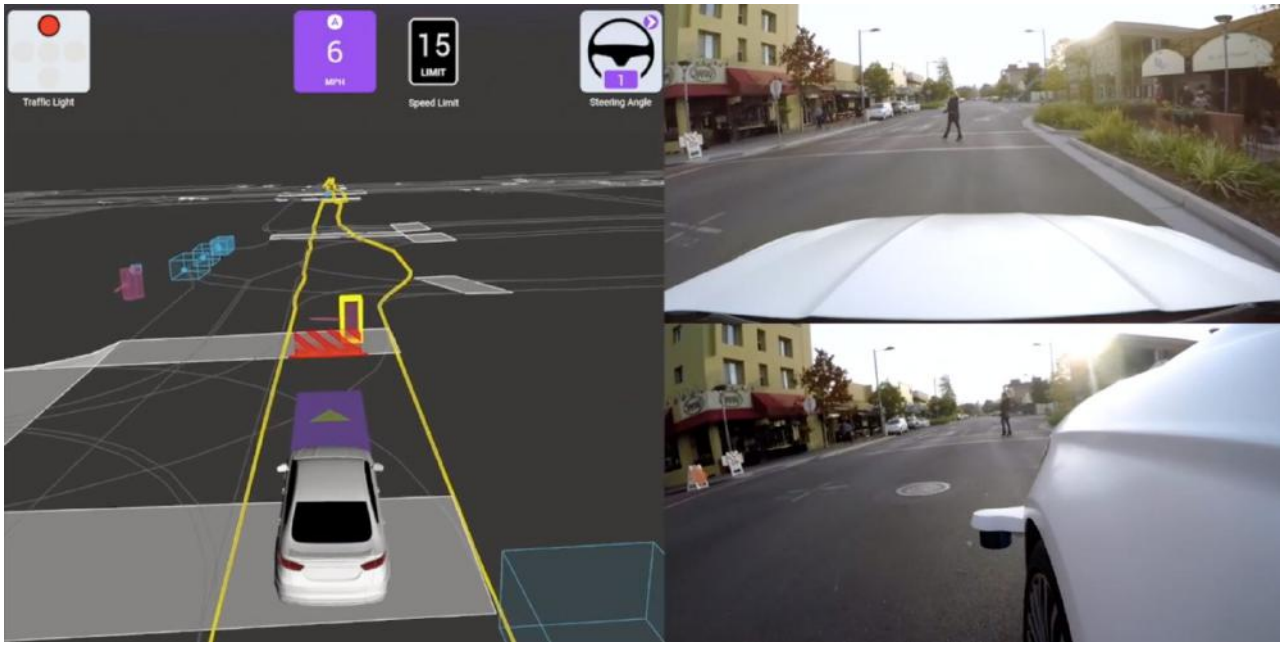


IMAGE: LYFT

Toyota Motor Group Subsidiary Woven Planet has announced the completed acquisition of Level 5, the self-driving division of rideshare company Lyft. The completed transaction is one of several made by Toyota and their subsidiaries in 2021, specifically pertaining to autonomous software and other self-driving technologies. Woven Planet began in 2018 under the name Toyota Research Institute – Advanced Development (TRI-AD), before becoming Woven in 2021.

Woven Planet Group is the holistic mobility solution provider, blending traditional quality-driven Japanese industry with Silicon Valley's innovative ecosystems. Their new approach goes far beyond how people move and expands to include how we exchange goods, services, and information, how we interact with each other, and how our actions can positively impact the planet.

Lyft, founded in 2012, is one of the largest networks of Mobility as a Service (MaaS) in the US and Canada. Level 5 is a division of Lyft formed in 2017, specifically dedicated to self-driving technologies. In four years, the self-driving division has reached public road testing of its fourth-generation platform.

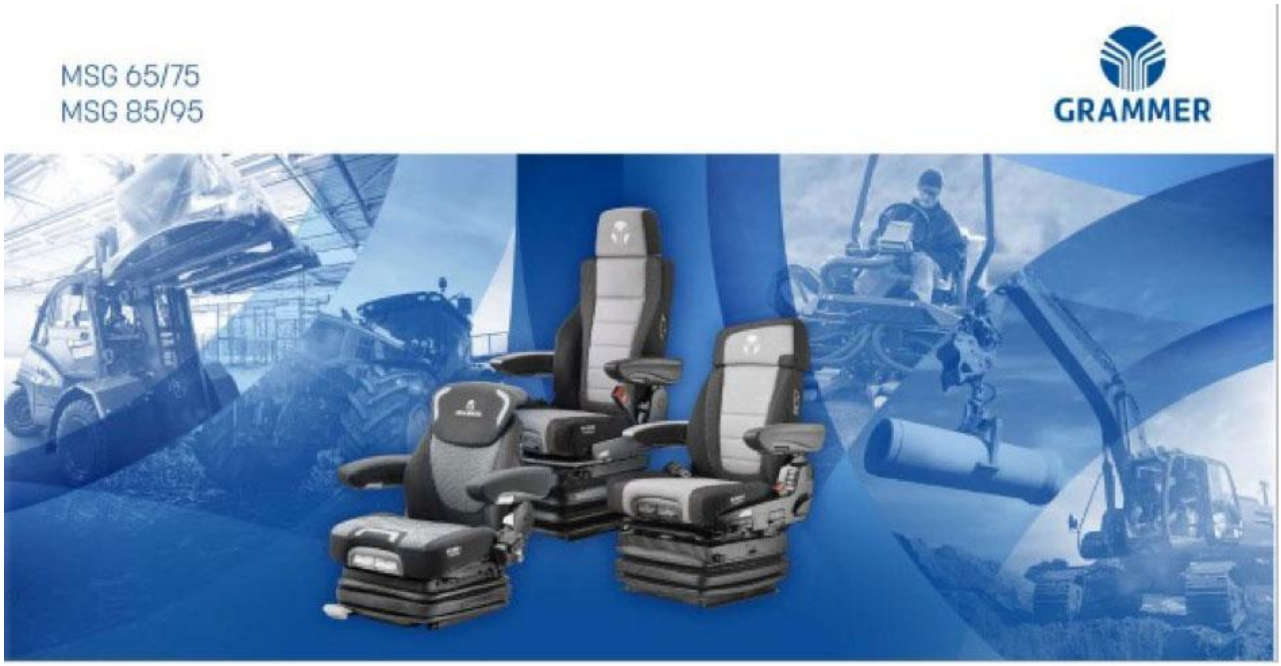
In an official press release, Woven Planet Holdings announced they had finalized their acquisition of Level 5 from Lyft Inc. and will now own all of the latter's self-driving technology, plus Level 5’s operations in Silicon Valley and London.

Earlier last month, Woven Planet announced a second major acquisition in Carmera, a US-based spatial AI company specializing in next-generation road intelligence in automated mobility. When complete, that newly acquired team will work with Woven Planet Alpha on the company’s Automated Mapping Platform (AMP). These investments confirm Toyota willingness to become a major mobility provider, while confirming that MaaS has huge potential using self-driving technologies in passenger vehicles.

General News

Grammer Supplies 1 Million Off-Road Seats

GENERAL NEWS



Grammer, headquartered in Ursensollen, Germany, is a full-service provider of driver and passenger seats, as well as innovative thermoplastic components. They supply around a million off-road driver seats each year to automaker customers globally, for vehicles used in agriculture, construction and material handling.

Grammer's MSG offroad modular system, which includes the MSG 65/75 and MSG 85/95 models (MSG stands for "Modular Seat Generation"), features seat frames in three different seat widths, mechanical and air suspension systems and seat tops with low, high or split backrests plus armrests. In addition, they include features such as vertical and horizontal shock and vibration damping, lumbar support, seat heating, ventilation, automatic weight adjustment, memory function, swivel adapter and other functions. It also integrates multi-functional armrests, which serve as increasingly complex control units for operating and controlling large agricultural and construction machinery.

All models in Grammer's range of offroad seats are designed with comfortable, safe and fatigue-free operation in mind. Ergonomically shaped seat cushions, backrests and armrests provide optimum support for the human body, with unique features, such as Grammer's Dualmotion adaptive back support, which rotates backward in sync with the upper body when the driver looks over his or her shoulder, reducing muscle fatigue during rear-facing operations, improving visibility of the vehicle attachments and enhancing safety.

Grammer currently supplies around 400 customers in the global tier-1 market. Production facilities in Germany, North America, Mexico, Brazil, and China handle local manufacturing to benefit from local resources, short transport distances (also needed because of high product diversity) and fast response times.

Grammer sees growing demand for new seat features such as haptic warning systems, fully electrified seats and other functions at the human-machine interface, especially in the high-end machines used in the agricultural and construction industries.

VW Buying Europcar For Mobility Services

GENERAL NEWS

IMAGE: EUROPCAR

Volkswagen will buy French car rental company Europcar. VW is interested in gaining access to Europcar's infrastructure and technology as the basis for developing future mobility services such as ride-hailing and car-sharing.

In a news release, VW said, "The Volkswagen Group is taking a major step forward in its new auto strategy to become a leading provider of individual mobility in the electric and fully connected age. In a consortium with London-based asset manager Attestor Limited and Dutch mobility provider Pon Holdings BV, Volkswagen agreed to launch a recommended takeover offer for Europcar Mobility Group…"

Volkswagen Chief Executive Herbert Diess said, "The mobility market is changing rapidly as customers increasingly demand new and innovative on-demand mobility solutions, such as subscription and sharing models to complement car ownership."

"Europcar provides advanced fleet management capabilities as well as a broad network of stations at major airports, railway stations and city locations and will help accelerate Volkswagen's delivery of its ambitious mobility services targets."

Europcar has more than 3,500 rental stations across more than 140 countries and a fleet of over 350,000 vehicles in 2019, serving over 5 million customers per year.

Volkswagen has previously owned Europcar, and sold the company in 2006. Now they reckon consumers are ready to rent rather than own a vehicle, and this acquisition is an opportunity to create a leading mobility platform for services complementing car ownership.