DVN-I
Automotive Interior

Thu, 26 August 2021 Weekly Newsletter **NEWSLETTER #75**

Editorial

Just 4 Weeks Until DVN & DVN-I US Workshop

The hybrid live and online DVN US Workshop will happen in Novi, near Detroit, on 21-22 September. The rubric is *How to Save Lives in Nighttime Driving.* DVN-Interior is integral to this Workshop, particularly with relevant lectures and discussions about driver monitoring systems. They're expected to become mandatory in the world's major markets by 2024, which means now is the time to get up to speed on DMS technologies and innovations—along with the related ones in ADB, LED, microLED, lighting performance, simulation, testing, measurements, and regulations. These DVN Workshops are renowned for their uniquely excellent networking opportunities and as a prime venue for presenting your company's products and services in an expo booth, so if you haven't yet done so, hurry and **register** while there's still space available!

The complexity of the automotive system will increase. Professor Burkhard Göschel, BMW board ex-member for development, is convinced that we need a complete rethink of development and new tools to master these future challenges; read about it in this week's **In-Depth** piece.

In our **Interior News** you will find a comparison of the HMI operating systems of 20 car models, discussion of reinforced data security and cybersecurity of intelligent connected

vehicles (ICVs), the importance of HUDs for windshields as functional surfaces, and a technology to efficiently capture VOCs from PVC and PU materials inside the car.

Today's **Mobility News** deals with Tesla's so-called "Autopilot" system—under heightened regulatory scrutiny in America as a disturbing pattern of crashes emerges—and a new test field for automated driving in Aachen, Germany. In the **Design Lounge** we present impressions from Monterey Car Week in California, and the **General News** section gives an overview of that event as a refreshing alternative to traditional motor shows. Additionally you can find out more about Faurecia's Hella acquisition, interesting joint projects of Webasto with DesignLED and a variety of startups, and Dräxlmeier's new CEO.

You're a DVN-Interior subscriber…aren't you? If you aren't yet, come **join us**!

Sincerely yours,

Carsten Befelein
DVN-Interior Consultant

In Depth Interior Technology

Technical Simulation is not an Option - it's Essential!

IMAGE: CENTOMO

The transformation of the automotive industry towards greater ecological-environmental compatibility, autonomy, and electrification is highly complex. Only simulation makes this process manageable, according to BMW board ex-member for development, Professor Burkhard Göschel.

PROFESSOR BURKHARD GÖSCHEL

Now more than ever before, it is a steep challenge for the automotive industry to balance legal requirements and consumer demands. The industry must become more proactive and shift towards a more cooperative approach to regulators—for example, by providing thoughtful, realistic model regulations. Too, it must open up the design horizon that includes customer acceptance.

Sustainability is only one aspect of the comprehensive technological change currently ongoing, which also includes electrification as well as autonomous driving, new usage models, connectivity, safety, and occupant wellbeing. All these factors increase the

complexity of the automotive system. To master this complexity within the cost and time constraints inherent to this industry, a complete rethink of development and system architecture is needed, and tools capable of making this complexity comprehensible and manageable.

Only with the help of physics-based simulation and MBSE (model-based systems engineering) -already used in early development phases - can the development process be carried out so as to save time and resources. In Professor Göschel's view, there are three reasonswhy engineering simulation and MBSE have not yet established themselves as essential tools, and the automotive industry urgently needs to work on these:

First off, **technological change must be preceded by attitudinal change**. The use of digital tools and technical simulation is not new; the market for simulation applications in the automotive industry alone is already estimated to be worth nearly USD $4bn through 2026. That's because these techniques allow prototypes, assemblies, and complete car bodies to be digitally created and physically tested dependably. This saves time and reduces costs, as resource-intensive prototypes can increasingly be skipped and development cycles are significantly shortened and cost-reduced as a result. Nevertheless, there is still quite a bit of skepticism and mistrust, and lingering preference for old-fashioned physical prototyping. That's increasingly unsustainable, though, due to the growing complexity of the systems. Cars are already rolling computers, with software architecture and control at least as important as the mechanical and electronic components. To cope with this complexity appropriately, skepticism must be aggressively addressed - this is a leadership task. Department heads, management, and executive boards must promptly and vigorously establish simulation as the standard from early in the development phases and throughout their companies, and thus flush away the reluctance to depart from 'the way we've always done it' and get engineering teams familiar and comfortable with these techniques by dint of positive experiences.

Secondly, **life cycle thinking must prevail**. According to BMW CEO Oliver Zipse, sustainability is a question of survival for the industry. In the past decades, the focus of legislation—and of many car manufacturers internally—was largely on optimising the use phase. The giant environmental footprint was ignored of the associated processes, such as the extraction of raw materials; logistics, and production. Reuse or recycling scenarios weren't considered. Especially in the context of electrification and the critical examination of the battery as a sustainable performer, these areas are receiving overdue attention, and more of that is urgently needed.

In addition, the Supply Chain Act will oblige companies in Germany to ensure their contract partners abroad comply with human rights and environmental requirements—and it's likely other countries will promulgate comparable laws. That means the industry can no longer avoid life cycle assessment of its automobiles. Simulation tools can be of great help here. With a networked, virtual replica of a system in operation, the use of the vehicle can be optimised in terms of energy and heat loss, software control, and numerous other such parameters; wear and tear can be predicted and maintenance can be better planned, and longevity can be increased. And in early-stage development, material databases (such as Ansys Granta) can help minimize the use of materials, increase the recycling rate, and select nontoxic materials in a targeted manner. Production processes can also be simulated to minimize energy required in manufacturing processing.

And thirdly, there must be **more focus on the overall system view**. New requirements for energy efficiency and alternative drives, as well as the dynamic development of new assistance systems and autonomous operation, also require new simulation methods for virtual validation. Today, simulation already ensures in many cases that all components in the system function as expected. But many companies still lack a holistic view of the entire system. This can be achieved with physics-based simulation and MBSE.

The best examples of overall system analysis using technical simulation are currently to be found in racing; look at the world record runs of the VW ID.R at the Pikes Peak International Hill Climb and on the Nürburgring Nordschleife. For Pikes Peak, an electric racing car was completed in just a few months using multiphysics simulation software from Ansys.

Another example is the Formula E team from Porsche. Here, the battery capacity and power output specified by Formula E are limiting factors. Efficiency optimization based on component and system considerations is therefore decisive for victory or defeat. Multiphysics simulation illustrates the physical problems—heat, fluids, mechanics, electrics, etc—and interactions of the components in the system with each other.

The upcoming next step is model-based systems engineering. MBSE will enable engineering teams to understand the complex software architecture requirements of the entire system. As electronic architecture is already increasingly software-based, MBSE will need to complement multiphysics simulation in a whole-system approach.

Simulation promotes innovation in electrification, autonomy, connectivity, safety, new usage models and sustainability. The automotive industry is in the throes of technological transformation driven by market, social and societal, and legislative forces. Simulation is helping the industry innovate faster, significantly shorten development cycles, and reduce costs through higher quality, more R&D efficiency, and fewer physical prototypes. But distrust of technology and reluctance to invest are stalling the necessary transformation in engineering teams. Without holistic simulation and MBSE in the early stages of development, the growing complexity of the entire automotive system cannot be mastered.

Only with simulation as an essential tool in development will the automotive industry succeed in regaining its room to maneuver in the political and social discourse and deliver meaningful solutions for future customer- and environment-oriented legislation.

PETER MERTENS / EX-AUDI BOARD MEMBER: "JOINING FORCES TO STAY IN BUSINESS"

Interior News

German Cars' HMI Operation is among the Safest: Study

INTERIOR NEWS

IMAGE: BMW

A driver glancing (or looking longer) at the controls and displays of their car is unaware of the traffic situation; those who aren't familiar or comfortable with the vehicle's controls are especially vulnerable to this kind of distraction from what is happening on the road. According to a comparison, this happens relatively rarely with German car brands.

German premium brands Audi, BMW, Mercedes-Benz, and Porsche have one of the best infotainment systems because they can be operated intuitively - that's the conclusion reached by the claims adjuster “The Compensation Experts”, who analyzed data from the British comparison portal “What Car”.

What Car used two drivers to test 20 car models. Six tasks were scored with a difficulty level from 5 (easy) to 0 (difficult); the maximum achievable score was a perfect 5 on all tests, for a total of 30. The analysis was based on common driving tasks:

- Increase temperature by 2°;
- Increase fan speed by two levels;
- With a 20-kilometer route programmed in the navigation system and the infotainment screen on the home page, go to the map screen and zoom out until the entire route is visible;
- Cancel the route guidance;

- If the radio is set to Virgin Radio DAB and the infotainment screen is on the home screen, select the main list of DAB stations and switch to BBC Radio 4, and
- Use the voice control button on the steering wheel (if present) to prompt the vehicle to find the nearest fuel station.

The BMW 3-series got the high score. Its HMI is intuitive and only minimally distracts the driver from the actual driving task. Other premium German cars were clustered tightly in the top slots, with Mercedes and Porsche tying for third. The worst score was won by the MG ZS EV with its eight-inch display. Japanese brands as well as Fiat, Peugeot, and Škoda scored poorly in the evaluation. Here (in German) are the rankings, with columns from left to right Rank, Make, Model, and Points:

Rang	Marke	Modell	Punkte
1	BMW	3 mit Live Cockpit Professional	28
2	Mercedes-Benz	CLA mit 10,25 Zoll Bildschirm	27
	Porsche	Panamera E-Hybrid mit Connect Plus	27
4	Audi	Q3 Sportback mit Virtual Cockpit Plus	26
5	Mazda	3 mit Mazda Connect	25
6	VW	Passat GTE mit 8 Zoll Bildschrim	24
7	Ford	Fiesta mit Sync 3 und Fordpass Connect	23
8	Hyundai	Ioniq mit 10,25 Zoll Bildschrim und Bluelink	22
	Vauxhall	Corsa mit 10 Zoll Multimedia Navi Pro	22
10	Skoda	Kamiq mit 9,2 Zoll Bildschrim und Amundsen Sat-Nav	21
	Jaguar	XE mit 10 Zoll Pro Duo System	21
12	Volvo	S60 mit Sensus	20
	Toyota	Corolla mit Touch 2 Mediasystem; Apple Carplay und Android Auto	20
14	Nissan	Juke mit Nissan Connect	19
15	Honda	CR-V mit Honda Connect und Garmin Navi	18
	Lexus	RX	18
17	Peugeot	508 SW mit Connected 3D-Navi	17
18	Skoda	Citigo-e iV	16
19	Fiat	500X	14
20	MG	ZS EV	12

"The German manufacturers implement HMI systems with a very sound knowledge of the users and the legal requirements", says Josina Formann, head of Media Production at Screens GmbH. His company films the complete menu structure of new vehicle models and makes their operating concepts comparable in an accessible manner.

China ICV Developers must manage Data Security, Cybersecurity

INTERIOR NEWS

IMAGE: SAIC

The Chinese Government is requiring greater efforts in the management of data security, cybersecurity, software upgrade, and functional safety related to intelligent-connected vehicles, according to a document issued by China's Ministry of Industry and Information Technology (MIIT).

As vehicles are more and more turning into rolling computers, it seems a pretty obvious need to protect vehicles and their data—but then again, we don't do a very good job of protecting non-rolling computers and all our personal data, either; it seems every week a new hack or leak is announced.

In this official document, the MIIT advises enterprises to build sound systems for the management of automotive data security and fulfill their data security protection obligations in accord with laws, establish data assets management ledgers, implement data classification management, and strengthen protection of personal information and other important data.

The MIIT also urges companies to adopt technical measures for data security protection to make sure data are consistently protected and used, implement the data security risk assessments, and report data security incidents according to laws.

Moreover, companies are urged to build systems for automotive cybersecurity management, carry out cybersecurity grading protection and real-name registration of IoV (Internet of Vehicles) card. They are also required to have the technical measures that prevent automotive electrical/electronic systems, modules and functions from being threatened by hackers, and possess the technical conditions for discovering and handling cybersecurity defects and vulnerabilities.

AR-HUDs from Here Technologies

INTERIOR NEWS

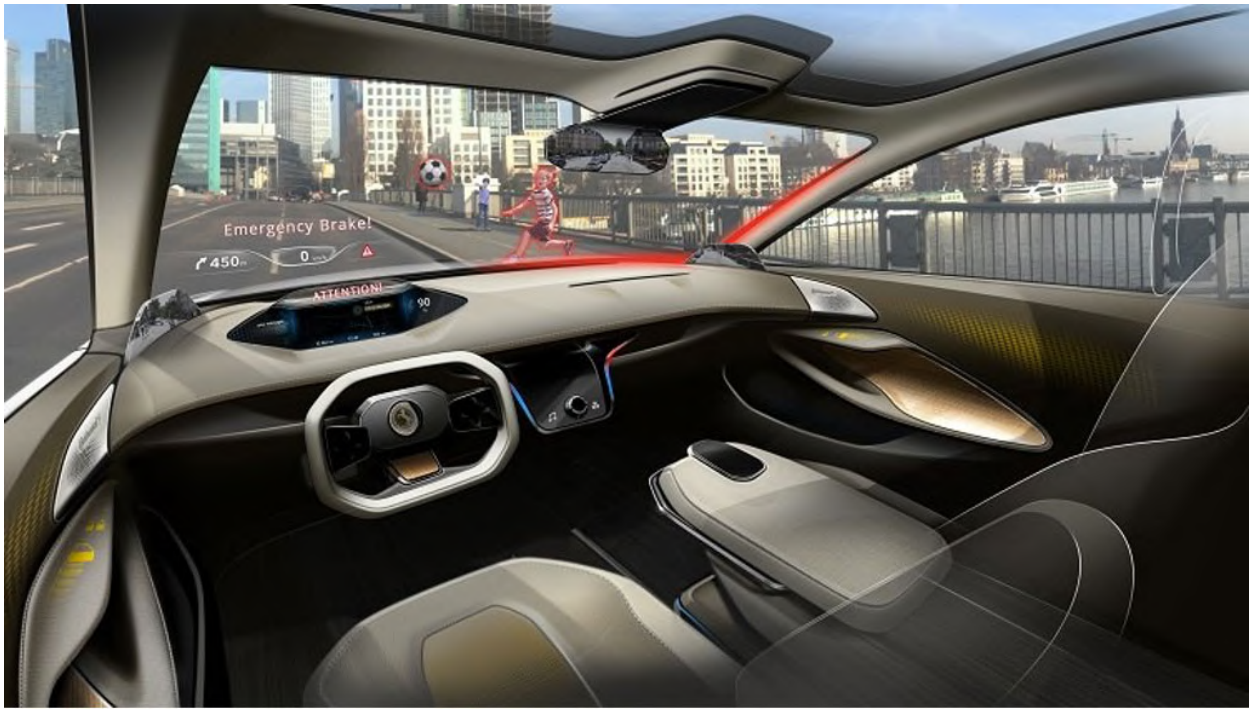


IMAGE: HERE TECHNOLOGIES

According to Here Technologies, HUDs (covered in-depth by DVN-I on 10 June 2021) are about to get a major upgrade. Here is a Netherlands-based company that provides mapping and location data. They say the next step in vehicle UX is to use the windshield as a massive real estate to become another functional surface.

Present automotive HUDs are excellent for hosting displays previously located in the instrument cluster and infotainment system. They're especially good with in-car navigation. Having a map program projected as part of the viewing space makes turn-by-turn directions intuitive, almost reflexive. Of course, graphics need to be designed specifically for the capability of the windscreen, so as not to appear fuzzy or washed out.

AR-HUDs (augmented-reality head-up displays) aim to turn the car's windshield into an AR display. Automakers including Jaguar, Hyundai, and Porsche have been working to include AR-HUDs in their cars, banking on potential safety benefits like helping the driver see cyclists and other vehicles nearby, or even seeing around corners. There's also enormous advertising potential - the HUD would be able to drag people's attention to particular attractions, restaurants, and stores without distracting the driver too much (presumably there is someone whose job it is to figure out what constitutes just the right amount of distraction).

Aqdot captures interior VOCs

INTERIOR NEWS

Aqdot, a chemtech company based in Cambridge, England, has a new AqFresh technology - described in the company's online **video** - for the automotive interiors market. It's a powder successfully demonstrated to VOC emissions of polyvinyl chlorides and polyurethanes. It works by capturing VOCs from PVC and PU materials, to a level where they consistently pass the threshold of the VDA-270 assessment protocol for automotive interiors. This enables materials treated with the technology to consistently score below the accepted 3.0 threshold level on the 1-6 scale, to meet the industry standard.

The odor capture technology can be added to automotive interior materials and consists of cucurbiturils, which are barrel-shaped molecules with a hydrophobic cavity and polar portals. Their structure enables exceptionally tight capture and binding of unwanted molecules. The technology has been proven to capture the eight VOCs found in automotive interiors: acetaldehyde, acrolein, benzene, ethylbenzene, formaldehyde, styrene, toluene, and xylene, all coming from post-polymerization of plastic materials.

According to the company, research shows that 79 per cent of consumers experience bad odors in their car, especially in brand new vehicles. As well as the obvious sources such as poor ventilation, fumes and body odor, a key problem cited by car users is the leather and plastic smell particularly prevalent in new cars. In a survey of over 500 consumers in the USA, UK, France, Italy, and China, 86 per cent of respondents felt bad odor negatively affects their mood, and 69 per cent are now more concerned than ever about indoor air quality.

Smelly VOCs are not just an issue of customer satisfaction, but also a health issue, as these volatile components can affect breathing and lungs. Many countries are introducing guidelines or legislation. For example, VOCs already are limited in Europe, and China in 2012 introduced a guideline for air quality assessment of passenger cars, which covers testing methods and maximum automotive interior emissions.

Under test conditions, AqFresh powder was placed side-by-side with polyvinyl chloride and polyurethane in a glass jar, and a trained panel rated the VOC odor emissions from the jar. The VDA odor test is run by Aqdot using trained assessors selected according to

ISO 8586 for their ability to discriminate and describe bad odor. They are trained and assessed quarterly using validated polymeric standards provided by a qualified supplier.

When testing materials, the panel follows the ISO 4121 and VDA 270 tests to evaluate the impact of the AqFresh counteractant. The panelists evaluate the odor intensity based on the scale from 1 (undetectable) to 6 (extremely strong odor) and the hedonic tone from -4 (extremely unpleasant) to +4 (extremely pleasant).

The Design Lounge

Monterey Car Week, 5-15 August 2021

THE DESIGN LOUNGE

1938 MERCEDES-BENZ 540K AUTOBAHNKURIER: PEBBLE BEACH CONCOURS BEST OF SHOW

Over the past few years the traditional auto show has seen its significance drastically reduced. With the pandmic cancelling motor shows over the past year, nontraditional methods of presentation have come to the fore, such as digital unveilings. But in-person events remain relevant - especially rarefied ones for the ultra-wealthy, such as the Monterey Car Week. This year's event showed how traditional concours (Pebble Beach Concours D'elegance); motorsports (The Quail, A Motorsports Gathering), and automakers' new and concept vehicle reveals all combine to make an even richer experience for the automotive designer and enthusiast - they are now able to view not only the latest vehicles coming to market but also the long history behind vehicle designs. The focus during the Monterey Car Week unveiling was distinctly on motorsports, or sports car type vehicles in three categories: hypercars, historically-referenced vehicles, and BEV performance.

Hypercars

Bugatti and Aston Martin both have a long, rich history of high performance vehicles and chose to showcase their latest—and most likely last—hypercar designs that are influenced from motorsports Group-C racing vehicles, but for the street.

BUGATTI BOLIDE

Perhaps the last combustion-engine vehicle from Bugatti, the Bolide is a racer for the road and track. The nostalgic references given to previous Bugattis have been removed and replaced with a thoroughly modern, high-tech experience.

This is a modern racecar with a focused performance goal as can be seen in the yoke-type steering wheel, abundance of suede-type materials, exposed carbon fiber, racing-bucket seating and a digital instrument cluster positioned on the steering column.

ASTON MARTIN VALKYRIE SPIDER

Aston Martin has also introduced the Spider as a roofless-targa version of their Valkyrie hypercar. Inside we also see a race-oriented oblong steering wheel with an integrated display/cluster. Additional displays are also used for the side and rearview mirrors, although the level of integration seems to be deliberately low, adding to the racecar look and feel.

Historically referenced vehicles

These vehicles are inspired by past successes within each automaker's history within racing or performance. Example the first: the re-introduction of the Countach name by Lamborghini.

LAMBORGHINI COUNTACH LPI 800-4

Clearly an homage to the iconic Countach of the 1970s, the latest from Lamborghini is based on the hybrid drivetrain of the Sian, which is itself based on the Aventator platform. As primarily a styling exercise, the interior has omitted any past references and is thematically similar to the current Lamborghini vehicle range.

FORD GT '64 PROTOTYPE HERITAGE EDITION

With the latest (and probably last) version of GT powered by a combustion engine, Ford has progressed to a more modern aesthetic and function. This latest 'Heritage' edition harks back to the original Ford GT prototypes with the black and cream colorway of the exterior and the red velour material used for the seating.

RADFORD TYPE 62-2

Finally, although no interior was shown, the Lotus Evora based Type 62-2 from Radford pays homage to the successful Lotus 62. Dressed in a modern interpretation of the iconic Lotus gold-leaf race cars livery, Radford is creating a modern type 62 for the road with the backing and developmental input of F1 star Jenson Button.

LOTUS EVORA

This also seems to be the last ICE version of a Lotus vehicle as the future was also displayed during the Monterey Car Week with the Lotus Evija BEV.

BEV Performance

The future of hyper/super/sports cars seem to be secure when looking at these BEVs

LOTUS EVIJA

Although introduced earlier, the vehicle shown during Monterey Car Week was covered in the old yellow and blue Lotus F1 livery. Boasting a modern interior with the latest UX/HMI capabilities (and another yoke-style steering wheel) the interior has no such retro inspirations.

Which brings us to the otherworldly performance of the Rimac Nevera.

RIMAC NEVERA

With its official market introduction, the Nevera is the quickest production vehicle ever produced. Showcasing not only Rimac's sensational BEV drivetrain technology, the complete interior UX/HMI was developed in-house allowing for extreme driver-focused adjustability.

This capability from Rimac can also be seen in the Pininfarina Battista.

PININFARINA BATTISTA

Rimac developed the BEV technologies used by Pininfarina for their Battista, while leveraging their years of experience in design to develop a beautifully proportioned exterior and interior. The driver-focused environment has three distinct displays for the driver while also separating the passenger with a curved high tunnel console.

Finally, the future of the high-performance vehicle can be seen with Audi's Skysphere concept - we covered it last week - which creates a dual-mode vehicle, an autonomous grand tourer and a high-performance sports vehicle.

AUDI SKYSPHERE

With BEVs arriving, the future of the hyper/super/sports car seem to be well secured.

News Mobility

_Car Interiors Unplugged: On Hiatus

Car Interiors Unplugged will resume after summer.

US Government investigates Tesla's "Autopilot" System

NEWS MOBILITY

NHTSA, the US National Highway Traffic Safety Administration, is investigating Tesla and their "Autopilot" system as an alarming pattern of rear-end crashes has been emerging. So far, the investigation centers on eleven incidents between January 2018 and July 2021 in which Teslas rear-ended emergency vehicles parked on the side of the road, causing 17 injuries and one death.

Tesla aggressively markets their extra-cost capabilities with names like "Autopilot" and "Full Self Driving", while admitting to regulators that these are only SAE L^2 assistance systems requiring the human in the driver's seat to keep hands on the wheel at all times, always be ready to take control. Critics accuse Tesla of exaggerating the systems' capabilities for marketing purposes, and say the system names are misleading and

encourage negligent use. They might be right; even disregarding the pattern of Teslas operating in "Autopilot" or "Full Self Driving" mode hitting parked vehicles, a quick look on YouTube shows Tesla drivers misbehaving as if their cars are L[4] or L[5] items. Tesla tinkered with their software to notice when the driver's hands are not on the wheel and emit warning tones after a short time, but a couple of weeks ago a major U.S. auto magazine found this purported safeguard is easily defeated.

This is not NHTSA's first investigation of Tesla's "Autopilot"; the agency looked into a fatal crash in 2016: the driver died after his Tesla crashed broadside under a semitrailer positioned across the roadway in the middle of a turning maneuver. NHTSA concluded that the system had worked within its capabilities, but the human at the wheel had relied on it too much. The "Autopilot" system had not detected the trailer with its white side facing front, and so had not initiated a braking process. The driver had not reacted either.

NHTSA says that in the current group of eleven crashes being investigated presently, the fire engines and ambulances were clearly visible with their flashing lights operating. The "Autopilot" system was active in all the Tesla vehicles involved. The investigation may yet expand; another unhappy recent revelation is that Tesla's "Autopilot" can repeatedly try to stop the car for what it perceives as a yellow traffic light—even though it's actually the moon.

New AD Test Field under construction in Aachen

NEWS MOBILITY

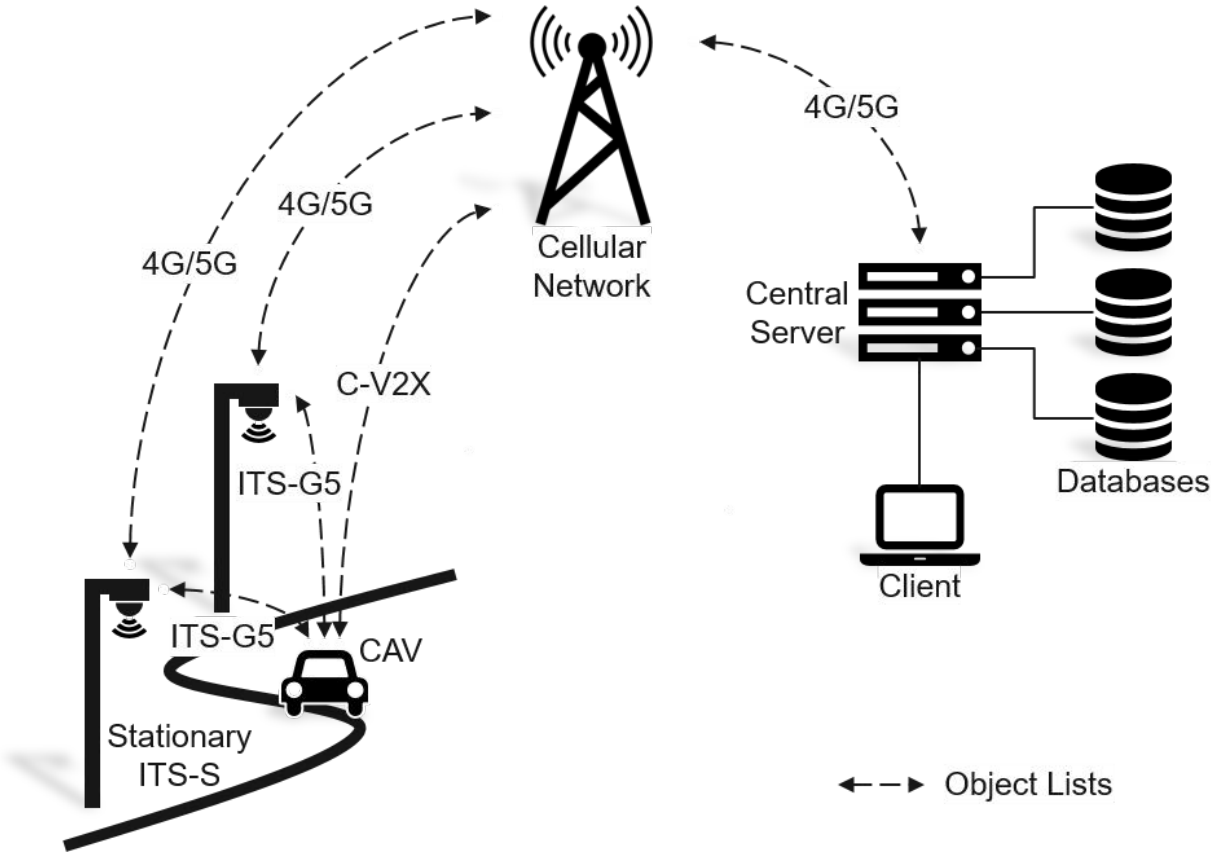


IMAGE: RWTH AACHEN

RWTH Aachen University has set up measuring facilities for anonymous traffic data collection at the Melaten campus. The data is intended to support the development and validation of automated driving functions.

For the research project "Corridor for New Mobility Aachen - Düsseldorf" (ACCorD), 46 measuring devices with camera sensors and laser scanners were mounted on selected lampposts at the Melaten campus in Aachen. By setting up a digital test field in real traffic, the Institute for Motor Vehicles at RWTH Aachen University aims to collect anonymised traffic data in order to develop and safeguard automated driving functions.

The evaluation includes the spatial recording of all road users and their direction of movement. For analyses, the measuring stations only provide the information as to whether it is a human or a vehicle as well as the temporal position of these anonymous objects. The raw data is evaluated immediately after recording and then deleted again.

General News

Faurecia's Hella Acquisition: ADAS and Software

GENERAL NEWS

IMAGE: HELLA

Faurecia is buying out the familial 60 per cent control of Hella for €60 per share, a total of just under €4bn—and also wants to acquire further shares at this price.

"If the French succeed in acquiring 95 per cent of the Hella shares, the supplier will be taken off the stock exchange", says Faurecia CEO Patrick Koller, who ruled out Hella's disappearance in the new group, calling Hella "a very valuable brand".

However, the Hueck family will not be exiting completely; a representative of the family will join the Faurecia board of directors. In addition, the Huecks will receive nine per cent of the listed umbrella company. The closing of the transaction is subject to regulatory approvals and is expected for the beginning of 2022.

The merger of Faurecia and Hella will create a top-10 supplier. Both companies are aiming for a turnover of €23bn this year, which would put them in 8th place in Automobil Industrie's top 100 list, ahead of Michelin. Faurecia is thus catching up with Magna, which is courting Veoneer, and with ZF.

Patrick Koller also showed what role Hella will have in the future organization: The headquarters and the central research and development facilities for lighting technology, electronics and the newly created Lifecycle Value Management division will remain in Lippstadt.

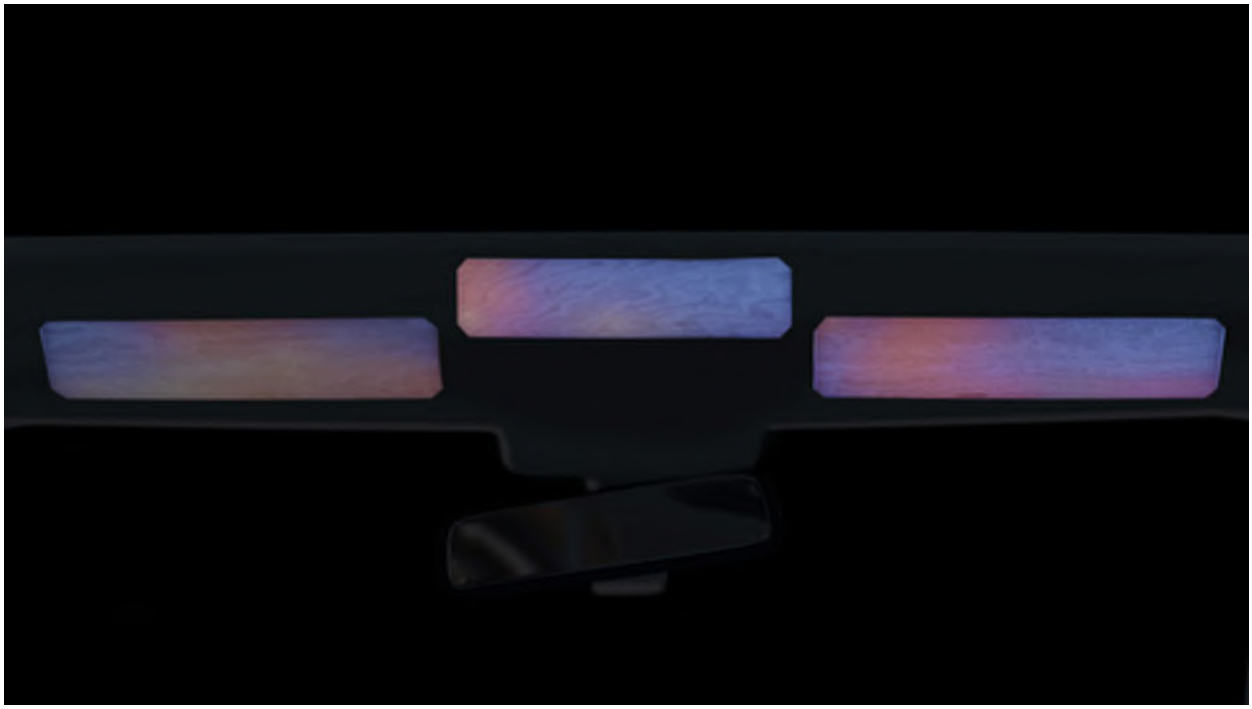
At Faurecia in Paris, the three Business Groups - Seating, Interiors, and Clean Mobility - have the critical mass part of the world leaders. The fourth one, Faurecia Clarion Electronics, is still growing, and Hella's high expertise in ADAS and Software will contribute to create a world leader in its domain.

Together, they'll have more than 150,000 employees. As a whole group, Koller wants to achieve strategic goals in Electronics and Software, and a better margin than Faurecia and Hella had previously set themselves individually. He justifies the goal with synergy effects that should reduce costs by up to €200m annually.

Since 1923, the Hueck family has held a majority stake in Hella, which was founded in 1899. The sale of their 60 per cent holding was necessary because the agreement on joint action concluded at the time of the IPO in 2014 would have expired soon. After that, it would have become more difficult to bundle the interests of the owners.

Webasto + Startups = Luminous Joint Project

GENERAL NEWS



WEBASTO'S BACKLIGHTED TRANSLUCENT SURFACES FOR CONVERTIBLE ROOFS

Collaboration with startups helps Webasto combine expertise and experience with ideas from outside. The company presented several joint projects at the Startup Autobahn innovation platform last month. This year, the focus was on their collaboration with DesignLED. The company, founded in Scotland in 2004, develops thin and flexible LED lighting and smart surface solutions for the automotive industry. The aim of the cooperation with Webasto was to integrate dynamic lighting options in the roof to increase comfort for end customers, among other things. The prototype of a convertible roof element with light tiles was finally completed in May 2021. The lighting concept with translucent surfaces can be used in convertibles and in sunroofs.

Another exciting collaboration is that with Textia Solutions from Spain. Textia develops products and solutions in the field of vacuum technology, and has a patented material technology that enables an intelligent textile that becomes flexible or rigid depending on the vacuum applied. Originally developed for applications in emergency medicine, there are potential uses for Webasto in the roof area. A Textia sample was installed in a convertible fabric roof. With the help of the technology, the stiffness of the fabric composite can be increased while maintaining foldability.

Webasto has been a partner of Startup Autobahn since fall 2017. The innovation platform was founded by the U.S. Plug and Play Tech Center, Daimler, and the University of Stuttgart; it aims to promote collaboration between industrial companies and startups. The main focus is on mobility and digitalization. In 2019, Webasto received Plug and Play's Corporate Innovation Award for its strong commitment to the network. To date, Webasto has already initiated around 50 pilot projects with startups. Around ten of the solutions are currently being implemented and eight are already in use.

"Collaboration with startups provides Webasto with important ideas. Be it for further developments in the product area or with regard to the optimization of processes. The impulses we receive from the young companies help us to further expand our leading position as a global innovative system partner to the automotive industry," says Matthias Arleth, Deputy Chairman of the Executive Board and responsible for technology topics at the Webasto Group.

Dräxlmaier CEO Martin Gall Steps Down

GENERAL NEWS

Martin Gall

Stefan Brandl

The CEO of Dräxlmeier has resigned; Martin Gall is leaving the company at his own request for personal reasons.

Martin Gall worked for the automotive supplier in various management positions for more than 17 years. Since 2014 as CTO and since March 2020 also as CEO, together with Franz Haslinger. In his role as CTO, "he was decisively responsible for the development of the technology fields of battery systems and electronic components", the company announced today in a press release. Among other things, Gall initiated the highly automated production of battery and interior systems.

In the future, Stefan Brandl will assume the role of CEO in addition to his previous role as Vice-Chairman. He heads the Executive Board together with Franz Haslinger. The Technical Engineering and Finance departments will report to Stefan Brandl in the future.

Markus Junginger had already taken over the function of CTO from Martin Gall since July 2021.

Monterey Car Week Program Overview 5-15 August 2021

GENERAL NEWS

The Monterey Car Week had a completely different concept than traditional Car Shows. Therefore, we would like to give you a brief overview of the programme:

Concours at Pasadena Thursday, August 5 - Friday, August 6, 2021

Automobiles were shown in six classes. There were motorcycles of outstanding vintage and contemporary design; a juried selection of alumni vehicles; rare and unique collections of Hot Wheels toy cars, and more. Posh awards were designed by Tiffany and Co.

Monterey Car Week Kickoff Friday, August 6, 2021

Monterey Car Week began with a remarkable collection of historic race cars lining Alvarado Street before racing at the Rolex Monterey Motorsports Reunion at WeatherTech Raceway Laguna Seca.

Monterey Pre-Reunion Saturday, August 7 - 8, 2021

Owners of more than 300 historic race cars, most of which would compete days later at the Rolex Monterey Motorsports Reunion, got valuable track time in a more relaxed, less crowded environment.

Porsche Monterey Classic Partner Event 2021 Monday, August 9, 2021

An all-Porsche display, featuring the years-awaited project, the 993 Classic restoration challenge car.

Classic Motorsports Kick-Off Car Show and Cruise-In Tuesday, August 10, 2021

Monterey Car Week itself got under way with hundreds of classic sports and luxury cars, muscle cars, newer exotics, and classic 4×4s lined up along Lighthouse Avenue in Pacific Grove.

Concours on the Avenue Tuesday, August 10, 2021

Carmel's world famous Ocean Avenue was filled with collector cars and related motorized fun - a fascinating mix of American and foreign cars.

Automobilia Pop-up Show Tuesday, August 10 - 11, 2021

Original auto literature, artwork, badges, advertising signs, model cars, books, magazines, posters and so much more! About twenty top international dealers all together in a single venue in a relaxed indoor setting.

The Little Car Show Wednesday, August 11, 2021

Mini, micro, electric, steam and arcane vehicles! The 2021 Little Car Show took place in downtown Pacific Grove

McCall's Motorworks Revival Wednesday, August 11, 2021

Pebble Beach Tour d'Elegance by Rolex Thursday, August 12, 2021

Pebble Beach Motoring Classic Wednesday, August 11, 2021

Pebble Beach RetroAuto Thursday, August 12 - 14, 2021

An automobilia enthusiast's dream, Pebble Beach RetroAuto hosted a highly curated selection of rare collectibles and memorabilia from the automotive past, as well as the latest luxury goods and technological tools of today.

Rolex Monterey Motorsports Reunion Thursday, August 12 - 15, 2021

The annual Rolex Monterey Motorsports Reunion was a museum revving to life with hundreds of historic and period-correct race and sports cars from nearly every era. Drivers raced them in corresponding run groups.

The Quail, A Motorsports Gathering Friday, August 13, 2021

For eighteen years, The Quail has provided an unparalleled and exclusive experience for motorsports enthusiasts and collectors from around the world to enjoy rare collections of fine automobiles and motorcycles in a garden-party setting on the rolling greens of Quail Lodge & Golf Club.

Pacific Grove Concours Auto Rally Friday, August 13, 2021

This annual event was geared for those enthusiasts who own, drive, or appreciate all cars, especially Vintage, Classic, Sports, and Luxury vehicles for a Rally Drive.

Porsche Club of America Werks Reunion - Friday, August 13, 2021

The popular Porsche show, showed a spectacular array of Porsches, from rare classics to current models and everything in between.

Legends of the Autobahn Saturday, August 14, 2021

Legends of the Autobahn was an all-German-marques event hosted by the BMW Car Club of America, the Mercedes-Benz Club of America, and the Audi Club of North America. The 11th annual celebration of German automotive engineering drew over 400

registered cars along with exhibits from event sponsors. Spectators saw rare and historically significant models, as well as factory-prepared specials.

Concorso Italiano Saturday, August 14, 2021

Meeting at Black Horse Golf Course in Seaside, Concorso Italiano celebrated the 30th anniversary of the Lamborghini Diablo, The Guiletta Sprints, the historic 2000, the 2600 and the Montreal, and Alfisti will fondly remember the 2015 Duetto 50th anniversary.

Concours d'Lemons Rally Saturday, August 14, 2021

The worst of the automotive world were on display and as always celebrity judges accepted bribes for thrift-shop-sourced trophies.

23rd Annual Ferrari Event Saturday, August 14, 2021

Ferrari lovers were tickled at this gathering of vintage and new Ferrari automobiles and a chance to talk to both owners and representatives from the Ferrari Owners Club.

Automotive Displays and Debuts at Pebble Beach Sunday, August 15, 2021

The latest displays and debuts from sponsors, including Ferrari, Infiniti, Lexus, BMW and Bentley.

70th Annual Pebble Beach Concours d'Elegance Sunday, August 15, 2021

The finest collector cars gathered on the 18th fairway of Pebble Beach Golf Links to compete to be named Best of Show—the ultimate award for automobiles. Experts critiqued their elegance, technical merit, and history.