Thu, 21 September 2023
Weekly Newsletter

DVN-I
Automotive Interior

NEWSLETTER #179

Editorial

DVN Interior Deep Dive: Lighting And Adjacent Technologies

PEUGEOT 3008

This week we bring you detailed coverage of the DVN-Interior Deep Dive held at San Francisco shortly ago. Interior lighting is no longer exiled to the fringes of awareness in the vehicle lighting community, but there's still a lot to imagine and develop. The Deep Dive session confirmed that light is part of the HMI system, and can simplify understanding and usage. Light has a role in safety, too; together with sound and haptics, it can provide more reliable alerts to the driver in milliseconds.

Another interesting revelation from the session is what we have called so far 'psycho-lighting', in reference to psycho-acoustics, already familiar to audio engineers. Light perception can be different form person to person, depending on age, social milieu, health, and just individual differences. Objective measurement doesn't represent full reality, and each individual will have a different perception in terms of intensity, color, and reaction time to lighting stimulus. That's an interior lighting dimension which needs to be further investigated within the overall umbrella of user experience and human factors.

Don't miss this week's Coffee Corner, presenting a design perspective on this year's IAA motor show, and how the industry (and the shows generally) are morphing from monofocus on automobiles into a more diverse mobility system.

We're happy to have you in the DVN Interior community, and looking forward to seeing you all at our forthcoming events!

Sincerely yours,

Philippe Aumont
DVN-Interior General Editor

In Depth Interior Technology

DVN-I Deep Dive: Lighting for HMI, Safety, Perception

DVN IMAGE

The DVN Interior Deep Dive was held at the end of August, to develop ideas and action plans under the theme *Interior Lighting and Beyond*. As interior lighting is no longer just task lighting as it was for many decades (a single dome lamp, maybe a footwell light or a courtesy light in the lower door…) the scope of investigation was all about the *beyond* part, with lighting for tasks; ambience, decoration and comfort; safety (alerts, mood and health state detection), and hygiene (disinfection with UV light).

The interior lighting session, part of the DVN Lighting Workshop running in parallel, helped attendees get a common understanding of trends. Interior lighting is rapidly evolving from a 2D overlay to a 3D immersive cabin supporting UX, HMI, comfort, and safety. Static lights are giving way to dynamic lighting for the likes of distance control and warnings. New ideas include making interior lighting contribute to safety by reducing driver distraction, and give functional feedback to support warnings, systems updates, and alerts. Dynamic light fosters dynamic interaction.

The Deep Dive session started with a presentation focusing on general trends, lighting HMI benefits, lighting integration within the interior, and transluscent materials.

Keynote: Mobility Trends

DAVID MUYRES IMAGES

Mobility futurist and Streetscope chief commercial officer David Muyres' keynote was entitled, 'Looking Beyond Specific Lighting Technologies to Understand How Lighting Can Positively Influence How People Get From A to B'. Highlights:

• Interior Lighting influences safety, comfort, and CMF (Color, Material, Finish). Lighting will be enhanced through combination with sound, touch, odor, etc..

Displays are now dominating the HMI scene and replacing mechanical buttons for many functions.

- Automakers are working to standardize displays across platforms and software-customize each model, with OTA updates as needed.
- Consumer research surveys and complaints from customers (as **reported** in DVN Interior), confirms that having to mess with a touchscreen while driving is distracting; time-consuming; extremely dangerous, and annoying for passengers
- Questions raised: can HMI-specific lighting and shy tech help reduce stress and distraction while keeping the controls on displays, to avoid reverting to mechanical buttons as **VW has been doing**?

Forvia

FORVIA IMAGE

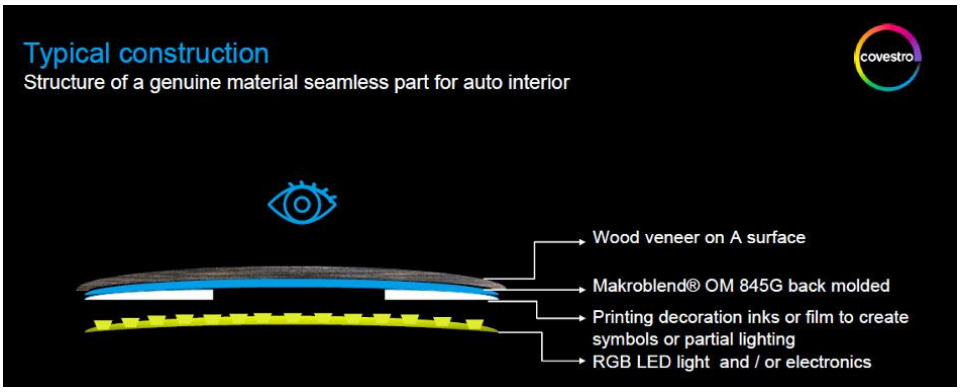
Forvia's presentation was called 'Inspiring Mobility and User Experience Through Integrated Interior Lighting'. Presented by advanced surface-activation sales manager Maggie Kasper and interior lighting vice president Carlos Altamirano Martinez, it was an extension of the interior lighting session, with more focus on Interior Lighting for HMI: functional addition through surface activation, combining different aspects of UX like heating or audio. Lighting provides additional value to simple HMI and UX. Functional feedback is needed for ADAS. It also abets personalization (lighting in everyone's own colors, intensity, and location).

Delo

DELO IMAGE

Sales engineer Paige Deshler gave a talk entitled, 'How Adhesives and Optical-Grade Polymers Forge the Future of Automotive Lighting'. Key points: Interior lighting integration requires high mechanical and chemical resistance to get design freedom and production efficiency, and bonding makes it possible. Perceived quality is key when it comes to interior fittings, and bonding is the joining technique with which connections can be best and most easily achieved. Deshler described various bonding materials and technologies allowing integration of lighting elements into complex and tiny cavities. She also presented Delo's ideas on how adhesive coloring matches with interior parts, how to ensure reliability, and how to foster implementation of microLEDs and projection packages. Optical properties—diffusion, refraction, and dispersion—are crucial.

Covestro



Marketing manager Karen Guzman, presented a lecture called, 'Functional Intergration Through Seamless Genuine Material Surfaces'. Main points: transparency is key to create an open and spacious perception within the car interior. Functional integration needs performant resins with specific characteristics matched to the surface material used—wood, aluminum, leather, plastic, fabric, or whatever else. Guzman presented Covestro's portfolio of materials for a wide range of lighting elements: guides, covers, FIM, etc. She placed special emphasis on the optical performance possible with with Bayblend and Makroblend, translucent polyamides with 20-per-cent glass fibers. The glass-fiber reinforcement gives structural performances with little or no warpage.

TechnoTeam

TECHNOTEAM IMAGES

Tanja Thiele from Technoteam gave a lecture entitled, 'Imaging Luminance and Color Measurements for Car Interior. The talk included display systems and controls with backlit controls: buttons, switches, dials, instrument clusters; displays, and HUDs, with measured variables including luminance, homogeneity, light color, and visual perception (recognition/reading, disturbance). For ambient lighting with light pipes and guides or spot lights, measurement parameters include luminance, intensity distribution, illuminance, homogeneity, light color, and visual perception. TechnoTeam offers technical solutions to handle this wide range of interior light measurement applications with their LMK 6 product family. Most light and color measurement tasks can already be solved with the LMK LabSoft simple software package.

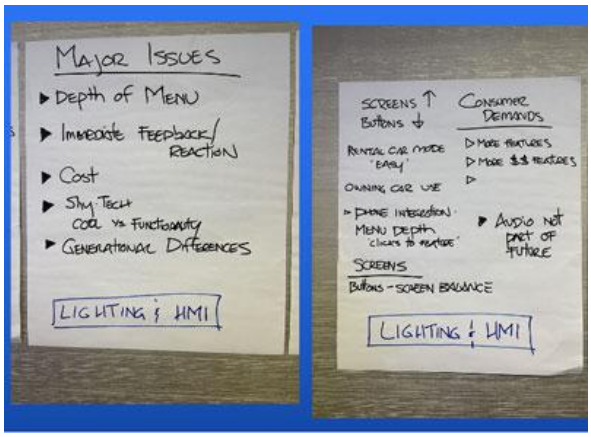
Deep Dive

Discussions covered three main topics: lighting and HMI; safety and lighting, and 'psycho-lighting' as an ambient lighting evolution.

Lighting and HMI

Main issues are:
• Screens are too big; everything is concentrated in one screen.
• Users must dig and drill down through multiple layers of commands to find and operate whatever control they have in mind—that's distracting and dangerous.
• Shy tech is not well known yet and it is expensive.
• Generational differences have to be considered.

The discussion group identified potential innovation directions:



• Screens integrated with mechanical buttons.
• Personalization can make life easier for the driver + passengers; you don't have to hunt for a menu.
• Copy the phone industry, just icons and single function per icon.
• Plug in your phone and use it to control car HMI (screen still needed, in case phone breaks)
• Shy tech could customize the area and reduce the distraction.
• Voice control takes longer and can fail.

Safety and Lighting

VW ID LIGHT STRIP (VW IMAGE)

Security was the first scenario discussed: driver and passenger feel safe; as they get in, the car used green light to signal everything is ok with the car. It is possible to personalize the information depending on the driver. User-friendly interfaces include icons with haptic feedback: at hand, easy to find.

Next came discussion of safety: lighting for warning of danger and for protection; light combined with sound and sensing; using particular colors to code the warnings (speeding, car approaching, people on the roadway, door opening, etc). Light can be used for blind spot alarm (combined with haptics). Light can be projected on the ground when opening the door to see if there are dangers.

Conclusions of the discussion:

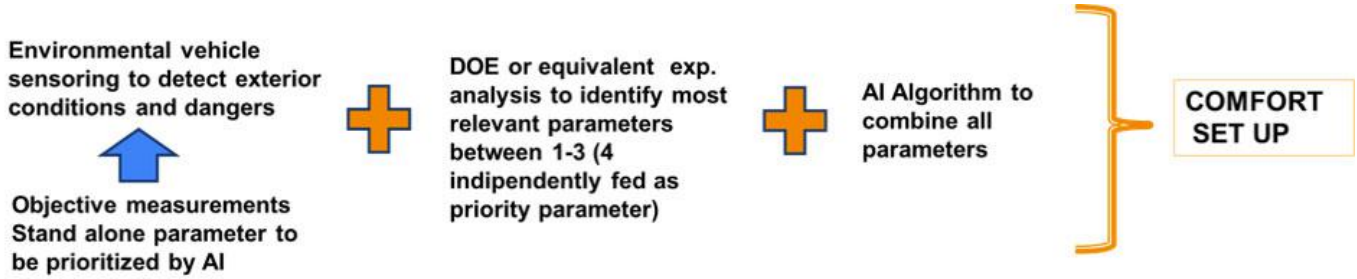
- Light needs to be paired with sound and different colors for any safety-related alert. Light in that case is making safety visible—easier to sell to end-users.
- Interior lighting must be visible during day and night.
- There's not a whole lot of interest yet in light for sanitizing—Yanfeng has it in production—but it will be considered useful for car sharing applications (easier to sell end users on cleaning up other people's germs than their own germs).

Psycho-Lighting

AMS OSRAM IMAGE

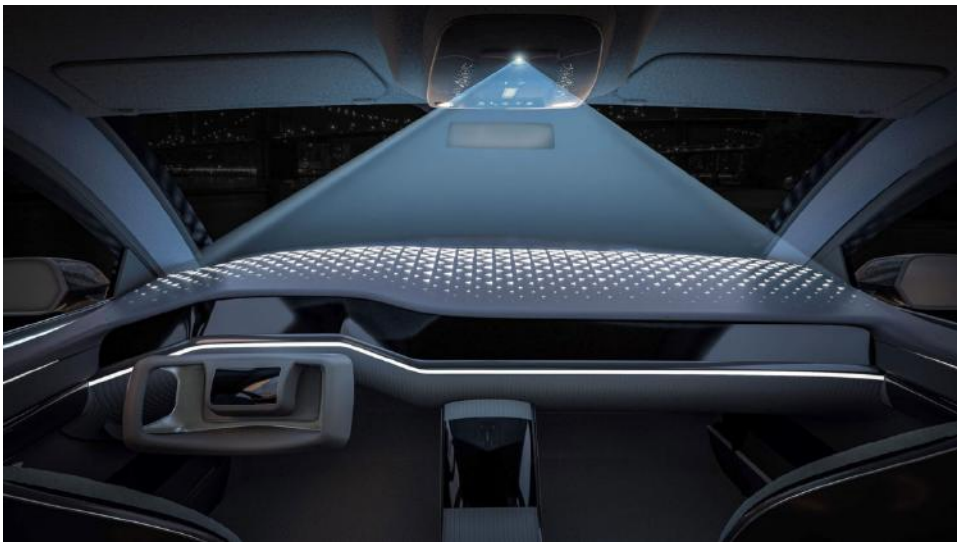
Interior lighting has long been primarily an illumination function, measured by objective parameters. The industry doesn't yet consider that light perception can be different form person to person (as described by Pacific Northwest National Laboratory scientist Naomi Miller in her whole-event keynote speech). Age and health status can dramatically influence light perception in terms of intensity, color, and reaction time to lighting stimulus. So an objective measurement doesn't represent full reality.

One strong recommendation from the group is to develop lighting parameters that consider human perception and cater for age; health, and gender Light influences comfort and wellbeing (measured by DMS); ambient mood, thermal comfort, and safety.



Comfort setups could be stored as user profiles, and transferred with the user from vehicle to vehicle. Potential connection to 'smart home' setups to reproduce the home environment in the car, or vice versa.

Conclusions



PLASTIC OMNIUM IMAGE

The Interior Lighting and Beyond session covered three main topics for new interior uses of light: to simplify HMI; to improve safety together with sound and haptics, and to enhance personal qualitative perception which can be selected and stored for each user.

Topics to address in forthcoming workshops and publications:

- How will AI change interior development?
- Standards and specs for interior lighting
- Seats and lighting
- Headliners (beltline-up area in general) and innovations

Stay tuned!

Interior News

Ari Explores Point Heating Elements for Imprinting

INTERIOR NEWS

ARI MOTORS IMAGE

Ari Motors and their partners are participating in a research project called "Inside", being carried out as part of the Lightweight Technology Transfer Program of the German Federal Ministry of Economics & Climate Protection. Ari, founded in 2017 in Leipzig, Germany, adapts EVs from their Chinese partner Jiayuan EV to European standards, and assembles them since 2018 in their factory near Prague, Czechia. The latest vehicle presented was the 901 utility EV, with 260 km of range and 900 kg of payload.

INTEGRATION POSSIBILITIES OF HEATING ELEMENTS IN THE COCKPIT (ARI MOTORS IMAGE)

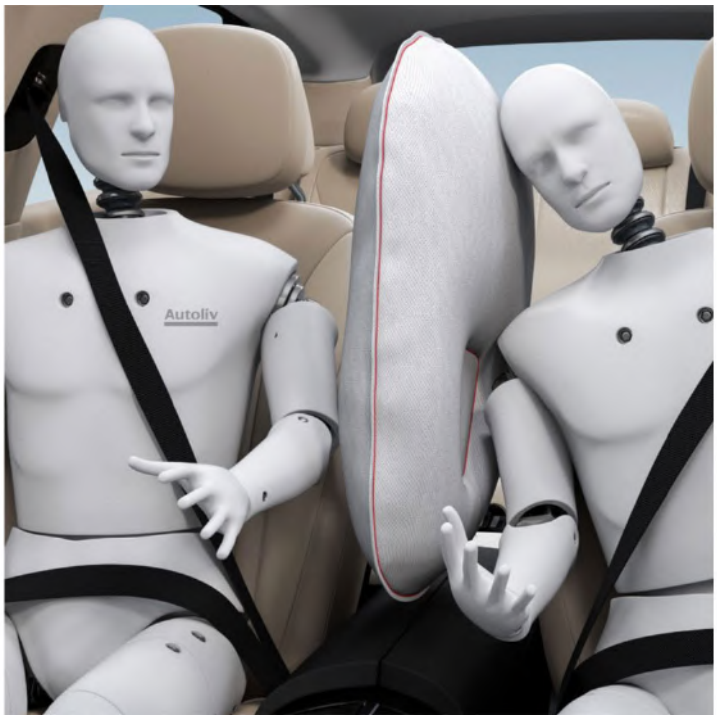
The project is designed to run for 36 months and is aimed at developing an energy- and resource-efficient heating conductor system using a digital printing technique. The stated aim is to replace conventional heating systems in electric vehicles with printed surface and point heating conductors. These enable the immediate spot heating of construction elements, textiles and cladding.

By heating individual zones in a targeted manner, the heat should quickly arrive where it is actually needed: at the user. Instead of using a lot of energy to heat the entire vehicle cabin, the actual heating requirements are taken into account and met with pinpoint accuracy. This should significantly reduce energy consumption and ease the load on the battery, ensuring electric range even in winter.

Ari wants to validate the functionality of the developed zone heating elements and research which areas in the vehicle are particularly beneficial for heat radiation.

Autoliv's Front Center Airbag

INTERIOR NEWS



AUTOLIV IMAGE

When a vehicle is struck on the opposite side of where the occupant is sitting, protection is needed for the occupant sitting on the far side. Autoliv has been researching far-side impacts and associated injuries for over 20 years. In 2020, Euro NCAP, began including far-side crash evaluations in their ratings; Korean and Chinese NCAPs have followed as well (**NCAP video**). Autoliv's solution: a front center airbag placed between the front seats. Its purpose it to protect occupants in the front seats from crashing into each other during a side collision. Almost half of occupants injured in side impacts are on the opposite side to the one that is struck. Far side impacts can give rise to serious injuries, the driver can move sideways and hit the intruding structure or hit the passenger if one is present.

EURO NCAP IMAGE

The front center airbag is normally installed on the inside of the drivers seat and deploys vertically between the two front occupants to limit the excursion of the far-side occupant and to provide protection from impact between two front seat occupants. The airbag will only deploy in a side collision, not a frontal or rear impact.

Grammer Console for Human Horizons HiPhi

INTERIOR NEWS

HUMAN HORIZONS IMAGE

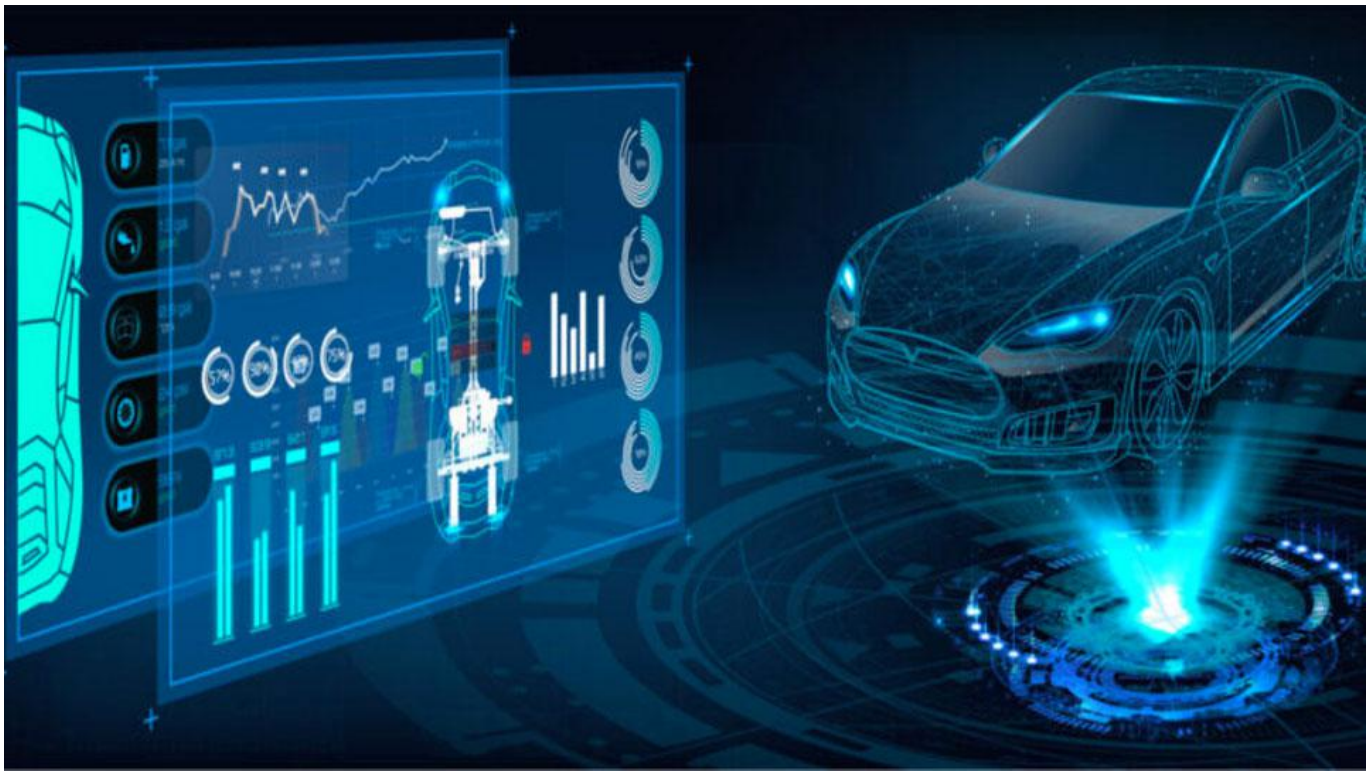
The HiPhi X is a Chinese premium e-SUV from Human Horizons. It has a console from German supplier Grammer, which helps to create lounge feeling inside the vehicle. This lounge feeling is based on developmental expertise Grammer has gathered over years as an interior supplier for the world's automakers. The supplier's automotive-division president Jürgen Gerl says, "As one of the Chinese showcase projects for the European market, the HiPhi X is on a par with current high-end models from established premium manufacturers when it comes to superior quality standards. Its interior is equipped to a correspondingly high standard, scoring points with numerous displays, storage areas, light panels and fine materials". See **recent DVN Interior coverage** of Grammer's involvement in China.

GRAMMER IMAGES

One highlight is Grammer’s rear center console with display holder, smartphone trays, cup holders and two fold-out table trays hidden under a butterfly armrest. It impresses not only with highest-quality craftsmanship and upholstery of the finest semi-aniline leather, but also with special features like cupholders in the two table-tray surfaces with magnetic inserts to keep glasses in perfect hold. The console was developed with focus on extravagance and high-end quality, and is produced at Grammer Shanghai, less than four hours’ drive away from the Human Horizons plant in Yancheng. Lead time was just nine months from the start of development to the start of production of the center console.

Mimik Technology, BlackBerry Collaborate on SDV

INTERIOR NEWS



MIMIK TECHNOLOGY IMAGE

Mimik Technology is collaborating with BlackBerry to strengthen their secure scalable platform that aims to monetize every vehicle feature on a function-as-a-service model—software-defined vehicles, SDV—to address automaker demands for ongoing revenue streams after they sell a new vehicle.

By combining BlackBerry's secure, safety-certified, cloud-enabled QNX Neutrino Real-Time Operating System (RTOS) and Mimik's Hybrid Edge Cloud (HEC) platform (**video**), which extends cloud-native development tools to any smart computing node, the companies aim to deliver an integrated solution that enhances performance, scalability and security and reduces total cost of ownership for embedded automotive software developers.

Marelli has revealed plans to integrate the companies' technologies as part of an advanced software platform. So far, BlackBerry and Marelli have cooperated on digital clusters, cockpit domain controllers and in-car audio.

The Mimik HEC platform, supported by BlackBerry, is said to potentially enable numerous innovative use cases for connected vehicles, enabling real-time decisionmaking and predictive maintenance, among others.

Marelli VP of ELS strategy and product management Nate Sladek said his company "are focused on developing software-defined vehicle solutions to support [automakers] in their transition towards cloud-native architectures, with Mimik as one of our key partners. The unique combination of Mimik's Hybrid Edge Cloud (HEC) platform and BlackBerry's QNX operating system makes our SDV solutions ready to support [automakers'] software roadmaps".

VW's Cockpit Reboot

INTERIOR NEWS

VW IMAGE

For their latest Passat, Volkswagen has introduced a variety of new digital instruments and a new-generation infotainment system to provide what they call an 'intuitively operated cockpit landscape'.

The MQB (Modularer QuerBaukasten) is the latest evolutionary stage of VW's modular transverse matrix platform, consisting of advanced technology modules that are integrated with one another to develop interiors and infotainment architectures.

Volkswagen developed the MQB platform to ensure it delivered synergies for the entire brand. This resulted in cost reductions and technologies which could be used between product lines, and the MQB has been equipped with interfaces to other matrix platforms. One example of this is the fourth-generation modular infotainment matrix—the MIB4, which shares graphic design elements, menu structures and operating controls with the latest ID.4, ID.5 and ID.702 MEB platform models.

The digital center of the latest MIB4 is a touch display infotainment system, with an entirely redesigned graphic interface, structure, and menu navigation for ease of use and a range of customization options to suit different user requirements.

Volkswagen’s display is now divided into two touch bars at the top and bottom of the screen, in addition to the home screen. The driver can now assign favorite direct access functions to large areas of the top bar and home screen. The individually configured top bar and static bottom bar are always displayed, even when the user opens various functions on the home screen, such as apps. Backlit touch sliders under the infotainment system display are used to adjust temperature and volume.

The digital instruments in the latest MQB models have a display diagonal of 26 cm, making them larger than the Digital Cockpit used in previous models. The graphic interface has also been newly developed, with more functions added. Using buttons on the multifunction steering wheel, the driver can select from four different graphic configurations: Classic, Progressive, Navigation and R-Line, each delivering different views and functions.

BMW Bends to Backlash, Stops Charging for Heated Seats

INTERIOR NEWS

BMW has given up—at least for now—charging customers subscription fees for heated seats after a backlash put the automaker in the literal hot seat: consumers worldwide vehemently rejected the idea of paying in perpetuity for the privilege of using hardware built into the car they'd bought. It was roundly condemned as a greedy money-grab—an early indication there will be limits to the degree manufacturers can wring ongoing revenue from consumers with software-based services.

BMW will go back to offering heated seats and wheels as one-time-payment optional equipment, rather than outfitting all vehicles with the hardware and charging consumers forever and ever. But functions like remote engine start and driver-assistance features will still be offered on a pay-to-use basis.

Automakers including GM, Ford, and Tesla have been testing the willingness of consumers to pay to access in-car services and provide the OEMs with new profit pools. GM expects between $20bn and $25bn a year in software revenue by 2030, which broadly aligns with predictions by Stellantis.

Clearly, pay-per-use (or per month, day, hour, week, or year) is not a business model which fits the automotive industry…yet.

The Design Lounge

IAA 2023

THE DESIGN LOUNGE

COFFEE CORNER

DVN

Interior

By Athanassios Tubidis

Anything on wheels seen in Munich is a new approach to both global and local systems of mobility. A redistribution of the mobile means by energy and type of mobility is well on its way.




DVN IMAGES IN THIS ARTICLE

More closely, on the IAA floor, aside from the known tier-1 suppliers, we saw a number of tech specialists exhibiting partial working-models of ready-to-implement technologies: holographic displays, addressed to both car interiors and exteriors (with special focus on lighting units and projectors), virtual overhead ‘shades’ dealing with opacity vs transparency and multiple mirror imaging applications adaptable to any car interior surface according to production standards and regulations. Mobility contractors had a significant presence addressing the ‘last mile’ with their own two or three wheelers, charging points and battery swap systems, all connected by a state-of-the-art UX and highly crafted digital apps, equally suited for logistic operations in urban spaces.

But, let’s get back to the reason we came here for: cars. true surprises are rare, yet, along the trajectory of legendary racecars, Porsche with MissionX is aiming to take the concept car to production.

At a different stand, Chief Designer Mark Adams presented the brand’s new design direction: Vauxhall Experimental. Presented ahead of its public debut at IAA, the compelling design proposal with a strong overall GT flair, equally dramatic and futuristic, is addressed to mid segment, aiming to occupy a very similar footprint to the C-segment Astra.


However, the dominant trend was electric. Besides the above stars of the show, BYD lineup display was one of the most visited. The Chinese maker is entering the European market with aquatic-inspired labels (Seal, Dolphin, etc) that added mystery to the discovery of the novel brand. At first glance, volumes, proportions and stance of the specific berlines proved a great design maturity.


The passage from 27 to 9 feet distance, revealed secondary features such as fake intakes in shiny black cheap-looking plastic or light signature lines not perfectly aligned to adjacent surfaces. Even closer, the interior designs seemed coherent to the overall vehicle often though with overworked details and CMF choices, in times, very primary. The MG Cyberster, aside from its rear arrow indicators, alluding to union jack graphics that we ‘ve seen before, was appealing and its interior was excellent for design and realization. It obviously was one of the few design themes in the show keeping the balance between overwhelming screens and real high quality upholstered automotive surfaces, emphasizing its sporty character.


The BMW Neue Klasse blends nostalgia with technology. In an attempt to reinvent the iconic brand, chief designer Domagoj Dukec, more than playing with screens, caressed upholstered surfaces during the film presenting the prototype. 'Effortless' is the tagline used to present BMW’s new vision: Complex under-skin technology yet, simple design.

Meanwhile at Mercedes, the new compact E400e establishes screen surfaces as a fundamental IP architecture layout.

The show extended to the city center with different displays and at the airport’s main entrance, Human Horizons displayed HiPhi-Z alongside the HiPhi-X (shared platform), all electric luxury 5-door sedan and SUV, showcasing the future of travel experience, driven by data. In addition, complex and amusing door openings (gullwing and suicide) and screens dominating the visual aspect. Even door handles are screens, both inside and outside the car, thanks to the world’s first facial recognition app in a production vehicle. This is the latest

and greatest of luxury electric cars, however great details in times are overworked or not well curated. Sophisticated and well-crafted surfaces as well veneered or upholstered with upscale materials in perfect contrast to shiny flat screens.


Concluding, IAA was a small-scale merge of a traditional auto show with CES, and this is significant because nothing is good enough if it does not support the overall mobility system. It might be that for over a century we saw cars being independent units. Today, time comes when their real powerful presence is dispatched across completely new mobility networks and global energy distribution channels.

NWTN’s Rabdan MUSE: Entertainment and Minimalist Design

THE DESIGN LOUNGE

At the recent Pebble Beach Concours d’Elégance in California, eco-conscious mobility company NWTN revealed the Rabdan Muse (for Marvelous, Unique, Sensual Elegance), its passenger-centric green mobility solution for the future.

Manufactured in the United Arab Emirates, the EV is stated to be built from the latest and most advanced technologies. The concept, developed in 2019, is focused on passengers’ needs for personalized travel experiences, instead of delivering a driver-focused experience.

The vehicle is a large "SPV" (for "Smart Passenger Vehicle") with futuristic styling, immense power and long range, great comfort, and a unique passenger-centric digital infotainment system. It focuses on passenger-centered, comfortable and intelligent riding experience, with the entire car seats equipped with super control privileges. The car has a built-in office and entertainment system to fully meet the needs of business and family travel.

It's built on the Gravity Zero Platform: a highly modular, generalized vehicle architecture platform developed for all sedan, SUV, SPV, and MPVs. The development of this highly modular and generalized architecture platforms enables a maximum reuse—up to 85 per cent—of underbody components. The platform effectively reduces

vehicle material costs via scales of volume, shortens vehicle development time by up to 50 per cent, reduces vehicle development cost by up to 75 per cent, and enhances vehicle product quality considerably for all derived vehicles from the platforms.

The car has a unique monovolume divided into a helicopter-like cabin. Colors and materials echo the ecological and technological values of the project with only sustainable materials throughout the interior.

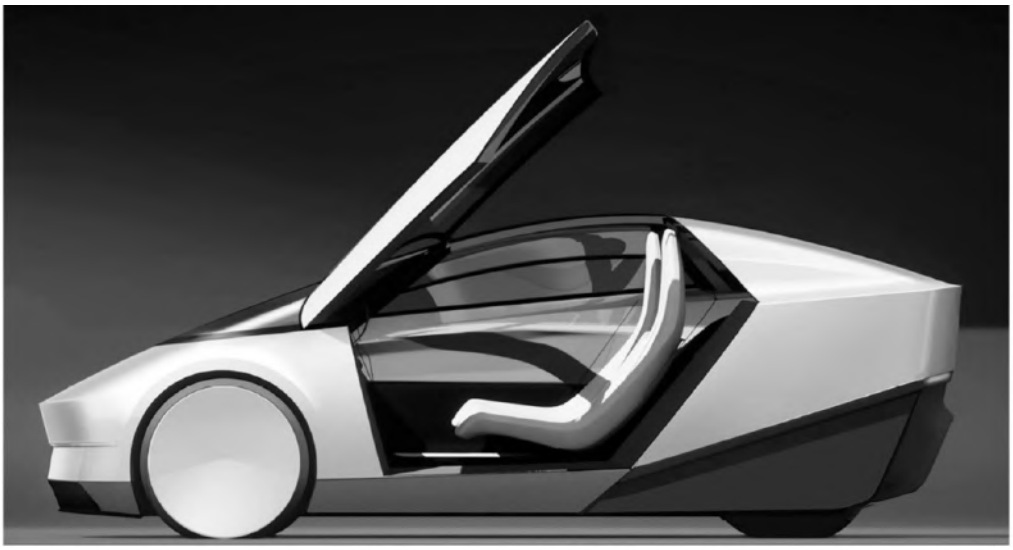
With the company viewing space in the world as the ultimate luxury, NWTN's designers and engineers sought to push the physical boundaries away from the occupants, without a hierarchy between the driver and the passengers. To create an 'oasis of comfort and relaxation', NWTN chose an empty-space approach with minimalist surrounding surfaces wrapping around four captain seats to deliver a large amount of legroom.

A U-shaped panoramic screen replaces conventionally used instrument panels, providing front passengers with several smart technologies. Sustainable materials have been used to upholster the interior.

News Mobility

Tesla Robotaxi Concept Revealed in Elon Musk Biography

NEWS MOBILITY



IMAGES FROM WALTER ISAACSON'S BOOK

A picture of a Tesla robotaxi concept was revealed in the new Elon Musk biography by Walter Isaacson. It is interesting, but it has to be taken with a grain of salt.

In recent weeks the biographer, who has been embedded in Musk's life for years, has been releasing excerpts with interesting information about Tesla—the EV company Musk bought his way into before ejecting its founder—including some about Tesla's new robotaxi program, which we now know was conceived as 'Cybertruck-like' and meant to be built in Texas before Mexico.

It shows a two-door, seemingly two-seater electric compact vehicle with sharp edges and maybe a stainless steel finish.

Another image of maybe the same vehicle was also shared in the book, captioned "Franz von Holzhausen with an early 'Robotaxi.'" It shows a typical design development mockup, where dummy seats are used to help developers get a better feel for the interior package.

Franz von Holzhausen with an early "Robotaxi"

More concretely the biographer describes a November 2022 meeting in which they took a few decisions about the Robotaxi. It is reference to an 'early concept'. These are potentially super-early concepts that would have little to do with the production version. We'll keep eyes open for more!

BMW Work with Qualcomm, Arriver for AV Tech

NEWS MOBILITY

BMW IMAGE

BMW is using software from Arriver for the automaker's automated driving systems under development. The cooperation combines the current automated-driving software stack of the BMW iX with object recognition and NCAP functions, the supplier says. Together, the two companies aim to develop a scalable platform for L^2 advanced driving assistance systems and L^3 driving functions. To this end, a reference architecture, sensor specifications and safety requirements will be created.

BMW and Arriver want to establish a uniform toolchain and a data center for storage, processing and simulation. According to Arriver, more than 1,400 specialists will work together as part of the cooperation, including in Germany, the USA, Sweden, China, Romania and at the BMW AD Test Center in Czechia.

Systems from Qualcomm will be used, too; BMW had already announced long-term orders for the electronics manufacturer in November. The orders for Arriver are also good for Qualcomm: Arriver Software AB belongs to the supplier Veoneer. This was taken over by Qualcomm in 2021.

"Together with Qualcomm and BMW, the Arriver team will develop the next generation of open and scalable Drive Policy. This jointly developed product will be offered to our customers worldwide," said Giuseppe Rosso, Arriver's president and chief executive officer. All three companies are open to further partnerships, the release said.

Arriver is a software unit and brand of Swedish supplier Veoneer, born in 2018 as an Autoliv spin-off. Its portfolio includes perception, fusion and driving control software for vehicles. The supplier uses Qualcomm's system-on-a-chip.

General News

Chinese Automakers Look to Tackle Europe

GENERAL NEWS

ZEEKR IMAGE

More and more Chinese automakers are getting ready to pounce on the European market. A first real wave of Chinese automakers came at the end of last year, and showcased their products at the recent IAA in Munich.

Volvo sister company Zeekr says they have sent the first batch of their 400 kW electric shooting brake to Europe, the model 001. It will be sold in the Netherlands and Sweden, for a start. Zeekr relies on direct sales, but Zeekr flagship stores are to open their doors at the end of the year, initially in Amsterdam and Stockholm.

Four more European markets are to follow in 2024. Germany is likely to be among them. By 2026, the brand wants to be represented in most Western European countries.

LEAPMOTOR IMAGE

Leapmotor showed Europeans their cars for the first time at the IAA, and used the trade show to present their plans for the European markets. The manufacturer has already been represented in France and Israel since the spring with the T03 small electric car. The C11 SUV and the C01 sedan were also displayed in Munich. In

addition, Leapmotor has announced the premiere of a new, electric mid-size SUV, which is to be launched in Germany in 2024.

DENZA D9 (BYD IMAGE)

Denza was launched in 2010 as a 50-50 joint venture between Mercedes and Chinese automaker BYD. BYD now owns 90 per cent of the shares. The Chinese completely relaunched the company in 2022 with the D9 luxury van, which sold fast and hot in the home market. Now BYD is apparently thinking about launching Denza on the European market as well.

DONGFENG IMAGE

Dongfeng is already represented in Germany. The Forthing 4 van and the Forthing 5 SUV, among others, come from the group and are sold in Germany by Indimo, a private importer specializing in Chinese cars, through its dealer network. Dongfeng itself has so far focused strongly on internal combustion vehicles. However, the Group has already launched a premium electric brand in the form of Voyah.

XPENG G9 (L), P7 (R)

In Norway, electric car manufacturer Xpeng already has vehicles on the road. The Chinese cancelled their planned market launch in other European countries in 2022. The G9 SUV and the P7 sedan are now available in Denmark, Sweden and the Netherlands. These two models will soon be coming to Germany.


HUMAN HORIZONS IMAGES

Hiphi announced a market launch in Germany and Norway in the spring for this year. The luxury brand originally planned to deliver the first units of the Hiphi X SUV and Hiphi Z sedan in the third quarter of this year.

JAC IMAGE

JAC is not entirely new to Germany. Indimo already has the JAC 8 Pro pickup in its range, with a 200 hp 2.4-liter gasoline engine. In the future, JAC will also be focusing on electric cars and will soon be launching a small car

and a small SUV in Germany. These are the E-S2 and the E-JS4, both of which are already available in Switzerland.

CHERY IMAGE

Chery has already been operating a design and development center in Raunheim near Frankfurt am Main for several years. In the spring, the car company announced its European market launch.

Initially, the Chinese wanted to launch the Omoda brand; a first model, the Omoda 5, is a compact SUV. An electric model is to follow later. As a Chery spokesman confirmed on request, the Chinese intend to launch in Europe with a multi-powertrain portfolio. In selected EU countries, the Chinese are reportedly planning to start sales in the first quarter. The first models of the carmaker are to roll into Germany a few months later.