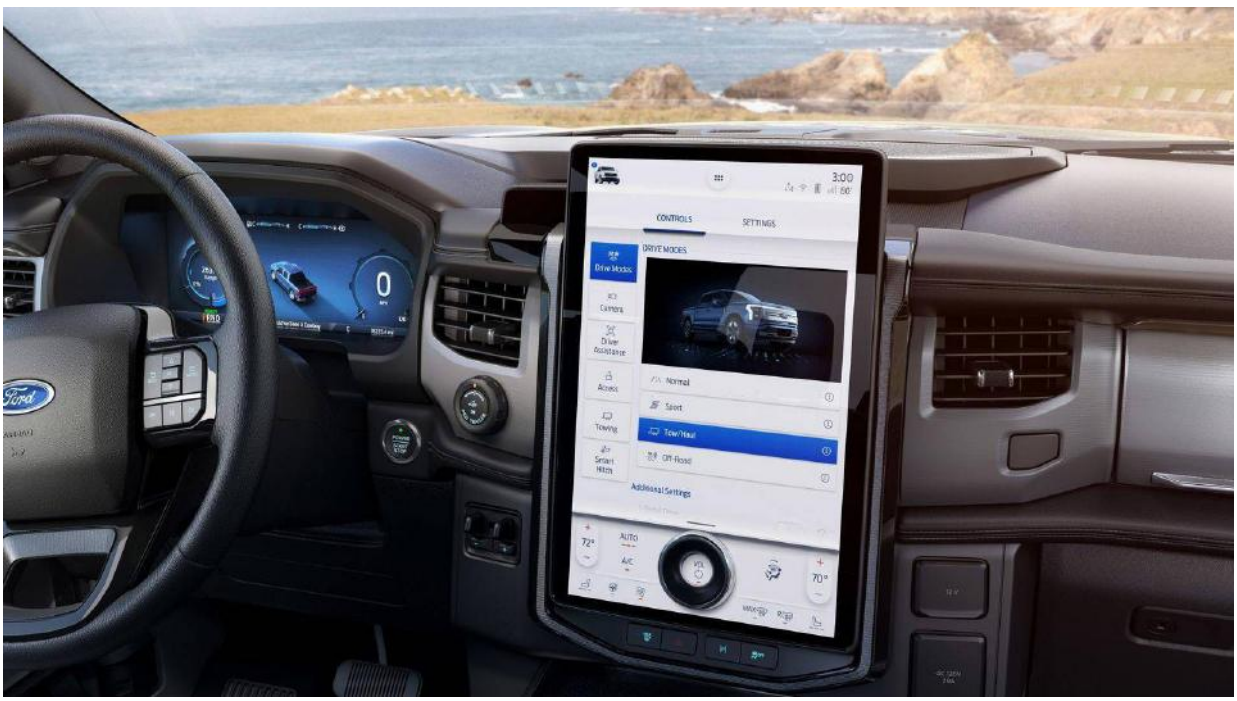
DVN-I
Automotive Interior

Thu, 3 June 2021 Weekly Newsletter NEWSLETTER #63

Editorial

Coming Soon: DMS Workshop Session, IAQ Report



FORD F-150 LIGHTNING ELECTRIC TRUCK

CASE, for Connected-Autonomous-Shared-Electric, is the automotive trend buzzword for where the industry is going. C for connected is more and more true with 5G, OTA, and online services popping up every day. A for autonomous is still a question mark, but gradually increasing automation is confirmed with ADAS, including DMS for Interior. S for shared…well, the pandemic has slowed it down, but MaaS will happen as soon as city regulators forbid private cars in city centers. E for electric is going now beyond expectations, with many automakers claiming they'll offer only electric new cars by 2030-2040; Chinese NEVs and makers blossoming like cherries, and the gamechanging Ford F-150 Lightning reveal last week. The F-Series has been the best-selling vehicle in the U.S. for 39 years, and

this newest direction is the beginning of the end of that truck as a symbol of an old petrol world.

CASE drives new usages and new human-machine relationships. More and more, the interior is a mobile habitat with all it represents in term of amenities, features, and technologies. In response to these strong trends, we're putting together a DMS (Driver Monitoring System) session for the DVN Workshop planned for September 21-22 in Novi, Michigan and online.

IAQ (Interior Air Quality) is another topic taking high importance in a post-pandemic world. We'll focus our next DVN-I Report on IAQ; watch for it this summer.

DVN Interior membership is growing. Are you in? If you aren't yet, **come join in**!

Sincerely yours,

Philippe Aumont
General Editor, DVN-Interior

In Depth Interior Technology

Technologies for Smart HMI Surfaces

DVN Interior reported lecture by Dr. Wolfgang Clemens, Director Product Management & Business Development from PolyIC, a Kurz company, at the 2021 DVN Shanghai international Workshop about “Smart HMI Surfaces with Touch Sensors in April 29 edition. We’re going here deeper in the Touch sensor technology.

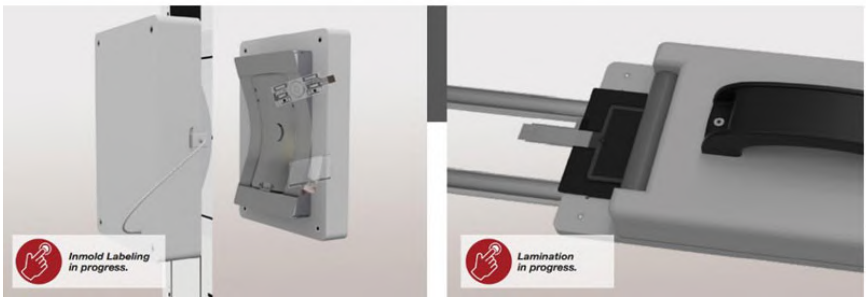
User interfaces are progressing in car interiors, and in the whole consumer technology world, smart phones to home appliances. Touch screens and capacitive keys are replacing simple displays and electromechanical keys. The

user experience, combined with exceptional design, is gaining significance with increasing digitization.

The PolyTC® capacitive touch sensors are based on transparent and conductive films. Typical for PolyTC® sensors is a conductive coating with a metal mesh in high optical resolution, which is applied to a transparent polyester substrate (PET). The lattice-like silver microstructures provide maximum electrical conductivity and at the same time high mechanical flexibility. Even designs with real 3D shapes can be furnished with this sensor technology.

PolyIC delivers sensor foils as a single, ready-made sensor label including supply line and connector, the appropriate adhesive or process-specific primer, and foils to protect against scratches. The sensor foils are adapted to the specific integration process and to the needed material consistency and can be directly processed. The integration into the plastic parts is aligned to the geometry and size of the part and sensor. It is performed by stamping or rolling with pressure and heat, is fully automatic, highly precise and durable. This **Functional Foil Bonding (FFB)** can be linked directly to the injection molding process for high quality functional surfaces. In comparison to conventional processes, you have advantages in the stability when specification requirements are high.

PolyTC® touch sensors can also be applied with lamination. It covers a wide spectrum of application scenarios on glass and plastic surfaces – even in small runs. But with an eye to the future of touch-sensitive surfaces, this proven standard method has its limits, such as when used on outgassing plastics or curved surfaces. In contrast, the injection of labels in In-Mold Labeling (IML) processes is fully automatic, and combines simultaneous decoration using In-Mold Decoration (IMD) or insert foils.



Lamination: To achieve high transparency, the display industry in particular employs laminating with cost-intensive OCA (Optical Clear Adhesives) as a

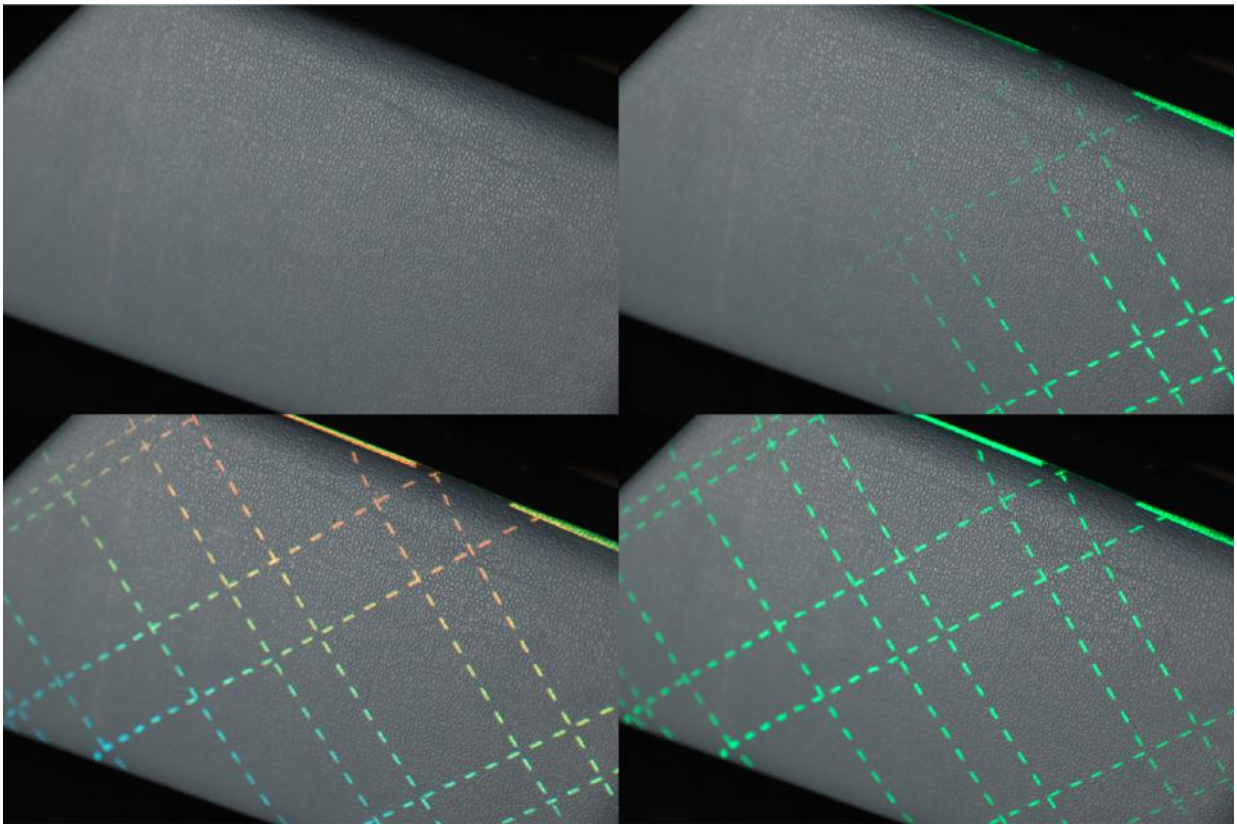
standard integration process for touchscreen sensors. If only transparent or visually noncritical surfaces are requested, PSA (Pressure Sensitive Adhesive) is usually used. PolyTC® offers sensors with both OCA and PSA coatings.

Inmold Labeling (IML) is a time saving injection molding procedure.A combination of IML with IMD increases the efficiency and quality of the processes in the production of 3D touch surfaces. Simultaneously the transparent, conductive PolyTC® sensors should be applied to the parts during the injection-molding process. A combination with insert decoration foils is possible, as well as sensor integration without decoration. Advantages are a high visual quality for injectable plastics and the linking of decoration and function in one step.

Interior News

Compo-SiL® Silicon Rubber Technology For Smart Surface HMI

INTERIOR NEWS



AUTOMOTIVE COMPONENTS SUPPLIER USING PATENTED GS TECHNOLOGY FOR INTELLIGENT COCKPIT PRODUCTS – SOURCE GS TECHNOLOGY

General Silicones (GS) reports how automotive components makers start using its Compo-SiL® technology, following the trend to simplify human-machine interaction (HMI) by giving surfaces in the cockpit smart functionalities, such as ambient lighting, display information, and integrated control functions through virtual buttons and sliders with haptic feedback.

GS was founded in 1970 in Taipei, Taiwan, and has now a global representation. GS is a major distributor of silicone materials and an active silicone products manufacturer, with plants in Hsinchu, Taiwan; Wujiang, China; and Bac Giang, Vietnam.

Compo-SiL® is a silicone rubber material that delivers many benefits of silicone material compared to plastic-based products. Its light transmittance is far higher than plastic-based alternatives after dyeing. It is not sensitive to aggressive chemicals, and it can be modified to be electrically conductive.

To integrate control functions, indeed, the silicone rubber is modified to provide electrical conductivity for interactive materials. In combination with intelligent haptic feedback technology, Compo-SiL® silicone rubber to create 3D-shaped touch surfaces that integrate intelligent tactile sliders, smart buttons and dynamic surface illumination to enhance Human-Machine Interaction.

Compo-SiL® uses its patented technology to equip the cured silicone rubber sheet with an ultra-thin polyurethane (PU) based interface layer. This layer allows bonding of the cured Compo-SiL® silicone rubber sheet with standard glue processes to smart surfaces during mass production, providing excellent adhesion strength.

GS manufactures Compo-SiL® using environmentally friendly. Silicone rubber has a low environmental footprint during manufacturing thanks to water-based processes. It can be adapted to GS vegan leather to match colors, texture, and feel of natural leather.

The PU layer of the Compo-SiL® sheets can be easily printed with any design using existing digital printing technology. This advance enables interior designers and product designers to combine printed design elements with electronic display functions push the envelope in automotive interior design even further.

Glass Back In Interior Surfaces With Flabeg

INTERIOR NEWS

FLABEG CAR INTERIOR GLASS OPPORTUNITY AREAS – SOURCE FLABEG

Flabeg is a glass processing company, based in Nürnberg, Germany. The main activity is bending and coating of glass, serving the automotive industry with glass for mirrors, displays, HUD, and other functional glass.

More than 130 years´ experience and more than 1400 employees, have made FLABEG a leader in glass processing. Flabeg glass processes is based on special competencies lie in distortion-free bending, coating and processing with innovative technologies. Sag bending is the process of choice to produce flat-aspherical geometries or free-form surfaces.

FLABEG's innovative glass surfaces for displays, touch screens and consoles are flawless, timeless and durable. Its glass finishing has great impact on the haptic user experience.

FLABEG CENTER CONSOLE IN GLASS – SOURCE FLABEG

As an example, a center console in glass redefines aesthetics and functionality, with a very classy impression within an excellent safe usage scenario, thanks to haptic feedback, minimizing distraction to the driver. Glass is a material that can be seamlessly adapted to the most demanding requirements placed on modern materials. Glass is as versatile as plastic, it allows seamless surface, 3D with integral forms and buttons for intuitive user guidance, and safe usage via haptic capabilities, and the recycling value chain already exists! The credo of Flabeg is "Everything made of plastic today, we will improve with glass"

Consumers Willing to Pay For Anti-Microbial Surfaces, Leather?

INTERIOR NEWS

WEARING GLOVES AND CLEANING THE WHEEL MAY NOT BE THE BEST SOLUTION!

According to a consumer survey conducted by IHS Markit that was conducted actors five major markets. Of the 800 consumers interviewed 54% said they're “very interested” or “interested” in having an anti-microbial coating in their next personal vehicle. While it is not economical to coat entire interior surfaces of a vehicle, IHS Markit expects OEMs and suppliers to deploy cost-effective countermeasures on critical surfaces.

Additionally, IHS Markit found that 25% of consumers said that they will not use ridesharing after the COVID-19 pandemic and 80% of consumers expect their rideshare vehicles to have some sort of disinfecting supplies going forward. Nearly half (48%) of respondents said that they will still use ridesharing going forward, but will reduce the frequency in which they were accustomed to before the pandemic.

Consumer are willing to pay more than $100 to have an anti-microbial coating,” said Kyle Davis, senior automotive analyst, UI/UX at IHS Markit.

High-touch surfaces inside a personal vehicle includes door handles, steering wheels, gear shifter, seats, touchscreen displays and consoles. Many surfaces here are using leather in mid to premium vehicles.

According to One 4 Leather, Collagen, from which leather is made, provides an ideal environment for microbial growth and antimicrobial agents are, therefore, used throughout the leather-making processes. This results in dirt and bacteria repelling properties embedded in the leather protein structure. Anti-microbial agents are applied only to the surface of plastic alternatives and these can easily abrade away during the products lifetime use - leather, therefore, has a more

durable benefit to offer. Although we want safety, part of this rests on having fewer chemicals used in the production of leather for car interiors.

Leather is a good option there, as other technologies are popping up (UV Lights, heating up the interior,). Copper and its alloys are also a good choice because of natural anti-microbial properties. Recent studies have indicated that COVID-19 was not present on a copper surface four hours after exposure. However, cooper drawback is cost, and trend is to get even more expensive.

One 4 Leather is a group of manufacturers and suppliers, active in the automotive leather supply chain to promote usage of leather in automotive interiors. They aim to offer the general public and industry the facts and insights about leather.

ITRI Novel Display Applications at Touch Taiwan 2021

INTERIOR NEWS

ITRI WORLD'S FIRST TRANSPARENT DISPLAY FOR VIRTUAL-REAL FUSION SMART CAR WINDOWS.

Touch Taiwan used to present innovations, trends and technologies in a physical event in Taipei. This year, end of April, it was an online expo, presenting, under five themes, including Smart Displays, a comprehensive industry ecosystem gathering 296 suppliers from Taiwan. Other themes are: "Smart Manufacturing", "Advanced Equipment", "Industrial Materials" and "Startup Innovations".

ITRI is a technology research and development institution in Taiwan, with headquarters in Hsinchu City. Founded in 1973, its mission is to drive industrial development, create economic value, and enhance social well-being through technology R&D. It pioneered in IC development and started to nurture new tech ventures and deliver its R&D results to industries.

To enable smart cities and Mobility as a Service (MaaS), ITRI has developed the world's first transparent display of virtual-real fusion smart car windows. This smart window provides passengers with real-time and intuitive scene-fusion information, which enhances the user's experience in smart car cabins. The information fusion accuracy can reach 80%, with a fusion frequency of 30 FPS. This technology can be applied to the fields of smart mobility and smart edutainment.

Another technology is panel-level RDL technology. It can be applied to the driver circuit of microLED display panels to increase panel design flexibility. ITRI's panel-level RDL can control panel warpage during processing to 1%, and the line width

and line spacing of thick copper conductors can reach 2 μm. This helps the integration of functional components.

ITRI also developed Low Diffraction AM Micro LED Display Technology to improve the background visibility of transparent panels, with a diffraction intensity of less than 1% -- much lower than the current 30%-40% of most transparent displays. This offers advantages to the application of transparent displays such as smart windows of vehicles.

Arrival EV HMI With HERE SDK

INTERIOR NEWS

Arrival Ltd is a British American EV manufacturer, founded in 2015, headquartered in London, UK, focused on lightweight commercial vehicles. They have selected HERE Technologies, the location data and technology platform, to power its in-vehicle Human-Machine Interface (HMI) navigation solution.

Arrival has been developing its own proprietary hardware, software and robotics since 2015 and is using these technologies to produce EVs through its unique Micro-factories, which are small-footprint, low CapEx and can be deployed quickly to serve local communities. (first three Micro-factories in North Carolina, USA, South Carolina, USA and Bicester, UK)

EVs benefit from predictable routes and overnight depot charging, fitting seamlessly within commercial fleets. With the rise of e-commerce, accelerated by COVID-19 and the demand for almost instant delivery, the global market for commercial fleets is expected to grow. Tackling the urgent need to reduce carbon emissions, Arrival's integrated transportation ecosystem provides the tools for cities and businesses to achieve their sustainability goals.

Here Technologies is a Netherlands-based company that provides mapping and location data and related services. It is majority-owned by a consortium of German automotive companies (namely Audi, BMW, and Daimler), whilst other companies also own minority stakes.

HERE's software development kit (SDK) goes well beyond standard mapping, routing and search functionalities. It provides real-time visibility into the geographic location of mobile assets and offline capabilities that include route calculation, location search and turn-by-turn navigation. Thanks to a highly compressed data format, HERE SDK provides fast upload times and a seamless user experience that can be customized by incorporating private points of interest (POIs).

“After a comprehensive benchmarking process, Arrival came to the conclusion that the navigation SDK from HERE is one of the best on the market. The quality of the location data coupled with the customization capabilities of the SDK means that HERE is the perfect partner for us.” said Valentin Anisimov, HMI System Lead in Technology at Arrival.

Tiguan Allspace New Control And Assist Systems

INTERIOR NEWS

The Tiguan Allspace the long-wheelbase version of the Tiguan, with +11cm wheelbase, for a total length of +22cm. It can afford 7 seats, or having almost 2000L of storage space. It's a real best seller with yearly sales of 500 000 (55% of Tiguan volume). 2nd and 3rd row seating can be folded completely flat.

The new vehicle update offers interesting interior features and technologies.

All air conditioning, heating and ventilation functions of the standard three-zone automatic air conditioner are operated via a new digitalized module in the center console. Touch panels and sliders take the place of rotary knobs and buttons.

The driver can now also choose to receive information via the full-color head-up display. It projects driving-related information such as speed, directions and warnings in the driver's field of vision.

The new infotainment system (new-generation MIB3) offers a full range of online services. An Online Connectivity Unit (OCU) with integrated eSIM allows users to benefit from the online services of We Connect (set up for an unlimited usage period) and We Connect Plus (set up for free use for one or three years in Europe). Depending on the equipment level, the range of MIB3 systems is supplemented with features such as natural voice control, access to streaming services and cloud-based personalization via Volkswagen ID. Additionally, apps can now be integrated wirelessly via App-Connect Wireless for Apple CarPlay™ and Android Auto™.

The optional premium sound system that Volkswagen has developed together with Harman Kardon provides a unique acoustic experience; it includes a subwoofer, a digital 16-channel amplifier, 8 plus 1 high-performance loudspeakers and an amplifier with a 480 W of total output, providing crystal clear treble and deep, rich bass sounds. Four sound scenarios, surround mode and razor-sharp speech reproduction guarantee high-end sound at all seats.

Front seats can get the ergoActive version with electric 4-way lumbar support adjustment and massage function.

The Design Lounge

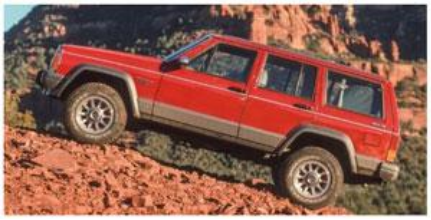
‘Family Truckster’ (7-seater SUV) Origins

THE DESIGN LOUNGE

Following on from last week’s overview of how Volkswagen went from the 5-seat Touareg to their current 7-seat Atlas, let’s look at the origins of the SUV ‘Family Truckster’ that happened in the early 1990s.

TOP 1990-MODEL SUVS, PER CAR AND DRIVER MAGAZINE: THE 1990 FORD EXPLORER, GMC JIMMY, ISUZU TROOPER, JEEP CHEROKEE, MITSUBISHI MONTERO, NISSAN PATHFINDER, AND TOYOTA 4RUNNER.

The beginnings of these vehicles started with 5-seat SUVs built on truck chassis as a ‘lifestyle’ alternative to the booming minivan market: minivans were marketed to moms; SUVs to dads. Automakers were figuring out what usage and needs this new kind of vehicle should provide. Was real off-road capability required, or was just the image and appearance enough as long as it was an adequate all-weather family hauler? Four contenders emerged; their descendants still dominate the market today: the Jeep Cherokee (XJ), Ford Explorer, Nissan Pathfinder, and Toyota 4Runner.




1990 JEEP CHEROKEE


1990 FORD EXPLORER


1990 NISSAN PATHFINDER


1990 TOYOTA 4RUNNER

The Ford, Toyota, and Nissan were based on their respective pickup truck chassis; the Jeep was the other way round (the Cherokee SUV spawned the Comanche pickup truck). In all four cases, off-road capability was an inherent priority but the daily driving and liveability is what brought consumers to this new segment. This included space, durability, and creature comforts transferred from then-typical sedans. This ability to add carlike comfort features to trucklike off-road capability (whether or not buyers ever actually went further off the road than the shopping mall parking lot) is what made this new segment successful and continues to fuel its ongoing evolution.

For this week’s Design Lounge, we will look at how Nissan and Toyota have evolved their vehicles to their present-day 7-seater offerings. By comparing the Nissan Pathfinder and the Toyota 4Runner interiors, we can see how Toyota incorporated a deep soft-touch instrument panel surface borrowed from their passenger cars, while Nissan opted for a more utilitarian hard-surface execution. From 2021's perspective it's clear Toyota’s passenger car approach was the winning one.

2021 NISSAN PATHFINDER

For 2021, Nissan has fully embraced the passenger car approach with their interior materials and feature seats without sacrificing the 7-seat practicality of an SUV.

A far cry from the hard plastic instrument panel form their 1990's Pathfinder, the 2021 model has a leather/vinyl type of instrument panel covering along with contrasting stitching and seams that cover the entire surface.

Also, the floor console with its storage and interface switching, is now integrated into the instrument panel as opposed to just covering the base of the shifting and 4-wheel drive actuation levers.

Although the central UX/HMI display screen is located at a high position, the use of leather/vinyl for the surface coverings are what give it an upscale craftsmanship appeal.

The driver's cockpit and displays offer amenities typical of a 2021 vehicle, including full-color displays for the cluster, a head-up display, and the central UX/HMI screen and interface.

No real off-road functionality is emphasized, as these vehicles are people haulers first, with all-weather usability.

The off-road functions, such as they be, are controlled by a rotary dial in the center console.

Rear passengers have their comfort features integrated into the rear portion of the floor/center console for easy direct control.

2021 TOYOTA HIGHLANDER

Toyota has a de luxe approach with the 2021 Highlander's interior. There's a high mounted center UX/HMI display and leather/vinyl coverings for the lower portions of the instrument panel. The floor/center console is also a dominant element for their interior design theme.

Toyota chose to place the HVAC ducts and switches into their UX/HMI display while also integrating it into a horizontal theme towards the passenger compartment. This thematic element can be seen in all of Toyota's new cars offerings for 2021.

A full-color digital display is also used in the Highlander…

…and decorative stitched and perforated leather trim adds more detail to the seating surfaces and trim covers. Very carlike, near luxury-oriented materials and functionality move the Highlander completely away from its truck-based SUV origins and firmly into the family-car category.

A more aggressive and sportier colorway is also available for the seating trim covers in the Highlander…

…to add a bit of flair versus the standard trim offerings.

The lineage from humble SUV origins to 7-seater family car is now complete with their 2021 models, which face fierce competition in the marketplace from nearly all automakers. Next week we will look at the 7-seat SUVs from Hyundai and Kia.

News Mobility

_Car interiors Unplugged

NEWS MOBILITY

PEUGEOT SR1 – GENEVA MOTOR SHOW 2010

21. OREkON _

(this story is part of an ongoing series introducing automotive interiors as an evolution of our habitat)

Carbon fiber, wood, anodized aluminum, ostrich skin, fish scales, crystal, orekon, genuine leather, recycled paper, carbonized fossil bamboo, porcelain, acoustic composite wool, silk, stone, anything recycled and 3D printed, is just a snapshot of a persistently updated portfolio of shades, tints and textures that constitute, beyond form, the hedonistic kingdom of car interiors. Soft, hard, warm and cold, a tactile universe that contrasting any other is not only to be looked at but to be felt. Unlike car exteriors, interiors can ‘live’ in the absence of light. Science and design got together fusing matter into senses.

CMF designers, a sort of ‘materials alchemists’ are infused with the peculiar talent of sensing the invisible, investigating the unseen world around us, stepping beyond sensory experience. They are raised, through a very special right-versus-left-mindset, to fulfill an uncomprehensive task: dial knowledge into physical substance. Whether they are creative scientists or artist genii, they are the extraordinary ones in the league of the most compelling industry trends. It is like fashion extravaganza liberated from its business sector and like garment augmented into surrounding space, cocooning and interactive at one go.

Although contradictory, this is what happened when fashion invaded mechanics. Fashion and technology are not the most intimate bedfellows; one is soft and warm the other cold and hard. However, we remain stunned on their willing of coexistence in the domain of car interiors.

With the launch of the Mercedes EQS sedan 56-inch door-to-door screen, we have reached a peak screen-level in car interiors. From now on, car interiors are segregated in two zones: the visible part destined to become screen-per-square-inch and, anything else in less visible angles, or otherwise 'the car interior itself'. Most observable forms, materials and textures are substituted by a constantly updating graphic, shuffling endlessly according to its algorithmic protocols. This performing and versatile 'layer of technology' is somehow cognitive-neutral in physical terms yet highly adaptable.

Our mobile adventure started early on from the ground up, mastering traction, mass and gravity through inventive mechanic analogies and compositions that matured over time remaining engraved in our saga of progress (wheels and tires, chassis, suspensions.). It took time to put in place all necessary controls to major performance (engine, steering, breaking.) and settle human factors (seats, consoles, interiors.) adding continually new layers of technology from the tarmac all the way to our fingertips. Today, on the last few millimeters of surface thickness, we created the most adaptable item that acts though as a disconnection screen of anything analog we could rely on, anything that directly connects us to motion. Yet, it ends up shaping us by shaping our itinerant environment.

Deeper technologic layers change slowly, surface layers 'learn' and adapt faster. The challenge is how to manage and redirect every single time this new powerful and reactionary sheet of technology. What if there was no screen to the benefit of all senses? Open-source innovation is often referred as the 3rd industrial revolution. In a world where a mirror doubles as a speaker and a plant can have its own twitter account updated by its feelings, what are the limitations to open-source car interior? A disproportionate development of screens within in the pluralism of inventions is overwhelming to the deficit of other sensations.

The constant friction between art and technology to such extend, makes car interiors the master of all crafts, creating form that is more than just function and beauty is more than style. Art is discovery and when applied, reveals a lot about ourselves.

There are places where humans have easier access to smartphones than clean water. Within an open-source technological polyphony, the cognitive overload through anything 'screen' is stepping singlehandedly on one only aspect of our multifaceted existence: addiction. After all, there is only two industries that call their clients Users, illegal drugs and software.

_to be continued…

_____*INDUSTRIOUS*__

Jaguar I-PACE is First Google Street View EV

NEWS MOBILITY

JAGUAR I-PACE GOOGLE STREET 2

Jaguar Land Rover has partnered with Google to integrate the all-electric Jaguar I-PACE with air quality measuring sensors and Street View mapping technology. The I-PACE is the first all-electric Google Street View vehicle and will be used to measure street-by-street air quality starting in Dublin, including nitrogen dioxide (NO_2) and carbon dioxide (CO_2) emissions, and fine particles (PM2.5). It will also help update Google Maps.

Jaguar Land Rover engineers have worked to integrate Google Street View technology into the vehicle, including new roof mountings for the Street View camera, new rear-window glass which allows for wiring and redesigned interior switchgear to incorporate Google Street View controls. With a focus on air quality, the I-PACE offers cabin air ionization and PM2.5 filtration to enhance occupant comfort and well-being.

The Jaguar I-PACE, which is an EV with zero tailpipe emissions, has been equipped with specialized mobile air sensors developed by Aclima and has launched in Dublin to capture data over the next 12 months about NO_2, NO, CO_2, CO, PM2.5, and O_3. Google's scientific research partners will analyze these data and develop maps of street-level air pollution.

The partnership comes as Jaguar Land Rover defines their future strategy: a sustainable reimagination of modern luxury, unique customer experiences, and positive societal impact—with a commitment to become a net zero carbon business by 2039.

Google has also partnered with Dublin City Council, as part of its Environmental Insights Explorer's air quality program to map hyperlocal air quality insights for cities to take action on their climate and health.

This partnership should be extended next to to the most air quality critical cities in the world, such as Zabol in Iran, Gwalior in India, and Xingtai in China.

General News

iFLYTEK in Pact with Chery Auto

GENERAL NEWS

CHERY, IFLYTEK SIGINING AGREEMENT (IMAGE: CHERY)

iFLYTEK is a partially state-owned Chinese information technology company established in 1999, based in Hefei, Anhui, China. They create speech intelligence and voice recognition software and many voice-based internet/mobile products covering key domains. Together with Chery Automobile, they strengthened their strategic partnership on May 24, intending to jointly develop intelligence products and promote the corporate digital transition.

Under this agreement, the two companies will step up their collaboration on automotive intelligent cockpit, smart sound effect, sales service, multilingual voice assistant, intelligent driving, industrial intelligence, and corporate digitalization, and be deeply involved in each other's future strategic planning.

The cooperation between Chery and iFLYTEK started in 2003. In 2017, the two parties formally formed a strategic partnership. They have introduced intelligent products to over 22 mass-produced models, amounting to over 600,000 vehicles equipped with intelligent voice assistant and more than 140,000 vehicles installed with smart in-car system.

According to the newly-signed framework agreement, both companies will deepen their cooperation on smart cockpit and IoV (Internet of Vehicles) solutions, and team up as well on sales/distribution AI-enabled services.

iFLYTEK and Chery will also target to co-develop an autonomous driving car that can perform Level 4 self-driving functions in specific scenarios. Additionally, to facilitate Chery's export business, both parties will co-work on smart interactive speech products available for multiple languages including English, Russian, Arabic, and Portuguese.

Smart Eye Buys Affectiva

GENERAL NEWS

Smart Eye is a Swedish high-tech company in Gothenburg. They develop and sell products for eye tracking and driver monitoring systems, and have just bought emotion-detection software startup Affectiva for USD $73.5m in a cash-and-stock deal.

Boston-based Affectiva, which spun out of the MIT Media Lab in 2009, has developed software that can detect and discern human emotion, which Smart Eye is keen to combine with their own AI-based eye-tracking technology. The companies' founders see an opportunity to expand beyond driver monitoring systems and into the rest of the vehicle. Together, the technology could help them break into the emerging interior-sensing market, which can be used to monitor the entire cabin of a vehicle and deliver services in response to the occupant's emotional state.

Smart Eye will help Affectiva move beyond the development and prototype work and into production contracts. Smart Eye has won 84 production contracts with 13 automakers, including BMW and GM. Smart Eye, with offices in Gothenburg, Detroit, Tokyo, and Chongqing, also has a division that provides research organizations such as NASA with high-fidelity eye tracking systems for human factors research.