DVN-I
Automotive Interior

Thu, 4 February 2021 Weekly Newsletter **NEWSLETTER #46**

Editorial

CES 2021 Part 2, And Big DVN-I Newsletter News

In today's DVN-I Newsletter we continue to report on CES 2021, with its focus, as far as vehicle technology is concerned, on EVs, AVs and AD, connectivity and 5G, electronic architecture, and smart cities—trends demonstrated by the suppliers and startups highlighted in our extended in-depth report.

The Design Lounge looks at steering wheels, as the new Tesla S Interior seems to open a new design direction, headed toward replacing it with a steering *yoke*.

DVN Interior turns two years old this month, and for its birthday *you're* getting a big upgrade: Up to now, the DVN-I Newsletter has been published twice a month. But rapidly increasing demand, support, and favorable feedback means effective right now, the DVN Interior Newsletter becomes **weekly**! That's double the content, half the refresh time—double the value for DVN-I subscribers.

DVN-I's global network of subject matter and business development experts work tirelessly to follow DVN Interior members' innovations and expand the DVN Interior member base—the first Chinese automaker has just joined—and to pick up and amplify interior technology and business information from all around the world.

The change to a weekly DVN-I Newsletter couldn't come at a better time; just like the developments in interior air quality, interior hygiene, sanitization strategies for shared vehicles, and so many other hot topics in the vehicle interior world, the services DVN-I provides are centrally crucial in today's travel-constrained pandemic conditions. **Join DVN-I today!**

We're glad you're here. We appreciate your support in DVN Interior, and we're committed to bring you, on a weekly basis, the best value for your business.

Take care and stay safe,

Sincerely yours,

Philippe Aumont
General Editor, DVN-Interior

In Depth Interior Technology

CES 2021, Part 2: Suppliers and Startups

Having looked last time at automakers' and home-electronics giants' trends, innovations, and technology presented at CES 2021, now we'll cover auto suppliers and startups relevant to the auto interior community. Information is drawn from speeches, roundtables, and virtual booths at the virtual CES.

Within the overall trends of EVs and AVs, 5G and smart cities, suppliers and startups were focused on electronics, electronic architecture, digital cockpits, driver monitoring systems and ADAS, vehicle-to-everything (V2X) and mobility-as-a-service (MaaS)—everything that will make the in-car experience more enjoyable and safer.

Bosch AIoT: Artificial Intelligence and Internet of Things

Bosch, while reiterating their commitment to sustainability—they proudly assert they've been carbon-neutral since last year—focused on what they call "AIoT," a combination of data, artificial intelligence, and Internet of things to benefit people and the environment.

Board member Michael Bolle said "We combine AI and connectivity to form the AIoT, which helps us improve energy efficiency and fight the coronavirus…AIoT offers

enormous potential. We are already unlocking this potential and plan to expand our efforts in the future".

AIoT is about managing sensors and data, from many different life domains. There are self-learning AI sensors for wearables, sensors for air quality and relative humidity, coronavirus PCR tests, portable hemoglobin monitors, contactless body temperature, and many more technologies along this line which could be deployed for occupant monitoring in a car.

Bosch and Here Technologies also presented concepts for how in-vehicle apps and services can further improve the experience of driving and charging vehicles, and facilitate sustainable mobility and new business models. Here, of which Bosch owns a five per cent share, discussed new ways to reduce range anxiety with advances in 3D mapping and privacy tools and a new EV Routing feature that optimizes suggestions so drivers take the most efficient routes.

Mobileye's Camera–Radar–Lidar Scalable Platform

A MOBILEYE AV NEGOTIATES TRAFFIC IN JERUSALEM IN DECEMBER 2018

Mobileye CEO Amnon Shashua explained the trinity of the approach they are now pursuing across the entire value chain of these systems. He described how Mobileye technology—Road Experience Management™ (REM) mapping technology, rules-based Responsibility-Sensitive Safety (RSS) driving policy, and two separate, truly redundant sensing subsystems based on camera, radar and lidar technology—combine to deliver a highly performant integral sensing solution that is orders of magnitude more capable than human drivers.

Shashua said Mobileye is investing heavily in technologies and strategies to integrate them into future systems. He has long believed that redundancy is absolutely necessary in autonomous driving systems at every level, including computational units and data and decision-making models, and predicted Tesla's strategy with their no-lidar Autopilot system has hard limits to its capabilities (notoriously cocksure Tesla CEO Elon Musk hates lidar for reasons that have so far not been made clear).

Shashua's prediction: Mobileye will achieve the ability to safely scale Level-4 autonomous driving beyond geofenced ride-hailing networks in just four years: "Scalability is very, very important for robotaxis, but more critical is what comes after the robotaxi," he said. "If you want to build that business, you're thinking not only of now, but three or four years from now, where this business is going to go, and having high-resolution maps is a crucial skill".

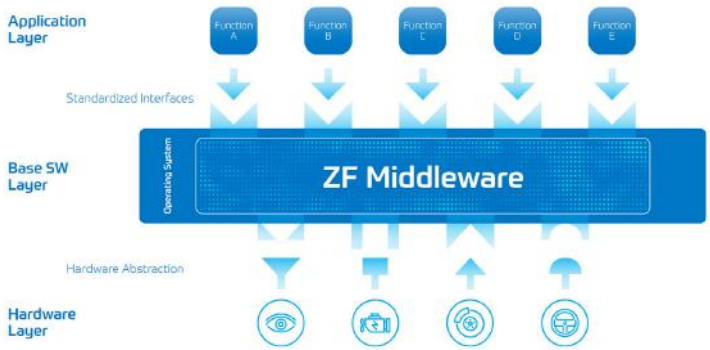
Mobileye therefore plans to deploy a pilot project in Paris in 2021, to be carried out in cooperation with the Parisian transport authority, RATP; Shanghai, Tokyo, and possibly New York. Mobileye vehicles have already circulated in Munich, Detroit and Jerusalem.

Elektrobit Software Platform

Elektrobit HMI Product Manager Thomas Moder presented Xelor, EB's all-in-one software platform for creating next-generation automotive electronics architectures based on high-performance computers. Combining well proven EB products, third-party software, and open-source components, Xelor is a complete foundation that allows to manage complex projects, enhance software innovation and differentiation, and accelerate time to market. It scales up any non-differentiating software (OS, power, etc) while putting efforts on what makes the difference to the brand and the user interface (cockpit).

Moder introduced a fully-modular cockpit, with more and bigger displays, voice interaction system with Amazon Alexa, 3D Unity user interface, cloud-based services and apps, and full digital content.

ZF Middleware



ZF presented their new middleware, an open software platform that serves as a mediator between a vehicle computer’s operating system and its software applications.

Today's vehicles have up to 100 different ECUs (and counting!), each with its own software. That's not sustainable; this aspect of architecture has to change. Software

functions will move towards a centralized system with only a few dedicated domain control units (DCUs), e.g. for the cockpit. All these software applications benefit from a smoothly integrated middleware platform managing system integration. And functions can be updated or additionally offered on-demand along the vehicle's lifetime, as described in ZF's promotional **video**.

Visteon Curved Dual Display

Visteon, with their focus on cockpit electronics, presented their impressive Curved Dual Display. It's based on differently-curved displays behind a seamless cold-formed glass lens, with a monolithic structure integrating open cell Fog LCDs and carrier-integrated backlighting.

Visteon also presented their modular MicroZone™ driver information solution, offering higher graphics performance than traditional LCD displays: wide color gamut, high contrast ratio, and high brightness. Visteon says the optical quality is far beyond what can be achieved by LCD, at a price far below what can be realized by OLED.

Gentex Intelligent Rear Vision

Gentex presented their Full Display Mirror intelligent rear-vision system, designed to optimize a vehicle's rearward view. The system captures video from the rearward-facing camera and streams it to a mirror-integrated LCD display to provide an unobstructed, panoramic view behind the vehicle. Here again, there's a demonstration **video**.

Gentherm Smart Seat Thermal Comfort

Michigan-based Gentherm presented a proof-of-concept microclimate seat-centric climate control system. They designed and integrated a two-zone ClimateSense™ system into a Chevrolet Bolt EV. General Motors' objective was to achieve equal or superior passenger comfort (based on 2 occupants) with 30% less power consumption than the Bolt's production climate system.

The ClimateSense system comprises advanced thermal delivery methods, integrated electronics, embedded software, and a novel thermophysiology-based human-centric control algorithm. The collaboration with GM also used a novel human-centric method to measure passenger comfort and the performance of the microclimate heating and cooling system.

GHSP Dual-Stack Rotary Controller

GHSP, based in Michigan, is a global supplier of mechanical and electromechanical systems to the automotive industry. They presented two high-tech control knobs, a dual-stack rotary controller and a multifunction controller, that could help intuitively blend interface elements. They assume physical buttons and knobs will survive, even if touch applications (push/pull with haptic feedback) are progressing together with voice

and gesture controls. GHSP also is working to bring anti-pathogen ultraviolet light cleaning technology to passenger cars.

Grupo Antolin

Grupo Antolin unveiled their two new Virtual Concept Cars, showing their latest innovations and newest vision of the car interior.

The Antolin Virtual Ride Hailing Concept Car's interior is a living space where people can work, relax, or communicate while on the move. It's a bubble of health, wellbeing, and safety for occupants thanks to advanced air purification solutions. The smart interior interacts with passengers using state-of-the-art technologies.

And here's Antolin's virtual ride sharing concept car. It's called ELIN, which stands for **EL**ectric Antol**IN**, and it's bristling with innovation. It's simultaneously electric, autonomous, share-oriented, and healthy, and shows the company's vision of what shared mobility might look like in big cities—it's designed for integration into the urban ecosystems. Its versatile interior can be customized for fleets by acoustic panels with decorative inserts made of natural materials.

Concepts on display in the ELIN include a driving monitoring system to warn about driver distraction or fatigue, touch surfaces with haptic feedback, personalized comfort (temperature, light, scent, sound, and touch), a holographic assistant, and a huge display for information and entertainment.

Antolin's Corporate Innovation Director Javier Villacampa said "We are working with the vehicle manufacturers to develop a more advanced, technological and sustainable interior that offers passengers a unique travel experience".

Grupo Antolin's virtual booth also included electronics for dynamic lighting, multifunctional display module integration, exterior logo lighting, backlit headliners with functional lights, backlit trim, touch surfaces with haptic feedback, advanced

lighting consoles, systems for purifying the air in the interior, and monitoring solutions that help in driving.

Jungo Connectivity is an in-cabin AI software company.

They presented a camera-based driver monitoring system called CoDriver. It's based on state-of-the-art deep learning, machine learning, and computer vision algorithms. Through sensor fusion with other onboard systems, it helps better understand the relationships among events both internal (driver and occupants) and external to the vehicle cabin (weather, traffic, obstacles).

They also presented MagiaTouch, a human sensing software development kit which enables embedded devices and applications to create touch-free interfaces, using cameras and microphones to garner inputs from eyes, hands, fingers, voices, and faces and bodies more generally.

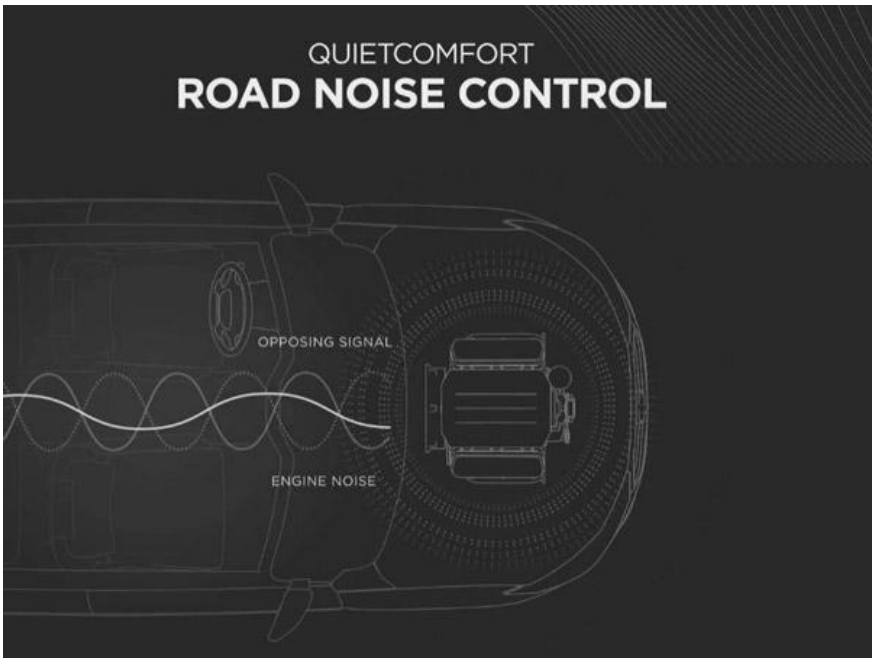
Metamaterial HUD

Metamaterial Inc is a smart materials and photonics company based in Canada. Their products are designed using algorithms and engineered at microscopic levels, creating functional materials that mimic *nature*and metamaterials with new properties and capabilities that go beyond those found in nature.

The company showcased their ability to fabricate holographic optical combiners that serve as the key component in the optical system that makes up a head-up display (HUD). The combiner superimposes light from the projector system onto light from the outside world.

And because they are thin and transparent, the combiners can be installed as aftermarket devices, factory-installed discrete components, or integrated directly into the windshield.

Bose Active Sound Management



Bose announced a new addition to their active sound management portfolio for cars: QuietComfort Road Noise Control (RNC). Now available to global vehicle manufacturers, it joins Bose's Engine Harmonic Cancellation (EHC) and Engine Harmonic Enhancement (EHE) to form a broad set of technologies for reducing cabin NVH without heavy insulation materials. Algorithms and signal processing are used to create precise sound characteristics specified by the car manufacturer. QuietComfort RNC is planned to be in production models by the end of this year.

Continental and Sennheiser: Ac2ated Sound

Continental and Sennheiser presented their partnership to join technologies to creating an immersive sound experience that eliminates the boundaries between reality and

reproduction. The joint solution offers a scalable and adaptive sound system that supports the evolution of mobility towards a more user experience-oriented future. Continental's Ac2ated Sound removes conventional loudspeakers from the vehicle and replaces them with small, lightweight actuators that excite surfaces. The newly added headrest audio feature provides a unique experience of individualized listening zones with a fully invisible integration. Sennheiser applies their Ambeo 3D™ audio technology to deliver an immersive, natural in-car sound experience. It is designed, calibrated and fine-tuned to ensure an incredibly vivid soundscape and crystal-clear communication. Combining the two technologies creates an immersive, real-life experience for all listeners in the vehicle.

Filo Child Tracker

Filo is an IoT company based in Italy. They've sold more than 400,000 bluetooth trackers, and in 2019 they launched **Tata Pad**, a smart cushion for car seats that prevents a child from being left in the car thanks to its adaptive smart alarm system.

Kurz Decorative Antibacterial Surface

Kurz presented "Whales in Las Vegas", an imitation of real whale skin, with three-dimensionally deforming and backlighting metallized foils. They also presented IMD Biofense™, an ISO-tested antibacterial surface protection with depot effect, integrated into the decoration process of plastic surfaces. It supports long-lasting hygiene even on heavily-used plastic surfaces. (We've covered Kurz's IMD technology; see DVN-I Newsletter № 43)

Pyrenee Retrofit AI Camera

e-Lichens Air Quality Monitoring Station

eLichens, a sensor tech company headquarted at Grenoble, France, introduced a battery-operated indoor air quality monitoring station called eLsi. It measures CO_2, particulates, VOCs, temperature, humidity, pressure, light, and noise, and provides highly accurate real-time indoor air quality data. There's a mobile app available for Android and iOS, which allows users to see real-time data and history per pollutant, and alerts in case of unhealthy air. It has a 3.5” touchscreen and LED status indicator, online data storage, a management dashboard, and outdoor air quality data. It even gives suggestions to improve the air quality, such as “open your windows”.

Cipia Driver Monitoring System

Cipia (formerly Eyesights) showed their Driver Sense technology, which monitors a driver for signs of distraction or drowsiness and issues alerts to avert the situation and prevent accidents. The technology can even detect the presence of a cell phone and monitor the driver with a facemask, so it even works in these pandemic times! Using embedded computer vision and AI, it tracks head pose, blink rate, direction of gaze, and other visual attributes to establish if the driver is focused on the road, distracted, or drowsy, and then to deliver real-time alerts to the driver.

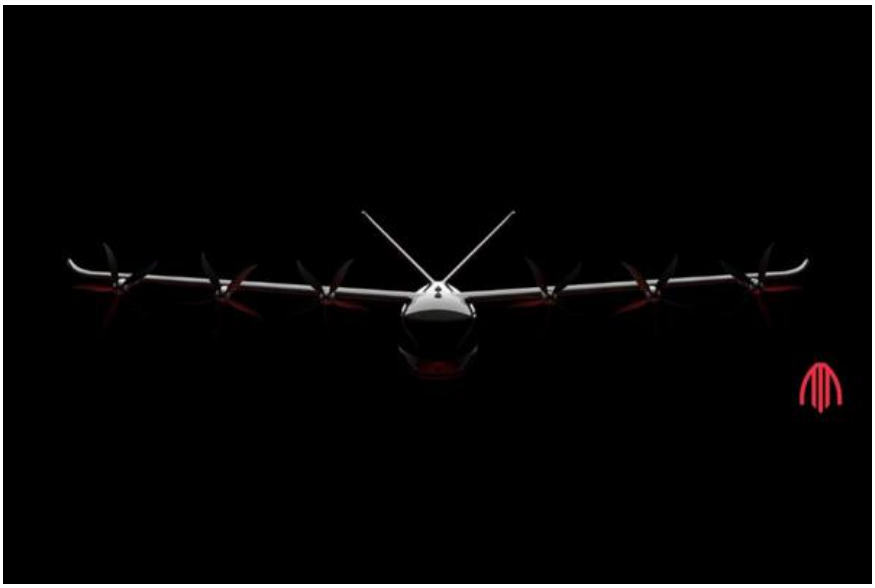
The system also allows to tailor the in-cabin environment to the recognized driver on board, adjusting the cabin temperature, media preferences, seat, mirrors, and more.

Sion Solar Electric Car from Sono Motors

Sono Motors is based in Munich, Germany; they operate out of the former Saab plant in Trollhattan, Sweden. At CES they presented the first solar electric vehicle for the mass market. the Sion, a spacious electric car with a range of up to 255 kilometers that charges itself through the power of the sun.

Its sleek interior, with plenty of space and generous storage, impresses with its intuitive useability. The innovative design integrates Iceland moss under a 10” display. The Sion is designed as a car ready for sharing; in fact, it comes *only* configured as a sharing vehicle. The Sono app allows to share energy, rides, and the car itself—anywhere and anywhen.

Archer eVTOL



Archer, a startup with Walmart funding, has entered into a partnership with FCA to design and develop an eVTOL (electric vertical take-off and landing) aircraft intended for deployment as part of a mobility service, and at a contextually affordable price.

Autoweek, a Detroit car culture publication, showcased their “10 Cool Things from the Virtual CES—From flying cars to flexible dashboards, there was something for everybody". They were probably biased to a mobility perspective; their list included the Skydrive flying car, the Walkcar, an e-scooter, an e-bike, the Sono Sion solar car, a water scooter, Visteon's Flexible Rotating Glass Cockpit, Panasonic's AR-HUD, and Volvo Penta's assisted docking. However, it shows that interior and mobility are at top of the list of what's new, hot, and shiny in vehicle technology.

Interior News

Veoneer, Qualcomm in ADAS Pact

INTERIOR NEWS

IMAGE: VEONEER

Veoneer's business unit called Arriver will work with Qualcomm in developing and deploying a software package for driver assistance systems and autonomous driving functions.

Together, the two companies have harmonized their software and hardware and developed a coordinated product portfolio. Arriver supplies the program codes for the recognition of objects and the set of rules for the initiated driving maneuvers. Qualcomm provides the necessary computing power with its system-on-chip for assistance systems. The intent is to offer an L^3 system by 2024.

Arriver is 100% owned by Veoneer, and will work closely with Qualcomm executives at the product and project level, to become a key supplier and long-term leader in the ADAS, collaborative and autonomous driving software markets.

At the same time, Veoneer is pulling out of its 50/50 Zenuity ADAS-AV joint venture with Volvo, which began operations just three years ago. Veoneer President and CEO Jan Carlson says the exit is justified by a better perspective for the market of assistance systems. By 2030, Carlson expects a market share of at least 85 per cent for L^1 to L^{2+} systems. He estimates the marketing opportunities for higher vehicle automation to be correspondingly low. The legal framework for L^4 and above is still unresolved and there is still a lot of development work to be done, he said. Veoneer is thus focusing on systems that can be commercialized in a short to medium term.

Osram Ostune LEDs for Interior Lighting

INTERIOR NEWS

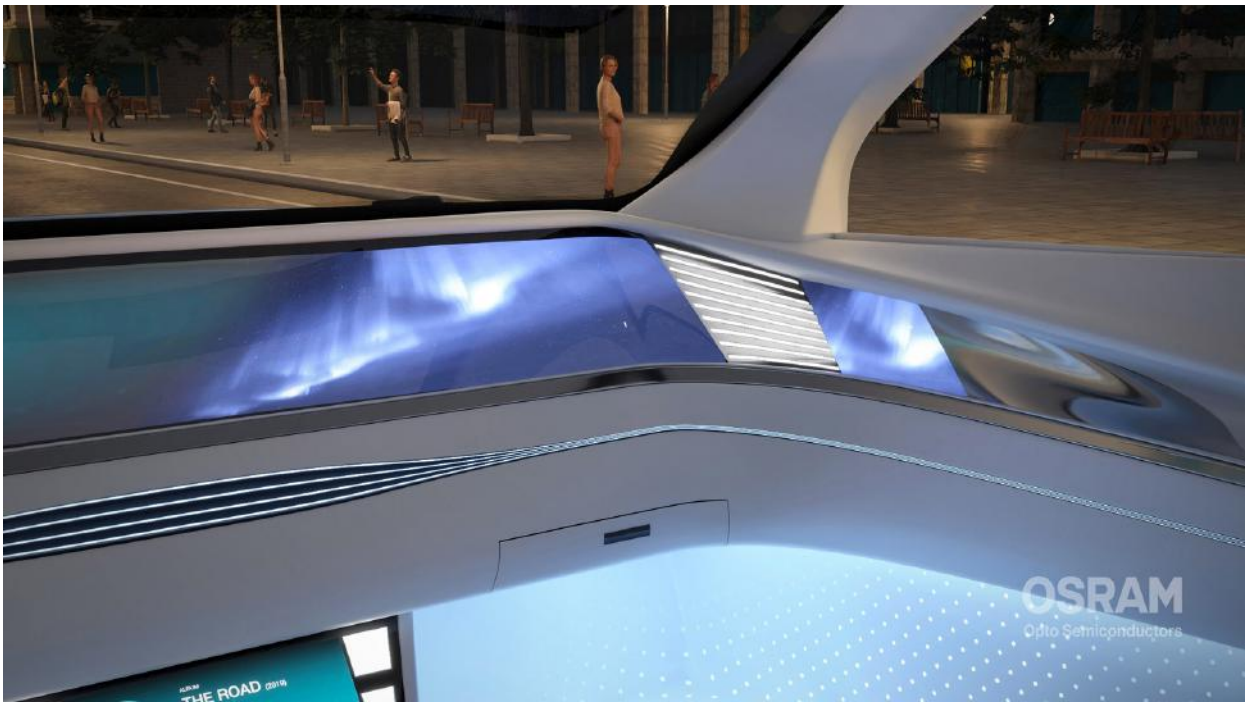


IMAGE: OSRAM

The Ostune LED family from Osram Opto Semiconductors is now bringing technological achievements and insights from the general lighting sector to the vehicle. The first two products cover a wide range of color temperatures and enable automakers to create different light variants for their interior lighting: from bracing, bluish cold white to cozy, reddish warm white, with a CRI (color rendering index) of over 90. The atmosphere in the interior can be transformed from a functional workplace to a cozy living room simply by adjusting the color temperature.

SOURCE: OSRAM

The Ostune E1608 and E3030 extend Osram's portfolio for automotive interior lighting and, in addition to the wide color temperature range from 2,700K to 6,500K, offer customers an energy-efficient and space-saving alternative to conventional technologies for a wide variety of applications from ambient interior lighting to functional courtesy and reading lights, mirror or footwell lighting.

Because of the wide color temperature range and the possibility to choose from small bins, customers can precisely define their desired white tone and make it a fixed design element across vehicles. In addition to the compact dimensions of 1.6 × 0.8 ×

0.6 mm (E1608) and 3.0 × 3.0 × 0.65 mm (E3030), the products offer outstanding color rendition in car interiors. The Ostune E1608 covers the lower brightness range up to more than seven lumens, and the E3030 over 70 lumens.

The Design Lounge

The Design Lounge

THE DESIGN LOUNGE

Steering Yokes: Are They Finally Here? (Part 1)

Steering yokes have been the stuff of concept cars and future-fantasy fiction for years —remember the Batmobile? Well, welcome to the future! 2021 seems to be the year when the round (or at least roundish) steering wheel finally begins giving way to steering yokes.

The trend is being pushed by technologies such as drive by wire, variable-ratio electric power steering, and the explosion of UX/HMI display interface elements required in today's modern interiors. As a mainstream solution, now offered on the refreshed 2021 Teslas' Model S and Model X vehicles, let us look at what preceded this solution and what various automakers are doing about it.

For years, Citroën used their open, single-spoke steering wheel design as a brand differentiator. In the CX model, they first incorporated pod switches into the instrument cluster that eliminated the traditional stalks for turn signals and other such controls.

Mazda, with their luxury Eunos Cosmo of the 1990s, also created an open single-spoke design with switches in the steering wheel that took some of the spillover from the ever-growing complexity of the traditional stalk controls.

As we progressed with the further integration of UX/HMI into the vehicle, controls and switches became common in the spoke area of the steering wheels of luxury brands such as BMW as well as mainstream brands like Honda. This further evolved, briefly by Citroën, into a fixed, non-rotating center hub that housed driver-oriented UX/HMI controls and functions.

Concurrently, motorsport steering controls became increasingly complex as the driver needed to command various active systems such as damping, engine mapping, braking and aerodynamic systems while also the traditional shifting and steering functions. This led to the adoption of a steering yoke in race cars, instead of the traditional round steering wheel.

Now this steering yoke has replaced the traditional round wheel as the performance interface of the future as seen by its usage in the Lotus Evija hypercar and all drivers gaming stations.

In the next issue, we will explore how Ferrari drove the high-performance usage into their vehicles and compare it to what Tesla is now offering.

News Mobility

_Car interiors Unplugged

NEWS MOBILITY

4. ‘Sleepless in Detroit’_ part One.

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

“Innovate or die” is the short version of this year’s Consumer Electronics Show *(CES Jan 11-14)*. On this doctrine, we are hovering from fossil fuels to electrons, bridging closer the Motor City to Silicon Valley. The frontier between cars and computers is blurring evermore. The show itself was an interactive online platform, however its physical presence was gone with half the participants. How does innovation play into this and what happened to the physical aspect of things? Latest demographic trends indicate an important shift in consumption models. Durable goods value grows on study rhythm while consumption services grow exponentially. The instagramability of any interior space is occasionally converting our habitat into a shooting stage. Car interiors, so technologically advanced that can retrieve and produce up to 6 times more information than a smartphone could become proper broadcast studios on wheels! In this triangle of physical-digital-human, how do we rank? Is it about reproducing an equal type of intelligence by replicating humans or rather extending and amplifying their capacity in order to create supporting systems? The latter is exactly what car interiors do well: everything surrounding humans.

We have thousands of years of experience in translating our proximity into reflex and

that is difficult to redo. However, the prodigious challenge is to complement and augment. Anything virtual occurs due to our experiential knowledge of real, like painting: a replica of material world based on perception, aiming to recreate and often amplify sensations, empower emotions and imagination. Can virtual exist in the absence of real? Human ingenuity often projects to the final solution and extrapolates to new scenarios by abstracting the steps in between. This has an impact if directly dialed into everyday products. Often during this ongoing pioneering adventure, having literally the world on our fingertips, we are trapped by the mere possibility of instant achievement, by a click!

With the stellar rise of new business models, hyper scalers and system integrators are accelerating the shift. R&D business skyrockets into a new renaissance model that inverse-engineers everything, so that the digital identity of an interior is more important that its components. In this opposite order, technologies are like waves of human perception: the fastest to conquer product development will transform products to their parameters…

_to be continued…

*_____INDUSTRIOUS_*

CES 2021: New Mobility within Smart Cities

NEWS MOBILITY

IMAGE: COLMAR BOUGE

CES 2021 showcased six trends to shape smart cities in the future:

• Personally-owned electric bikes will continue to grow in popularity.
• 5G will open new options for high-speed connectivity.
• Cities will continue developing using information data dashboards to share with citizens and stakeholders.
• Many sectors will grow their “as-a-service” offerings.
• Deliveries will be increasingly autonomous and electric.
• The public will weigh-in on smarter city tech.

These trends will help to solve cost challenges and traffic congestion, encourage economic growth, increase decarbonation and sustainability, and more.

With the coronavirus pandemic increasing demand for contactless operation and delivery, self-driving vehicles will provide a safe mode of transportation. Automotive, digital and retail companies, and regulatory authorities around the world are moving to set the rules and to develop product and services for driverless delivery.

Steady advancement of self-driving vehicles and digital innovations in passenger tech and goods delivery call for our cities to adjust and evolve. And that’s true the other way around as well: there’s a virtuous circle here, where new kinds of vehicles need smarter environments and vice versa. More will come on Smart Cities, stay tuned.

General News

Quality Ratings Founder J.D. Power III Dead at 89

GENERAL NEWS

J.D. Power and Associates is an American data analytics and consumer intelligence company founded in 1968 by James David Power III. Power passed away last week; he was 89. The JD Power index is an independent quality and user-experience index assessing car performance. It was particularly used for interior, guiding automakers and their suppliers to address quality and usability issues, and even used as a target in new project development: if today's model has a 7.8 rating for interior, that was incentive to raise its successor to an 8.3, for example. Too, it is a tool to facilitate dialog between engineers, based on consumer perception, and not only on engineering units.

"He created a measurable standard," Bob Lutz, former head of product development at General Motors and Chrysler, told *Business Week* in 1996. "For that, he deserves our utmost respect."

The company, headquartered in Troy, Michigan, describes itself as a global market research company. They conduct surveys of customer satisfaction, product quality, and buyer behavior for the automotive, banking & payments, wealth & lending, telecommunications, insurance, health, travel and utilities sectors. The firm is best known for its customer satisfaction research and benchmarking on new-car quality and long-term dependability. Its service offerings include industry-wide syndicated studies, proprietary research, consulting, training, and automotive forecasting.

The company entered the auto market with its first client, Toyota, in 1969, and acted as an advisor to that company's US launch.

Kia: New Name, New Logo, New Strategy

GENERAL NEWS

KIA'S NEW LOGO UNVEILED JANUARY 6 DURING A PYROTECHNICAL DISPLAY IN SOUTH KOREA

Kia is reinventing their brand strategy and corporate mission with a new name, a new logo, and a new slogan. They're dropping 'Motors' from the corporate name as the brand transitions from a manufacturing-driven business model to creating new mobility products and services. They also presented their new logo to the world by fireworks display.

Kia President and CEO Ho Sung Song says "Removing the ‘Motors’ from Kia’s corporate name shows our commitment to our long-term plan and business strategy. Kia wants to create sustainable mobility solutions for consumers, communities, and societies around the world”.

Kia has a new slogan accompanying their new logo, as well. The old one was ‘Power to Surprise’, and the new one is ‘Movement that Inspires’, consistent with customer expectations on experience and service instead of product and ownership.

Kia's strategic brand adjustment comes as GM declared their 'M' now stands not for Motors any more but for Mobility, as announced at CES 2021. It can’t be considered as a cosmetic improvement anymore, it really reflects a major evolution, if not revolution, of the business landscape.

Is the DeLorean DMC-12 Coming Back…To The Future?

GENERAL NEWS

DELOREAN DMC-12 VIN 2436, EARLIEST KNOWN CAR WITH A GRAY INTERIOR

The DeLorean DMC-12, famous for its appearance in the movie “Back to the Future”, went out of production decades ago, in the early 1980s.

But it's always had a simmering enthusiast community. The U.S. Low Volume Motor Vehicle Manufacturers Act of 2015 would have enabled companies to build up to 325 cars per year without adhering to all the Federal Motor Vehicle Safety Standards, but NHTSA didn't put in place the necessary regulations.

For several years, SEMA—the Specialty Equipment Market Association, a lobbying group for the American automotive aftermarket industry, filed a lawsuit last October; now NHTSA has released the long-awaited regulations that will allow the carmaker owning the DeLorean brand to re-start production of the DMC-12.

But early-1980s cars don't comply with current emissions standards, either, so the DMC-12 could come back as an electric vehicle—it’s a fair assumption that would be the easiest way to become an emissions-compliant vehicle.

From a market attractivity perspective, it is still present in auto fans' minds; last year a designer created an impressive refreshed design of it, and Stanford University engineers created a driverless version of the car. Therefore, it could please the wealthy retro-fashionable geek with $100,000 to drop on a fun retro-future car.