Thu, 27 July 2023
Weekly Newsletter

DVN-I
Automotive Interior

NEWSLETTER #171

Editorial

DVN Interior @ San Francisco: Docket Locked In!

The docket for the DVN Interior Deep Dive in San Francisco has been finalized; you'll find it here.

There are five lectures covering all aspect of interior lighting, starting with a keynote from mobility futurist Dave Muyres. He has extensive experience in designing and configuring automotive interiors, and has worked worked with major Tier-1s in numerous projects all around the world with almost all automakers. He also has served in U.S. government initiatives.

Presentations include tier-1 perspectives from Forvia, looking beyond lighting to HMI, then Delo focused on integration of interior lighting through adhesives, then Technoteam talking about performance characteristics of interior lighting, and finally Covestro, discussing interior lighting integration through genuine materials. It's a well-rounded agenda with all the ingredients to develop a forward-looking discussion with attendees. **Registration** is still open, but hurry fast; spaces are filling up quickly.

Chinese EVs are starting to enter Western markets, so we take the opportunity to look at the latest interior innovations in today's in-depth article.

Sincerely yours,

Philippe Aumont
DVN-Interior General Editor

In Depth Interior Technology

Interior Tech in Chinese EVs for Western Markets

MG MARVEL R WITH 19.4" SCREEN (MG IMAGE)

China became the top auto exporter in 2023, and Chinese brands first started outselling foreign brands in China this year, displaying an operating model that could win in Western markets. China is a top market for EVs and automated driving, with concommitant interior innovations. To compete, global automakers must radically change the way they do business in China and all other markets—including making customer-focused tradeoffs that favor technological features, speed to market, cost, and accepting higher risks with those pursuits.

Tier-1 suppliers, westerners included, are increasingly focusing on China, because it is the world's largest car market. The technology momentum, and it is very visible in car interiors and cockpits. Let's take a look:

IM Motors

IM Motors is an EV JV between SAIC Motor, Zhangjiang Hi-Tech, and Alibaba. They unveiled a concept vehicle portending LS7 at the 2021 Shanghai Auto Show.

The interior has a sleek design: a triple screen including an LCD instrument panel, central control screen, and a display for co-pilot display, and both can be hidden when not needed. It is the first mass-produced vehicle in China with a steering half-wheel; the 'upper half' is missing (a full wheel is optional). It also has a large panoramic sunroof and 360-degree parking cameras. The front passenger seat is foldable, and moves forward under the instrument panel to clear a full 'business class' right rear seat, as shown in this **video**. The LS7 will be equipped with a new smart cockpit 2.0 with the IMOS 2.0.

Geely

GEELY IMAGE

Geely officially released the interior image of their Galaxy L6 compact sedan, scheduled for launch late this year.

Continuing the interior layout of the Galaxy L7, the L6 features a minimalist design with a wraparound cockpit layout. The clean interior color scheme, and the horizontal air ducts, create a wider visual experience. The combination of a 13.2" central vertical screen and a 10.25" LCD instrument cluster enhances the technological feeling of the interior.

It is equipped with a dual-zone panoramic sunroof, which brings a bright cabin ambiance, and there's 256-color ambient lighting and a fragrance system.

Baojun

SGMW IMAGES

Baojun is a brand of SAIC-GM-Wuling (SGMW), and this is their upcoming family EV, the Yunduo ("cloud").

It carries a 15.6" high-definition LED screen, combined with a central control design devoid of physical buttons. It has an L-shaped interactive layout, concentrating key vehicle controls on the left side and the bottom status bar of the central screen. It integrates 18 functions, including automatic headlights, air conditioning, Autohold, 360-degree imaging, navigation, and windows, providing easy access to essential vehicle features. The car also offers three methods of vehicle control: voice command, touchscreen, and steering wheel controls.

The voice interaction system has a recognition speed of less than 400 milliseconds, a wake-up rate of 98 per cent, and supports continuous conversation within 20 seconds without re-wake-up. It also allows voice commands for functions such as map navigation, music selection, and phone calls without needing to re-wake-up. The system supports both driver and passenger voice recognition, and provides a 'voice cloning' feature, enabling users to customize their own unique voice package by recording their own voice.

For HMI experience, the Yunduo offers remote control functions through a mobile app, allowing users to remotely control functions such as opening the tailgate, remote lock/unlock, Bluetooth key, finding the car, and parking assistance.

The car's LingOS 2.0 introduces a new UI/UX system. The infotainment interface will offer the ability to customize the home screen, allowing users to freely adjust the layout of the desktop, and resize and move cards according to their preferences. It supports advanced connectivity features by dint of a high-performance 8-core MediaTek MT8666 processor coupled with 6 GB of RAM and 64 GB of storage space.

XPeng

XPENG G9 (XPENG IMAGE)

NEV startup XPeng has announced the official launch of their 'intelligent multi-scenario cockpit', available on the G6 and G9 models.

With this new system, nearly all functions within the cockpit can be customized based on user preferences. When the vehicle detects preset triggering conditions based on the internal and external environment, it can initiate a series of services. For instance, users can set the system to automatically activate rapid cooling in response to high temperatures inside the vehicle before users get in the car according to schedule. The air conditioning will then adjust the temperature to a less-roasting 26 °C, maintaining gentle airflow.

There's a 'nap' feature: during weekdays at noon, when the user takes the driver's seat, the backrest can automatically adjust to the resting position, the screen will turn off, and the air conditioning will activate at 26 °C. When the user's designated nap time is over, the voice assistant will prompt "it's time to wake up," and the seat

position will revert to driving mode. XPeng claims this feature offers over 350 vehicle-side capabilities that can be combined, providing users with flexible multi-function customization.

Moreover, XPeng says users can easily share their customized scenarios through WeChat, Weibo, and the XPeng mobile app. A 'scenario store' is available, where users can access a wide range of preset scenarios and personalize them according to their preferences.

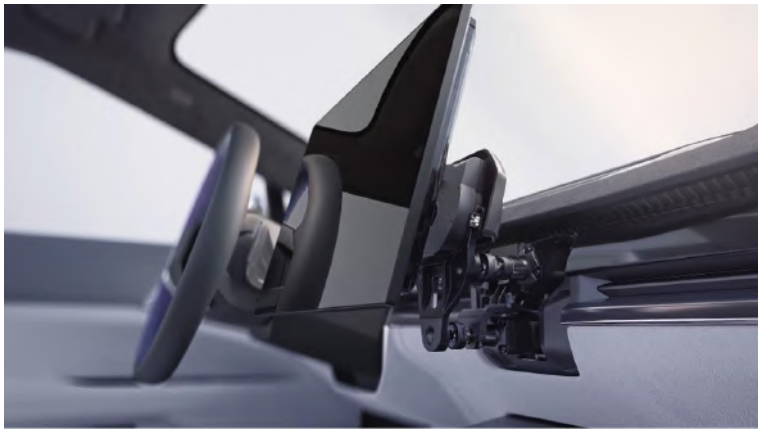
HiPhi

HIPHI IMAGES

Tech-focused EV brand HiPhi presented their Y midsized electric SUV as a European debut at the Goodwood Festival of Speed this month. (see The Design Lounge hereafter)

HiPhi was established in China in 2019 by Human Horizons, a self-described new mobility research company which itself was started in 2017.

The Y is the smallest and most mainstream of HiPhi's three models. It was first revealed at the Shanghai auto show in April.



The car features the HiPhi Bot, a robotic arm that holds the central infotainment touchscreen which can rotate or pivot with four degrees of freedom and high-speed movement in eight directions, depending on desires. It will also change angle automatically as the driver moves their seat. It can also be manually positioned, and rotates through 360 degrees, allowing the display to be situated in either portrait or landscape modes.

The X is also available with a third seating row to give a maximum of six seats. Interior lighting and new surface materials are amply used, as visible here at the dashboard-door junction, one of the most critical fit-and-finish areas of the interior.

Lynk & Co 08

LYNK & CO IMAGE

Inside Geely's new Lynk & Co 08, there is a state-of-the-art Meizu Flyme Auto infotainment system, integrated into the large 15.4" touchscreen in the center of the dashboard, which complements a 12.3" digital instrument cluster. Flyme Auto is claimed to feature many desktop and seamless connection features. It supports the transfer of mobile apps to the car, and can be automatically connected once you pair your phone with the vehicle. Contour seats follow the body's shapes, with white upholstery contrasting with elegant copper-colored inserts throughout the cabin. The audio system is by Harman Kardon.

Denza N7

DENZA IMAGES

Denza, a JV between Mercedes and BYD, just revealed their new N7 full-size SUV, with a stunning and futuristic design. Its sleek and aerodynamic body lines enhance its æsthetics and improve its overall efficiency. The vehicle features a panoramic glass roof.

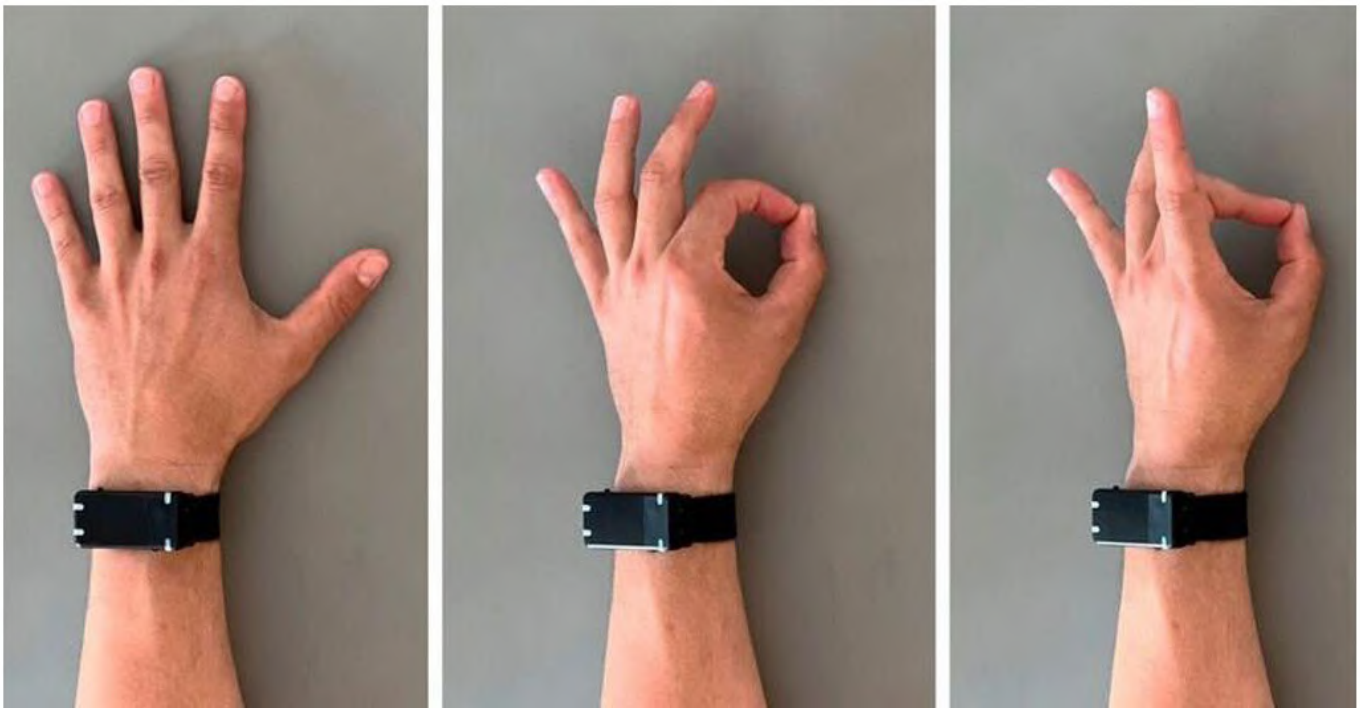
Inside, the N7 combines comfort and innovation. The cabin is meticulously designed with premium materials, ensuring a luxurious driving experience. The spacious interior offers ample legroom for the driver and passengers.

It comes equipped with a pillar-to-pillar infotainment system that integrates seamlessly with a smartphone. The touch-sensitive display provides access to navigation, entertainment, and vehicle settings.

Interior News

Humaine One Gesture Control Measures by Wrist

INTERIOR NEWS



HUMAIN SOLUTIONS IMAGE

Gesture control usually relies on cameras or controllers, but now comes startup Humain Solutions to change that with an interface the size of a smartwatch. It measures finger and hand movements directly on the skin surface.

Gesture control in cars promises free operation of functions. In practice, however, it is often difficult to recognize the hands optically if they are not in the detection range of the cameras, if they're covered, or if a sleeve slips onto the wrist. The new Humain interface is said to overcome those limitations.

The basis for the Humaine One interface is a novel scalable sensor technology, which its developers say can be applied in different shapes and sizes. In this case, the interface is the size of a smartwatch and can recognize finger and hand movements and gestures. Continuous motion detection also recognizes the path from the open to the closed hand, and "analyzes every state in between, as when an object is grasped", says Humain manager Ralf Andragk.

The device uses densely distributed, independent, multi-dimensional sensor arrays. These measure the topography or deformations of the skin surface caused by muscles and tendons when the user moves their fingers. An algorithm maps these skin deformations to limb movements, and generates control commands for a specific application to be executed. Andragk says the sensor technology itself consists of only two components: a silicone matrix that can follow the micro-movements of the skin, and the actual sensor elements.

The Humaine One is a fully portable, standalone sensor system with a WiFi-enabled microcontroller. In the smartwatch form factor, the sensor system has twelve multidimensional sensing points. On the software side, the interface has libraries and ready-to-use programs for developing specific applications.

Bridge of Weir Leather and Circular Economy

INTERIOR NEWS

MCLAREN SPEEDTAIL SPECIAL EDITION (BRIDGE OF WEIR IMAGE)

Founded in 1905, Bridge of Weir is a family-owned business, operating one of Europe's largest leather production facilities. Their claim to fame is creating the world's most luxurious, lowest-carbon leather and offering customers full transparency and traceability of raw hides with an independently verified lifecycle analysis of 8 kg CO_2 e/m^2. This enables their customers to make a quantifiable CO_2 reduction on vehicle interiors.

There has recently been a trend for new synthetic materials because of sustainability and animal-welfare concerns; the term 'vegan leather' has become a popular marketing pitch, leading consumers to believe materials made from plant-based materials such as pineapples, mushrooms, cactus, etc, perform better and are more sustainable than genuine leather. More often, non-animal leathers are made out of petrochemicals, plastics, or recycled plastics.

An independent survey of 2,000 UK consumers found that "when it comes to 'vegan leather' there was an alarming level of confusion: 54 per cent of respondents were not aware of the composition of this material, and 74 per cent agreed that "it should be easy to see what I am buying and that labelling should not be misleading".

Sustainable leather production is circular: cows eat grass, the meat provides protein, the skin is converted into durable leather with an extended use phase, can be repurposed, will biodegrade, and can then be recycled as fertilizer to help grass grow. Recently the World Wildlife Fund (WWF) **stated** "Leather is steeped in circularity and indeed is one of the oldest forms of upcycling".

Taking plastic bottles and mixing them with plant-based components to create a composite can result in an unrecyclable material with a shorter lifespan, which takes much longer to biodegrade—making it linear. Sustainable leather is 80 per cent bio-based, while most plant-based alternatives are only around 30 per cent.

Last year, Polestar re-introduced leather to their range of interior material choices for consumers. Initially, they had wanted to offer only vegan materials, but reversed upon realizing leather could not be replaced in a sustainable way and that leather produced to the highest standards helps a brand meet sustainability target.

The game is not yet over for leather, as the value chain is making efforts towards sustainability, which is positive no matter what final material is used.

Forvia, BYD to Put Seat Plant in Thailand

INTERIOR NEWS

BYD ATTO 3 SUV TO BE PRODUCED IN THAILAND (BYD IMAGE)

Forvia and BYD will build a new seat-assembly plant in Thailand's Rayong province. The facility will produce complete seat seats as Shenzhen Faurecia Automotive Parts, a joint venture created by BYD and Faurecia in 2017, majority owned by Forvia.

The Forvia-BYD cooperation is very special, between a French company and a private Chinese company. Launched in 2017, this collaboration has an annual production capacity of 2.6 million seats from seven factories, and an R&D center in Shenzhen. Four of these plants have been established within the past 18 months.

Forvia’s entry into Thailand’s seating market is a major milestone, complementing the supplier's existing industrial presence in the country with their interior, electronics, and clean mobility businesses.

Forvia employs over 40,000 people throughout Asia. In 2022, recorded sales were over €6.7bn in Asia, i.e., 27 per cent of Forvia 's total sales. The outlook for this market is promising; by 2025, it is estimated that Asia (excluding India) will account for half of global vehicle production.

Forvia CEO Patrick Koller says his company "believes building on existing partnerships to develop new projects is key to strengthening ties with customers. The common decision to build our new plant in Thailand was bolstered by the robust logistics and export infrastructure available in the country, as well as by our long-standing industrial presence in the country, and is in line with Forvia’s strategy of establishing a balanced portfolio in terms of customers, technologies, and geography. This factory develops us further into the Asia-Pacific region, set to account for 57 per cent of global automotive industry growth over the coming fifteen years".

Gentex Invests in Adasky for Thermal Image Sensors

INTERIOR NEWS

ADASKY IMAGE

Gentex is investing in Israeli company Adasky, to produce and market the startup's sensor technology. The thermal imaging sensors are designed to close gaps in object detection, especially in poor visibility conditions. Even in darkness, rain, fog and other adversities, the sensor can distinguish and recognize objects from their surroundings based on their thermal radiation.

Adasky has so far produced the sensors independently in Israel. Gentex CTO Neil Boehm says that for larger series orders, Gentex will produce the technology—alongside the several million cameras they already produce each year.

Boehm also sees potential use cases for Adasky's infrared technology in another sector where Gentex has heavy activity: electronic exterior and interior mirrors: "The performance of our full display mirror at night could be improved by combining it with Adasky's imager." He also sees possible use in vehicle interiors, for example to detect items left behind.

Adasky says they are developing long-wave infrared sensors for long-range detection; these don't require a shutter, and image optimization takes place without a calibration pause, says Adasky CEO Yakov Shaharabani.

Karuun for Sustainable Interior of Nio ET7

INTERIOR NEWS

NIO IMAGES

Nio's ET7 is the first production car to feature karuun® in its interior—an environmentally friendly alternative to plastic. In addition to the technical properties required in automotive applications, the material made from rattan (a variety of Palm tree) also offers unique social and environmental benefits: rattan relies on the biodiversity of the rainforests in Indonesia. The raw material is harvested manually without machines, and then processed on-site using a patented method. Karuun is a brand of Out For Space, a company founded in Kisslegg, Germany in 2015

An energy-efficient process transforms the natural structure of the rattan palm into a high-tech material that is both sustainable and commercially profitable. Rattan's natural linear grain is enhanced by custom coloring options, amplifying the material's visual impact and minimizing visible seams, which are tricky to avoid when jointing veneer. Karuun possesses excellent material properties at low weight. Particularly when it comes to processing, Karuun offers superior formability and tensile strength. It is laminated with a thin cellulose coating to prevent cracks forming during processing. Translucency and back-lighting possibilities establish karuun® stripe as a natural alternatives to artificial surfaces.

Rolls-Royce Spectre

INTERIOR NEWS

ROLLS ROYCE IMAGES

Rolss-Royce is now focusing on BEVs; example: the new Spectre coupé.

Acceleration with a full 900 Nm of torque is not brutal, but smooth; braking is not abrupt, but with soft elegance. The secret behind this rather untypical speed for electric cars lies in the so-called champagne test: When accelerating and braking, not a drop of the sparkling wine is allowed to escape from the flat drinking bowl. The low vibrations when driving fast over railroad crossings are described as 'sky-hooked driving', meaning the feeling that the body is suspended in the sky while the chassis compensates for the unevenness of the road.

Rolls-Royce Head of Design Anders Warming calls his work 'automotive haute couture', and points out in particular that the Spectre has the three insignia of a modern-day Rolls-Royce: fixed wheel hubs with the RR logo always upright; umbrellas in the doors, and an interior roof designed as a starry sky. Even the door panels can be ordered in starry sky look.

The rear-hinged doors are the largest side openings ever installed in a Rolls. Getting in is a pleasure, and you don't have to lean out of the car to close them; you can press a button. The driver can also simply operate the brake pedal and the huge door will swing shut automatically

Only the finest leather is installed, paired with open-pored wood. The gauges look analog instead of digital, and the metallic-looking surfaces feel cool. Everything in the interior seems genuine and homey.

The Design Lounge

Festival of Speed

THE DESIGN LOUNGE

COFFEE CORNER
DVN
Interior

ASTON MARTIN DB12 (GOODWOOD IMAGES)

By Athanassios Tubidis

From July 13th to 16th, the hill climb event showcased the latest and greatest cars and drivers around the world at the famous estate of Goodwood in England, home to the 30th anniversary of the Festival of Speed.

In this year's edition, deriving straight from the video game, a McLaren Solus GT, a limited track-version powered by a naturally aspirated V10, was eventually way more amusing that its digital twin and, real! It is a single-seater, with a seat designed to fit its individual owner, placed right at the center in an enclosed cabin accessed by a jet-plane-type sliding canopy. Just like the McLaren Vision Gran Turismo, it was created with speed and lap-records in mind but also downforce as it proved by setting the pace in Goodwood's timed Sunday trials. Its price tag ranges at £3m, which makes it—at least pricewise—a rival to Bugatti Bolide, also present to the hill climb on Sunday. The cartoonish looking Bolide is a W-16 powered creation and Bugatti's track-weapon headed to production. The constructor claims a theoretical speed well above 311mph without compromising handling. In addition, the bolide is claimed to do a lap of LeMans in 3:07.1 minutes and a lap of Nurburgring in 5:23.1 min, barely a few seconds off the lap-record posted by the Porsche 919 Evo LMP1 car, creating thus a great deal of enthusiasm and intrigue to potential owners. Those last ones, will initially be invited to sample the car's 'behavior' at dedicated track events, so that they can be gradually introduced to its breathtaking performance.

POLESTAR 2 LONG RANGE RWD (GOODWOOD IMAGES)

EVs, in equal participation to their louder counterparts, made hill climb a somewhat quitter affair, underlining the commitment to lower emissions and higher emotions, all in one, at the same race and place. The latest generation of Rally1 Hybrid class was represented by the Ford Puma and Hyundai i20N, while Audi S1 Hoonitron and the

amazing McMurfy Sperling were also driven up the hill after the pouring rain on Friday that created perfectly suitable rally conditions. Two Porsche endurance racers, the current 963 that raced at the Le Mans 24 Hours last month and its predecessor, the 919 Hybrid, were also at the spotlight. Variety and experimentation has always been an important ingredient of the show and in this edition, Ineos Grenadier FCEV (Grenadier 4x4 variant on BMWs latest hydrogen-fuel-cell stack) demonstrated the use of three electric motors—one up front and one on each rear wheel—promoting torque as an off-road key factor. Kia's electric flagship and its most expensive car to-date, the new seven-seat EV9SUV, pronounced the future of the brand with its new hot 'graphic' looks and bold design features. Ford Explorer crossover labeled Ford's new era of electric SUVs (European designed and built) while MG 4 XPower dual electric motor, was also there, reinventing the old MG-Rover name into a new electric hatchback.

A wheel flying off a classic car hit two spectators, who happily stood on their feet after a brief recuperation, while Hyundai RN22e prototype hit the track (literally) on a high-speed exit from the tarmac, proving that hay-bales are appropriately solid and absorptive. At the very instant that the rear wheels of an F1 car lock, driver becomes passenger and the spin ends into the straw. This was the exact case at the unexpected crash of the iconic turquoise-green Leyton House F1 car (Judd CG901, 1990), that had no casualties, other than the drivetrain, yet the incident remains unexplainable. Exiting at Malcolm corner, the 1998 911 GT lost control and simultaneously its rear wing, while the 1996 McLaren F1 GTR 'kissed' the bale, causing some minor yet expensive-looking damage. Spinning and drawing-donuts is a tradition in Goodwood. This is exactly what the pilot of the future Mercedes-AMG GT (2024) at its yellow-blueish camouflage, wanted to do. Instead, he became part of the setting for a while, stuck upwards on the dirt mound, offering—instead of donuts—a great picture opportunity for anyone in the crowd. Following Friday's showers, the scheduled Saturday run was cancelled due to strong winds and storms; however, the agenda went back to normal after the weather cleared up.

Besides all unforeseen happenings, the festival was, as always, a shiny new first glance to all novelties showing up for the first time, as well as intriguing and intense due to the great range and diversification of the car park, embracing emerging propulsion technologies and new vehicle segments. There was not a single car nor event that did not invite, intrigued and triggered emotions and discussions. Each single car, no matter how ordinary or unusual, classic or eccentrically styled, luxurious or rough, light or heavyweight, conservative or avant-garde—it is always of great interest to someone. Some, indeed, appeal to many more than others do. The Goodwood Festival of speed demonstrated, once more, that cars merit celebration.

News Mobility

Autonomous Cabs are Taking Off on China's Roads

NEWS MOBILITY

BAIDU IMAGE

Tech giant Baidu is the first company in China to be allowed to operate self-driving cabs without a safety driver. The fleet is to be available in 65 cities by 2025.

In the southern Chinese metropolis of Shenzhen, Baidu's autonomous cabs are no longer eye-catchers. People have long since become accustomed to the Chinese tech giant testing their self-driving vehicles in the city. So when one of the white Baidu cars with a knob on its roof pulls up next to them at a traffic light, it doesn't cause much astonishment. The body houses cameras and other technology that make it possible for the vehicles to theoretically drive through the city all by themselves.

It is still a test fleet in Shenzhen, which already exists in some other Chinese cities. Users can download an app that works similarly to Uber. Simply enter the pickup location and destination, and the robo-taxi will roll up minutes later. The ride is free during the test phase. Foreigners cannot yet book a ride without assistance because the app so far only allows registration with a Chinese ID card. Also, a security driver is still always on board so far—laws in China have required it so far.

Many Chinese providers are trying their hand at autonomous cabs. But Baidu has now made a major breakthrough ahead of all their competitors; thanks to a new license, Baidu is the first company in China to be allowed to offer its service commercially and, above all, without a safety driver.

Cruise, Waymo Pitch Robotaxis as Solution to Bad Drivers

NEWS MOBILITY

CRUISE IMAGE

Cruise and Waymo have separately pushed narratives recently, essentially saying their technologies are crucial to making roads safer because humans are bad drivers. The moves, full-page ads in major newspapers from Cruise and a blog post from Waymo, come as California regulators delay for a second time expanded permits that would give both companies authority to charge for fully--driverless robotaxi rides with no human behind the wheel across San Francisco.

The tactic of painting human drivers as the real problem is an attempt to influence public opinion in favor of autonomous vehicle services, when city agencies like the San Francisco Municipal Transportation Authority (SFMTA) point to malfunctioning robotaxis adding to the city's congestion problem and impeding traffic, public transit, and emergency responders.

Both companies currently run limited robotaxi services in the city.

"You might be a good driver, but many of us aren't," reads the ad. "People cause millions of accidents every year in the US. Cruise driverless cars are designed to save lives" is an example of message

Waymo published a blog post with a similar sentiment. The Alphabet-owned company used their robotaxis to analyze the aggregate speeds of cars in San Francisco and Phoenix over a 10-day period, and found that vehicles speed 47 per cent of the time. Many cars went 25 miles per hour over the posted speed limit.

The company cited National Highway Traffic Safety Administration data that showed in 2020, speeding accounted for one-third of all traffic fatalities and 13 per cent of injuries in the U.S.

"Unlike humans, the Waymo Driver is designed to follow applicable speed limits," reads the blog. "Our driver can also detect the speed of other vehicles on the road. Doing so helps the Waymo Driver predict the likely next maneuvers of the vehicles around it and respond accordingly."

Both Cruise and Waymo touted their own safety records. Cruise said their cars were involved in 92 per cent fewer collisions as the primary contributor and 54 per cent fewer collisions overall when benchmarked against human drivers in a comparable driving environment.

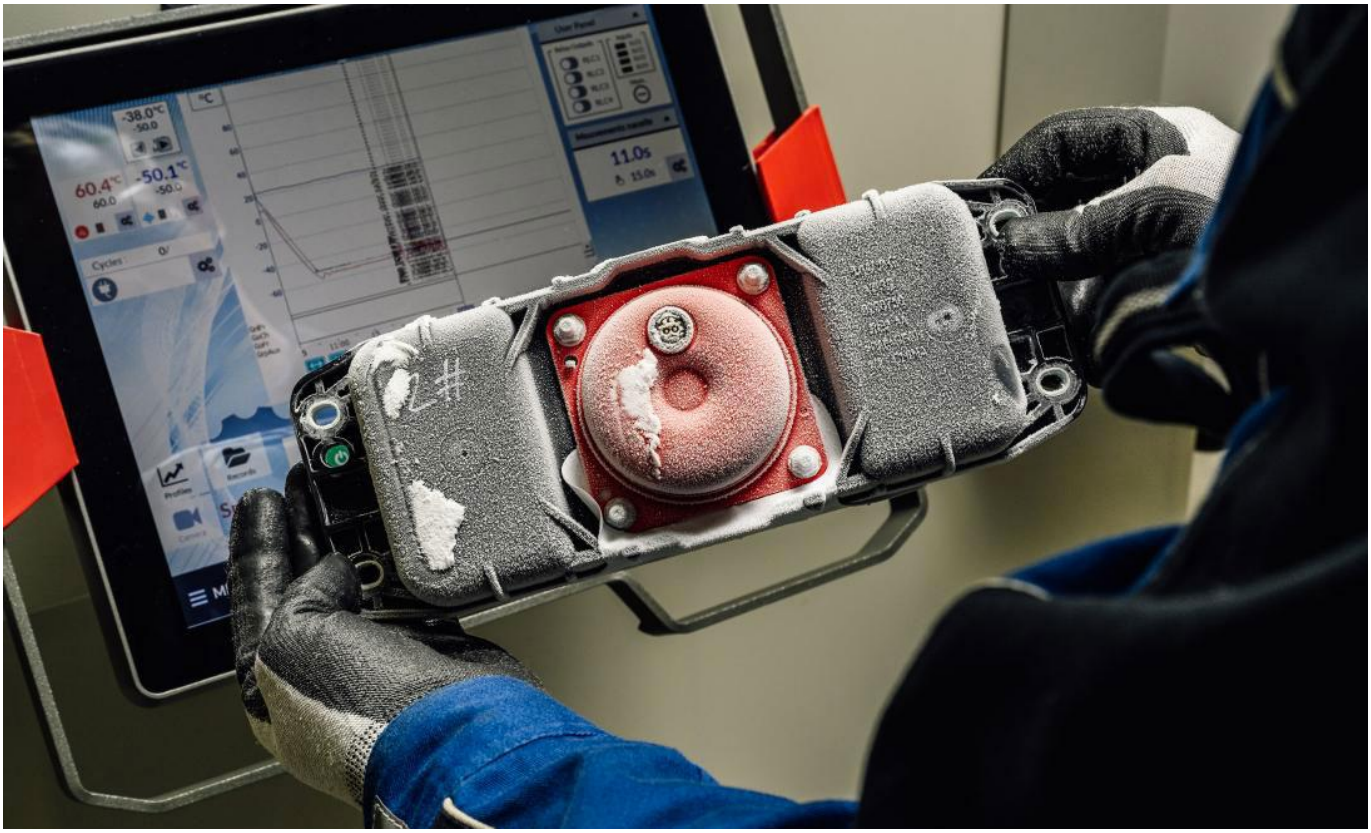
The narrative that humans are unsafe drivers is not completely false, but that doesn't necessarily imply robotaxis and autonomous vehicles are really better—so far it looks as though they're just differently bad—nor that they're necessarily the solution. Where's the safety comparison to public transport?

In San Francisco, Cruise's permits currently allow service in limited areas of the city from 10 p.m. to 6 a.m. Waymo operates at any time of the day, with a human safety driver always present in the vehicle.

General News

Yanfeng Expands Slovakia R&D for Safety Parts

GENERAL NEWS



YANFENG IMAGE

Yanfeng has recently expanded their European safety systems R&D activities at their Technical Center in Trenčín, Slovakia. This complements the existing interiors product portfolio and testing capabilities at the site. With this investment in new equipment and technologies, Yanfeng extends their passive safety component development and testing capabilities beyond China.

The new test stations are for the testing of steering wheels and airbag modules. The company has invested around €2.5m in equipment including a mechanical shock test station as well as a drop tester, inflator deployment test machine, an additional climate chamber, a salt spray chamber, and a dust test station which uses fine dust from the Arizona desert. A new temperature shock tester, an airbag test center, and a robot test system have also been installed.

Yanfeng Automotive Interiors CEO Francois Stouvenot says, "Yanfeng is the only automotive supplier that offers in-house passive safety solutions and interior integration from a single source. With our extensive expertise in interiors, seating, and passive safety, we are able to develop holistic interior solutions with seamlessly integrated safety systems".

The company's safety technology ranges from a smart steering wheel, that warns drivers through visual signals or vibrations if they unexpectedly stray from their lane, to seating systems with automatic seat belt tightening, restraint systems, and airbags.

Over the past few years, Yanfeng has been increasing their development and testing capabilities for Central and Eastern Europe in Trenčín. Since 2017 the company has invested continuously in additional testing equipment. The Trenčín Technical Center is one of two major European research and development sites in Yanfeng's global engineering network; it supports the tech center at the company's European Headquarters in Neuss, Germany, with environmental, functional, durability and material tests for automotive interior components and products, including instrument panels, cockpits, door panels and floor consoles.

Nvidia Wins CAM PwC Innovation Award for Interior, Interface

GENERAL NEWS

NVIDIA IMAGE

For over ten years, the Center of Automotive Management (CAM)—based in in Bergisch Gladbach, Germany and directed by Professor Dr. Stefan Bratzel—has conducted a study among manufacturers and suppliers to find the most outstanding innovative achievements in the automotive industry. CAM database of innovations in vehicle technology makes it possible to identify future trends among automotive groups.

Since 2012, PwC and CAM have been awarding prizes for the most innovative achievements in the automotive industry. At a festive gala, the most innovative automobile manufacturers and suppliers of the year are honored with the AutomotiveINNOVATIONS Awards, traditionally held in Frankfurt am Main. Innovation have always been the key driver of the automotive industry. But rarely have they been so important and affected, so many areas, at the same time as they do today. The focus has moved beyond electrification and the digitization of production to new partnerships and supply chains, new eco-systems, and value creation models. That's why innovative capability is the key indicator of how well automotive manufacturers and suppliers will master the challenges of transformation.

The most innovative interior and interface automotive supplier this year is is Nvidia. Other winners: Drives: CATL; Chassis, body and exterior: Michelin; Automated driving and ADAS: ZF.

The most innovative automaker? Volkswagen Group. Most innovative volume brand: Ford; Most innovative premium brand: Mercedes; Most innovative model: Mercedes EQE; Most innovative premium brand in autonomous driving and ADAS: BMW; Most innovative volume brand in autonomous driving and ADAS: Ford; Most innovative premium brand in connected car services: Audi; Most innovative volume brand in connected car services: Ford; Most innovative premium brand in electric drives BEV: Mercedes; Most innovative volume brand in electric drives BEV: Volkswagen; Most innovative premium brand in interface and connectivity: Mercedes; Most innovative volume brand in interface and connectivity: Volkswagen.