

# Editorial

## EV Concepts Driving Future Of Interiors



THE PROLOGUE, HONDA'S FIRST E-SUV (HONDA IMAGE)

Last week, for the first time in four years (after the biennial event was halted in 2021 due to the pandemic), Japan's biggest auto trade show opened under a new name: the Japan Mobility Show, formerly the Tokyo Motor Show. A lot has changed since or [2019 DVN-I Report](#). Frankfurt IAA became Munich Mobility; Geneva moved temporarily to Doha; Detroit is nowhere, and Paris is trying to reinvent itself. CES has become a leading automotive technology event. And Japan Mobility, with numerous concepts on display, is showcasing the progress toward an electrified Japanese industry. It shows how designers are optimizing car interiors in the context of EVs, with high sustainability and natural materials content; HMI with smooth connectivity, and personal digital services.

This week, we bring you news of a wide diversity of new premium interior surface materials: recycled PET for the Renault Clio; Continental's Benova Eco Protect, bio-based material from Sage/Asahi, Veganza upholstery for BMW...so many new materials; it's clearly a strong-and-gaining trend!

Don't forget to save the dates and make your plans for next year's DVN Interior Workshop at Köln on 23-24 April, which will deal comprehensively with the Interior of the future. Find more information about that event [here](#).

Sincerely yours,



Philippe Aumont  
DVN-Interior General Editor

# In Depth Interior Technology

## Japan Mobility is Festival of EV Concepts



BYD YANGWANG U8 (BYD IMAGE)

The Japan Mobility Show was a celebration, with an armada of startups, electric vehicles, robots, and concepts. Formerly called the Tokyo Motor Show, and on pandemic hiatus since 2019, this year's reworked show flashed a moment of celebration in the Japanese automobile industry, on backdrop of profound changes in the global automobile sector. Radical acceleration has pushed Japanese industry to change.

Japanese manufacturers are particularly suffering in China; their local sales fell by 19 per cent in volume over the first nine months of 2023, while those of Chinese brands jumped by 20 per cent over the same period, according to specialist site Marklines. For Mitsubishi Motors, the debacle in China is such that they have announced they'll abandon their local (Chinese) production, which they suspended last March.

The market share of Japanese manufacturers in China "will continue to decline, because they are not major players in the electric sector", predicts SBI Securities analyst Koji Endo, and it will probably be impossible for them to catch up with the Chinese companies lavishly supported by the Chinese Government.

Nissan general manager Makoto Uchida, speaking at a JAMA press conference—the Japanese Auto Manufacturer Association—said, "The market environment is difficult now and we cannot prolong the past. JAMA organizes the Japan Mobility Show.



BYD SEAL (BYD IMAGE)

A record 475 companies participated this year, more than double the number in 2019. But foreign exhibitor participation was limited and stagnant: just 19 non-Japanese companies, of which only three were automakers. But one of those was a main attraction: Chinese EV maker BYD, who earlier this year became the first Chinese automaker to launch in Japan. They exhibited three models under the BYD brand: their Atto 3 B-segment SUV; the Dolphin C-segment sedan, and their 4.8-meter Seal sports sedan. They also exhibited their large Yang Wan-branded U8 4×4, and the high-end Denza-branded D9 minivan co-developed with Mercedes.

Electric mobility is prime mover for Japan's future growth, and as a unifying theme, most automakers presented interesting electric concepts.

## Honda

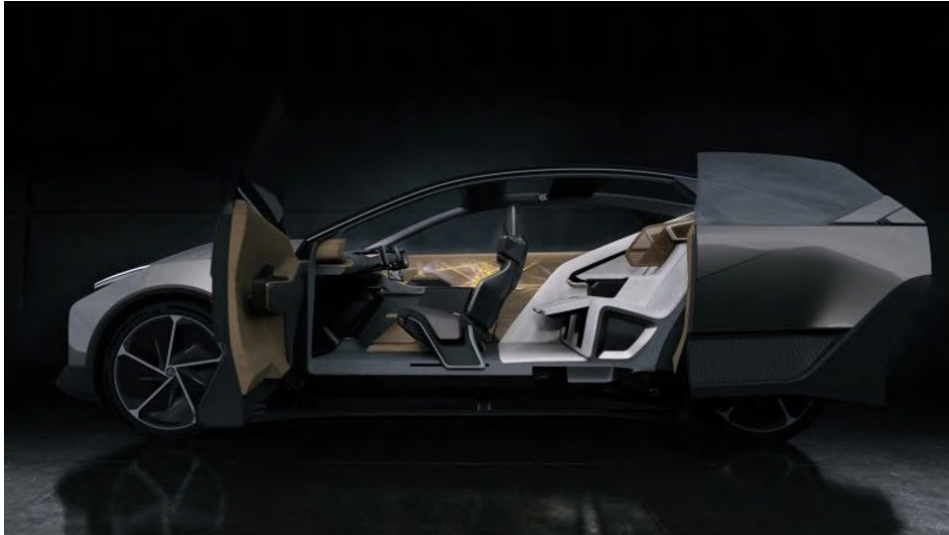


HONDA SUSTAINIA-C CONCEPT (HONDA IMAGE)

With their "Dream Loop" booth theme, Honda expressed their view of a future toward which the diverse dreams of people will continue expanding, starting from mobility products and services that embody Honda's dreams. They highlighted their electrification strategy with the Sustainia-C EV concept made of recycled acrylic resin. Also on display was a 2-seater micro-EV pod car called the CI-MEV. It uses what Honda calls 'cooperative intelligence' and automated driving for easy last-mile mobility.



## Lexus



LEXUS IMAGE

The Lexus Bamboo CMF Concept<sup>1</sup> was presented to show Lexus' SDG (sustainable development goals) efforts, focusing on circular use of resources while giving customers a new experience in sophisticated, luxurious design.

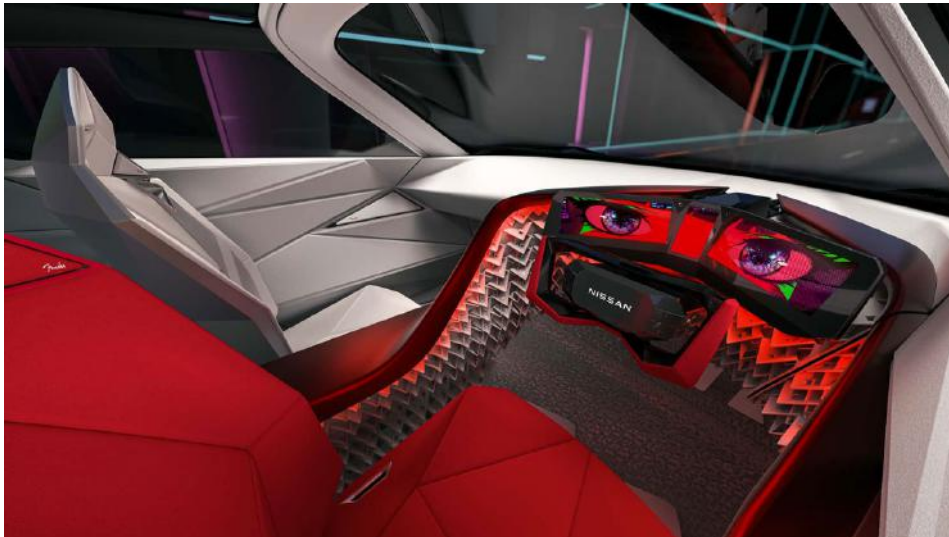


LEXUS IMAGE

Bamboo is the signature material in the car, exemplifying the commitment to efficient recycling of valuable natural resources. Bamboo strikes a balance between fast growth, significant CO<sub>2</sub> absorption capacity, and an enduring beauty that has seen it used as a material for Japanese construction and crafts for centuries.

A variety of techniques incorporate bamboo in the CMF Concept<sup>1</sup>'s design to achieve luxury and beauty. For example, bamboo fibers and woven fabrics are used for decorative elements that interact with the ambient light.

## Nissan



HYPER PUNK (NISSAN IMAGES ON THIS PAGE)

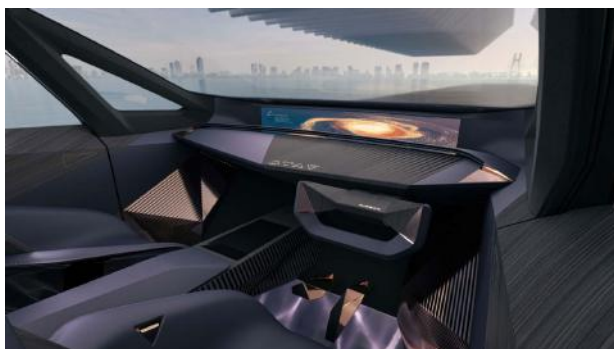


Nissan's new Hyper Punk EV concept was first shown at the Japan Mobility Show. It is a compact crossover with a functional and stylish body, described as tailored for 'content creators, influencers, and artists'.

Inside, origami-styled elements evoke Japanese design and create a space where 'digital and art are fused together'. For example, the onboard cameras can capture the view around the car and then use AI to convert this to manga-style scenery or graphic patterns according to the owner's preferences. The imagery can then be projected on a three-screen display arranged around the driver in the cockpit.

The cabin, which Nissan says is 'designed as a mobile creative studio', provides seamless internet connectivity and can link to occupants' devices and creative equipment, enabling users to access information or create (and influence!) on the go.

With headrest biosensors and algorithms, the Hyper Punk can detect the driver's mood and select music and lighting it determines will boost the driver's energy and creativity.



HYPER TOURER E-AV CONCEPT



The Hyper Tourer EV concept is another Nissan concept for an autonomous minivan, which the maker says is designed with a focus on revolutionizing all-electric minivans.

The interior contains compactly-arranged components and highly energy-dense solid-state batteries, resulting in an ultra-low center of gravity. This, in conjunction with the advanced e-4ORCE all-wheel control system, produces what Nissan calls 'smooth and flat' acceleration and deceleration.

Traditional Japanese kumiko and koushi patterns decorate the overhead console and lighting, creating an atmosphere of luxury. An LED panel integrated into the floor showcases imagery of a riverbed and the open sky.

It's conceived as an autonomous vehicle, so the seats can swivel 360°, facilitating face-to-face interactions between front and rear-seat passengers. Rear-seat occupants can access and control navigation and audio through a wearable display, which Nissan says can foster a 'sense of togetherness among passengers'.

Its AI system monitors occupants' biometric data, including brain waves, heart rate, breathing and perspiration, and can select music and lighting its algorithms calculate as suitable for their mood and preferences.

## **Mazda**



MAZDA IMAGE

Mazda's stand was designed to show the maker's commitment to the creation of products that satisfy customers' love of driving and cars. The booth focused on the MX-5/Miata. A variety of MX-5 models were on show, including a first-generation 1989 car, an enduring symbol of Mazda's commitment to the joy of driving. A two-thirds scale MX-5 provided a simulated driving experience for visiting children.



MAZDA IMAGE

Central to the display was the latest MX-5, which recently went through the biggest-ever upgrade as the fourth-generation model, and an MX-5 SeDV controllable by just the driver's hands. A new Iconic SP 'carbon neutral' concept car designed to symbolize the exhibit theme was unveiled as the world premiere at the show.



## Mitsubishi



MITSUBISHI IMAGES THIS PAGE

Mitsubishi's D:X electric MPV concept was pitched as having high ground clearance and an electric four-wheel-drive system for driving in any condition.



Also making its world premiere was a four-wheeler small mobility concept called Last 1 Mile Mobility. It's a battery-powered, buggy-style runabout developed in conjunction with Lifehub, a Tokyo company working on next-generation 'mobility chairs'.

Mitsubishi also displayed their eK X EV, already in production and described as 'friendly to passengers and society', as well as a prototype of their new Triton 1-ton pickup truck, a combustion-engine-powered truck with a clean-sheet interior and exterior design.

## Toyota

Toyota is heavily shifting toward EVs to stave off analysts' tongue-clucking about getting overly stuck in their hybrid Prius mode.



FT- SE (TOYOTA IMAGES THIS PAGE)



The FT-Se is a sports car with wide, low proportions, configured for superb handling and excellent aerodynamics. (FT stands for Future Toyota)

Also on display was the FT-3e crossover-style concept. It has a sleek silhouette and angular sheet metal creasing, and was meant to preview personalized onboard digital services.



The EPU, with a monocoque body and a slide-through cargo bed for extra space, is a five-seater pickup like the Ford Maverick that would slot below the Toyota Tacoma.





The Land Cruiser Se is an all-electric version of Toyota's big SUV. The Se stands for Sport Electric.



The Kayoibako is a subcompact electric van with ultra-efficient packaging. Toyota says the name comes from the configurable shipping containers used for safely and efficiently transporting parts and products between facilities. The vehicle has an 'ultra-expandable' design tailored to everything from shipping goods and weekend adventuring to being wheelchair-compatible. **(Toyota Images this page)**





The same idea applies to the IMV 0, a customizable flatbed geared toward emerging markets, especially in Southeast Asia. The 0 stands for a base segment, one size smaller than the current line of IMV products. IMV refers to Innovative International Multipurpose Vehicle, the nomenclature for Toyota's global line of pickups, minivan/MPVs, and SUVs. Toyota envisions this as a food truck, cargo hauler, emergency rescue vehicle, or offroad runabout. To keep it affordable, Toyota is offering the IMV 0 with gasoline or diesel engines, not as an EV.

## Subaru



The interior of Subaru's Sport Mobility concept looks relatively production ready, which contrasts with the futuristic look of the exterior. There is a squircular steering wheel with numerous buttons, including for adaptive cruise control and voice control, with a digital instrumentation screen in front of it and a large panel overlooking the central console. The seat is placed in the center of the passenger compartment.

# Interior News

## Aspina's EV Seat Blower Motors

### INTERIOR NEWS



ASPINA IMAGE

At Auto Interior Expo last week near Detroit, Aspina America senior VP Marcel Azary talked about how EVs have transformed car seats and their ventilation systems: "With vehicle electrification, the need for extended battery life/range is very important. This has challenged us to evaluate current designs and innovate on efficiency while not losing performance".

One of the products on display, the EV-T back outlet blower motor, addresses new requirements for quieter components by reducing noise output by 7 to 9 dB(A) compared with Aspina's standard single-outlet design. Azary said, "This is important in electric vehicles, which have much quieter cabins than ICE vehicles. Even at its maximum flow of 24 cfm and maximum pressure of 450 Pa, the EV-T emits just 43 dB(A) of acoustic noise. We have also been able to reduce overall size, to 105 mm in length and width, so it can be installed in seats with limited space, while maintaining high flow and pressure".



# Sustainability, Connectivity in Renault's New Clio

## INTERIOR NEWS



RENAULT IMAGE

The latest Renault Clio has been updated with a chic interior and 'people-centric, tech-focused design' across three trim levels, and is the first Renault to feature the brand's distinctive new signature lighting.

As part of Renault's core focus on sustainability, no leather is used in the interior of the Evolution, Techno, and Esprit Alpine trims. Instead, the surfaces are covered in TEP—a grained, coated fabric made of bio-sourced and polyester fibers. Less energy and water is needed to add color to TEP than is required to dye fibers in the conventional way.

Dashboard features include an edgeless display spanning 7 or 10 inches, depending on the model, which interacts seamlessly with the Easy Link multimedia system and its own 7- or 9.3-inch touchscreen. The Clio's Multi-Sense technology adjusts the cabin's ambient lighting settings to suit the driver's mood.

Automatic air conditioning, a hands-free key card, and wireless smartphone charger join other available amenities such as a height-adjustable front passenger seat, heated steering wheel, automatic electronic parking brake, and central armrest with integral storage.

The seats, door panels, and dashboard in Techno models are upholstered in a purpose-developed sustainable fabric comprising up to 60 per cent bio-based cellulosic Tencel Modal fibers. The fibers are made from a renewable resource, natural wood sourced from sustainably-managed semi-natural forests in Europe. The fabric in the Esprit Alpine is made from 65 per cent recycled PET (e.g., beverage bottles), with a 13 per cent recycled grained coated textile on the seat sides.

Elsewhere in the cabin, the steering wheel uses a combination of red, white and blue double over stitching, perforated material, and a deep gloss black background for the ice black central logo. The dashboard carries its own subtle French flag; the front and rear seatbelts have distinctive blue edges; the pedals are made from aluminum; and the front door sills are exclusive to the Esprit Alpine trim.

# Continental's New Sustainable and Durable Interior Designs

## INTERIOR NEWS



CONTINENTAL IMAGE

At Automotive Interiors Expo North America in Novi, Michigan, Continental presented their Benova Eco Protect surface material, specially developed for premium applications in vehicle interiors. The material was recently PETA-certified (People for the Ethical Treatment of Animals) and is a finalist for the Automotive News PACE Award.

Continental's auto interior segment head Christoph Seeger said, "Benova Eco Protect meets the demands for the future of automotive interior design. It combines sustainability with high quality as well as top-performing attributes such as excellent heat and UV resistance, all of which make the material extremely long lasting. Now even lighter colors can be used for high-profile applications, in case the windscreen doesn't reflect too much. It is produced sustainably without using any materials of animal origin or other critical components and is extremely low in emissions and odor. In comparison with other conventional materials on the market it shows a significantly better CO<sub>2</sub> balance, high comfort and design opportunities (soft haptics, light colors, full choice of grain) as well as unique technical properties. Furthermore, the production process is possible on Continental Surface Solutions' standard production machines without major investment and relies on special and sustainable raw materials, water based, and air for foaming".

# Asahi Kasei, Sage for Sustainable Leather Alternative

## INTERIOR NEWS



ASAHI KASEI IMAGE

Japanese technology company Asahi Kasei has decided to invest in US-based startup NFW, a producer of non-petroleum-based leather alternatives for car interiors.

The investment is being done in cooperation with Sage Automotive Interiors, a provider of innovative and functional materials for the automotive interior. Since being bought by Asahi Kasei in 2018, Sage, one of the leading global suppliers in the car seat fabric market, has strengthened their business activities in Europe and China through mergers and acquisitions while expanding their range of growth-potential materials such as suede and synthetic leather.

Dirk Pieper chairs Sage's Board of Directors and is Lead Executive for the development and growth of Asahi Kasei's overall automotive product offering. He says working with NFW "will enable Asahi Kasei and Sage to assist global automakers in reducing the environmental burden of their cars. By jointly developing and manufacturing a non-petroleum-based and fully circular leather alternative, the Asahi Kasei Group takes a leading position in revolutionizing the market for car interior materials".

Asahi Kasei allocated up to USD \$100m for investments worldwide in early-stage startups that aim to solve issues in environmental fields such as hydrogen, energy storage, carbon management, and bio-based chemicals over the 5-year period up to fiscal 2027. Car interior material business is one of Asahi Kasei's '10 Growth Gears'.

NFW is a platform for plastic-free performance materials spanning sheet goods, textiles, molded composites, and foams. NFW follows three ground rules in everything they develop: 'start well, stay clean, and end well'. The multi-material platform serves a wide range of industries, including fashion and footwear, automotive, and upholstery. NFW technology seamlessly embeds into existing supply chains, enabling the world's most iconic brands to design and scale products with high-performance, naturally circular materials. NFW makes global brands more sustainable, empowering them to create without plastics.



# BMW's New 5-Series

## INTERIOR NEWS



BMW IMAGE

The eighth generation of the BMW 5 Series sedan has become more dynamic through digital innovations and all-electric performance.

As part of its commitment to sustainability, BMW has reduced the car's carbon footprint by 20 to 25 per cent in the supply chain, and up to 58 per cent across its entire lifecycle compared with the previous 5.

The latest model offers more cabin room, as well as new functionalities and acoustic comforts. At the core of its interior redesign is the fully digital BMW curved display, which combines a 12.3-inch information display behind the steering wheel and a 14.9-inch control display.



The center console's control panel has been revamped with an iDrive controller, a new gear selector switch, start/stop button, 'My Modes' buttons, volume control, and other essential functions. The Crafted Clarity option adds crystal glass for selected controls.

The vehicle offers an in-car gaming system in collaboration with the gaming platform AirConsole. Players use their smartphones as controllers, connecting via a QR code on the curved display. Passengers and drivers can enjoy playing a variety of games while the vehicle is stationary, perhaps as a way to pass the time while charging the i5's high-voltage battery.

The 5 Series also has an interaction bar, first introduced in the BMW 7 Series. It extends across the width of the instrument panel and door panels, offering touch-sensitive control panels for ventilation and air-conditioning. It also features dynamic lighting animation and integrates with the ambient light system, creating welcome and farewell scenarios.

Featuring Veganza upholstery as standard, the 5 Series is the first BMW model to offer the leatherlike finish on seat surfaces, dashboards, and door panels. The new seats have been redesigned for increased comfort and optimized adjustment options. Sport seats with electric height and inclination adjustment come as standard, with the option for active seat ventilation as part of the Comfort Plus pack. Another novelty is the optional fixed panoramic glass roof. It's nearly a square meter of glass, at 841 mm long and 818 mm wide, making the viewing area nearly 90 per cent larger than the sunroof of the previous 5 Series. The glass covers almost the entire surface of the roof, extending without interruption from behind the windshield to just before the rear glass. The expansive glass can be had with a sunblind, which you can also get for the rear and rear-side windows.

# DS, Opel, Fiat and Co Make ChatGPT a Passenger

## INTERIOR NEWS



DS IMAGE

DS Automobiles, a Stellantis brand, has announced plans to add what they're calling 'another dimension' to the driving experience: they're going to put ChatGPT into their cars via the existing DS Iris system.

During a six-month pilot phase, European customers can activate ChatGPT free of charge in their DS Iris-equipped vehicle. The integration of the chatbot is intended to complement the in-vehicle voice recognition capabilities, but not replace it.

According to the company's website, ChatGPT will make the DS Iris system "even more of an on-board digital assistant, performing a variety of tasks." Drivers inside can access the navigation system and other functions via voice commands. ChatGPT is also controlled via voice commands and the command "OK Iris" or a corresponding button on the steering wheel.

The answers are read out so that you are not unnecessarily distracted while driving. On request, ChatGPT can provide tips on places of interest or works of art, or—especially useful for long car journeys with children—tell stories for young and old passengers.

The integration of is made possible by the "SoundHound AI powered by ChatGPT API" software. The service is based on version 3.5 of ChatGPT, which means it is loaded with information current as of September 2021; no real-time information is possible. And of course, it is not actually an intelligence, but a set of algorithms cutting and pasting combinations of words and phrases.

The service is available in Germany, France, Great Britain, Spain and Italy in the respective languages.



# The Design Lounge

## Color, Material and Light

THE DESIGN LOUNGE



*By Athanassios Tubidis*



NISSAN HYPER FORCE CONCEPT (TOP GEAR IMAGE)

If I had to name products that changed the world, the Apple iMac (G3, 1998) would have been one. Going from something highly functional, a computer, typically in boring ‘utility’ beige, to the translucent Bondi blue, something that people wanted to buy because it was an object of image and beauty, a design concept. It completely changed the brand’s image from what was before to what became after, until today.

Rediscovering the original iMac G3 computer is like rediscovering CMF, Color, Material and Finish under a new spectrum: light. Volumes and shapes might have been part of the industrial design trend of the day but, what really rendered it magical was its beautiful translucency, the material, color and light combination that really changed the way we felt about computing. Followed by the Apple Power Macintosh G3 in 1999, the company introduced color in a place where there was none and made computing not only fun but also part of our environment, part of our desk space, part of our interiors. Getting that right balance between the translucency or transparency that polycarbonate can offer, mixed with color, it had a particular impact on our emotions, that made this product iconic. If those computers were completely transparent (or the lack of color) then technology would have been completely visible, just like behind glass with no mystery and distortion of what is really displayed in the background; it would have never had the same entertaining-

computing-quality to it. Following that generation of products, Apple went opaque and metallic, titanium and anodized aluminum (G4 Powerbook Titanium 2001, Apple Power Macintosh G5 2004).

Nissan's press release this week in Tokyo was an instant recall and more specifically in the case of the Hyper Force concept. The exterior is a metal wedge and some of its edges seem sharp enough to cut your arm. The steel slab, designed for racing enthusiasts and video gamers, looks rather impenetrable and monolithic. Projectors and tail lamps seem to be hidden behind the metal body, that appears as if designed to protect something precious: light, I suspect. Once the door opens and the interior is lit up, everything looks like a videogame, or more precisely a videogame console. If we look at it just as a property of artificial light, then we find a common principal with the computer design world, as if light became the object.

Unlike any Apple computer, the interior of the prototype is evocative of a PC gaming case. Color and finish are completed with a range of LEDs while 'the material' is transparency. Transparent blocks, framed by light, become objects when they lit up and thus take their place in the interior space. A racing wheel is at the position of a conventional round one, while the rest of the interior is twofold: carbon fiber seats facing multiple display screens that change information and location based on one of the two driving modes. The one on the road and the other in the garage, combining real-world driving and virtual gaming, improving driving skills and fulfilling racing dreams, safely. When parked, the driver can also use a VR gaming helmet to race online against other virtual racers.

Material is inherent to what was made from and where it comes from but also how people are educated to use it; where and how was it born, where was created and produced, its properties but also its implicit function in terms of how it makes us feel, the sensory and emotional part of the experience. In other words, what technical knowledge has translated over centuries from a chemical formula to emotions.

Working with designers in both car and electronics companies has a particular significance in extracting specific values that materials have, to narrate the story that is more relevant for the particular project.

The integration of smart tech brought along many features that are beyond color, material, and finish, especially LEDs. Light and its reflections inevitably are now part of the product while CMF uses metadesign logic in the simultaneous planning of the identity of entire ranges of products for a given brand. It possible now to adopt a single color matrix instead of using a series of separate and different color cards for each line of products as previously done. And here we are, going evermore, from pigments to light.

# Hyundai's New Global Design Division

## THE DESIGN LOUNGE



HYUNDAI IMAGE

Hyundai is setting up a new design division to take control of design across the group's EV range. The Motor Group Global Design Division will also focus the group's future mobility solutions, including purpose-built vehicles, robotics, and advanced air mobility.

This new division will encompass the Hyundai & Genesis Global Design Technical Unit, led by its head and executive vice-president, SangYup Lee, and the Kia Global Design Technical Unit, led by its head and executive vice-president, Karim Habib. The automaker says two leaders will direct their brands' design directions while ensuring each brand is differentiated.

Luc Donckerwolke, Hyundai Motor Group's president, will be appointed chief design officer, heading the Global Design Division. He also retains his current role as chief creative officer, leading all design creatives aspects for group brands including future mobility, advanced air mobility and robotics.

"In my 32-year career as a car designer, my achievements were often enabled by my organization's teamwork", Donckerwolke says. "I believe it is my role to create an environment in which designers can be creative and lead transformations. I am confident the new organization will enable the group to continue to lead the way in determining the future of the global mobility industry".

Alongside the design structure changes, a new Genesis Design Center is founded under the Hyundai & Genesis Global Design Technical Unit, allowing each brand within the group, Hyundai, Kia, and Genesis, to benefit from its own design ethos and build a strong design identity.

Simon Loasby, vice-president, who has previously led projects establishing the design visions for the Hyundai Ioniq lineup and N brand, has been appointed as the head of the Hyundai Design Center. Ilhun Yoon, vice-president, will lead the new Genesis Design Center. Yoon is known for his works on Genesis X Trilogy and current Genesis line-up design as well as the future design vision of the Genesis brand.



# News Mobility

## California Halts Cruise Robotaxis

### NEWS MOBILITY



CRUISE IMAGE

After two crashes with pedestrians—and numerous others not directly involving a collision between a Cruise car and a person—General Motors' Cruise robotaxi operation is no longer allowed to send any cars onto the streets of San Francisco without a human safety driver. The California Transportation Authority suspended the GM subsidiary's autonomous-driving permit indefinitely. Cruise tests with safety drivers are still allowed, and vehicles from competitor Waymo may continue to go driverless in San Francisco.

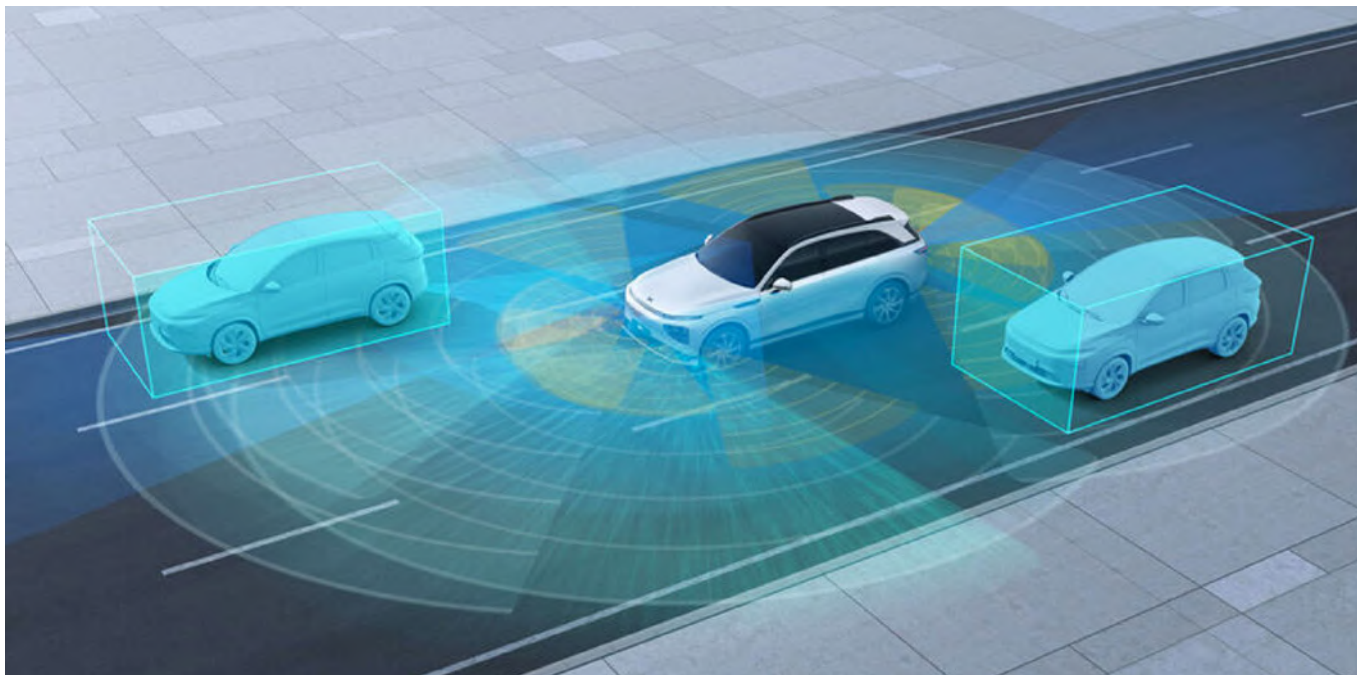
In the crash that motivated California's action, a pedestrian was initially hit by a human-driven vehicle and thrown in front of the Cruise self-driving car, which braked immediately, but still hit the woman. The robot cab stopped, but then—sensing no obstacle in front of it and oblivious to the woman trapped under it—started forward. The woman stuck under the car was dragged along for about six meters.

The driverless-permit suspension is a major setback for Cruise. The company, which has been financed with billions over the years, has major expansion plans up to its launch in Tokyo in 2026, and wants to switch to a robot cab without any steering wheel or pedals at all. Currently, Cruise is still driving converted Chevy Bolts.

Overall, autonomous vehicles are taking much longer to reach market maturity than was predicted just a few years ago. While the technology has long worked under simple conditions, some insiders now question whether the software can be trained for all unexpected situations, starting with weather hazards. NHTSA, the U.S. National Highway Traffic Safety Administration, also has launched an investigation of Cruise.

# China Makers Shift Partial AD to Cities

## NEWS MOBILITY



XPENG IMAGE

NOA, or "Navigate on Autopilot," is already being offered by several Chinese automakers in at least three inner cities this year, according to Chinese auto newspaper Zhongguo Qiche Bao.

NOA is  $L^2$  autonomous driving: the car can temporarily perform some tasks itself, without human intervention. For example, the car can hold the lane, or brake and accelerate on the highway. Drivers can briefly take their hands off the wheel, but they must constantly keep eyes and mind on the road to monitor the assistance systems and correct possible errors.

Among automakers, it is considered certain that the function will very quickly have many users. Many other functions in the smart cockpits of the new generation of e-cars are considered nice to have, but NOA functions are making friends fast.

As a result, fierce competition has erupted among automakers, and autonomous driving is spreading faster than expected. Xpeng, Arcfox, Jidu, Avatr, Nio, Li Auto and many other car companies are accelerating the introduction and optimization of city NOA functions.

All providers want to leverage the convenience of city NOA to change drivers' attitudes toward autonomous driving in general. So far, the response for the highway solution has been reserved. But it is felt that a well-thought-out, high-functioning NOA can completely change consumers' perception of their cars.



# Renault's New Brazil Design Center

NEWS MOBILITY



RENAULT IMAGES

The Renault Group has just inaugurated their new LatAm Design Centre in São José dos Pinhais, Brazil. Located near the group's three factories, the new facility will provide a modern tool for designing vehicles for the Latin American markets. It will also allow local designers to participate in Renault's global creative projects, along with the other Renault Group design centers around the world (France, Romania, South Korea, China, India). Renault Latin America Senior VP Luiz Fernando Pedrucci says, "The Renault Design Centre LatAm will allow us to extend our capacity to develop new models for the region, but also to contribute more to global projects".



The Renault Group has had a design studio in São Paulo since 2006. The LatAm Design Centre has a surface area of 1,220 m<sup>2</sup>, on which the entire product can be developed: from the genesis to the creative and conceptual phase, through to industrial design and suitability for series production. The Brazilian designers contributed to the development of the Renault Kardian, a B-segment crossover that will go on sale in 2024, and worked on the Renault Niagara Concept, which foreshadows future production models to be launched outside Europe by 2027.



# General News

## Stellantis, Leapmotor in Strategic Cooperation

### GENERAL NEWS



Stellantis and Leapmotor have agreed a strategic relationship to create a highly competitive and efficient EV mobility JV in China and around the world. The JV is designed to accelerate and expand global sales of Leapmotor's products by leveraging Stellantis' extensive assets and commercial expertise around the globe.

Leapmotor is among the fastest growing Chinese pure-play new energy vehicles (NEVs) tech leaders with a unique vertical integration model and full-suite of in-house R&D and manufacturing capabilities. Leapmotor International becomes a 51/49 Stellantis-led joint venture that has exclusive rights for the export and sale, as well as manufacturing, of Leapmotor products outside Greater China.

Stellantis will leverage Leapmotor's tech-first EV ecosystem in China to help meet their core 'Dare Forward' 2030 electrification targets. Stellantis' investment enables it to acquire approximately 20 per cent equity stake, making it a significant shareholder and giving it two Board of Directors seats.

# Renault-Nissan-Mitsubishi: Projects for Greater Value Creation

## GENERAL NEWS



ALLIANCE PARTNER CEOS, L-R: MAKOTO UCHIDA OF NISSAN, LUCA DE MEO OF RENAULT AND TAKAO KATO OF MITSUBISHI (SCREENSHOT)

The Renault-Nissan-Mitsubishi alliance intends to expand its cooperation to "cover the entire life cycle from sales and use to recycling and disposal".

Accordingly, the three manufacturers want to jointly explore ways to strengthen dealer profitability and reduce costs, for example through more joint sales locations in key markets. Renault, Mitsubishi, and Nissan are also working on joint strategies in the areas of used cars, after sales and sales financing, with Mobilize Financial Services set to play a key role. Mobilize is the mobility brand of the Renault Group.

In addition, Renault and Nissan are considering setting up a charging infrastructure in Europe at dealers of both brands. Mobilize had already announced in October last year that it would set up charging stations at dealerships.

In essence, the deal calls for Renault to reduce its stake in Nissan from 43 down to 15 per cent; the balance of power would thus be even, since Nissan has an equally large stake in Renault. Nissan will also take a stake of up to 15 per cent in Renault's Ampere electric and software division. Mitsubishi CEO Takao Kato announced that Mitsubishi plans to use the partnership with Renault and Nissan in Europe to offer electric cars on alliance platforms.

For 2026 and beyond, Nissan and Renault are also exploring collaboration on the next generation of C-segment electric vehicles. To achieve quick charging times, Nissan and Renault plan to further share technologies for their European vehicles, including a common 800-volt architecture.