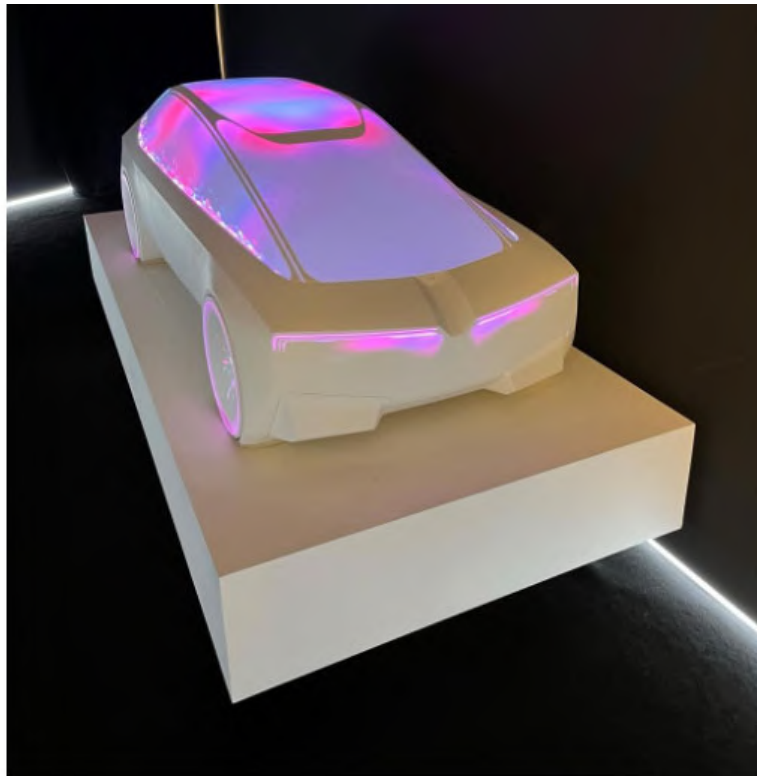


Editorial

If Tech Is In Vegas, Design Is In Milano



BMW DESIGN PHYGITAL EXPERIENCE AT MILANO DESIGN WEEK (DVN IMAGE)

The 2023 DVN Interior Workshop is just behind us—[video links](#) are now available to all attendees—and this edition of your DVN-Interior Newsletter focuses on Milano Design Week, which happened a week earlier. If the tech world's center of gravity is in Las Vegas, the design world's is in Milano. This week's in-depth article, co-written by me and Athanassios Tubidis, reflects on this. Automotive design is gaining more and more visibility at this event, with over 20 automakers showcasing not just their prototypes and latest models but also their most advanced vision for the future of mobility.

DVN Interior will continue our world coverage with a Deep Dive session at the US DVN Workshop in San Francisco, California on 29-30 August, 2023. We will be happy for you to participate in the Interior Lighting and Beyond session, focusing on how interior lighting is contributing and interacting for user experience; safety, and comfort in the car interior. In this week's Newsletter you'll find information on the event, with all options for attending; speaking, and exhibiting. Looking forward to seeing you there!

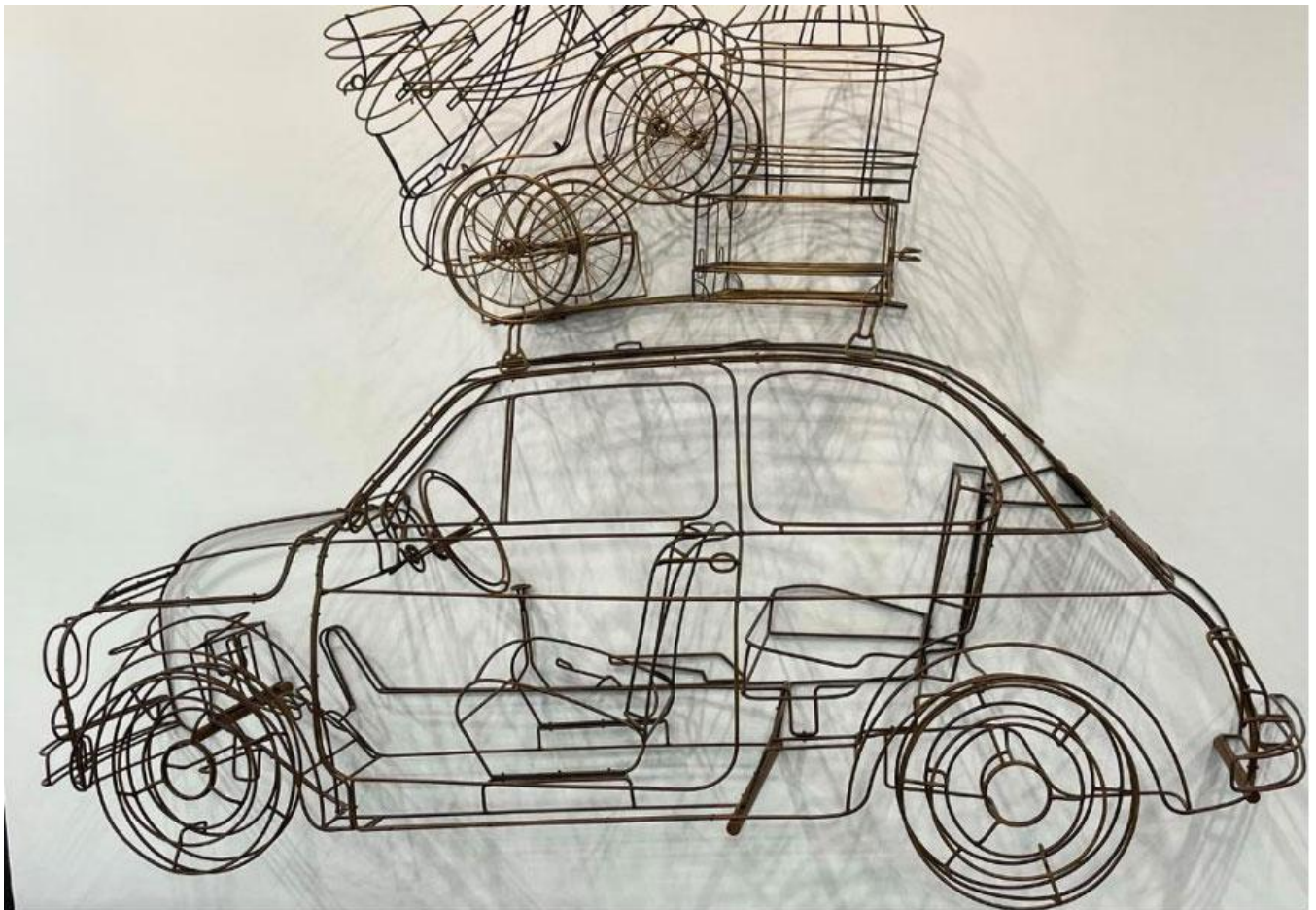
Sincerely,



Philippe Aumont
General Editor, DVN-Interior

In Depth Interior Technology

Milano Design Week: More Automotive Presence



WIREFRAME FIAT 500 RENDERING (DVN IMAGE)

Milan design week is the biggest annual design event in the world, hosting the largest furniture fair Salone del Mobile. Investing different districts within the city. Alfa Romeo, Audi, Bentley, BMW, Cupra, GAC, Hyundai, Lancia, Lexus, Maserati, Peugeot, Smart were present to demonstrate their commitment to the Design Community.



MAP OF EXHIBITORS

Alfa Romeo



DVN IMAGE

Designed by Marcello Gandini and produced by Bertone, the Carabo is a concept car developed around the mechanics of the iconic Alfa Romeo 33 Stradale—an emblematic Alfa model. Here is ultimate expression of functional design and elegance at the service of performance. The Carabo concept car retains a similar height, less than one meter, but the rounded lines have disappeared. The style is sharp, the wedge-shaped profile, with doors opening scissor-style. A single prototype was assembled and served as the inspiration for many, many other successful vehicles.

The new Larusmiani boutique was designed jointly with famous architect Benedetto Camerana, who in 2015 was the architect for the renovation of the Alfa Romeo Museum in Arese, where the Carabo is usually exhibited. Alfa Romeo and Larusmiani are indeed two ambassadors of Italian design and craft, united among other things by their close ties with their hometown Milan. The two brands have been able to create products that have entered the collective imagination as icons of style; quality; elegance, and expertise.

BMW Design



For 2023, BMW's design department invited visitors on a journey toward creative solutions for the mobility of tomorrow with 'A Creative's Journey', an installation sharing insights into the creative process of BMW Design as they look forward to the future. They presented their infinite loop recovery process, illustrated by the layers of a car seat, and design exercise on center console and trim parts re-using soft materials while creating new aesthetics with new touch.



They also presented BMW Design Experience, transforming cars into dynamic canvases offering limitless opportunities to explore time, space, and emotion. Here, “form follows function” turns into “form follows experience”

Lexus



The Lexus Shaped by Air installation was created by acclaimed New York-based artist and architect Suchi Reddy, founder of Reddymade Architecture and Design. It drew inspiration from the Lexus Electrified Sport's quality of being ‘shaped by air.’ In addition, the installation offered guests the opportunity to view presentations of prototypes from the four winners of the 2023 Lexus Design Award.

Audi



AUDI INSTALLATION (DVN IMAGE)



MANUAL (LEFT) AND AUTONOMOUS (RIGHT) DRIVING CONFIGURATIONS

Audi was present at the Milan Design Week, as co-producer of the Fuorisalone. In the House of Progress in Piazza del Quadrilatero, there was an exhibition space with the installation "The Domino Act" by designer Gabriele Chiave. It was made up of 22 monoliths arranged in a circle that use light to interact with the surrounding environment. At the center was parked the Audi Skysphere concept, a futuristic electric roadster making its debut for the Italian public.

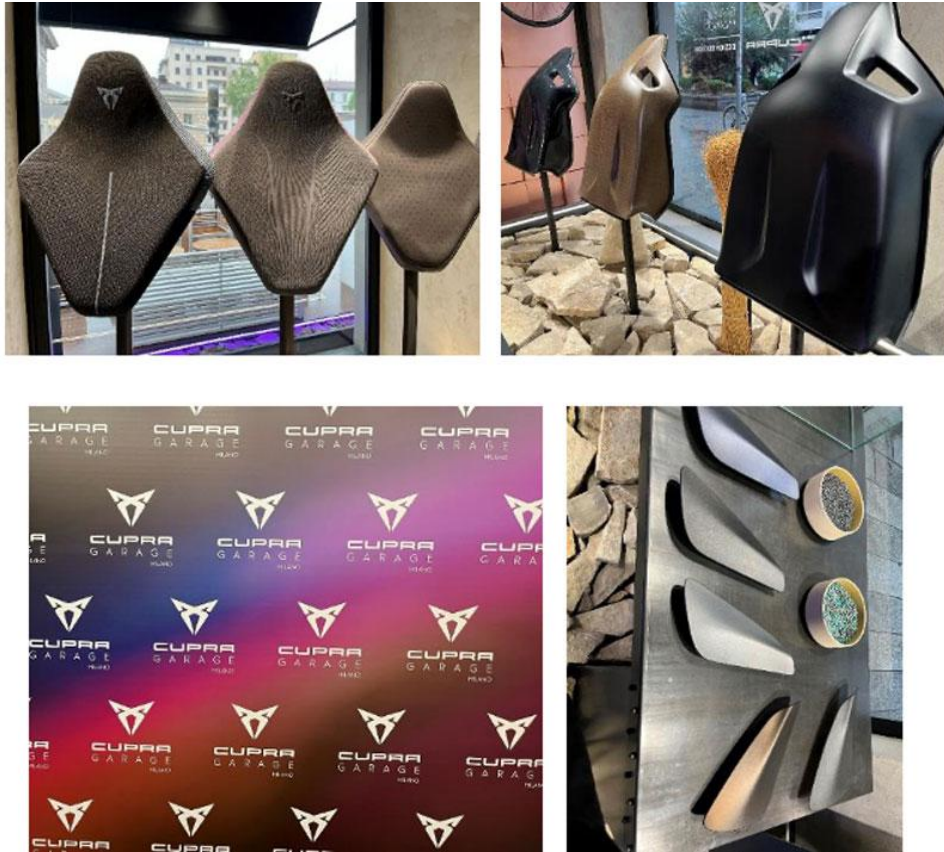
The whole car adapts its length and shape according to the driving mode, with a 20-cm body extension between A-pillar and front fenders and interior adaptation between manual driving and autonomous driving.



DVN IMAGE

Furthermore, in via Montenapoleone you can see the SQ8 e-tron live, the sports version of the Q8 e-tron with 450 HP and 600 km of autonomy in the WLTP cycle.

Cupra



DVN IMAGES

The Cupra Garage in Milan hosted “Superficie Assoluta”, an installation that showcases the new techniques of 'parametric' design and 4D printing.

Cupra showed a live preview of the components of their cars of tomorrow, such as the natural fibers used instead of carbon, and fabrics in vegan leather and with recycled polymers that replace the classic upholstery.

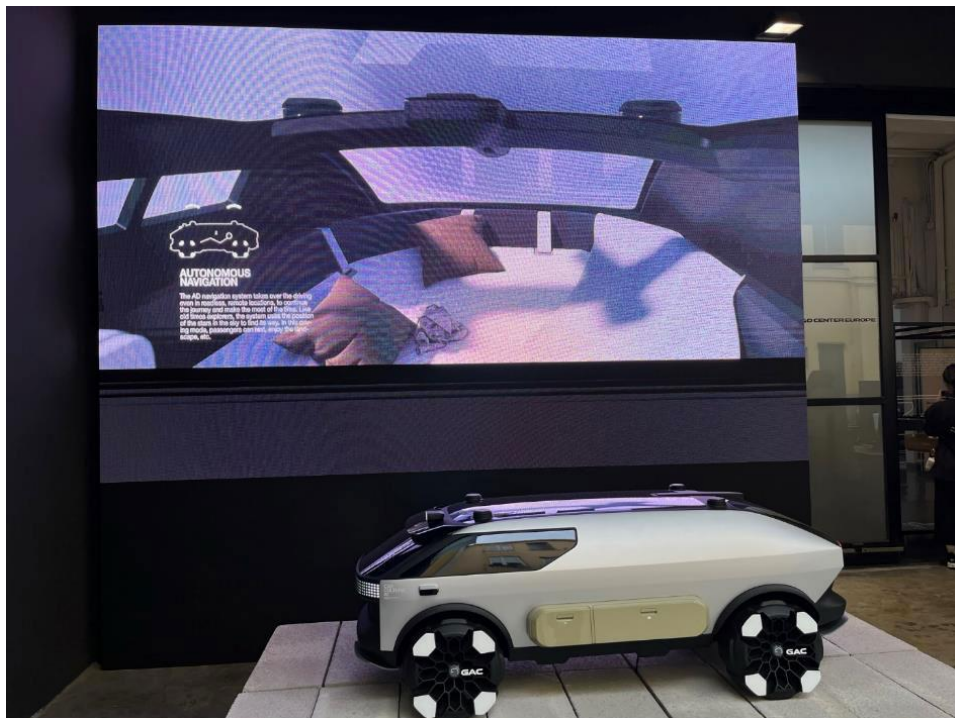
GAC





DVN IMAGES

GAC's Extension Van Life, a car that can replace an air trip, puts a name to the second chapter of the Chinese automaker's 'GAC Car Culture Series'. Last October, during the inauguration of their first GAC Europe Research and Development Center in Milan, the GAC Group presented the first chapter, the 'Little Boat'. This first project celebrated an archetype of Italian automotive culture—the barchetta—and was borne from the desire to share a real 'manifesto of automotive design', according to GAC Group.



The Van Life starts from the idea of creating a product with which you can really travel, allowing you to go very far from home. In the dreams of the GAC Group designers, this vehicle could almost replace the plane. That's why the silhouette is that of a van, but slimmer and rather compact to be efficient and make the most of electrification technology. The cabin is versatile and allows passengers to sleep when traveling long distances. The interior design is characterized by a simple structure on which everything you need can be connected or attached: seats; screen; glovebox; tray; lamps; hammock, etc. This concept car highlights the beauty of being able to go wherever you want.

Hyundai



DVN IMAGES

Hyundai presented their new Ioniq 6 EV, awarded as World Car of the Year 2023, It is the manifesto of Hyundai's future mobility: zero-emission, with a futuristic design, whose interior has been designed as a personal space with maximum comfort and versatility. Its studied aerodynamics and the lowest drag coefficient ever achieved by Hyundai (0.21) reflect the concept that Hyundai designers have termed 'Emotional Efficiency'. Hyundai has chosen to use sustainable materials for both the interior and exterior of the car to uphold environmental responsibility. The dashboard design has an unusual shape and finish down the A-pillars to cover this always tricky finish zone.

Kia



Kia presented their design philosophy 'Opposites United' in an immersive exhibition. Housed at the Museo della Permanente, the exhibit was supported by various performances and parties to engage directly with customers. Kia stated it reflects their commitment to advancing human wellbeing and environmental sustainability.

'Opposites United' design offers new approach to delivering sustainability solutions. Kia wants to prioritize design that overcomes divergence of human everyday needs and meets essential sustainability requirements. Their new EV9 exemplifies this new approach, with a range of innovative sustainable materials, to deliver a premium look and feel while setting new standards for sustainable mobility.



DVN IMAGES

The exhibition builds on the concepts of disruption and contrast to create characterful designs intended to inspire thought and exchange. The Kia design team has devoted themselves to creating artwork which describes the concepts and processes that embody the new design philosophy. This art exhibition, which premiered at the 2021 Gwangju Design Biennale in Korea, also featured an event space including a stage and forum for talks and keynotes.

Lancia



DVN IMAGE

Lancia is back! It is the beginning of a new era, with the re-birth of the brand, and a brand-new EV—Lancia's first electric car under the name of Pu+Ra HPE. It previews the 10-year vision of the brand toward electric mobility. The name refers to the brand's new, 'Pure' and 'Radical' design language, while HPE stands for High-Performance Electric, a car that is eco-sustainable, exciting, and evolved, all at once.

CEO Luca Napolitano stated this vehicle will represent "the Brand Manifesto for the next 10 years".

The Lancia concept was exhibited in via Durini, the heart of the Milanese event, in front of the Cassina Store Milano, Lancia's partner in the creation of the interiors of the concept. It expresses the brand's deep connection with the Italian spirit and the link with the country's outstanding products, and is marked out by its references to Italian home furnishings.



The Pu+Ra HPE looks like a roomy hovercraft, a look amplified by the expansive circular roof that offers panoramic views. Its auto-dimming feature allows the driver and passengers to shield themselves from the sun or let them savor the scenic surroundings.



It is equipped with S.A.L.A. or Sound Air Light Augmentation, which is a smart virtual interface that brings together audio; climate control, and lighting functions in a single system. By simply tapping a button, the driver and front passenger can easily control the sound system, cabin temperature, and brightness level of light inside the vehicle. Aside from a single-tap feature, Pu+Ra HPE also responds well to voice commands for hands-free instruction.



The driver and passenger may choose between three modes that adapt to their mood and the car's ambiance accordingly. One of the modes, named Wellbeing, can even anticipate the moods of the driver and passenger, and help improve their state by changing the atmosphere on board based on the detected data by the system. The function works with support of Stellantis AI called TAPE (Tailored Predictive Experience).

Maserati



Maserati celebrated their new GranTurismo at their new Milan retail store in the heart of Italy's design capital. The GranTurismo Launch Edition PrimaSerie 75th Anniversary was unveiled along with three masterpieces: the GranTurismo One Off Prisma and GranTurismo One Off Luce, designed by Maserati Centro Stile, and the GranTurismo One Off Ouroboros conceived by the intrepid inspiration of Japanese street culture pioneer and Maserati-friend Hiroshi Fujiwara.



The One Off Prisma is a refined work of craftsmanship, dedicated to the heritage of this glorious car. The bodywork is wrapped in a chromatic partnership consisting of 14 different colors, all painted by hand, and embellished with details of more than 8,500 letters hand-applied and hand-varnished one by one, making up the names of Maserati cars. Two of the colors look ahead to the future, and the other twelve have been selected from the hues of the most popular GranTurismo models of the past.



The One Off Luce is a statement of innovation and sustainability, featuring an EV Folgore engine. The interiors are looking to the future as they are made of Econyl, a regenerated nylon yarn, resulting in a new aesthetic: the blue interior reminds of the sea from which the sustainable material came from. The shapes of the seats are underlined also by the few graphics present on the central parts, lasered with gradient backing in contrast. The result is the two contrasting techniques, inside and outside: the mirror that almost hides the car and the laser that aims to create a strong and deep track of Maserati's soul; technical performance, and astonishing beauty.

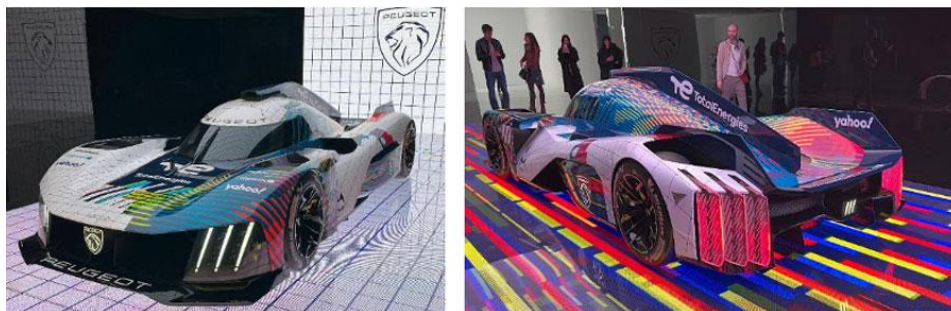


The GranTurismo One Off Ouroboros, a virtual Fuoriserie GranTurismo designed by street culture innovator Hiroshi Fujiwara, as his own creative interpretation of the contemporary GranTurismo in the full-electric Folgore version. It is said to be inspired by the 'Ouroboros', a gnostic symbol that expresses the unity of all things which never disappear but perpetually change form in an eternal cycle of destruction and recreation.



The Launch Edition PrimaSerie 75th Anniversary is to be made in four unique configurations, with a total of 300 units—75 for each version with an ICE in two colors, and 75 for the electric Folgore version, in two colors as well, to celebrate Italian luxury in terms of performance and balance between beauty and functionality.

Peugeot



PEUGEOT 9X8 (DVN IMAGES)

Peugeot collaborated with artist J. Demsky to create an original livery of their 9X8 hypercar, which has been competing in the WEC Championship since last July, and used the Milanese event to unveil it. Demsky created an original style, playing with the former Peugeot Talbot Sport livery but in a futuristic and artistic way, and also

designing the graphics on the drivers' overalls and helmets. This art car has been created to celebrate the 100th anniversary of Le Mans and the 30th anniversary of the 905-triple victory in 1993.

Mobility in the City – Milano



DVN IMAGE

Exciting vehicles were showcased in emblematic sections of Milano, but the quotidian reality of mobility is reflected in this picture: scooters and short city vehicles such as Citroën Ami and Renault Twizy.

Interior News

Hyundai Mobis' New Rollable Vehicle Display

INTERIOR NEWS



HYUNDAI MOBIS IMAGES

Hyundai Mobis has developed the world's first rollable display for automotive applications. Users can adjust the display size depending on situation purpose. The display takes up a minimal amount of space, which, in turn, is expected to significantly open interior design new options.

The rollable display features a screen that rolls up and down when displaying driving information including the navigator. The screen disappears when the engine is turned off; driving users can roll the screen up just one-third of display with only the minimum driving information required. The display is scaled up to two-thirds when using navigation; it can be switched to full-screen mode with the 16:9 aspect ratio to watch videos while the vehicle is parked or when charging an EV.

The primary target audiences are North American and European luxury brands. The technology has proven to be reliable and durable in non-automotive applications already.

The rollable display will be placed where the navigation system is currently installed. The maker says it will revolutionize automotive interior design. In vans for leisure activities and families, the display can be installed on the ceiling between the front and the back seats and let it roll down, or it can be installed sideways next to the seats.



The rollable display comes in QHD resolution or higher. The company can make super-sized displays of 30 inches or more. The biggest feature of the rollable display is its lightweight structure with minimal volume. It only requires 4.7" of depth for the rollable display to be installed near the driver's seat.

Hyundai Mobis has delved into the development of rollable display for the past two years. So far, the company has developed instrument panels; 360° Surround View Monitor (SVM); and HUDs—focusing on infotainment capability. More broadly, they're captivating audiences in the international market with breakthrough innovations in the IVI sector, such as [Quick Menu Selection](#), which the company developed last year, enables users to select menus with gestures without touching the screen. And the [swivel display](#). Mobis released last year is also the world's first display in which there is a moveable super-sized curved screen.

See [Video](#).

Nissan Ariya: Customer Experience Through Connectivity

INTERIOR NEWS



NISSAN IMAGES IN THIS ARTICLE

The zero-emissions Nissan Ariya crossover serves as a personal assistant for travellers. With simple voice commands or taps on your phone or the car's dashboard, you can access a wide range of mobility experiences. Nissan recently published on their blog some interesting user cases that their technology is addressing:

Before departing

When outside temperature is hot, you can turn on the Ariya's air conditioning using NissanConnect's remote-control function to ensure the cabin is cool enough when you depart.

On the road



After driving a while, the kids need a washroom break. So, you say, "Hey Nissan, find a restroom near here" and the navigation screen shows a facility that even has a charging spot.

After parking, you plug the Ariya in to top up and treat the kids to ice cream while you enjoy an iced coffee. When you return to the car it's warm inside, so you say, "Hey Nissan, set the temperature to 21 degrees".

Halfway to the beach your friends call, so you touch the navigation screen and answer hands-free.

Arriving

You reach the beach, but the parking lot is already packed. You swipe the 12.3" navigation screen and it quickly pinpoints alternatives. Soon you find a spot.

While walking to the beach you double-check on your NissanConnect phone app to make sure you've locked the car, which can be done remotely if needed. You also glance at the Ariya's range and smile because there's plenty left for the trip home.



Returning home

It's time to go home. As you get close to your neighborhood, you ask Amazon Alexa^{*} to turn on your home's air conditioning and lights.

You pull into your garage and plug the Ariya in. Because you've preset the start time, it'll begin charging during the overnight hours when electricity is cheapest.

These features are more and more present in many vehicles, but here, Nissan is giving a very illustrative occupant experience story.

Faurecia's Sustainable Skin Light Panel

INTERIOR NEWS



FAURECIA IMAGE

Faurecia has revealed their new Skin Light Panel, an interior front seat back solution that minimizes front seating weight, resulting in additional space for rear passengers.

It's an integrated, single piece of 3D-sculpted mono-material polymer (PU - polyurethane) which wraps around the rear of the front seats as an alternative to conventional grained or wrapped plastic panels. Lightweight, hard wearing and "premium to the touch", the Skin Light Panel can be placed close to the seat frame to deliver up to 2 cm more legroom for rear passengers, or more range of movement for the front seat.

Compared to traditional panels, Faurecia's latest solution can deliver weight reductions of up to 20 per cent compared to grained plastic and 30 per cent compared to wrapped plastic. By reducing the weight of their vehicles, automakers can increase EV range and reduce emissions from internal combustion engine vehicles. CO₂ performance is enhanced, with reductions of up to 11 per cent compared to grained back panels and 32 per cent for wrapped plastic.

To lower its environmental impact, Faurecia's panel is produced without using thermoforming and in a single process, reducing parts transportation, scrap processing and yield management.

The Skin Light Panel is available in different colors and high-definition grain finishes and can be sewed directly to the seat cover without any additional parts. The sustainable solution benefits from a high scratch resistance and durability. To enhance its environmental credentials, the Skin Light is produced from a mono-material, meaning it can be recycled as it is.

Polestar 4 Has No Backglass. Is That Safety, or Confinement?

INTERIOR NEWS



POLESTAR IMAGE

The Polestar 4 was introduced a couple of weeks ago; we covered it in our Shanghai Motor Show In-Depth Report. We wanted to come back on an important choice Polestar made: the car doesn't have a backglass. To see what's going on behind the car, the rearview mirror becomes a high-definition screen that shows a real-time feed from a roof-mounted, rear-facing camera. Gentex supplies the technology.

Polestar says the digital feed will improve safety, especially at night. "This is an amazing functional improvement to have the back window removed," Polestar CEO Thomas Ingenlath said. "At night you don't just see two tiny dots in the rearview mirror, you see so much more. And you can also look to see your kids back there with the press of a button" (the camera can be deactivated to make the rearview mirror function as it traditionally does to provide a view of the rear occupants).

The design element was first shown in the 2020 Polestar Precept concept car.



The lack of a backlight opens many comfort features; the Polestar 4's panoramic roof extends past the heads of the rear occupants, who can recline their seats. The standard full-length glass roof is available with optional electrochromic functionality, allowing for the glass to be made opaque or transparent, depending on the mood.

This solution, thanks to digital view to the rear, creates a roomier cabin, with enough space to have foldable rear seats and an extended glass roof. Polestar says it looks safer to the driver. Will it be perceived well by the rear passengers? Time will tell!

Volvo Puts SunLike LEDs Inside the Car

INTERIOR NEWS



VOLVO IMAGE

To enhance the interior of the EX90, Volvo has put in 72 of Seoul Semiconductors' SunLike LEDs to deliver a near-sunlight experience. They're based on a violet emitter rather than a blue one; the entire spectrum is provided by phosphor conversion, so the high blue spike characteristic of most white LEDs is absent from the SunLike ones, which deliver light with a better color rendering index.

Dan Fidgett, head of color and materials at Volvo Cars, says with the SunLike LEDs "the progressive materials and interior design of the Volvo EX90 stand out more clearly and without color distortion; complementing our wood deco and other natural materials inside the cabin, the lights are central to our Scandinavian design language".

Volvo Car Group is the first to use the SunLike LEDs in production vehicles, with the technology featuring within the Polestar 3 and the Volvo EX90. All of the non-decorative lights within the EX90, including those on the ceiling, floor, and in the door cards and the hood, all come with the SunLike LEDs as standard.

Fidgett continued, "The wellbeing of our customers is always a main focus for interior design at Volvo Cars. Bringing in SunLike LEDs to the interior of the Volvo EX90 is another illustration of our ambition to bring in innovative technology to deliver a renewed premium in-car experience for our customers".

In addition to enhancing the interior aesthetics, the SunLike lights also deliver natural comfort to occupants by suppressing blue light and eliminating flicker, helping to reduce eyestrain and headaches.

Xpeng G6 Coupe SUV with Intelligent Cabin

INTERIOR NEWS



XPENG IMAGE

Xpeng has unveiled their fifth smart EV model, the G6 Ultra Smart Coupe SUV. It's their first production model based on their proprietary smart electric platform architecture SEPA 2.0, and features Xpeng's intelligent cabin with the latest smart driving technologies.

Providing a powerful foundation for the cabin is the vehicle's X-EEA 3.5 upgraded central supercomputing domain controller, which provides increased interconnection speed. The smart cabin platform is partitioned from the vehicle control platform to provide financial-level information security for user and vehicle data.

Drawing on its design philosophy of simplicity, Xpeng has equipped the G6 with a new Nappa leather steering wheel and air vents which are electronically controlled from a 15" IP screen. To deliver comfort for occupants, the vehicle is equipped with ergonomically designed seats throughout, with the front seats benefitting from ventilation and heating, power adjustment, position memory and a welcome function.

The G6's seats are upholstered in a child- and stain-resistant, antibacterial organic silicone fabric and microfiber suede to facilitate cleaning, and an air quality system stated to be between three and ten times better than international standards.

Xpeng chair and CEO He Xiaopeng says the G6 is "born intelligent, conceived through Xpeng's technological ingenuity and relentless innovation to continuously set new industry standards in the era of smartification".

The Design Lounge

Milano

By Athanassios Tubidis

THE DESIGN LOUNGE



KIA'S OPPOSITES UNITED IMMERSIVE EXHIBITION (DVN IMAGE)

While the first edition of Salone del mobile was held in 1961, it is not until mid-'80s that the show took a different amplitude. Eventually the number of people without an entry ticket outnumbered the insiders, to the point that a spontaneous street-talk turned into something like a public design act.

On the sidewalk of piazza Amendola, parallel to the long line towards the show, backpackers were trying to engage discussions with international business visitors entering the show. This is how it all started. Those were design students, denied access to the event, taking their chances to show their work at the side of the street. Often small origami models would pop up on top of a backpack to prove the feasibility of their sketched idea. I am not aware of any real business deal made on that spot however, having been part of the sidewalk gang myself, it felt back then, just as a curious yet exiting street gathering. Often wasting hours until a caring VIP would dedicate a minute to see my portfolio and the model I displayed on top of my bag (crafted in balsawood at a peculiar scale of 1:17.5 just so it would fit right back in). Outside the gates of the show, our inner selves were praying to the 12 greats of Italian design—Gae Aulenti; Mario Bellini; Rodolfo Bonetto; Achile Castiglioni... Idealibri S.p.A. 1988 by Attilio Marcolli & Silvia Giacomoni—and that was our universe of inspiration; inside, their signature creations were showcased, in real!

Fifteen years later, returning to Europe as an established designer and now part of the insiders, the event was labeled 'fuorisalone', that literally translates outside-the-show. The mere act of trying to engage a sidewalk discussion evolved to the greatest design event in the globe; we never saw that coming! And the heritage goes on: while the greats of the show returned to their immaculate stands this year, at the same instance outside-the-show (fuorisalone) over 20 automakers were showcasing not just their prototypes and latest models but also their most advanced vision for the future of mobility. (e.g., KIA immersive exhibition/Museo della Permanente [etc...](#))

In January this year (2023) we witnessed CES becoming partially a car show. If tech is in Vegas, design is in Milano. But there is more. The rapid progress made in the fields of electronics and computing over the past years, brought a flair of some unprecedented golden age of disruptive, transformative growth in every single field.

The reality-check though came a bit later with many inventions and startups undermined by enormous unforeseen - or completely foreseen but downplayed and ignored - shortcomings. Promises that did not materialize quite as hoped and hyped, always seemed to be just five years away. An unchained optimism, waxed a techno poetic about spending billions on trying to achieve singularity.

Over here though was different, because a vehicle is one of the most subjective and illogical things we buy. Milano broke free from traditional talent models. *'Driving comfort'* for instance, is a purely emotional and sensory practice. It is the curation of this aspect inside the vehicle that will get someone to buy. This is the art of creating experiences of mobility.

Designers today feed their creativity through the same global information channels. A logical consequence of which is the emergence of a worldwide conformist design mainstream. Against this backdrop, it is easy to understand why these are confusing times for automotive design. An increasingly significant amount of complicated features, have turned today's cars into accumulations of details with no content. This phenomenon also took rapidly over countless EVs, whose tortured and complex forms converge to an inexpensive, void of content, entirely decorative grid. As an insiders joke goes:

'if exterior designers did the interiors, then all the vents would be fake'

but maybe, gigantic screens stand for the same paradox in interior design... Car design is expressed through volumes, shapes and graphic symbols integrating contents of different origins. Once present in Milano Design Week, OEMs overtake the ultimate challenge to express what is technical, industrial and functional merged with imaginary all in one tail of symbolism and reality.

Milan design week is an equalizer, increasingly seen as the perfect place to communicate philosophies and strategies that go beyond product, centered on the great themes of sustainability and new ways to guarantee individual mobility and lifestyle.

Citroën Autonomous Mobility Pods for Three Customer Experiences

THE DESIGN LOUNGE



CITROËN IMAGES IN THIS ARTICLE

Citroën presented new interpretations of their Citroën Autonomous Mobility Vision concept at the Shanghai Motor show through different pods that have been developed by meeting local needs. Citroën China developed three new pods, providing three different customers experiences. **Immersive Air** is the only physical pod; **Cozy Capsule** and **Wander Café** are digital ones.



Immersive Air is a multi-passenger pod designed in oval shape and intersected with a vertical rectangular spine with tinted dual sliding glass door. Inside, it's an entertainment pod where you can play video game, listen to music, sing songs or watch movies. With this bold concept, Citroën continues their process begun in 2020 by proposing new visions of electric mobility, more responsible and shared. It is displayed with the Citroën skate, a self-driving EV platform, which can be paired with a range of pods offering passengers a unique experience when travelling around town

The pod brings passengers into an immersive world with their first step into the interior. The enhanced experience for karaoke and games demonstrated from mood lighting peeking through layered interior décor, and the surround sound with synchronize digital animation below and above amplify the overall immersive experience. The digital animation changes between dynamic and soothing graphics accompanied by the in-playing music. 4K display, flowing mood lighting and solo microphone on the ceiling are ready for an instant solo performance.

The lounge seating is built with Citroën comfort standard, with well-designed ergonomics and cushion softness level that provide relaxation; special weaving pattern with red and blue trimming gives an iridescent gradation

appearance that speaks of tech. No need to look for entertainment any further, the Immersive Air Pod has it all for your enjoyment while taking you to your next destination.



Cozy Capsule maximizes relaxation during travel and offer the passenger more of a cocoon feeling. This pod is inspired by French perfume bottles with a crystal exterior shell. Inside the crystal shell, is a soft orange-colored eggshell seat design. This is the ultra-comfort main seat designed with full articulation, from standard seating position to 180° lay flat position. Well-tailored ergonomics and Alcantara soft touch trim represent Citroën Advanced Comfort technology. Enhanced privacy and relaxation with an adjustable translucent upper, which can be flipped down for visual isolation to give the passenger more of a cocoon feeling. A secondary seat on the opposite side is prepared for 1-on-1 private conversation needs. This seat is formed with cork material with the backrest extended to the side as armrests. The interior space offers an integrated air-purifier and self-watered hanging green plants for healthy, pleasant cabin experience. The recycled base and cork dominant interior make this pod an eco-friendly design statement.



Wander Café is an open-air pod that offer tasting experience while cruising through cityscapes. Perfect for sunny afternoon tea time or a happy hour gathering. Immersive Air is an entertainment pod where it's possible to play video game, watch movies, listen to music or sing songs.

The pod is light-structured: seat backrest extends to form the feet of the pod, while the cushion curves down and connects to the floor. A floating ceiling with modern architectural graphic structure rolls up from the side to shade the seating area. The door-less design makes moving in and out very convenient. Easy access to self-served food and drinks through ordering from HMI integrated table display. This special vending system brings joy for sunny afternoon tea time, or a happy hour gathering with a beautiful evening view.

The Citroën Skate is the medium and the conveyor of mobility. Pods attached to Citroën Skate enable users to choose the service they want, whenever they want. Since it is no longer necessary to concentrate on driving the vehicle, Citroën gives users valuable time to enjoy their experience during their journey.

The Pods offer is based on the open-source principle: any third party can decide to develop a compatible Pod based on the technical specifications of the Citroën Skate. Whatever their need, communities, public authorities, and companies can take advantage of Citroën Skate technology by developing their own Pods for transporting people or goods or providing services, in a public or private space. A whole new range of mobile services is opening up, from medical centers to food trucks, reading areas or gyms, etc. The third key principle is that

Citroën Skate's autonomous technology makes it possible to offer ecologically responsible mobility and reduce traffic jams. Autonomous vehicles allow three times more vehicles to use a dedicated lane. The individual approach to self-driving cars is currently a much too expensive model however. In contrast, the Citroën Autonomous Mobility Vision approach is based on optimizing the cost of autonomous technology by maximizing the usage rate of Citroën Skates. Intelligent fleet management is one of the key factors in maximizing the use of Citroën Skates based on demand.

News Mobility

GM-backed Cruise Ready for Next Phase

NEWS MOBILITY



CRUISE IMAGE

Cruise, the self-driving technology company owned mostly by General Motors, says they have moved out of R&D and beyond the early stages of commercialization. Now, they're gearing up for the next phase, with the target of rapid growth.

In 2023, Cruise aims to expand their commercial operations, currently limited to portions of San Francisco, Phoenix and Austin, Texas. They're preparing for volume production of the Origin, an autonomous vehicle with no steering wheel or pedals, at GM's Factory Zero in Detroit.

Cruise CEO Kyle Vogt said the company is on track—or ahead of—their goal to reach \$1bn in revenue by 2025.

Since June, when they began charging for rides in San Francisco, Cruise has expanded their commercial fleet of modified Chevrolet Bolts in the city to more than 150 vehicles. The company said that in February, they surpassed 1 million driverless miles, and now have more than 300 AVs in all three of their markets.

Vogt said Cruise plans to expand into more cities and increase their scope of operations, but declined to name possible future locations. Last month, the company asked California regulators to revise their existing permit to allow for testing of AVs throughout the state.

Cruise is working on being able to deploy robotaxi service in new cities with less effort, money and time while covering a larger geographic area and making more vehicles available at launch, Vogt said.

At last month's South by Southwest event in Austin, Barra, GM CEO, said Cruise and AVs more broadly represent the automaker's goal of zero emissions, congestion and crashes.

GM can build as many Origin vehicles as Cruise needs, she said, while the company's technology, combined with Vogt's road maps on how to reduce costs with scale, could open a larger ride-hailing market than exists today.

One key step forward will be getting the Origin into operation, Vogt said. The vehicle is designed for robotaxi use and to last for hundreds of thousands of miles, he claimed, lowering Cruise's costs and making it difficult for competitors to match by retrofitting vehicles.

Vogt also said Cruise continues to press regulators for an exemption from Federal Motor Vehicle Safety Standards to deploy the Origin for commercial service, though their on-road vehicles [haven't](#) been [free](#) of [problems](#).

Cruise will need 5,500 to 6,000 vehicles operating on a daily basis to achieve their billion-dollar revenue target by 2025, according to calculations by Sam Abuelsamid, principal research analyst at Guidehouse Insights. That assumes Cruise operates in 10 cities with 550 to 600 vehicles in each location, he said, and fares of about \$2.50 per mile.

General News

Toyota Boshoku Invests in ABAL, To Create Experiences in Virtual Space

GENERAL NEWS



TOYOTA BOSHOKU

Toyota Boshoku is investing in Abal, which has the "Abal Experience Sharing Platform", a solution that combines systems and hardware to enable free movement and experience sharing in VR spaces

It provides a spatial experience by layering virtual spaces such as stores and exhibition spaces in order to realize a "realistic metaverse" in the cabin space.

The company aims to create liveliness in various places and enrich the city and society with spatial experience technology that allows customers to move freely and share experiences in a multi-level XR space.

Toyota Boshoku is developing human-centered technologies to respond to the evolution of technologies such as CASE (Connected, Autonomous, Shared, Electric) and MaaS (Mobility as a Service) and changes in our values toward automobiles. In smart cities where mobility and the city are connected, it is important to provide a richer cabin space experience by connecting various services according to the driving route of mobility. Among them, the technology of realistic cabin space and spatial experience that connects the city and virtual space is one of the important elements. MaaS is a new concept of "mobility" that considers mobility (transportation) by all means of transportation other than private cars as a single service and seamlessly connects them.

TB will continue to collaborate with external parties through open innovation and co-create with Abal to create new value in mobile spaces as interior space creator.

Abal Tech Hardware & Semiconductors, headquartered in Tokyo, provides the XR platform to support the virtual space "XR Art Theater" where you can enjoy a completely new art experience using XR technology. It has been unveiled for the first time in collaboration with the Tokyo Metropolitan Government and the Tokyo Metropolitan Foundation.

Sitec JV Boosts Brose Sales, Profit Still to Grow

GENERAL NEWS



BROSE SUNDERLAND PLANT, UK (BROSE IMAGE)

DVN Interior [reported](#) in 2020 that Volkswagen's Sitec subsidiary and Brose had created a joint venture devoted to complete seats, seat structures, and seat components. Sitec became part of the joint venture. Brose and VW each holding a 50-per-cent stake in the company. Now, including the Brose Sitec JV, the company employs 31,000 people at 69 locations in 25 countries.

Brose said last month, that their UK operation which supplies the Nissan assembly plant in Sunderland "after several years of stagnation", had sales growing to €7.5bn due mainly to consolidation with Sitec.

However, Brose said in a statement, "the return on sales and on capital were at an unsatisfactory level of 1.1 and 1.7 per cent, respectively".

"The inadequate return on investment no longer allowed the family business to finance itself. Therefore, bank loans had to be taken out on a considerable scale. Nevertheless, the equity ratio is above 50%. As a future SE, Brose also becomes capital market viable."

The supplier added unspecified "logistics problems" had led to an average inventory of 32 working days, with one day tying up around €20m in liquidity.

In a surprisingly frank statement, Brose also said "shareholders, advisory board and management are also concerned about the motivation of the workforce, which has now grown to over 31,000 employees at 69 locations in 25 countries.

"This is reflected in extraordinarily high staff turnover. Many employees want the personal, unbureaucratic and pragmatic way of working offered by a family business again.

"Although Brose has not generated a positive result at its German locations for four years and is not covered by collective bargaining agreements at its major sites in Coburg and Bamberg, the collective agreement of the metal industry was fully adopted.

"In contrast to its competitors, the Brose Group employs almost one third of its total workforce at German locations. Brose added it expected sales of €8.6bn and stabilization of global vehicle demand.

Following investments of €332m in 2022, shareholders and the advisory board approved investments of €422m for the current year. This would create additional capacity in production, and administration, in other European countries, China, North America as well as Germany.