DVN CES 2026 Report

2026 February 3rd

Felipe Melhado – Martin Booth

Table of content

Executive Summary

CES® 2026 continues to be the world's most influential technology gathering, bringing together global innovation in Las Vegas at the start of the year. With more than 140,000 attendees, over 4,500 exhibitors, including quite some startups, and thousands of media and analysts on site, CES continues to set the tone for technology priorities across industries, automotive included.

"CES remains the global platform where technology direction is defined," said Gary Shapiro, CEO and Vice Chair of Consumer Technology Association (CTA), owner and producer of CES. "It is where ideas move from concept to commercialization, partnerships are formed, and industries recalibrate their roadmaps."

CES 2026 by the Numbers

- 4,500+ exhibitors, including a strong startup presence
- 140,000+ attendees, with a high international share representing over 150 countries and regions
- 6,000+ media, analysts, and content creators
- More than 60% of Fortune 500 companies represented
- 300+ conference sessions with 1,200+ speakers

CES 2026 built on the momentum of previous editions, but with a more mature, different tone. While direct OEM presence remained very selective, Tier-1 suppliers, semiconductor companies, software players, and electronics specialists were a bit more present. Consumer electronics, notably displays, audio, personal devices, and connected health, also delivered a solid showing, reflecting renewed consumer-facing innovation in the industrial technology.

As every January, industries converged in Las Vegas to present visions of the future. However, in 2026, the conversation felt more grounded. Software remains dominant especially automotive**,** but the industry is clearly reassessing earlier assumptions around fully autonomous driving, screen-centric interiors, and generic "AI everywhere" conversations. Instead, the focus is shifting toward practical, value-driven applications that improve safety, comfort, and trust.

Automotive focus moved toward the in-cabin experience similar as it is in Asian markets. Exhibitors presented real-time safety and risk awareness, adaptive comfort systems, more intuitive HMIs, and reintroduction of physical controls with improve ergonomics and reduce complexity. While AI is still a high topic, it is now positioned as an enabler for awareness, personalization and assistant rather than a selling feature.

Automotive at CES 2026 continues to focus on Software Defined Vehicles (SDV), more immersive displays that include advanced Head up Displays and deeper integration between ADAS, HMI and interior systems.

Collaboration is fundamental across ecosystems and continues to grow, expanding into consumer electronics, cloud services and automotive platforms.

CES is established as a complementary stage to traditional auto shows. Even with OEM fluctuating participation every year, the relevance of CES for automotive innovation is clear as development cycles shorten and infotainment, software and electronics mean branding differentiation.

A general takeaway from CES 2026 is how focus shifted in the digital cockpit, where SDV architecture, AI personalization, voice and gesture interaction, interior lighting, displays and ADAS interact. Automotive industry continues to use augmented reality HUDs, pillar to pillar screens and integration of safety alerts as core value propositions, projecting critical information directly into the driver's line of sight to reduce distractions.

At the end, CES 2026 showed an industry in transition, with less speculation and more selected, meaningful focus on user experience, safety and integration. The future is less a dream and more a reality where brand identity, consumer loyalty and technical leadership are being defined.

1. Car makers – Lighting

BMW


BMW once again, broadcast their Neue Klasse strategy with the electric iX3, focused on software, AI, and in cabin experience rather than exterior lighting. The iX3 model previews technologies targeted for broad deployment across 40+ future BMW models by 2027, including an AI-powered BMW Intelligent Personal Assistant integrating Amazon's generative Alexa+ for more natural voice interaction, the Panoramic Vision and iDrive X digital cockpit covering the windshield with a 17.9-inch central display. BMW's CES presence did not introduce new exterior lighting technologies, no advances in optics, beam-forming, adaptive driving beams, or pixel resolution were announced, underscoring a deliberate shift toward software-defined vehicle architecture, HMI, and UX continuity, with exterior lighting playing an evolutionary, brand-support role secondary to the digital cockpit and overall in-cabin experience


Honda

Honda's presence is clearly a result from their joint venture with Sony Honda Mobility and the evolution of the AFEELA brand. They are taking to production the illuminated grille display, a feature already shown on earlier AFEELA concepts at previous CES editions. On both the AFEELA 1 and the newly unveiled AFEELA Prototype 2026 SUV, exterior lighting served primarily as a design and communication element that requires partnership like Honda, Soni and Qualcomm. The display in the grill reinforces a growing trend to use exterior lighting as a vehicle to human communication interface, pointing the direction where lighting will expand beyond traditional functions. However, the pace and form of this evolution will be strongly influenced by regional regulations, with potentially different implementations in Asia, Europe and the United States, increasing the importance of monitorin regulatory frameworks as exterior lighting communication moves from concept to production.

A remaining question about the side white light that may be not legal (as least in Europe)

Hyundai Motor Group

Hyundai Motor Group showed a selective presence at CES 2026, with no major announcements focused on exterior lighting hardware or beam forming technologies. As a matter of fact, very little focused on any new car launch but rather highly focused on AI collaboration and integration of robots and humanoids as the future of manufacturing (as mentioned in DVN newsletter, MobED is assembled by SL Corporation)

Their booth showed regular production or production modified vehicles with sensors integration as a preview of the brand focus, autonomous vehicles. Lighting on the vehicles showed remained digital with point based pixelation that is spreading into the grill area, headlamp graphics and signature bars. This shows the continuity of Hyundai Motor Group's lighting language. Overall, exterior lighting was secondary

to Hyundai's CES 2026 priorities, which was focused on autonomy, AI, robotics and the future of manufacturability, underscoring a broader system level vision for vehicle development.

Tensor

Tensor Auto was proud to present their Level 4 vehicle where sensors are the main focus and lighting is a secondary role, however they showed communication with lighting as key for the future. The robocar, not to be confused with robotaxi, uses a base LED headlamp that focuses on compliance, with no disclosure if any use of ADB with high pixelation or road illumination system, reflecting reduced dependence on human night vision in autonomous operation. Instead, Tensor highlighted RGB lighting as the key exterior interface with displays designed to communicate vehicle intent and status during autonomous driving.

These screens use dynamic animations to signal welcome messages, weather, battery status and safe to cross to pedestrian. Lighting is now positioned as a vehicle to human communication tool rather than a lighting breakthrough. This means a shift in autonomous vehicles, where exterior lighting evolves from illumination to communication, tightly coupled to sensor driven perception and subject to different regulatory paths across Asia, Europe and the US.

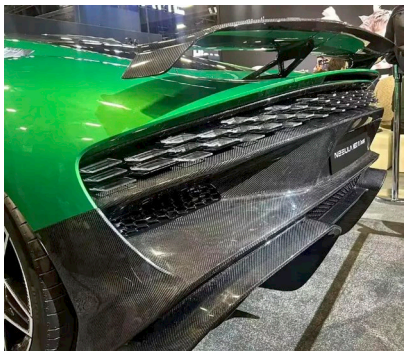
Great Wall Motors

Great Wall Motor (GWM) reinforced its technology-driven positioning with a presence centered on vehicle intelligence, autonomous systems, and software-defined architectures, rather than exterior lighting performance. The display included several near-production vehicles, the Tank 500 large SUV, the Wey 07 mid-size SUV, and the Wey G9 minivan, used primarily to demonstrate autonomy and AI capabilities. Exterior lighting was positioned as a communication and design layer, not a beam-forming differentiator, with no announcements related to adaptive driving beam or high-pixelation headlamp systems.

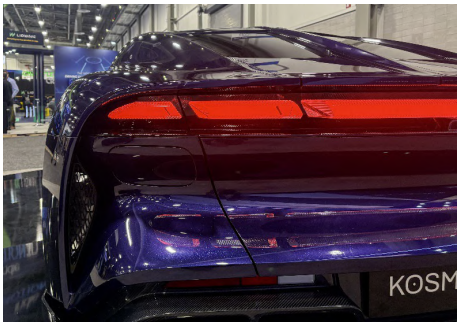

Notably, the Wey 07 featured tail-lamp light bars with graphic shapes reminiscent of premium European signatures, drawing visual parallels to designs commonly associated with Mercedes-Benz, while the Wey G9 highlighted turquoise autonomous indicator lighting to signal automated driving status. Overall, GWM's CES 2026 presentation underscored a broader trend: sensors and perception take precedence, while exterior lighting evolves toward brand expression and autonomy communication, with deeper lighting technology disclosures deferred to more production- and homologation-focused venues.

Dreame – Kosmera - Nebula

Dreame stepped into the mobility conversation with its Nebula concept, presenting a futuristic vehicle vision rooted in the company's background in robotics, AI, and smart appliances. Rather than focusing on traditional automotive performance, the Nebula concept explored how automation, sensing, and intelligent systems could shape a calm, highly managed mobility experience. The concept emphasized clean design, advanced perception, and seamless interaction, positioning Dreame's first automotive study as an extension of its smart-home and robotics DNA applied to future mobility.

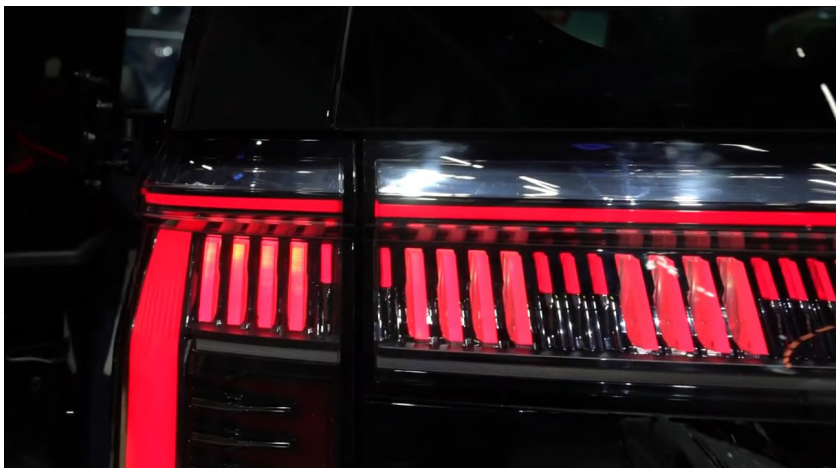
The new brand Kosmera, also backed by Dreame, unveiled its first Bugatti-like supercar concept, using the show to explore how autonomous-era design, performance-inspired styling, and expressive exterior lighting can converge. Exterior lighting played a visible role in defining the vehicle's character, with pixelated headlamp elements reinforcing a high-tech, digital aesthetic rather than focusing on functional beam performance.

At the rear, Kosmera introduced a striking full-height vertical CHMSL, extending across the entire rear window as a bold visual signature and communication element. While no adaptive driving beam, high-resolution illumination, or regulatory-focused lighting technologies were disclosed, these features highlight lighting as a design- and identity-driven component, aligned with the broader CES 2026 trend in which sensors and perception systems dictate safety, and exterior lighting evolves toward pixel-based expression, signaling, and brand differentiation, subject to regional regulatory interpretation.

Geely Auto Group

Geely Auto Group maintained a technology- and intelligence-focused presence, using a small selection of vehicles from its portfolio to support messaging around autonomous systems, AI, and software-defined platforms rather than exterior lighting innovation. Geely showcased production-intent models from its Geely Galaxy and Lynk & Co lineups, presented primarily as carriers for sensing hardware, compute, and intelligent driving functions.



Features like continuous light bars, graphic tail-lamp shapes, and clean DRL outlines helped reinforce brand identity, rather than introducing new hardware. There were no updates about adaptive driving beams, high-pixel headlamps, projection lighting, or regulatory changes. Instead, lighting was integrated with sensor clusters and communication zones at the front and rear. This reflects a trend for Geely: sensors and vehicle intelligence are the main focus, while exterior lighting evolves gradually, emphasizing consistent styling and clear visual signals. More advanced lighting technology is likely to be revealed at regional auto shows or brand-specific events.

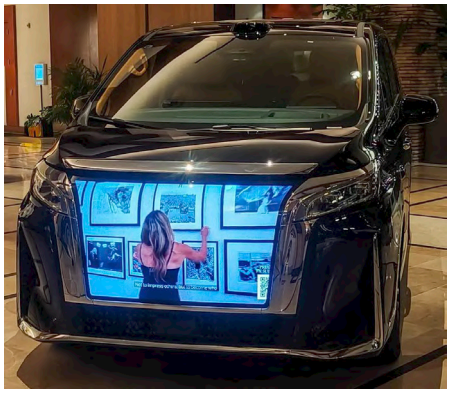
Longbow

Longbow introduced itself as a small electric car brand with a very clear idea, make driving fun again. Instead of big screens, heavy features, or luxury extras, Longbow focused on keeping the car light, simple, and efficient. The idea is inspired by classic sports cars, where low weight and smart engineering matter more than size or complexity. Longbow's message stood out at CES, showing that even in the electric age, there is still room for cars built around the joy of driving, not just technology.

Faraday Future

Faraday Future put a strong spotlight on exterior illumination, with the front grille acting as a true lighting centerpiece. The FX Super 1 minivan features a bold, full-width illuminated grille made up of finely controlled LED segments that give the vehicle an unmistakable presence, even from a distance. Rather than using lighting only for visibility, Faraday Future uses the grille as a digital surface, capable of animated welcome sequences, charging and vehicle-status signals, and dramatic light choreography when the car approaches or powers on.

z 



The lighting blends seamlessly into the bodywork, creating a clean, high-tech look that feels premium and intentional. While the technology itself is production-ready, the execution is expressive and confident, using exterior lighting, especially the grille, as a brand signature and a visual statement of luxury and intelligence.

2. Car Makers – Interiors

BMW

BMW made the interior cabin the stepping stone of their Neue Klasse strategy. They presented an interior designed around clarity, reduction and software driven intelligence rather than screen proliferation. Central to the concept is BMW's Panoramic Vision, which redistributes information across the lower level of the windshield in the driver's natural light of sight, minimizing the need for conventional instrument clusters. BMW paired iDrive X and BMW Operating system X, enabling modular app based experience that adapts to the context while driving, user preference and vehicle status.

BMW developed a "shy tech" philosophy where technology is present without being intrusive. This is supported with carefully blended ambient lighting, some haptic surfaces and intuitive controls for critical safety functions.

The BMW interior story cabin highlights sustainability with authentic materials, reinforcing the brand intent to balance digitalization with tactile quality. Overall BMW underscored a clear shift toward calm, diver focused digital environment, positioning the cabin as the primary arena for brand differentiation as vehicles get closer to Software defined.

Honda

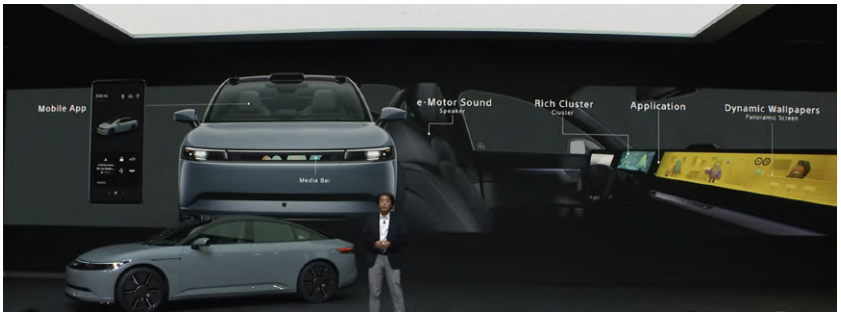
Honda, through Sony Honda Mobility's AFEELA brand, used the AFEELA 1 and the new AFEELA Prototype 2026 SUV to push a very specific interior narrative, the cabin as a "Mobility as a Creative Entertainment Space" rather than a traditional driver's cockpit.

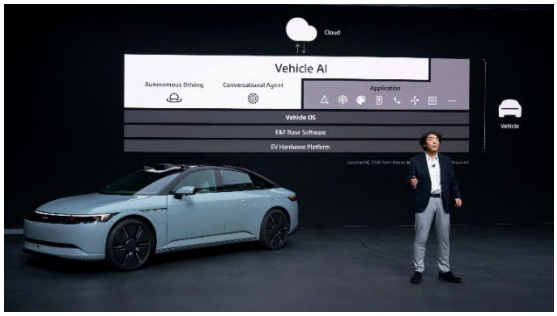
The pre-production AFEELA 1 shown in Las Vegas features a full-width dashboard display with camera feeds at the edges, app support and an AI voice assistant, all driven by Qualcomm compute and an in-house "Afeela Intelligent Drive" software stack. Support includes video conferencing with integrated cameras for not only the driver but all occupants, and each occupant can have their own ongoing conference simultaneously.

They also introduced a deep PlayStation ecosystem integration, with remote playing gaming from PS4/PS5 in the car screens using DualSense controller and data connection. This positions AFEELA as a gaiming car using the charging/parking period as premium entertainment time.

Sony Honda Mobility also unveiled the AFEELA Co-Creator program, allowing partners and creators to design downloadable themes, dash wallpapers, soundscapes, even e-motor sounds, based on franchises like Astro Bot, Gran Turismo, and other PlayStation titles, tightly linking UI, audio, and interior ambiance.

The larger AFEELA Prototype 2026 SUV keeps essentially the same screen-dominated but with more space, reinforcing that for AFEELA as the software, entertainment, and personalization layer turning the interior into a configurable digital content platform rather than just a place to sit and drive.

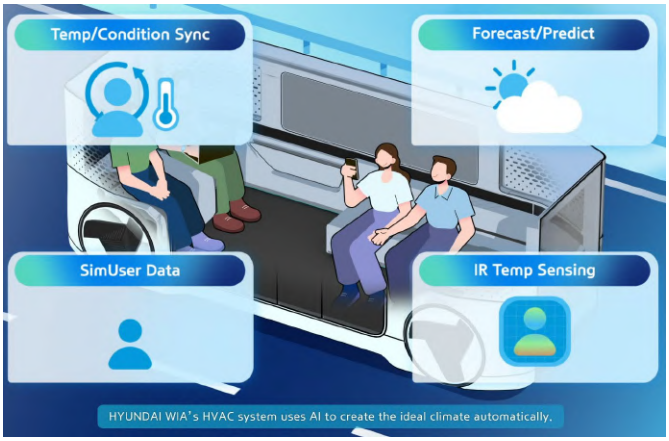


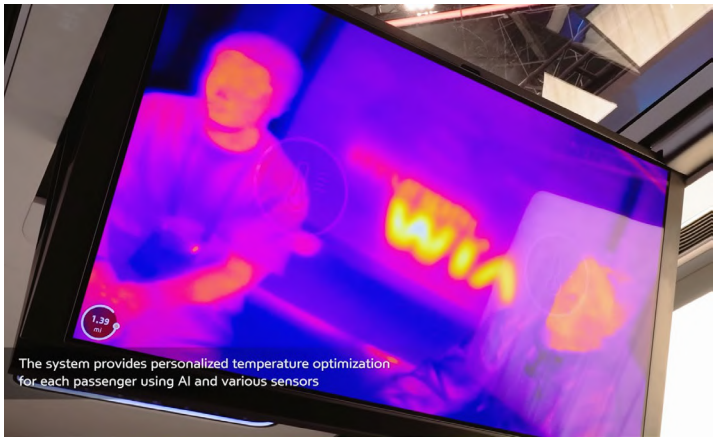


Hyundai Motor Group

Hyundai Motor Group use interior innovation as the evolution for comfort, usability and system integration rather than a clean redesign. They showed presentations that explain their vision of their demonstrators with incremental cabin improvements focused on improving ergonomics, clean HMI, better comfort specially in vehicles with higher levels of automation.

The communication is consistent with Hyundai's broader CES 2026 message, the cabin improvements are closely tied to manufacturability and scalability, emphasizing how robotics, AI, and digital validation tools will enable consistent interior execution at volume.



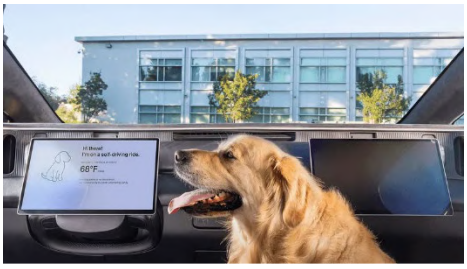


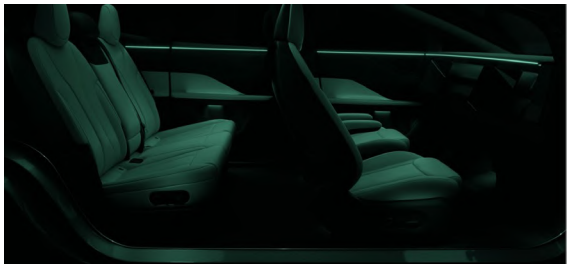
Tensor

Tensor Auto presented their Level-4 autonomous driving specifically designed interior, focus on comfort and safety. Double laminated glass is used as noise reduction to improve comfort while tinted rear windows add privacy and UV protection. Together with a PDLC sunroof that has 10 levels of transparency, helps block the UV exposure, reducing heat and AC usage. Ambient lighting with 128RGB colors allows users for personalization.



The interior is flexible and fundamental to Tensor's intent. The cabin is open without a fixed center console that works with the foldable pedals and the retractable steering wheel together with the sliding center screen allow easy movement between rows for boarding into the vehicle. The intent is to transform the interior into a relaxation space with multiple big bed layouts for camp or rest mode. Storage is large with 29 compartments throughout the cabin that include a large trunk for seven pieces of luggage and a dedicated Pet Mode for sage and comfortable animal transportation, even when there is no human attendee.





Health and safety systems are deeply integrated, including advanced air filtration, fragrance diffusion, adjustable vents, and an ozone sterilization system that removes over 90% of airborne viruses and bacteria. Safety features include redundant drive-by-wire braking, a 12-airbag system developed with Autoliv, AI-powered electric coach doors, a heated windshield, and the world's first built-in cabin smoke detector. Overall, Tensor's CES 2026 interior highlights how autonomous vehicles are evolving into quiet, flexible, and protective spaces, with production targeted for later this year.

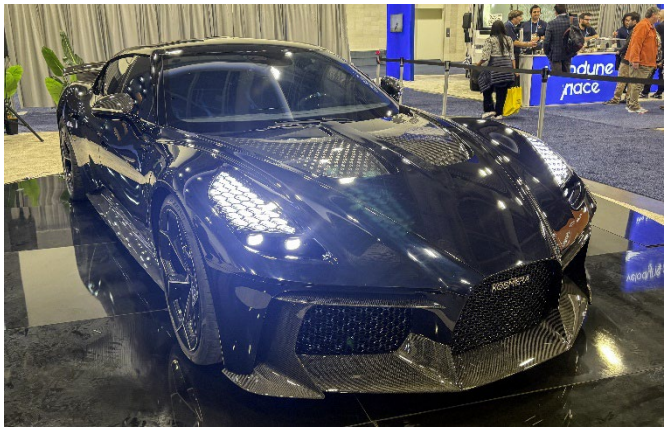
Great Wall Motors

Great Wall Motor (GWM) presented their production vehicles not currently sold in the US, such as the Tank 500, Wey 07 and Wey G9 to show their fully strategy of production ready interior and sending a clear signal of their interest in the North American market. The interior presentation focused on comfort, space and premium execution rather than experimental innovations. The Way G9 features a wide, screen dominated, dashboard with digital instrument cluster and a large central infotainment display. This is complemented by a high, star-like, panoramic ceiling that enhances the sense of space.

The cabin is focused on passenger comfort with reclining second-row seats with generous legroom and a calm, lounge-style atmosphere great for long-distance trips. In cabin driver monitoring is integrated and supports the safety trend that includes assisted semi-autonomous mode. Material quality, seating layout and interface design closely mirror what established global OEMs are offering today in production vehicles, clear signal of parity rather than disruption.

Overall, GWM's CES 2026 interior message was clear: these are market-ready interiors, designed to meet current global expectations, while subtly positioning the brand for a future U.S. presence without formally announcing market entry.

Dreame – Kosmera



Kosmera presented a futuristic concept vehicle at CES 2026 that included an interior design that is clean and sporty rather than sophisticated, suited for a sports car. Their parent company Dreame is a robotics and smart home technology and I would expect in future concepts to integrate more features without compromising the sport spirit.

The cabin focused on openness and simplicity, using smooth surfaces, a few physical controls, and an uncluttered layout intended to focus on the driving experience rather than technical complexity on multiple screen menues. Instead of showcasing traditional automotive interior features such as new seat designs, display layouts, or ambient lighting systems, Kosmera emphasized how an autonomous vehicle interior could manage itself, similar to a smart home. Interior technology was centered on comfort, cleanliness, and automated behavior, not on driving interaction. Overall, Kosmera's CES 2026 interior clearly functioned as a vision study rather than a production-ready vehicle, exploring how consumer robotics and home automation ideas might shape future mobility and setting it apart from both traditional automakers and autonomy-focused OEMs at the show.

Geely Auto Group

Geely Auto Group also presented their production ready premium vision with models such as the Geely M9 and Zeekr vehicles 009 and 9X. The cabins focused on space, comfort, and digital experience, with displays across the dashboard, clean layouts, and a strong emphasis on comfort for the rear passengers, especially in the Zeekr 009 and 9X with the lounge style reclining seats.

Features that are visible across the vehicles included large central touchscreens, digital instrument displays, passenger-side touch screens controls, premium materials producing a relaxing atmosphere designed for long-distance travel. Interior lighting was subtle and supports comfort rather than create bold visual effects.

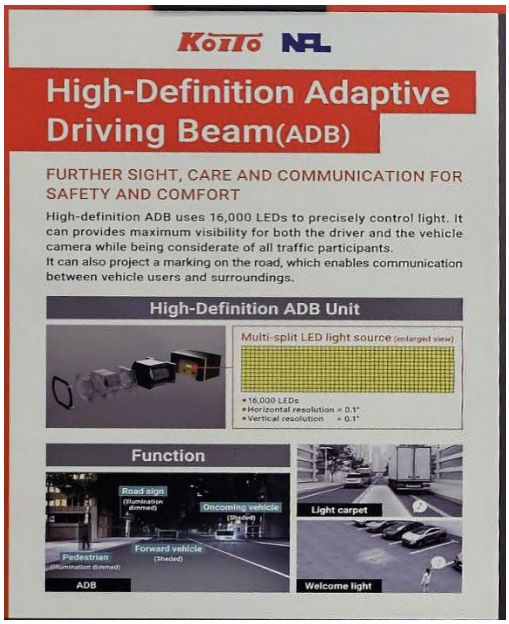
Geely and Zeekr presented interiors that are in par with global premium OEMs trends, showing their maturity and readiness for international markets that include Europe and potentially US without pushing for a radical new interior innovation.

3. Automotive Lighting Suppliers

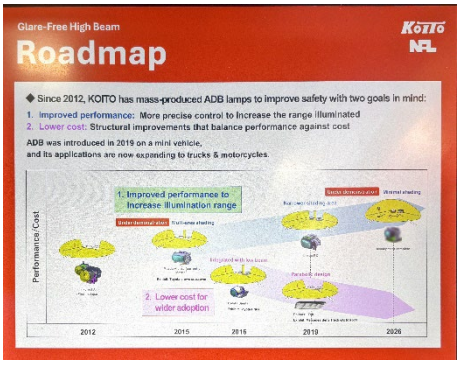
There was some presence for automotive lighting suppliers, but definitely there were some players that trimmed budgets and didn't present this year. Most of the suppliers were located at the Las Vegas Convention Center while some of them had private suites. This required walking as well as taking different transportation to get there.

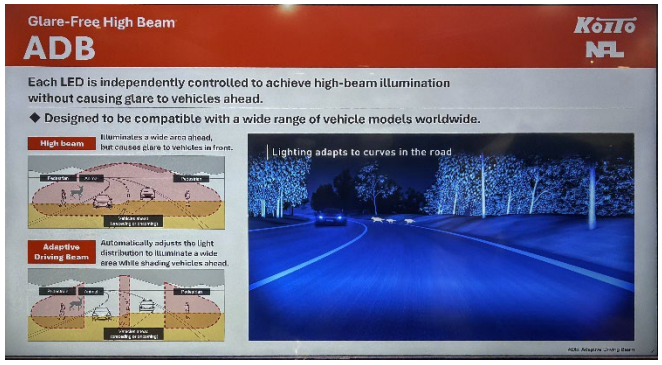
Most of the suppliers were by invitation only to make their time more significant and weed out general population. All the suites were by invitation only.

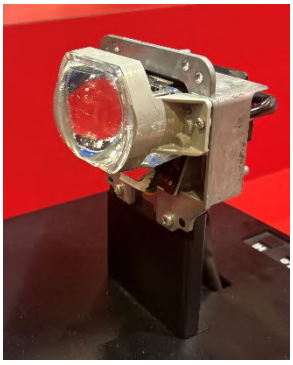
NAL/Koito/Cepton



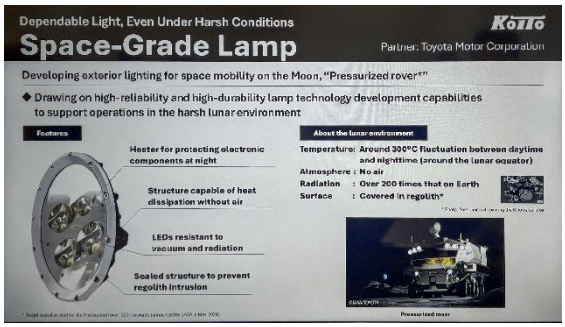
NAL, Koito, and Cepton booth at CES to get a closer look at how the group is approaching sensing across automotive and industrial markets. What stood out immediately was that the conversation was not just about lidar performance, but about how sensing technology can be engineered, manufactured, and scaled for real-world deployment. Their portfolio spans lighting, interiors, and sensors, with lidar positioned for ADAS and autonomous applications in both passenger vehicles and industrial platforms such as construction, agriculture, and infrastructure, an area of growing importance in the U.S. market.

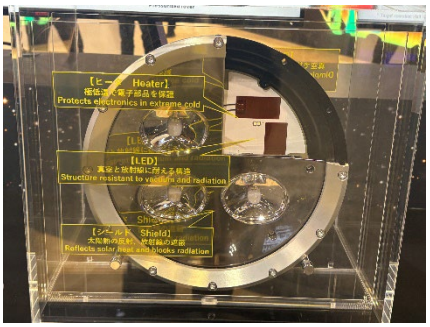




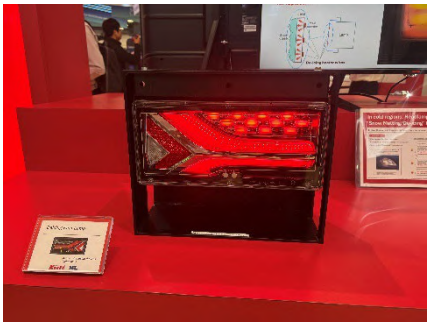


Koito continued to advance its lighting portfolio with a strong focus on glare-free high beam technology. Building on last year's ADB showcase, Koito again presented a 16,000-segment Advanced Driving Beam system, this time emphasizing a completed development using a Nichia LED chip demonstrator, signaling a higher level of maturity toward production.





They also presented heated lamp solutions aimed at maintaining lighting performance in cold and harsh weather conditions. Alongside automotive lighting, Koito showed a space-grade lamp designed to operate under extreme environments, capable of handling temperature swings of around 300 degrees between day and night and radiation levels up to 200 times higher than those on Earth. While not an automotive application, the exhibit highlighted Koito's expertise in optical performance, reliability, and operation in demanding environments, capabilities that continue to influence their advanced automotive lighting development.



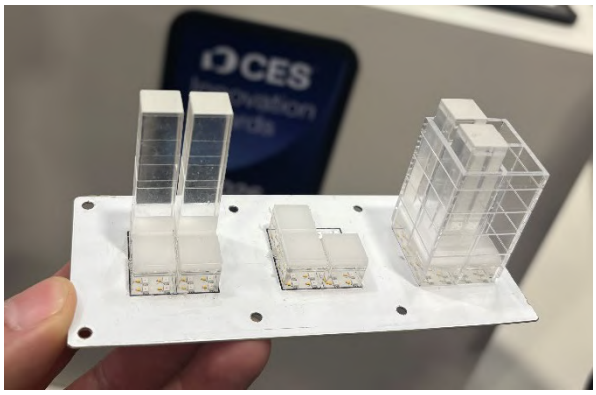
LG Innotek

I spent time with LG Innotek at CES and not only their booth was impressive, but the discussion quickly showed how broad their automotive portfolio has become. Our conversation moved naturally from electrification to sensing, cameras and lighting. However, the common theme was integration of technology, doing more with fewer parts, smaller modules and smarter systems.

We started with electrification. LG Innotek showed EV-related power solutions, including controllers and charging concepts.

From there, the conversation moved into vehicle motion and control. LG Innotek explained how modern vehicles use many motors and actuators, each often with its own controller.

Lighting was the final major topic. LG Innotek presented very small pixel lighting modules, only a few millimeters thick, that allow precise patterns, symbols, and even three-dimensional visual effects. Some modules use multiple LEDs per pixel and layered structures to create depth that changes depending on viewing angle. They also showed fully silicone-encapsulated lighting modules designed for exterior use. These modules can reduce weight, simplify vehicle structure, improve water and dust protection, and even provide pedestrian impact benefits due to their compliant material.

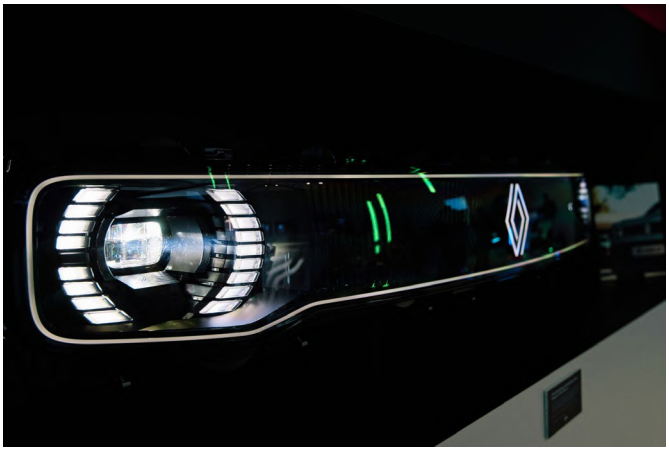


When I left their booth, it was clear that LG Innotek continues to not only offer good single components, but is also focusing on integrated system for the upcoming requirements.

Whether it's cameras hidden behind displays, radar replacing ultrasonic sensors, or lighting modules that combine design, safety, and structure, their approach is about reducing complexity while expanding

functionality, an increasingly important direction as vehicles move toward higher levels of electrification and automation.

Valeo



I had the opportunity to visit Valeo massive booth at CES, showed a little early and had a very nice welcome, they were organized and immediately ready to walk me through what they are most proud of. Within the first few minutes it was clear that they don't see themselves as "just components". The conversation navigated naturally across lighting, interiors sensors and visibility because their mindset is that it is all connected.

We shifted the discussion about lighting and how illuminating logos have been a clear demand from OEMs. Furthermore, coast to coast lamps that include front signatures to feature styling is coming, but we shouldn't forget about serviceability cost, Valeo showed their Renault 4 lamps that headlamp components can be serviced separately from the lens. Our conversation included the need to manage "lighting pollution", concern specially in Europe. The trend is shifting from "always brighter" to "light only what matters". Instead of lighting trees and everything around the road, the direction is to manage beam patterns more intelligently and use software to evolve rather than hardware only.

When discussing visibility wipers came up too, Valeo proposed faster cleaning integrated systems to the wipers that directly impacts reaction time from the driver. With no nozzles, jets of fluid no longer shoot across the windshield and block the driver's view, and cleaning performance stays consistent at any vehicle speed and in any wind conditions.

Mobis

At CES 2026, Hyundai Mobis positioned itself as a system-level technology supplier, highlighting how lighting, interiors, and sensors are converging around software-defined vehicles, safety, and user experience. Rather than presenting single components in isolation, Mobis emphasized integrated solutions designed to move efficiently from concept to production, supporting global OEM needs in electrification, autonomy, and digitalization.

They show their Battery systems, Electric Drive Units (EDU) and On board charger, like Winding Stator, Inverter, 120kW e-Axle, Integrated Power Electronics Solution, On board Charger +DC-DC Converter.

In lighting, Hyundai Mobis focused on intelligent and communicative exterior lighting, rather than purely optical performance. The company showcased advanced lighting modules and signal-based lighting concepts that support vehicle-to-human communication, including pixelated and segmented light elements designed to convey driving status, warnings, or intent. The emphasis was on function, integration, and manufacturability, showing how lighting is evolving from a styling feature into a digital interface connected to vehicle software and ADAS systems, while remaining compatible with global regulatory requirements. I also had the pleasure to reconnect with my old friend Jeremy Wong.

LG Electronics – ZKW

LG Electronics, through its lighting subsidiary ZKW, highlighted a clear shift in exterior lighting from hardware driven innovation to software defined control. Rather than unveiling new light sources or optics, ZKW presented a lighting software platform designed for future vehicle architectures, where headlamps, signal lamps, and communication lighting are fully integrated into the vehicle's central computing and E/E architecture. The focus was on how lighting functions can be updated, adapted, and expanded through software, enabling features such as adaptive beam shaping, personalized light signatures, and vehicle to environment communication without redesigning the lamp hardware. This approach supports software defined vehicles by reducing system complexity, improving scalability across platforms, and allowing OEMs to tailor lighting behavior to brand, market, and regulation.

Stanley Electric

StanleyElectric presented its vision for the future under the theme “Lighting Tomorrow and the Future,” showcasing how the power of light will drive the evolution of mobility and realize a sustainable society.

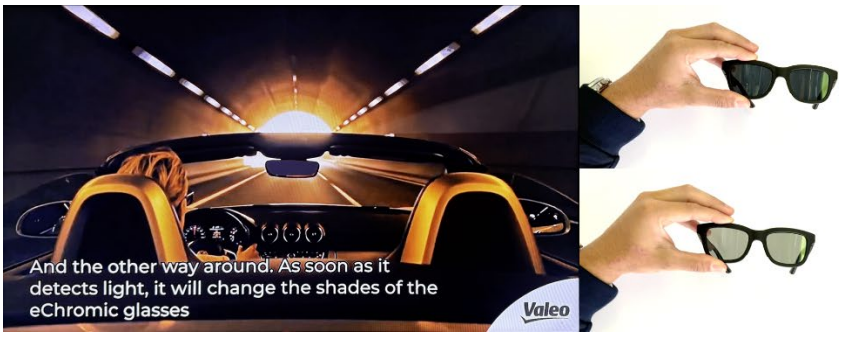
4. Automotive Interior Suppliers

Valeo

I had the opportunity to visit Valeo massive booth at CES, showed a little early and had a very nice welcome, they were organized and immediately ready to walk me through what they are most proud of. Within the first few minutes it was clear that they don't see themselves as "just components". The conversation navigated naturally across lighting, interiors sensors and visibility because their mindset is that it is all connected.

We started with a quick preview of what they think will continue to grow this year, Software Defined Vehicles (SDV) and showed their demo that continues to focus on personalization and scalability. The idea is integrating AI to validate custom on demand changes to the cluster, something like the background, in a way that doesn't require a massive rework. They described a workflow where changes are compiled and tested in a virtual environment first, then validated on hardware and only then deployed. The focus was on keeping safety critical items controlled, while letting personalization happen around them.

However the idea doesn't stop there, personalization went beyond the cluster this time. We talked about changing behaviors on the vehicle using simple rules, conditions and actions, without writing a new software and flashing the ECU every time. They presented an example where the battery charge status was liked to a behavior on exterior lamps.



The innovations shown at CES for interior included a simple but smart concept, connecting the vehicle's lighting sensor to electrochromic glasses. The idea behind is when you exit a tunnel or parking garage, the glasses automatically tint, when you enter a dark area, they clear. The signal is sent via Bluetooth, and the demo used multiple dimming steps. Valeo proposal is to partner with glasses manufacturer, and they supply the sensor, the connection method and the algorithm for a seamless driving experience where you don't have to put your glasses on and off.

Walking out, my overall impression was consistent with what I've seen from Valeo before: they're not showing isolated gadgets. They're showing systems that connect software, sensors, and hardware into a single story, personalization that stays safe, visibility that reacts faster, lighting that becomes design, and interior experiences that extend beyond the vehicle itself.

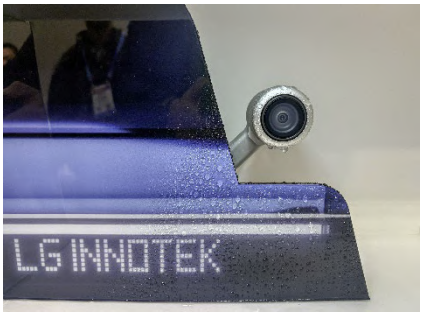
For SDV scaling computing was the next discussion, if the vehicle's computing capacity is full, they showed how the system can be scaled up by increasing hardware or scale down by offloading non safety critical visualization or processing to another device, like a connected phone, or even balance workloads across multiple compute units. The takeaway is clear; safety functions stay protected while non critical functions can be scaled and moved around.

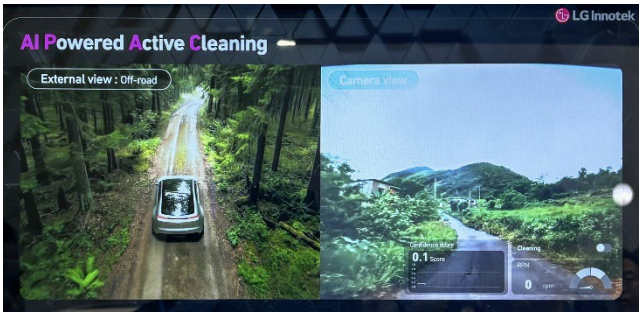
But the ideas didn't end there, the most "outside the box" is what happens when the car is parked. The next step is to monetize your parked vehicle either by selling the energy back to the grid when prices are high (while keeping enough charge for the driver) and by offering unused compute power to run external workloads. That immediately raises safety and cybersecurity questions, and Valeo addressed them directly. Their middleware creates a "jail" boundary for external workloads, cuts off access to vehicle internals and limits what can be exposed. This is designed so the external workload can't interfere with the vehicle's safety critical world.

LG Innotek

Cameras were a big part of the discussion. LG Innotek showed multiple camera technologies, including cameras hidden behind displays. In these designs, the camera sits physically behind the screen, eliminating visible camera holes. This directly addresses privacy concerns while still enabling imaging when needed. The camera can operate through the display, and when privacy is required, the display itself can visually block the camera area rather than relying on mechanical shutters.

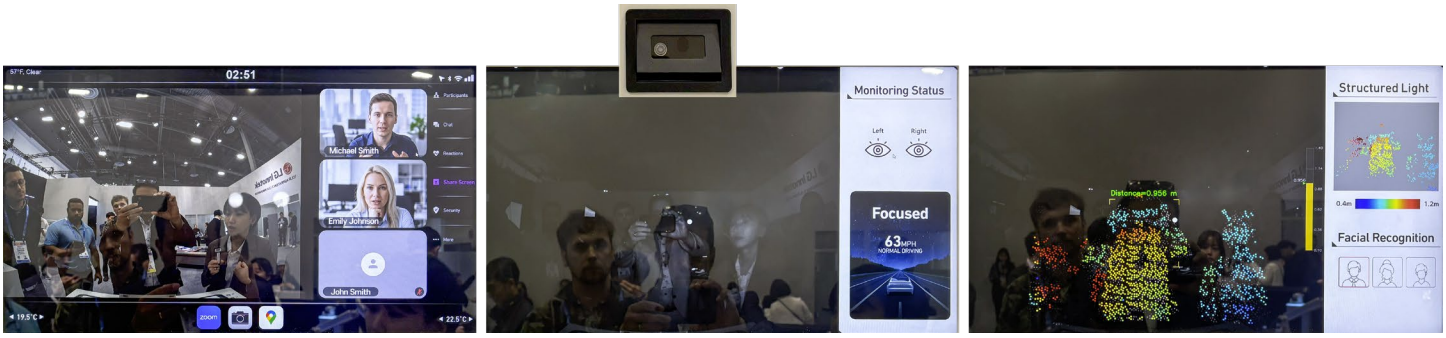
They also demonstrated an active camera cleaning system designed for autonomous driving. Water, mud, and dirt were sprayed onto the lens, and a built-in motorized system cleaned the camera automatically. LG Innotek explained that the system can be controlled through the ECU and enhanced with AI software that detects contamination type and optimizes cleaning timing and intensity. This is relevant since even small water droplets can significantly affect image quality in low-light conditions.





Radar was another key area. LG Innotek showed a growing radar portfolio that includes in cabin monitoring radar, ultra short range radar and 4D imaging radar. Ultra short range radar allows replacement for ultrasonic sensors, specially for parking and close range detection, offering robust solutions without the need of holes in the bumper. The 4D imaging radar is typically mounted at the front of the vehicle behind the bumper, adds elevation information to range, speed and angle that helps the vehicle understand objects like bridges or bumps on the road. Different frequency bands were discusses, including 60GHz and 77GHz, depending on application and material penetration needs.

Inside the cabin, LG Innotek showed a compact dual-sensing camera module that combines RGB, infrared, and structured light in a single unit. This enables driver and occupant monitoring, face recognition–type functions, and depth sensing, all in a much smaller package than previous generations. The level of miniaturization was striking, with significant size reduction while improving performance.



Mobis

For interiors, Hyundai Mobis highlighted next-generation cockpit and interior modules built around digital displays, simplified architecture, and improved ergonomics. The focus was on clean, modular interior layouts that integrate displays, controls, and ambient elements into unified systems. Mobis demonstrated how interiors can be lighter, easier to assemble, and more software-driven, supporting personalization and future updates without radical hardware redesigns. Interior lighting and visual elements were positioned as supportive features, enhancing usability and comfort rather than dominating design.

Holographic AR HUD, LCD Sunburn free AR HUD, Telematics System, X by wire System, 1 box electronic brake and rear wheel steering. For more direct interior they presented High Visibility OLED display, Power Saving Display, Reflective Windshield display, Holographic AR HUD, LCD sun burn free AR HUD.

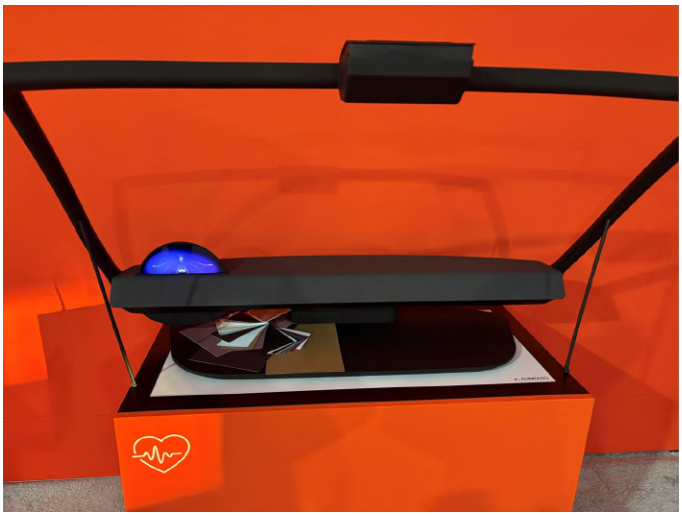
High Visibility OLED display (left), Power Saving Display (right).

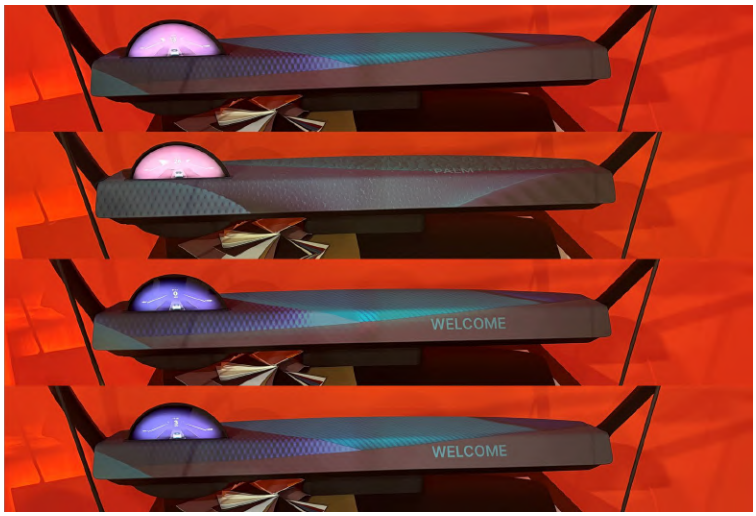
Sensors and ADAS formed a major pillar of Mobis' CES 2026 presentation. The company showcased a range of camera, radar, and sensing technologies, emphasizing sensor fusion and system reliability for advanced driver assistance and higher levels of automation. Mobis underlined its ability to deliver complete ADAS platforms, combining hardware, software, and validation know-how. These systems are designed to scale from current production vehicles to future autonomous applications, reinforcing Mobis' role as a key enabler of safety and perception rather than a standalone component supplier.

Hyundai Mobis used CES 2026 to reinforce a clear message: it is no longer just a parts supplier, but a technology integrator, aligning lighting, interiors, and sensors around software, safety, and real-world production readiness. This positioning fits well with CES's broader shift toward system-level innovation rather than isolated hardware breakthroughs.

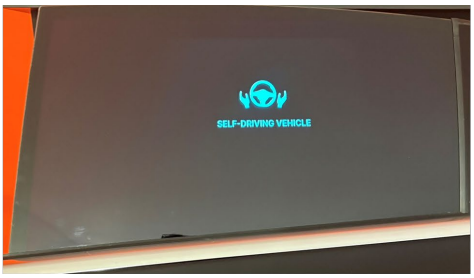
Aumovio

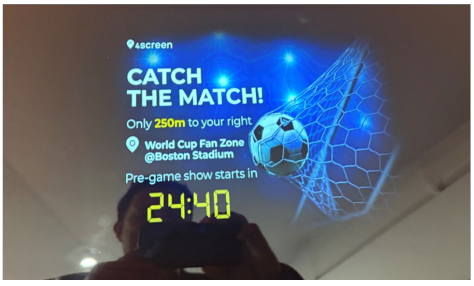
Aumovio (the successor to Continental's automotive division) showed how it wants to link user experience, driver assistance, and software into one system, instead of separate hardware pieces. In the front cabin demo, they showed a personalized cockpit with OLED displays, a driver display that hides a driver monitoring camera behind the active screen, a wide passenger screen with a privacy function so only the passenger sees video, and decorative ePaper trim that can change patterns and colors but uses no power once set.

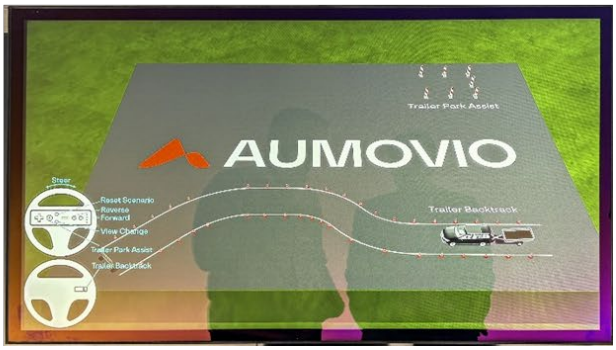




They also showed projection concepts on the dashboard and side windows, which can be used for branding, infotainment, and clear warnings like child left behind messages that are visible from outside the car. On the ADAS side, Aumovio focused on its Xelve platform and new trailer functions, including Trailer Backtrack, which automatically reverses along the same path the car drove forward, and Trailer Collision Warning, which warns if the car or trailer will hit an obstacle during tight turns. Finally, they demonstrated night vision software that improves low light camera images so drivers and systems can see pedestrians and objects more clearly, showing how the same sensor and compute platform can support both safety and new in cabin experiences, including playful features such as vehicle based games.



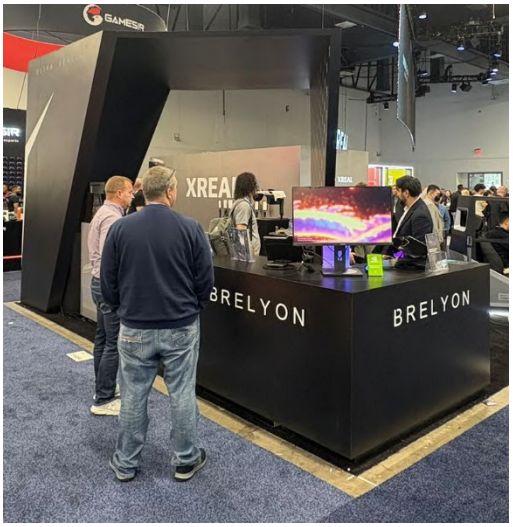




Breylon

Brelyon showcased its ultra-compact immersive display technology, positioning it as a new way to rethink in-vehicle displays without relying on large flat screens or traditional head-up displays. Brelyon's core technology creates multiple visual depth layers, including foreground, mid-ground, and background, within a single display, producing a strong sense of depth and curvature without requiring eyewear. Software dynamically separates what should appear in front versus in the background in real time, making the system suitable for instrument clusters, dashboards, roof-mounted displays, and simulation use cases. The display is highly compact, saving space behind the dashboard compared to conventional HUD systems, and is less sensitive to ambient light. Brelyon emphasized single-point-of-view optimization adjustable to the driver, while also exploring wider formats for shared viewing. The company demonstrated how its technology could extend from pillar-to-pillar displays to roof and rear-seat applications, supporting

gaming, navigation, and multimedia use cases. Overall, Brelyon positioned itself as a display enabler for immersive cabin experiences, focused on solving space, depth, and integration challenges in modern vehicle interiors rather than competing directly with flat-panel screens or projection-based HUDs.

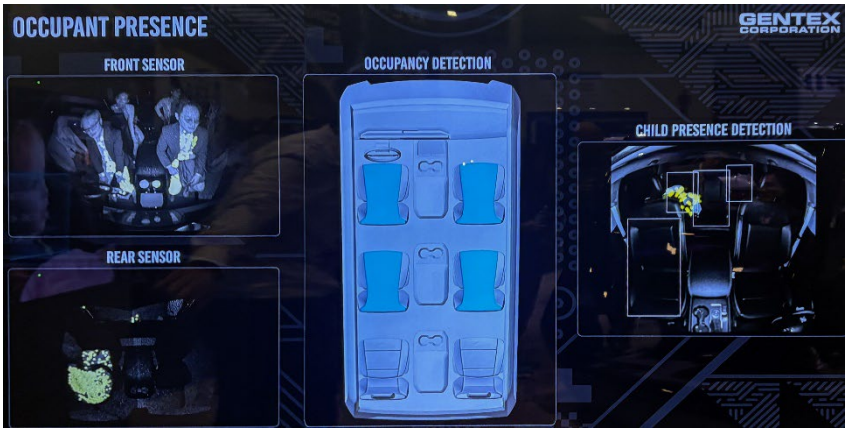


Smarteye

Smart Eye showed its driver and occupant monitoring software, explaining how camera-based systems improve safety inside the car. Smart Eye provides software, not cameras, so its technology can work with cameras placed in different locations such as the steering column, A-pillar, or center console. The system tracks eye movement and head position to see if the driver is paying attention, distracted, tired, using a phone, or smoking. It can also support face and eye identification and monitor passengers, checking seatbelt use, seating position, and whether a child or adult is present. Smart Eye also demonstrated how this information can be used to personalize the cabin, including lighting only the parts of a display the driver is looking at. Overall, Smart Eye presented itself as a ready-to-use software supplier, focused on making vehicle interiors safer and more responsive.

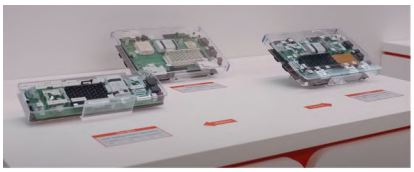
Gentex

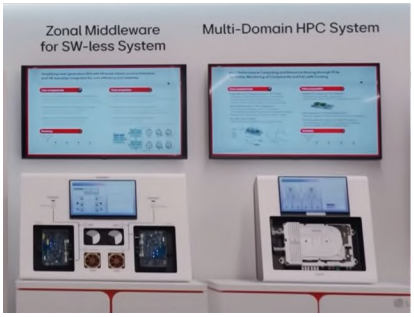
Gentex presented a wide range of vision-based safety and comfort technologies, focusing on real problems drivers face today. A key highlight was Gentex's thermal camera technology, which allows vehicles to see pedestrians, cyclists, animals, and objects in complete darkness, fog, rain, or heavy glare, conditions where normal cameras and human vision struggle. By blending thermal and visible images, Gentex showed how visibility and safety can be improved for passenger cars, commercial vehicles, and autonomous applications, enabling more reliable 24/7 operation. Gentex also showcased its latest automatic dimming mirrors and digital rearview mirrors, along with next-generation dimmable sun visors that stay transparent while reducing sun and headlamp glare, improving comfort without blocking the driver's view. In addition, the company demonstrated driver and in-cabin monitoring systems, often integrated directly into the mirror, capable of tracking driver attention, occupant presence, seatbelt use, children or pets left behind, and even post-crash vital signs. Overall, Gentex positioned itself as a production-ready system integrator, evolving familiar components like mirrors and visors into intelligent safety systems that directly enhance visibility, comfort, and everyday driving safety.



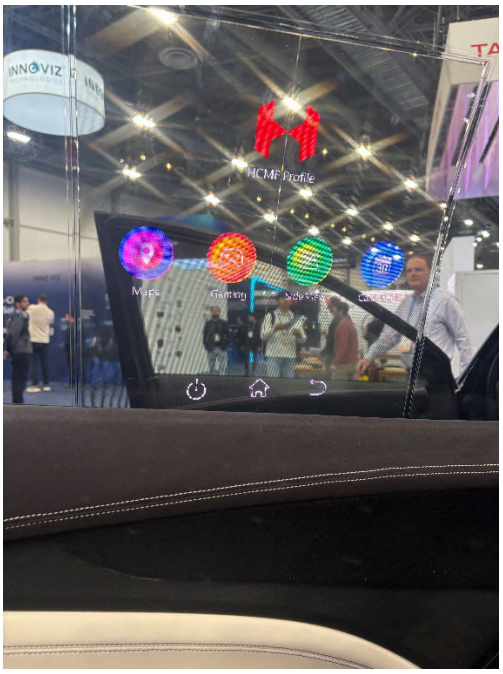
LG Electronics

LG Electronics used its booth to reinforce how it sees the car evolving into a software driven living space, building directly on its strengths in displays, consumer electronics, and content ecosystems. LG's automotive focus centered on SDV-ready interiors, with large, high quality displays spanning the dashboard and rear cabin, flexible screen layouts, and strong integration of infotainment, gaming, and streaming services. A key message was continuity between the home and the vehicle, using LG's webOS based platforms to deliver familiar user experiences, app ecosystems, and personalization inside the car. LG also emphasized AI powered cabin intelligence, showing how voice interaction, contextual awareness, and connected services can adapt content, comfort, and information to occupants rather than forcing drivers to manage complex menus. Rather than highlighting new lighting or sensor hardware, LG positioned itself as a system and platform partner, enabling OEMs to shorten development cycles and differentiate through software, UX, and content, with the vehicle interior becoming an extension of the digital lifestyle consumers already know from TVs and smart devices.





HCMF Group + AUO, AGC, Inventec, TMYTEK, BenQ Materials, and KINPO GROUP



HCMF Group presented a smart cockpit and body concept that shows how interiors, electronics, and vehicle structure are becoming more integrated in software defined vehicles. The concept combined a large, digital cockpit with intelligent body functions, focusing on seamless interaction between displays, controls, and vehicle systems rather than adding separate components. Inside the cabin, HCMF highlighted wide, high resolution screens, personalized user interfaces, and smart surfaces that blend displays into trim areas, reducing visual clutter while increasing functionality. The company also emphasized how cockpit systems connect directly with body electronics, enabling features such as adaptive lighting, comfort control, and safety functions to work together through a centralized software platform. Overall, HCMF's CES 2026 presentation positioned the cockpit and vehicle body as part of one intelligent system, aimed at improving user experience, simplifying integration for OEMs, and supporting future autonomy and electrification without relying on radical new hardware.

5. ADAS

CES 2026 – Year of the AI Defined Vehicle?

Martin Booth, DVN

The “software defined” vehicle was a big theme at CES last year, and this year some people are starting to talk about the “AI defined” vehicle. Of course these are nice buzzwords, but what does it actually mean? SDV is a transition away from using multiple separate ECUs to control functions in the car with difficult to upgrade firmware. SDVs start to consolidate ECUs into zonal or even central compute and have an architecture that allows for easy OTA updates and is perhaps even designed to support continuous updates (as we see in Tesla for example) to not only fix bugs but allow for feature set improvements over

the life of the vehicle. The key to supporting this is a flexible OS and middleware stack which is harder to develop than it appears – VW for example last year switching from its own internal efforts to partner with Rivian on a solution.

As more functions beyond ADAS in the vehicle become "AI enabled", we are seeing the dawn of the "AI defined" vehicle. AI is finding its way into the infotainment system and its not hard to imagine applications in HVAC, lighting and body control.

Nvidia Keynote

Nvidia introduced Alpamayo, a new family of open-source reasoning-based (VLA) AI models for autonomous vehicles, that move beyond perception-based models to enable cars to better handle complex scenarios. Mercedes-Benz will be the first company to deploy the stack in the CLA model in Q1 2026 and Lucid and Uber are also adopting it.

Nvidia showed demonstrations of "human-like" decision making on what to do when the traffic light is out or a football is rolling down the street. A number of other companies rolled out VLA models in 2025, including some of the Chinese robotaxi players and this is clearly taking us to the next level of autonomous driving capability.

The Nvidia DRIVE Hyperion ecosystem continues to grow with new tier-1 suppliers and sensor vendors including Bosch, Magna, ZF, Aeva, Arbe, Hesai, Omnivision and Sony announcing support. The goal is to reduce integration, test and validation time to bring platforms based on ecosystem components to market.

Nvidia is partnering with Uber/Nuro and others to bring a full stack solution to market with robotaxis and will participate in on-road validation to ensure its products are commercially deployable. Of course, Nvidia's main business remains its chips for training and inference, and they also launched the Rubi platform that offers up to a 5X performance boost over previous generations and provides enhanced data security.

Autonomous driving is not just limited to Robotaxis. There were a number of "off road" vehicle manufacturers showing autonomous capability. One example was **OshKosh** that showed airport robots, a boom lift with robotic end effector (that can be used for repetitive tasks like painting and material handling), micro scissor lifts with leader-follower technology and AI powered contamination detection to sort recycling at the curb. Oshkosh also announced it acquired Canvas, a construction robotics company that develops systems for drywall finishing.

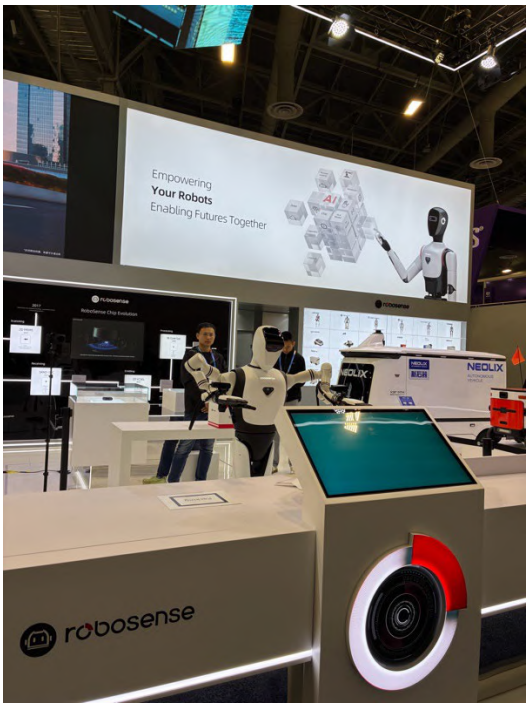
The **AMD** CEO spoke about physical AI and there were a lot of demonstrations of humanoid and other types of robots. Robots are typically vision based but may also include short-range lidar for collision avoidance and specialized sensors for picking up objects and material handling with mm precision. Most robots are still single/limited function or still teleoperated, but the race is on to develop a general robotics intelligence

model (like the autonomous driving models we have for cars today) that would allow the robot to perform many general human-like tasks. **Google's Deepmind** AI unit announced a partnership with Boston Dynamics (a Hyundai company). Nvidia is also in the race to develop the intelligence layer for humanoid robots and there are a number of start-ups in this space.

Holon/Benteler Mobility acquired Ioki from Deutsche Bahn. Ioki provides a software platform and routing technology for on-demand shuttles and public transport integration which can be combined with Holon's shuttles and Benteler's autonomous fleet financing and operational services to provide transit agencies with a complete solution.

Robosense

Robosense showed robotic applications for LiDAR along with perception and fusion algorithms. Robotic lidar can be less expensive since it can operate at shorter ranges (due to lower speeds) and doesn't need to be automotive grade.



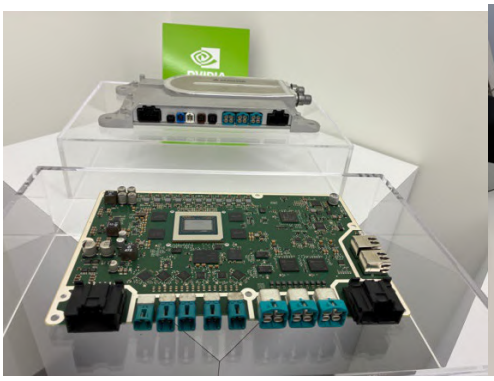
Magna

I met with Steven Jenkins, VP of Strategy at Magna**.** They were showing a 48x48 imaging radar and are starting to see adoption in L2++ systems. LiDAR is not really getting much traction at L2++ outside of the China market. - imaging radar 48x48 . They also had a

Gen 5 thermal camera . QVGA resolution is OK for sensor fusion, but if the customer wants to see image displayed then a more expensive VGA resolution version is used.

8MP Cameras are still good enough for forward facing applications and 8 cameras should be sufficient for autonomous driving. OEMS want lower power and smaller packaging at the same price point versus higher resolutions and more cameras. The latest sensors have better HDR and along with training data can better support operation in direct sunlight, up to some limits. The latest VLA AI models allows for dynamic calibration. Yield and tolerances are improving for sensors.

Magna was also showing Nvidia based central compute ECUs, with single or dual Thor processors and liquid cooling. European OEMs like Mercedes-Benz will use these systems in E class and higher spec models. Volvo is perhaps bringing that capability to lower trims and in China, OEMs are using this type of solution in even lower priced models. A scalable architecture is key to optimize R&D budgets and the Nvidia tools from training to full stack driving solutions are also key.

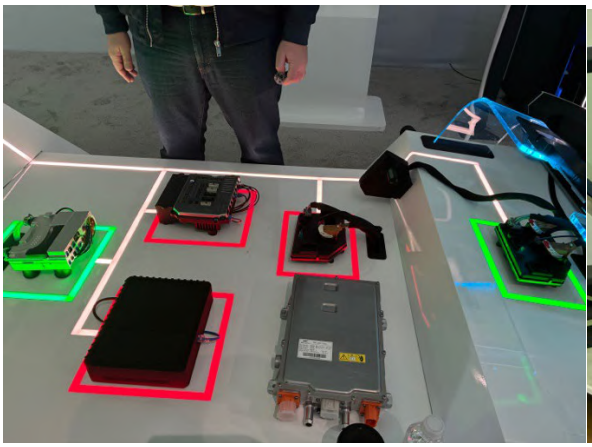


Valeo

I met with Dirk Schulte, CTO at Valeo and we looked at a number of demos. E-chromic glasses can be connected to the existing in-cabin ambient light sensor (via BLE) and automatically dim for transitions to bright sunlight (for example exiting a parking garage) and react more quickly. Valeo was also showing both 8MP and 3MP Gen 6.5 cameras. Various sensors can be used depending on the OEM preference – Mobileye systems still spec On Semi and Omnivision and Sony are also supported. Valeo has a full highway NOA stack called Cruise 4U. Urban piliot would needs cross traffic detection and other features (to do that requires higher resolution side cameras) Radar is used for speed and distance measurement and of course works in all weather conditions. L4 driving can use the same sensor set, perhaps augmented with Lidar and IR. Valeo has a partnership with Flir for IR. Most thermal cameras are just used for nightview today and is not supported in the L2 driving stack yet, but is very useful for pedestrian detection (especially at night). The Panovision display allows for a better heads-up display and placement of the cluster/navigation etc. information in the view of the driver on the base of the windshield. There is a 5MP camera with wide FOV that can be used for DMS and OMS. Valeo also offers a UWB solution (to replace interior radar) for occupancy detection and is good enough for Euroncap level support. UWB is becoming more common for vehicle access. Valeo is also working with Verizon for 5G based V2X that allows for early braking for out of line of sight objects on the road for example. Since most cars have 5G telematics anyway, this is mostly a software add on.

On the ECU side, Valeo as showing a modular Qualcomm solution that is similar to the one BMW uses on the Neue klasse. The telematics box is still typically separate from the central ECU (for cybersecurity reasons) and each OEM has a different combination of radios inside.

Valeo also demonstrated an Ai generated cluster display. The driver can speak to the system to have remote agentic AI in the cloud generate a new background which can then be sent back to the vehicle and installed on the cluster. Valeo also offers services that include remote hardware in the loop, so that any patches or new features can be tested by the OEM before being deployed directly on the car. Another example of user based AI features was a headlight demo showing a specific image or animation (beam pattern) being pushed to the dot matrix headlights.



FLIR

Chris Posch at FLIR showed me their latest (5th) generation of thermal camera – Tura. The device is smaller than before allowing for more integration options and supports full ASIL-B automotive grade over a -40C to +85C temp range. Valeo is FLIRs new partner and offers software support and system integration. The camera has a new protective glass window , that is flat, and allows for easier cleaning. An internal heating mechanism also keeps the glass clear. FLIR has a perception stack (for demo purposes) and Valeo offers a production version.

Nuro/Uber/Lucid

The Lucid Gravity was on display at the Nvidia pavilion that integrates Nuro's sensor suite on the roof and the Nuro Driver software. Solid state lidar is used. We can expect to see service via the Uber app starting in the bay area around the end of the year. The plan is to deploy 20K vehicles over the next 6 years.

Tensor

I spoke to Amy XX VP of Marketing at Tensor. This is the first L4 vehicle that will be available to consumers. The car is contract manufactured by VIN Fast and has over 100 sensors. Tensor (was AutoX) and developed its own spinning LiDAR that is on the roof and at the corners of the car. Compute is done by 8 Nviida Thor

devices offering up to 8K TOPS, more than most if not all existing robotaxis. Tensor also developed its own LLM AI model, Open Tau. Another unique feature is the ability to self open and close the doors – in the case the rider forgets (or tries to open into oncoming cyclists etc). Tensor is permitted for test operation in UAE and California and I will try and take a drive later this year.

Kubota

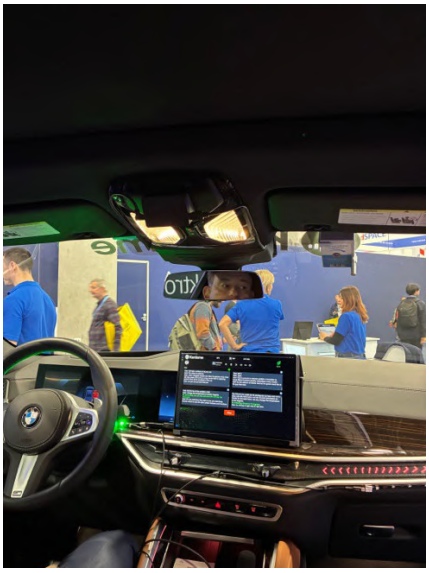
They were showing a number of off-road autonomous vehicles, including a tractor equipped with an autonomous system by Bloomfield that can image crops, store data on local hard drives which is then uploaded post collection for analysis. Autonomy is clearly coming to agriculture, construction and other off-road applications, using similar sensor technologies to passenger vehicles.

Waymo

They showed a simplified robotaxi design with lower costs, all-weather capability, higher resolution (in house developed) lidar and imaging radar.

Kardome

They had a voice ai demo running on an ARM core in a Qualcomm based IVI system that can differentiate voices in a noisy environment and is optimized for automotive applications.



A-Eye was showing its 1550 TOF lidar with new applications in rail, trucking, aerospace and defense.

MIPS has refocused on Risc V IP and recently introduced a new NPU core the SA8200. We will try to do a more in depth interview with them later this quarter.

Solid View was showing its 940nm spad array lidar with 50m range for robotic and industrial applications. Engineering samples are coming in March.

Smart radar

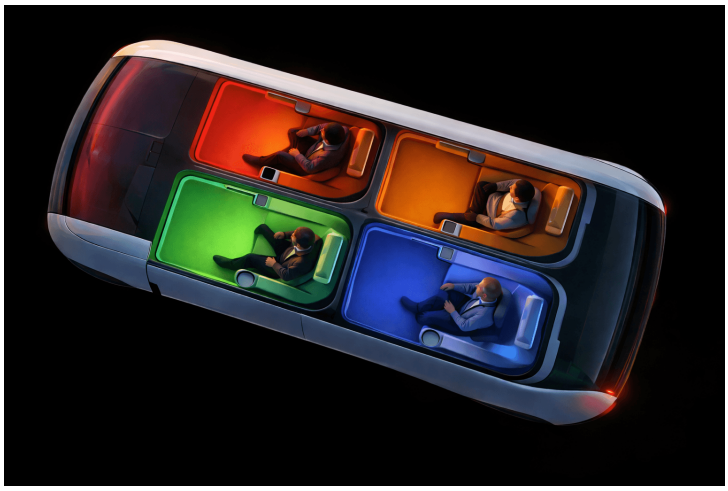
Smart Radar showed anti drone and collision avoidance solutions that works with overhead wires and a radar altimeter solution for drones.

Altos radar

Altos Radar had a 12x16 array imaging radar that uses the TI DSP chip to do the processing (not a custom FPGA) to reduce costs.

Pliyt

They had a shared mobility pod built on a third-party skateboard platform and L4 autonomous stack. They plan to start testing at the end of this year and the vehicle is built by an Asia based CM. 40% cheaper commutes are promised. The sensor integration is very clean in the vehicle, hidden behind dark glass or plastic panels and not visible as we see in a lot of other current robotaxi designs.

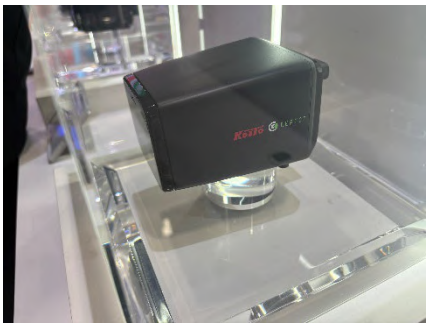


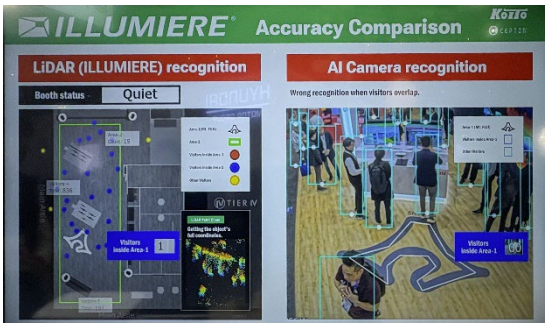
Aeva

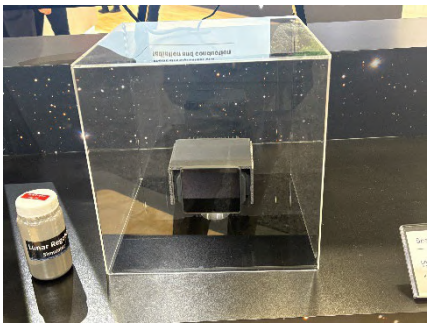
Aeva was showing its new Omni 40m range MCW lidar that is manufactured by LG Innotek. Addressing industrial and robotics markets should help the company get to significant revenue more quickly.

NAL/Koito/Cepton

NAL, Koito, and Cepton booth at CES to get a closer look at how the group is approaching sensing across automotive and industrial markets. What stood out immediately was that the conversation was not just about lidar performance, but about how sensing technology can be engineered, manufactured, and scaled for real-world deployment. Their portfolio spans lighting, interiors, and sensors, with lidar positioned for ADAS and autonomous applications in both passenger vehicles and industrial platforms such as construction, agriculture, and infrastructure, an area of growing importance in the U.S. market.

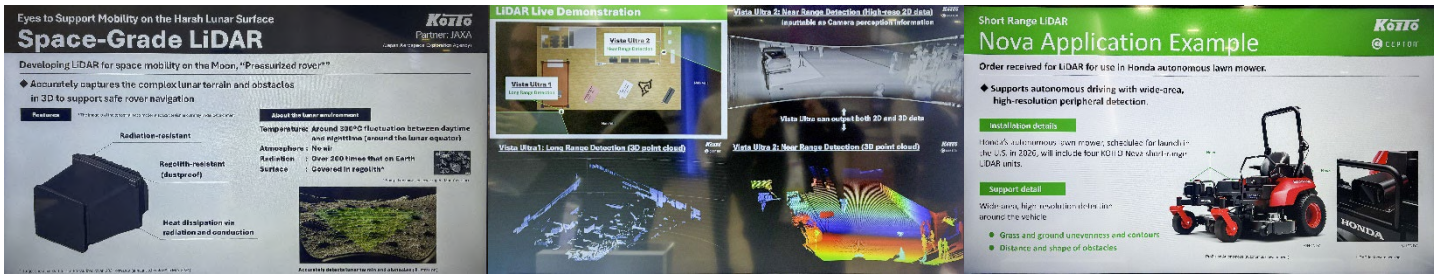






Rather than offering a single sensor, they presented a portfolio with long-, mid-, and short-range lidar. The long-range version exceeds 300 meters with 0.05-degree resolution, while the short-range sensor covers about 40 meters with a wide field of view of up to 90 degrees, optimized for close-range detection.

A major differentiator is manufacturing. Koito's long automotive history drives a strong focus on quality and mass production. Sensors are assembled, inspected, and shipped in house, rather than being outsourced. Cepton contributes advanced lidar technology, while Koito and NAL provide the industrialization and supply-chain stability that many customers are looking for.



The overall message was straightforward: NAL, Koito, and Cepton are positioning themselves as a lidar supplier that combines solid performance with proven automotive-grade production and long-term reliability.

Summary

The market for autonomous driving sensors continues to grow. We saw cars with up to 100 sensors this year and more use of lidar and imaging radar in robotaxis and other applications. The lidar vendors are looking at robotics and industrial applications to increase market size and there are a growing number of imaging radar vendors displaying solutions. Off-road vehicles is also an important market for autonomous technology and can arguably get to market sooner due to less regulation. If you would like an introduction to any of the companies mentioned here, please email me at :

mbooth@drivingvisionnews.com

6. Others

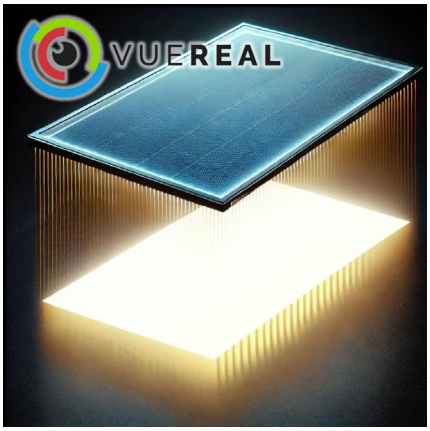
Covestro


Covestro placed strong emphasis on lighting-integrated exterior surfaces, with a clear highlight on an illuminated grille demonstrator enabled by its In-Mold Coating (IMC) technology. Using adhesion-optimized Makrolon® polycarbonate combined with direct coating during injection molding, Covestro showed how signature and functional lighting elements can be integrated directly into grille surfaces without secondary painting or assembly steps. The solution allows lighting graphics, transparency, and surface protection to be built into a single part, improving design freedom while supporting automotive durability and manufacturability. This approach enables thin, seamless illuminated grilles that combine styling, lighting, and structural performance in one component, illustrating how exterior lighting is evolving from add-on modules toward material-driven, fully integrated surfaces suitable for series production.

For interiors, Covestro focused on seamless, intelligent surfaces that merge design, touch, lighting, and protection into a single component. The company demonstrated how polycarbonate-based materials and films can replace traditional mechanical buttons and seams with hidden functions, where icons, lighting, or displays appear only when activated. These interior parts support clean, uncluttered cabin designs while maintaining durability and automotive performance. Covestro also showcased self-healing polyurethane (PUR) transparent coating layers, designed to improve scratch resistance and surface longevity in high-touch interior areas. Overall, Covestro's CES 2026 interior message positioned materials as active enablers of modern cockpit design, allowing OEMs and Tier-1 suppliers to create integrated, durable, and production-ready interior components with greater design freedom.

VueReal

Printing MicroLEDs to Rethink Automotive Lighting



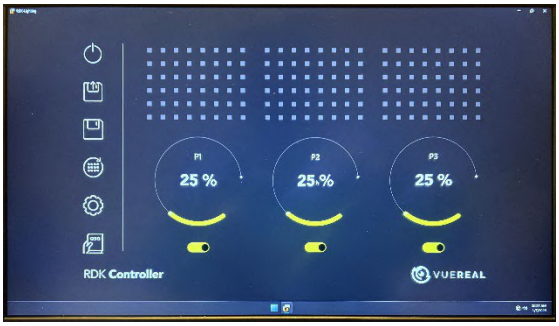
I visited VueReal's private suite during CES and the conversation quickly moved away from buzzwords into a practical automotive question. Their proposal is really simple, but with a very high impact, using microLED technology applied through a printing-like process, allows to turn thin panels and even glass into lighting displays that could be applied to a multiple area of the vehicle that we want to get illuminated.

VueReal explained why microLEDs make sense for automotive use. From OEM perspective, microLEDs behave like traditional LEDs, lifetime, aging and reliability are clearly understood. There are no burn in concerns when compared to organic LEDs solutions, which is critical in the industry with long and conservative validation cycles. However, one of the highest advantages, according to VueReal, is the ability to deliver high brightness where MicroLED can meet the red color point required for brake lights, allowing one surface to function as a legal brake light and later serve as a branding or messaging element when the vehicle is parked.

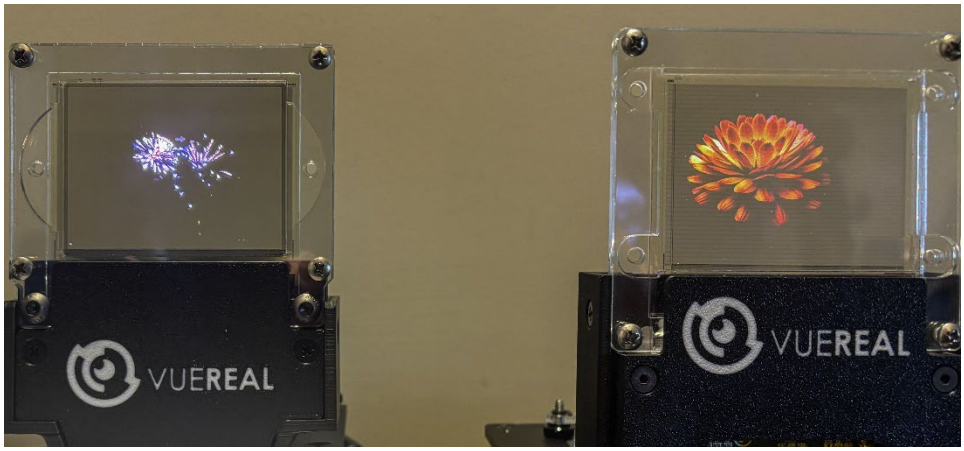
What is very interesting is that the display layer itself is only a few millimeters thick, Instead of housing , brackets, guides and heat sink, lighting becomes a single panel. VueReal described their value proposition on how they can significantly reduce weight and material, especially for performance vehicles, turning

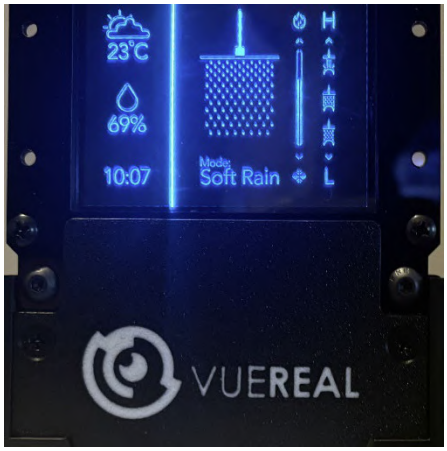
lighting from a bulky system into a seamless part of the surface. They also have a friendly software that is easy to interface with the LEDs and create creative sequences.





One of the most interesting application is centered on glass. VueReal is laminating microLEDs displays directly into the front, side and rear automotive glass. This enables roof marker lights to move into the windshield, reducing roof holes and water leaks. Rear windows can display warning symbols when vehicles are disabled, side windows can also show messages for pet or child left behind in the vehicle.





They also described embedding HUD and mirror information directly into glass instead of projecting light through thick stacks. Transparent displays make this possible, brightness and color remain strong, while transparency can be tuned so the display nearly disappears when off.

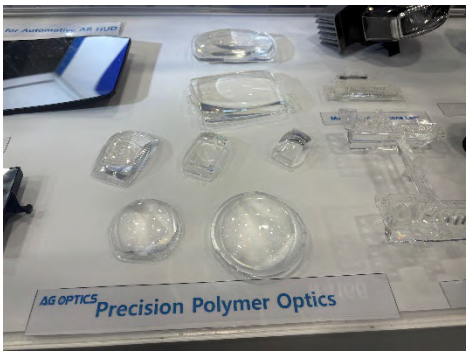
VieuReal is already collaborating with multiple partners like Flex N Gate and explore applications into exterior automotive lighting.



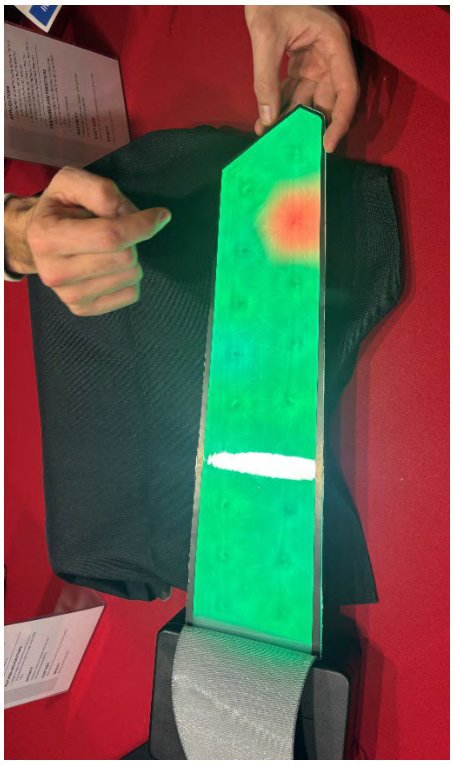
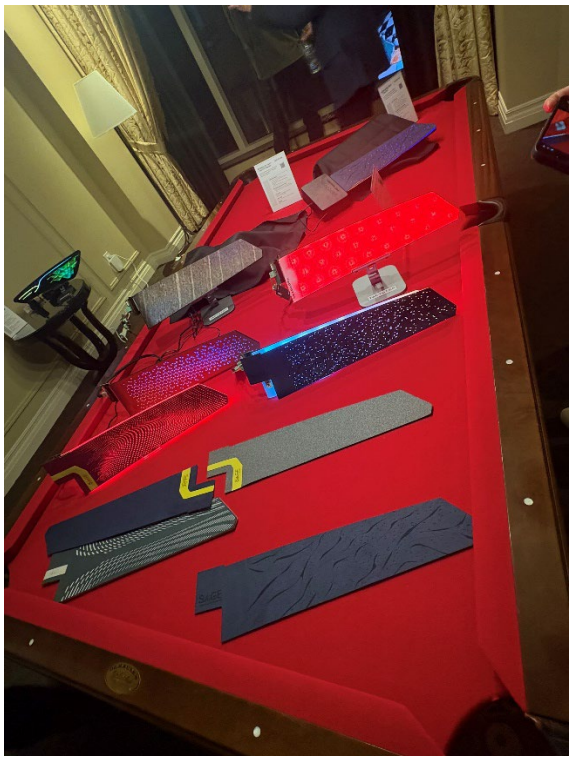
Today the technology is premium, about three to five times the cost of a conventional display, but in many cases, system savings already justify it. My takeaway is that VueReal is not just improving displays; they are merging glass, lighting, and displays into a single, thin automotive surface.

AG Optics

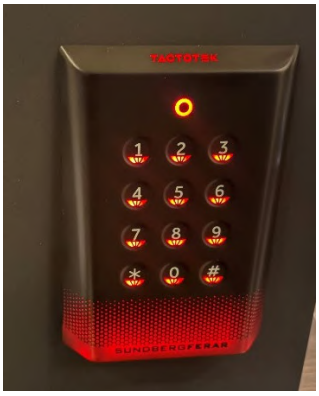
AG Optics was present in CES showing their support for Head light Optics and Modules for plastic aspheric lens with micro patterns, free form shape glass lens for Laser Head Lights, lenses for Dynamic Ground Projection and MicroLED lens solutions for ground projection and head up displays, including concave mirrors.

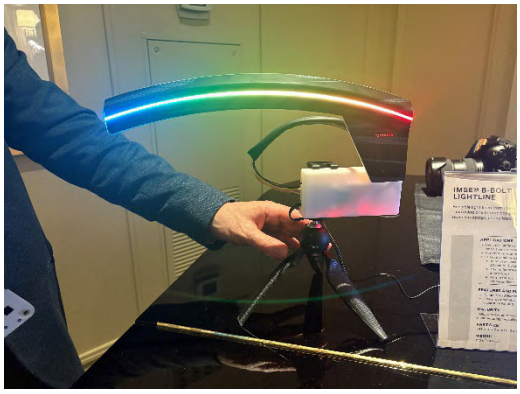


Tactotek

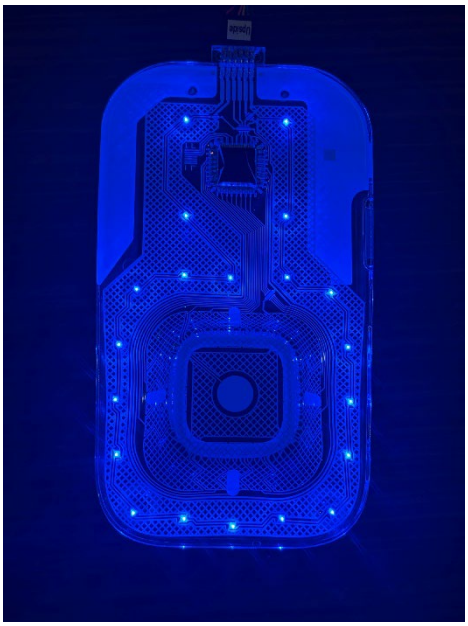
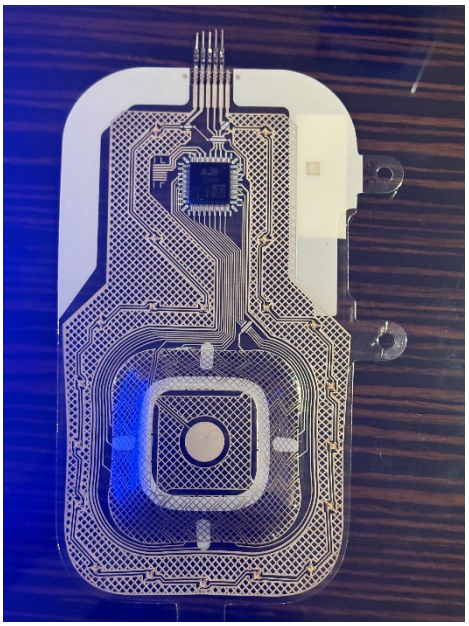




TactoTek showed how IMSE, In-Mold Structural Electronics, can turn plastic surfaces into active, illuminated parts that combine structure, lighting, and electronics in one piece. At CES, they highlighted illuminated IMSE halo emblems and IMSE Light line technology, where light, touch, and electronics are molded directly into thin, curved surfaces. The message was clear, lighting no longer needs separate housings, PCBs, or complex assemblies. Instead, designers can create clean, edge-to-edge light lines, glowing logos, and ambient surfaces that feel seamless and alive.

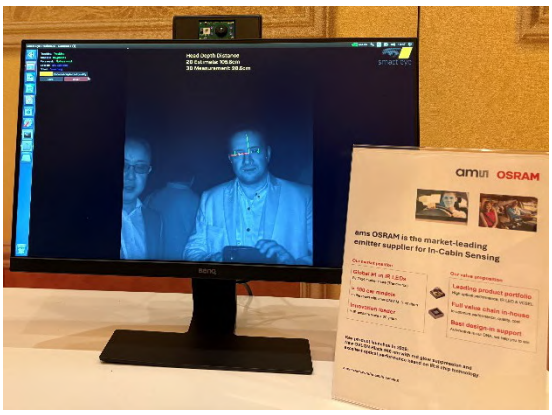




The presentation also emphasized design freedom, fewer parts, lower weight, and better reliability, making IMSE attractive for automotive interiors, exterior signatures, and smart surfaces where lighting, form, and function are fully integrated from the start.


Osram

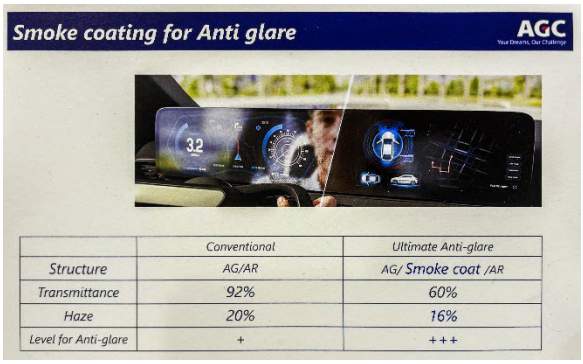


ams OSRAM focused on showing how lighting and sensing are becoming more intelligent, software controlled, and scalable for production vehicles. A key theme was digital and adaptive lighting, led by its EVIYOS high resolution LED technology, already in series production, which enables finely segmented light distribution and precise beam shaping for adaptive driving beam and future communication functions. ams OSRAM highlighted how EVIYOS can evolve through software, including shape control and dynamic light patterns, rather than relying on new hardware generations. The company also presented its Open System Protocol, designed to simplify integration of complex lighting systems by allowing OEMs and Tier 1s to control advanced light functions more easily within software defined vehicle architectures. In addition, ams OSRAM showed the ICARUS demonstrator, which combines lighting, sensing, and control to illustrate how exterior lighting can interact with its surroundings. Beyond lighting, the company emphasized its growing sensor portfolio, including position sensors and optical components that support ADAS, interior monitoring, and electrification. Overall, ams OSRAM's CES 2026 message was clear, lighting is no longer just about brightness or optics, but about software, integration, and intelligent control, with technologies that are already transitioning from demos into real vehicles.

Trinamix

TrinamiX showcased advanced in-cabin sensing technologies focused on safety, security, and occupant monitoring, using a strong mix of camera based and optical sensing. A key highlight was its 3D face authentication system, which combines a standard driver monitoring camera with an infrared dot projector to create a true depth map of the face. By analyzing both 3D structure and material properties, the system can reliably distinguish real human skin from masks, photos, or screens, enabling secure vehicle access, personalization, and anti spoofing protection. trinamiX also demonstrated in cabin monitoring that can detect occupants, seatbelts, and even vital signs such as heart rate, supporting upcoming European safety regulations expected around 2027. Another important feature was a touch based alcohol detection sensor, using optical spectroscopy through the skin to estimate blood alcohol content in about 15 to 20 seconds, aimed at future impaired driving prevention, parental control use cases, or possible regulatory adoption. Overall, trinamiX positioned its CES 2026 presence around practical, production oriented sensing solutions that enhance trust, safety, and personalization inside the vehicle, especially as cars become more automated and regulation driven.

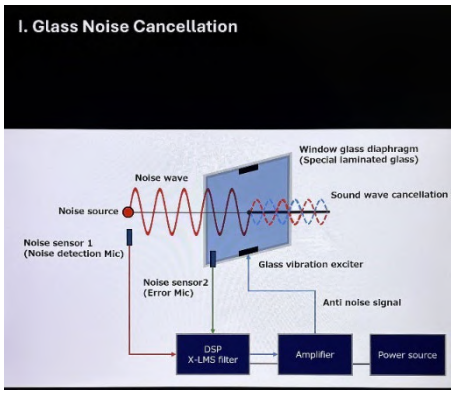
AGC



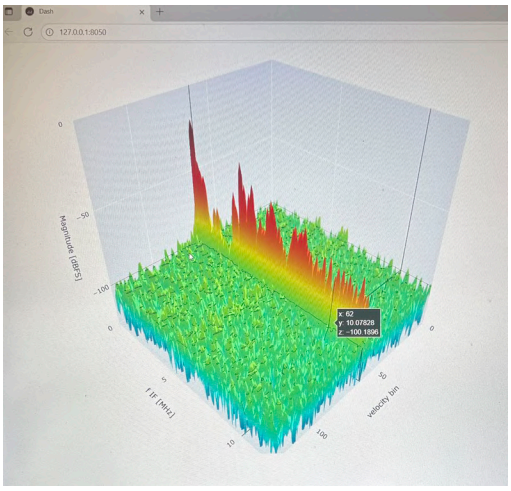
	Conventional	Ultimate Anti-glare
Structure	AG/AR	AG/ Smoke coat /AR
Transmittance	92%	60%
Haze	20%	16%
Level for Anti-glare	+	+++

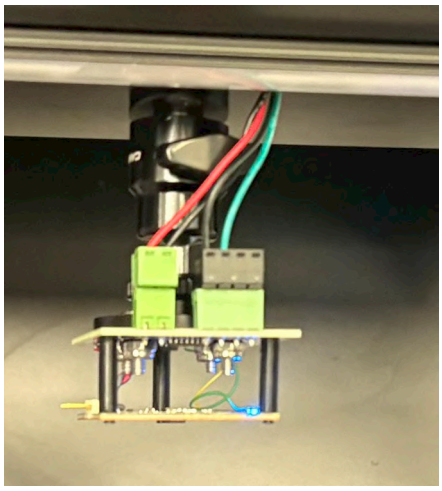
AGC showcased how automotive glass is evolving from a passive material into an active functional surface, with a strong focus on sound control and user comfort. A key demonstration showed glass acting like a speaker, using controlled vibrations to generate sound waves that actively cancel outside noise, similar to noise cancellation headphones. By understanding the noise profile outside the vehicle, the glass can emit counter-frequencies to reduce road and wind noise inside the cabin, while also allowing different sound zones so one passenger can listen to music while another enjoys a quieter space.

AGC positioned this technology as highly relevant for future vehicles, especially EVs and autonomous cars where cabin quietness becomes more noticeable and more valuable. Beyond this demo, AGC emphasized its broad automotive portfolio, spanning glass, optoelectronics, chemicals, energy materials, and semiconductor related technologies, and highlighted how cross-division know-how allows ideas from architecture, aviation, and electronics to transfer into mobility. With dedicated automotive R&D in Michigan and global collaboration across its businesses, AGC framed its CES presence as a practical look at how materials innovation can directly improve comfort, personalization, and the overall in-vehicle experience.

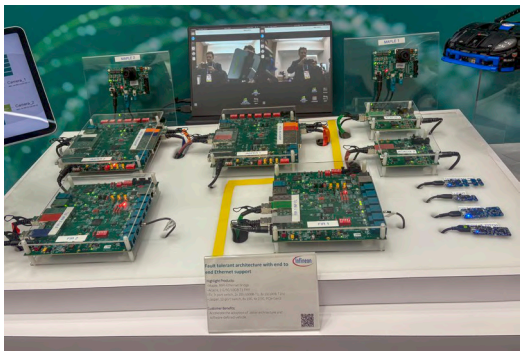


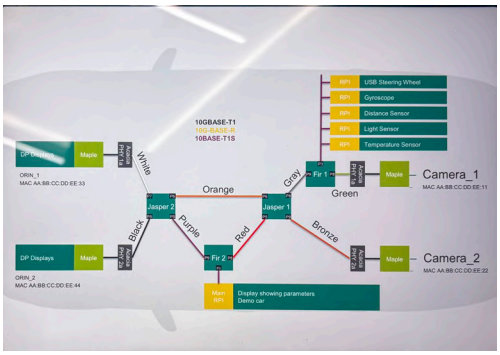
Infineon





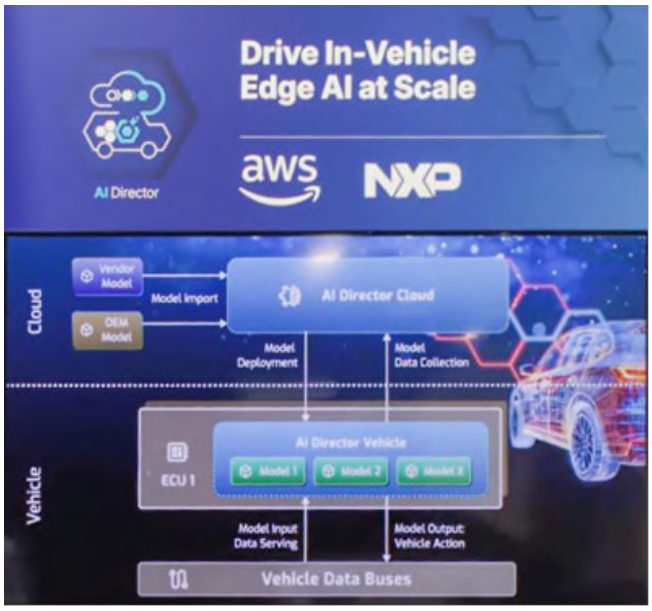
Infineon focused on the building blocks that quietly enable modern vehicles, power electronics, sensing, and secure computing. Rather than flashy concepts, Infineon showed real, production-ready technologies that support electrification and software-defined vehicles. Key demos highlighted advanced power semiconductors for EV traction inverters and onboard chargers, showing how higher efficiency and better thermal control directly improve range and reliability. Infineon also emphasized sensing and microcontroller platforms that support ADAS, interior monitoring, and centralized vehicle architectures, along with secure elements that protect vehicle data, software updates, and digital access. The overall message was clear and practical, as cars become more electric and software driven, Infineon's role is to provide the reliable, scalable silicon that makes these systems safe, efficient, and ready for mass production.





Sonatus

Sonatus used its demonstrations to clearly show how modern vehicles can be changed and improved through software instead of hardware. In the video, Sonatus focused on real use cases, such as enabling new features, adjusting vehicle behavior, and supporting different market or regulatory needs through software updates. The company highlighted how automakers can activate functions, manage data, and control vehicle systems over the air, even after the car is already on the road. Rather than presenting futuristic concepts, Sonatus emphasized practical tools that are already helping OEMs move faster, reduce complexity, and keep vehicles up to date throughout their lifecycle, reinforcing its role as a key enabler of software-defined vehicles.



Elektrobit

Elektrobit focused on its strength in automotive software, showing how vehicles are becoming more software-defined, connected, and user-centered. The company highlighted its work on digital cockpits, in-vehicle infotainment, and operating systems that support large displays, rich graphics, and smooth user experiences. Elektrobit also emphasized tools that help automakers manage software complexity, enable over-the-air updates, and speed up development while maintaining safety and compliance. Rather than flashy concepts, Elektrobit's message was practical and clear, modern vehicles need a strong, flexible software foundation, and Elektrobit positions itself as a key partner helping OEMs deliver reliable, updatable, and high-quality in-car software at scale.

LIST OF MAIN DVN MONTHLY REPORTS

Main reports launched in 2008-2020

Koito company profile
China lighting market
The Wonderful World of Passenger Car lighting
Tier 2 and 3 contribution on automotive lighting
ZKW company profile
Simulations in automotive lighting
Mercedes-Benz profile
LED technologies in automotive lighting
LEDs Thermo-Electrics
Interior Lighting
BMW and lighting
Lighting and ADAS
Materials in lighting
Laser Head lighting
Automotive lighting Regulations worldwide
Israeli Startups
Jaguar Land Rover and lighting
Engineering companies involved in lighting
Japanese lighting market
Status of w/w Regulations
Korea Lighting Market
SL Corp profile
ADB/Matrix Beam
India Car Industry and Lighting Market
Vision of lighting 2025-2030
Automotive lighting Regulations
worldwide Vehicle Lighting in USA
New ADB technologies
Interior Lighting
Camera technologies
Varroc profile
Volkswagen profile
US automotive lighting industry
Materials in Vehicle Lighting
The Future of Exterior Lighting
IAA Frankfort Autoshow
DVN Munich WS
GENEVA Autoshow
US Lighting
Marelli AL Profile
50 years Light Styling
ADAS and Lighting

Main reports launched in 2021

Evolution of LEDs
New Models July-October
2020 Audi Lighting & ADAS
Lighting in development countries
ADB Update
DVN Shanghai WS
Innovations in Rear Lighting
Global Landscape of Automotive LED Suppliers

Reports launched in 2022

Technologies presented in CES 2022
Laser light automotive lighting
ISAL report
DVN US workshop
Worldwide Demographic Development
Models launched May to August
DVN Shanghai report
VISION congress
Paris Autoshow + last Vehicle models
L.A. Autoshow

Reports launched in 2023

CES Report
TU Darmstadt Lighting Institute
DVN Paris Workshop
Universities and Lighting
MLA Technology
Models launched in H1-2023
DVN Tokyo Workshop ISAL Report
DVN US Workshop
Osram Company Profile
DVN Shanghai Workshop

Reports launched in 2024

CES
New cars of the semester
DVN Munich Workshop
OLED Technology
Beijing Autoshow
Display Week
2024 DVN Detroit Workshop
ALE, June 2024
Indian vehicle lighting market
DVN Pune Workshop summary
New cars 2024
Nichia company pro ile
Test houses
Shanghai DVN event summary

Reports launched in 2025

CES and Bharat Mobility Global Expo
DVN Munich event summary
Dekra testhouse
SPE Plastics in Electric & Autonomous Vehicles (EAV)
Auto Show Shanghai
RGB LED Report
Japanese Vehicle Lighting Market
IAA 2025
DVN Detroit Report
The Czech Automotive Ecosystem
DVN Shanghai Report

DVN ecosystem and scientific community

DVN is a reference in the world of Lighting, Interior comfort and Lidar

Car Makers

Audi
Avatr Technology
Bentley
BMW
Ferrari
Ford
Ford Otosan
General Motors
Genesis
Hero MotoCorp
Honda
Hyundai
Jaguar-Land Rover
Kia
Lotus cars
Lucid Motors
Mazda
Mercedes-Benz
Mitsubishi Motors
Nio
Nissan
Renault
Rivian
Seat
Stellantis
Subaru
Toyota
TVS
SAIC Volkswagen
Volvo Cars
Zoox

System Suppliers and Tier 1s

Adient
Anrui
Appotronics
Aspöck Systems
Braslux
Cepton
Ceres Holographics
Chongqing Rebo
Continental
Creat
Diode Dynamics
Elba
F2J Industry
Feka
Fiem Industry
Flex-N-gate
FORVIA designLED
FORVIA HELLA
GHSP
Grupo Antolin
Hascovision
Hitachi
Ichikoh
J.W. Speaker
Keboda
Koito
Lightworks
Lumax
Luxit
Maier
Magna
Marelli
Marquardt
Mind
Mobileye
Mobis
Muth Mirror Systems
Nordic Lights
Odelo Farba
OPmobility
Panasonic
Polycontact
Prettl group
Rehau
SL Corporation
SMR Automotive
Stanley
The Lighting Consultants
Toyota Boshoku
Uno Minda
Valeo
Varroc
Weidplas CH
Xingyu
Zanini
ZKW
Zodiac

Light Source Suppliers

ams OSRAM
APT Electronics
Brightek
Dominant Opto Tech.
Everlight Electr.
HC Semitek
Kyocera SLD Laser
LG Innotek
Liteon Technology
Lumileds
Nichia
OLEDWorks
Refond
Samsung LED
Seoul Semiconductor

Tier 2s and service providers

A2Mac1
Ascorium
AML Systems
Ansys
ASAP
ASYST Technologies
Auer Lighting
BASF
Bluebinaries
Brightview Technologies
Capgemini
CLM Search
Coindu
Covestro
Dajac
DBM Reflex
Delo
Die haptiker GmbH
Docter Optics
Dow
Edag
Elmos
Endego
Ennostar
Euro Moulders
EV Group
Flow Dry Technology
Focuslight
Fusaware
Grewus
HJ Optics
Huawei
Idemitsu
Infineon
Inova Semiconductors
Instrument Systems
Integrity
Joysonquin
Leonhard Kurz
L.E.S.S.
LMT
Luminus
Mektec
Microvision
Maxell Frontier
MD Group
Melexis
Microchip
Microrelleus
Mitsui Chemicals
Mocom
Nalux
NBHX Trim
Oerlikon
ON Semiconductor
Pininfarina
Polyrise
Preh
Ray Group
S&P Global Mobility
Sabic
Schott
Seaborough
Seoyoneh-Ewha
Shihu
SP3
Sunny Automotive Optech
Suzhou Senbo
Synopsys
TechnoTeam
Toshiba lighting
TQ Technology
Uni Tooling
Ventura
W Research Company LLC
W.L. Gore & Associates
WLOPT
X2F
Xunchi

Universities, NGO and labs

Alliance for Automotive Innovation
ARAI
Automotive Research Association of India
BMDV
Bundesministerium für Digitales und Verkehr
CATARC
China Automotive Technology and Research Center
CEA Leti
Darmstadt university
DEKRA
Department for transport, UK
DTI
Danish Technological Institute
DVR
Deutscher Verkehrssicherheitsrat - German Road Safety Council
Estaca
École supérieure des techniques aéronautiques et de construction automobile
Fraunhofer (FEP, IAP, ILT, IMS)
Fudan university
GTB
Hannover Leibniz
Hochschule Aalen
Hochschule Magdeburg-Stendal
Icahn School of Medicine at Mount Sinai
Light and Health Research Center
ICAT
International Centre for Automotive Technology
Idiada
Institut d'Optique
JASIC
Japan Automobile Standards Internationalization Center
KBA
(Kraftfahrt-Bundesamt)
KATRI
Korea Apparel Testing & Research Institute
KIT
Karlsruhe Institute of Technology
Kotsa
Korea Transportation Safety Authority
LCOE
Laboratorio Central Oficial de Electrotecnia
L-LAB
MLIT
Ministry of Land, Infrastructure, Transport and Tourism
NHTSA
National Highway Traffic Safety Administration
OICA
International Organization of Motor Vehicle Manufacturers
Pacific Northwest National Laboratory
Phabulous
RDW
RISE Research Institutes of Sweden
Sapphire STS
SMMT
Society of Motor Manufacturers And Traders
SMVIC
Shanghai Motor Vehicle Inspection Certification
TNO
Traficom
Transport Canada
UMTRI
Université Gustave Eiffel
UTAC
VDA
Verband der Automobilindustrie
VEDECOM
Vrije Universiteit Brussel
YoungNam University

DVN Lighting