

Tue, 14 January 2025  
Weekly Newsletter



NEWSLETTER #887



## MUNICH LIGHTING WORKSHOP



SOCIAL COCKTAIL · MEET & GREET DINNER  
CONFERENCE · EXHIBITION

February 19-20, 2025 | Motorworld Munich

## Editorial

### CES Changes Tack



Last week, DVN Interior's Philippe Aumont and I visited CES in Las Vegas. The huge Las Vegas Convention Center is growing, and many construction areas hindered the already-slow car and foot traffic. But even so, CES is a great first event of the year. You see the latest high-tech products of all kinds, from genius to silly ones. I don't know in which of these categories falls the "e-touring ski" with motorized traction belts underneath as a help for climbing. Will it be successful like the e-mountain bikes?

The best open booths of the international vehicle lighting industry (plus some additional rooms for showcases not for all eyes) were shown by OP Mobility, Koito, OLEDworks, LG Innotek, and Elmos. Inova and Tactotek presented their innovations in the Venetian Expo. Hyundai-Mobis, Zeiss, and Valeo opened their doors by invitation only.

Only a few car makers were present this year. BMW, Hyundai, Honda, Scout Motors (a VW brand), Aveela (a Sony & Honda brand), and Zeekr (a Geely brand). Toyota CEO

Akio Toyoda gave a press conference, despite Toyota having no booth. No view to the future by Audi and Mercedes, no presentation of innovations by American, European, or Asian automakers except those few. The best car booth was clearly the big open space of BMW, where they showed a Neue Klasse sedan and SUV and, in a real Las Vegas kind of show, the UX/UI of the Neue Klasse which will be rolled out to all BMWs.

The biggest Keynotes of the 2025 CES were given by Nvidia in the huge Michelob Stadium, and by Delta Airlines—the first Keynote ever in the fantastic Sphere. The dominant role of CES for the auto industry in the decade before Covid, when all CEOs and CTOs of the automotive world were present and giving keynote speeches, seems to be history. CES has changed tack.

A handwritten signature in black ink that reads "Wolfgang Huhn". The signature is written in a cursive, slightly slanted style.

Wolfgang Huhn  
*DVN Senior Advisor*

# In Depth Lighting Technology

## First Days @ CES:DVN Highlights



The spectacular Las Vegas Sphere, seen from Elmos' booth at the Renaissance Hotel

### By Wolfgang Huhn

On Sunday, 2 days before CES officially opened, an official media event called CES Unveiled took place. All awardees could present their stuff on a 5-metre booth with a table and a black curtain behind to separate the aisles. Everything was a bit improvised. All companies had the same booths, billions-revenue international groups beside 10-person startups. A nice setting.

Interesting from lighting point of view:

**OP Mobility** presented their front end for Rivian with the first-ever ADB headlamp for the US. In the stripe between the headlamps, they used RGB LEDs for animation functions. Longtime DVN community member Shammika “Shammi” Wickramasinghe, who newly works for OP Mobility in Michigan, introduced the technology. It is a complete front end driven by a power line and a CAN bus only.



**Atala by OLEDWorks** were at this CES pre-event with the OLEDs for the new Audi Q6 e-tron rear lamp. Animation of different signatures, warning functions, and dynamic rear lamp functions were demonstrated by Siara Campbell.



**Tactotek** CEO Jussi Harvela, together with VP Thomas Lipscomb, introduced functional samples of their technology, but no serial parts. The serial projects are not released yet by Tactotek's customers to show details to the public. Their foil technology for interior application improves the lighting system in terms of aesthetics and efficiency. This becomes more and more important in context of the more than 2,000 LEDs in a luxury car's interior.



**Miscellaneous**

As usual at the CES many more interesting high tech, surprising products and some funny innovations are shown, for example:

**A Guitar without strings** with a very...let's say...interesting sound.



**E-Roller Blades** with a motor-driven middle wheel, a battery pack on the user's back, and a handheld remote control.



### **E-Touring Ski**

My favorite innovation was clearly the e-Ski. Everyone who's been on a ski tour with a long uphill climb knows what I mean; it is super exhausting. Here is a possible solution, a bit like the e-bike concept.

The belts for uphill climbing are like a roll, driven by an electric motor on top of the ski. For the downhill part the motor and belts are disassembled and stowed in the skier's backpack. The slits, where the belt goes through the ski, are closed by clips and tape.



## Press Conferences

Monday was press conference day, and DVN chose to attend three—from Toyota, Zeekr, and Samsung—out of the many options. Toyota's 'Chairman and Master Driver', as Akio Toyoda is titled, gave the speech. I expected an outlook to Toyota's car business and some future technical highlights, but I was completely wrong. He talked in his nice and sometimes funny speech about the building of a new city which has already begun. The city will be totally carbon-neutral and sustainable. It's built for Toyota employees, retired persons, artists, and scientists who shall live there in a few years. The word "car" was not often used in the 45-minute speech.



The new Japanese word describing the (usually very successful) Toyota processes is **kakezan**, 'invention by multiplication'. Maybe we will hear "kakezan" often in future.

The Zeekr keynote, later in the day, was the complete opposite of Toyota. Car details were presented by CTO Giovanni Lanfranchi and vehicle line executive Zhu Ling. They talked about their progress in the product development cycle which is based on the use of the vehicle by the customer.

Their 'heart values' are emotional connection, privacy and trust, seamless design, feedback integration, hyper-personalization, and some others. Zeekr have 7,000 R&D employees, mainly in Hangzhou and Gothenburg, and they've filed 5,800 patents to date.



Zeekr's way to develop a car goes from 'software-defined' to 'customer-defined'.

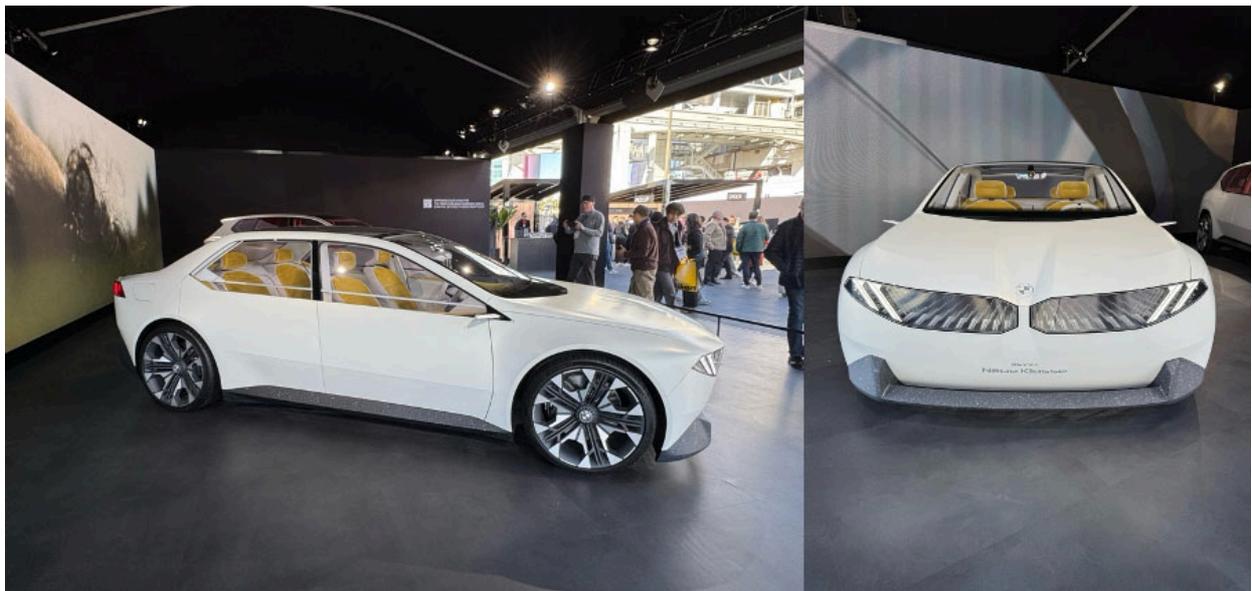
Samsung had no automotive content in their press conference with different speakers; rather, they introduced how home life will be improved with Samsung 'AI' everywhere.

Tuesday was when CES finally opened for real.

## BMW

Two Neue Klasse cars were on display without any show or presentation around. They spoke for themselves. The design is really all new.

The sedan shows some interpretations of the 3.0 CS and other BMW cars of the 1970s. The shark nose and the c-pillar line with the typical [Hofmeister Kink](#) are examples. The window line is clearly without any example. The line of the front fender is taken over by a white stripe in the windows. The real lower window line sinks about 100 mm to open and light up the interior. The windscreen is taken long into the roof which is also partly made of glass.



The front is dominated by the wide kidneys, which include the lighting elements completely. The transparent headlamp's interior plays with 3D and mirroring effects using layers of film. Of course, the whole front is illuminated. We are looking forward to seeing and night-driving the production car soon.



The biggest part of the BMW area was a building for the demonstration of their all-new user experience concept. The presentation itself—to enter you needed to book a time slot in advance—was a Las Vegas-style show. A comedian in dialog with a video of a movie star from Hangover presented the interior, together with two BMW guys.



They say they have shrunk the audience and so the interior looks bigger. You'll find more about the interior concept in the DVN CES report which will be published soon.

**Honda** showed an SUV and a hyper sports car called the Honda 0 Saloon and Honda 0 SUV. The lighting on both cars was just conceptual; we will see if something out of these studies will come to the road. Anyway, the style is distinctive and a typical clean Honda design.



**Scout**, the VW brand, showed in the outside area their pickup truck and SUV, both having front lamps with 'golden' light colour for differentiation. The colour temperature looks really very low which means that they use special LEDs and give away some efficiency for styling, which is most usual in our business.



**Afeela**, the car brand of Sony and Honda, was shown in the central hall (mainly home entertainment) beside the Sony booth. The Afeela car was presented two years ago, and it seems the same car today. It has both front and rear miniLED displays with very high resolution. The display showed 'welcome', 'afeela', 'happy birthday', and other text of that nature as well as videos from Sony Entertainment—movies and fun for children.

The car itself carries many sensors, especially lidar sensors which are on the front roof above the windscreen, looking like black warts, but this position is optimal for functionality. The lit logos in the displays are a must.





With that, I conclude this piece. The (even more) interesting part of the CES you will find in the DVN CES report very soon; you'll want to download it and read the news about many more CES innovations and concepts from suppliers.

# Lighting News

## Quick Takes: Lighting Community at CES

LIGHTING NEWS





# Tesla Model Y Juniper

LIGHTING NEWS



**By Paul-Henri Matha**

Tesla have just revealed their new Model Y in China, and its exterior lighting evolution is promising. The Front looks like the Cybertruck with the upper full-width light bar, and the low and high beam below in the bumper. The rear lamp design is quite interesting, with something that looks like a big backlighting area (is that the charging lamp or the rear position lamp floating just above the TESLA Logo?).



Interior lighting is evolving, too, with a homogeneous line all around the cockpit and the doors.



# Honda, Sony Launch Afeela with AUO MicroLED Grilleboard

LIGHTING NEWS



The AUO microLED 'Media Bar' grilleboard on the Afeela 1 has high contrast, brightness, resolution, and an ultrawide viewing angle to show charging status and vehicle details with unobstructed visibility. It can also display personalized content such as videos, pictures, and unique messages.

AUO President and CEO Dr. Frank Ko says his company's "partnership with Sony Honda Mobility marks an industry milestone—the first application of microLED displays on a vehicle's exterior [which] not only showcases information; it adds personality and engages with the world around it. Together, we realize human-centred mobility, making the Media Bar a truly iconic feature of the Afeela that enhances interactive user experience and personalization".

And Sony Honda Mobility Representative Director, Chair, and CEO Yasuhide Mizuno says, "Our vision is to redefine mobility by merging cutting-edge technology with human creativity to inspire innovation and new possibilities".



# Stanley Buy Angstrom as Subsidiary

## LIGHTING NEWS



Stanley Electric have moved to buy shares in Angstrom Electric, who will become a Stanley subsidiary.

Stanley have a consolidated subsidiary, Stanley Electric do Brasil, in São Paulo state, Brazil, who make and supply vehicle lighting equipment to Japanese automakers.

In anticipation of the expanding markets for motorcycles and European and American automobile manufacturers in South America in the future, Stanley decided to acquire 75 per cent of the shares in Angstrom Electric, who have a production plant at Manaus, in Amazonas state and a technology centre in São Paulo.

By strengthening their base, Stanley will be able to supply competitive products to motorcycle manufacturers concentrated in Manaus. The Angstrom technology centre will facilitate Stanley establishing a comprehensive system in Brazil for all processes— from design and development to production of automobile and motorcycle lighting equipment for South American-built vehicles.

This acquisition is anticipated to have a minimal effect on Stanley's consolidated financial results for the fiscal year ending March 2025.

# Forvia Hella LED Matrix Headlamps on New Smart #5

## LIGHTING NEWS

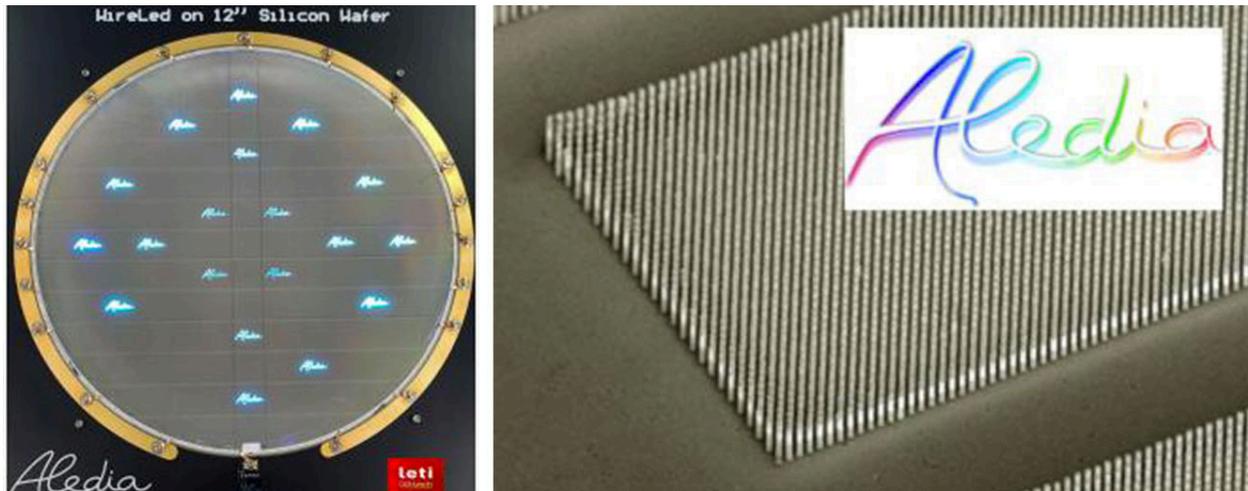


Forvia Hella have developed unique LED matrix headlamps for the new Smart #5 from Smart Automobile Co, a Mercedes-Benz/Geely joint venture. These advanced headlamps provide intelligent lighting functions and enhance the vehicle's distinctive visual appeal.

The headlamps feature ADB, dynamic bending light, and LED daytime running lights. They're done up in an innovative 'time capsule' LED matrix design that is both avant-garde and creative. The headlamps seamlessly merge with the streamlined daytime running lights to form a continuous light strip, creating a 'cyber-inspired' LED matrix lighting effect.

# Aledia Launch $\mu$ LED Microdisplays from New Fab

## LIGHTING NEWS



France-based microLED developer Aledia have finished construction of their USD \$200m microLED production line in Grenoble, and the company now are starting to produce AR microLED microdisplays based on their 3D Nanowire platform.

The full-colour  $\mu$ LED microdisplays are based on native red, green, and blue devices monolithically grown on 8-and 12-inch silicon wafers, and the fab can ramp up to almost 20,000 wafers a month. Aledia say their 3D GaN nanowire material platform is more efficient and brighter than regular 2D LEDs.

In May 2024, Aledia announced breakthrough advances including a 1.5- $\mu$ m microLED device with 32 per cent EQE (external quantum efficiency). Aledia say this is the world's most efficient microLED under 2  $\mu$ m, and that this new device leads to a WPE (wall-plug efficiency) of 320 milliwatts of visible light output per watt of electrical power input.

Aledia was spun off from CEA-Leti to commercialize 3D nanowire LED technology. They've raised almost USD \$600m to date, with the latest \$129m funding round in October 2023. The company have almost 300 patents (granted or in application), and two nanowire LED platforms.

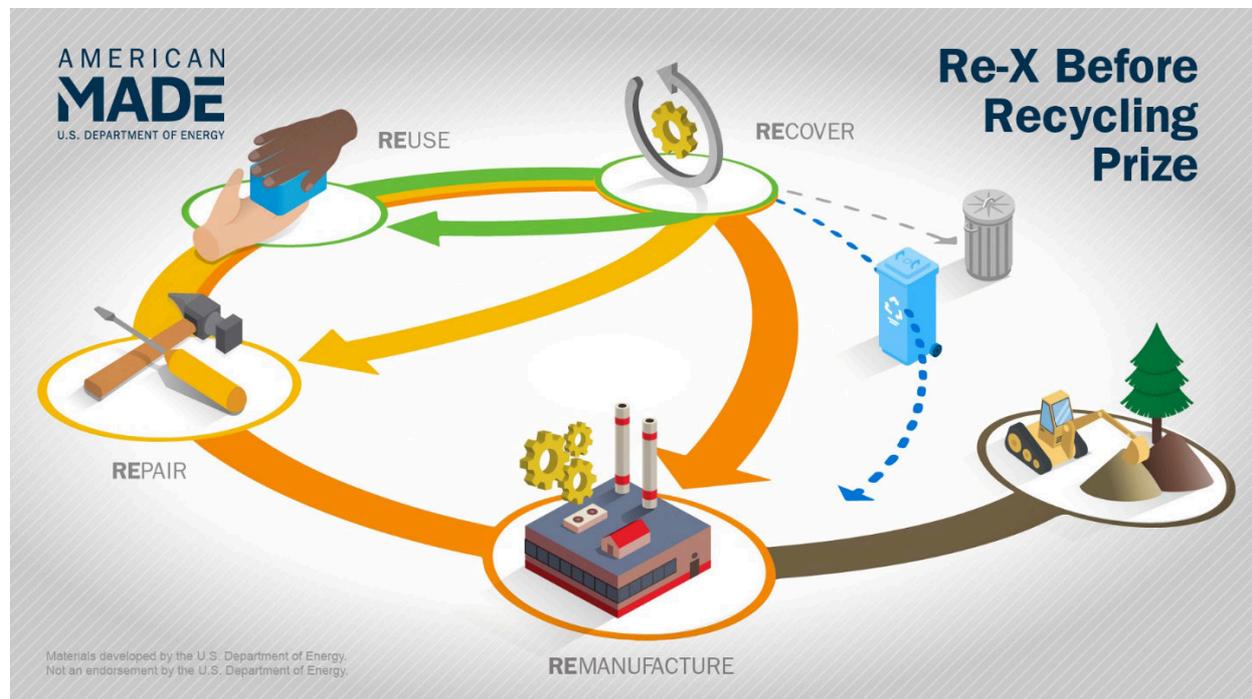
The more mature platform, now being optimized for volume manufacturing, is based on blue-emitting GaN nanowires on 8" silicon wafers, using colour conversion to obtain green and red. This platform has one of the smallest  $\mu$ LEDs ( $\varnothing$ 1.2 $\mu$ m) with up to 30 per cent WPE, and has demonstrated the first 12"  $\mu$ LED wafers fully operational. With this platform, Aledia are releasing their first product, a 160- $\mu$ m RGB single-chip LED for fine- pitch video walls and luxury TVs.

Their next-generation platform, still in R&D, allows direct emission in RGB—all colours obtained with GaN, no need for conversion—with a controlled emission angle; most of the light can be emitted in a  $\pm 20^\circ$  cone. This platform targets 6,500-ppi (2 $\mu$ m subpixel) single-chip RGB arrays for AR applications.

Aledia's epiwafer production uses Veeco's CVD production equipment.

# Llink Headlamp Reman Wins Phase 1 DOE Re-X Prize

## LIGHTING NEWS



Llink Technologies, a tier-1 supplier; manufacturer of custom automotive interior and exterior products, have been named a phase-1 winner of the Re-X Before Recycling Prize by the DOE (U.S. Department of Energy) for their innovative automotive headlamp remanufacturing program. The program remanufactures damaged headlamps to OEM specifications, easing supply chain issues, returning valuable chips to the market, cutting 95 per cent of waste per headlamp, and extending vehicle lifespans.

The first-of-its kind program currently remanufactures headlamp assemblies for more than a dozen GM vehicles. Out of the 20 phase-1 winners, Llink are the only automotive supplier and the only Michigan-based winner.

The recognition highlights the program's ability to deliver significant environmental and economic benefits by extending product lifespans, fostering circularity, and advancing the United States' transition to a circular economy.

This three-phase competition launched by the DOE's Advanced Materials and Manufacturing Technologies Office aims at promoting innovative approaches to extending the useful life of products and components through reusing, repairing, refurbishing, remanufacturing, or repurposing—collectively known as 'Re-X'.

Llink's headlamp remanufacturing program exemplifies these principles by providing automakers with a reliable supply of collision replacement parts, addressing capacity and supply chain challenges, and returning valuable chips to the market. The [US-patented](#) process, with international patents pending, remanufactures exterior vehicle lighting assemblies to OEM specifications, achieving an impressive 95-per-cent waste reduction per headlamp while significantly extending vehicle lifespans. When integrated into an expanded re-X supply chain, this innovative program has the potential to deliver transformative environmental and economic benefits.

Llink Technologies was awarded USD \$50,000 in cash and \$5,000 worth of consultation from National Renewable Energy Laboratory to support the refinement of their program during Phase 2 of the competition. CEO Jeff Goulet says, "As the world's first remanufacturer of automotive headlamps, we are honoured to receive recognition for the environmental and economic benefits of this program. Our team put a significant amount of work into bringing this program to life and we're proud of the role we play in advancing sustainability practices within the automotive industry".

**DVN's Paul-Henri Matha comments:** I talked with CEO Jeff Goulet, CEO and General Manager Lisa Spencer to have a better understanding of what they are proposing. Circular economy is one of the major issue we will face in the next decade, and it is really interesting to see this sort of initiative and try to understand how it works. All lighting engineers know how complex it can be—lamp diversity management including subcomponents, end-of-line calibration, ECU software flashing, and more. Here's an extract from a Llink paper:



"Following a vehicle collision, many internal components of automotive lighting assemblies remain in near-new condition and are suitable for reuse. Premature disposal of damaged lighting assemblies cuts short their useful lifespan, leading to the underutilization of valuable resources embedded within the assemblies and exacerbating the demand for new materials.

"Moreover, the industry standard practice of disposing of damaged assemblies in landfills has significant environmental consequences. The decomposition of these materials releases toxic substances, potent greenhouse gases, and microplastics, all of which can disrupt ecosystems and contribute to long-term environmental damage.

"To ensure the sustainability of the automotive lighting industry must adopt innovative strategies. Llink Technologies has developed a (...) process for remanufacturing automotive lighting assemblies. Through partnerships with multiple tier-1s and OEMs, Llink has successfully established the industry's first circular supply chain.

"OEMs utilize core collection programs to send cores to Llink, where they are sorted, and packaging is retained for later reuse. Core details, including the model, condition, and origin source, are recorded in a database. Each core undergoes model-specific functionality testing, with results assigned to the respective core using Industry 4.0 strategies. On average, up to 83 per cent of incoming cores are deemed eligible for remanufacturing.

"Ineligible cores are recycled, while eligible cores undergo a component extraction process that recovers up to 95 per cent of reusable components. These components are then assembled into new OEM housings and sealed beneath new OEM lenses, which are provided by tier-1s. Each remanufactured headlamp is rigorously tested to meet regulatory and OEM standards before being packaged in the original core return packaging.

"Llink works closely with OEMs to develop comprehensive quality and testing plans. Testing is conducted in compliance with regulatory and OEM specifications, including vibration, dust, and humidity requirements. Llink's internal photometry testing capabilities, along with partnerships with external laboratories, provide flexibility to accommodate evolving regulatory standards and emerging OEM technologies.

"Llink Technologies exterior vehicle lighting remanufacturing patented process scans and verifies the part number and level of each core return, including tracking acceptance and responsibility of the company(dealership) returning the part to ensure credits for core returns are accurate. Llink tests each core and content to determine harvestability. Test results are communicated via scannable barcode to the harvest cell, where the lens is robotically separated from the housing, clearing the way to harvest the internal components deemed mechanically and visibly acceptable for reuse. These valuable components are then assembled in a new housing and sealed with a new lens, resulting in a lamp that looks brand new and meets all federal and OEM requirements.

"Llink Technologies collaborates in advance with the OEM engineering team to review the proposed lamps, conduct harvest trials and determine the feasibility of each variation through determination of harvestability. Once determined feasible, Llink and the OEM Engineering group review the change history and determine the core identifications of those parts which would be considered useable for remanufacturing. In cases where the driver module is required to be updated, the production level tier-1 supplier may provide re-flashing or replacement.

"Llink is currently remanufacturing 32 variations for GM, U.S.A, and in launch on another 16. We are also nearing an agreement with another OEM in the U.S on an initial 48 variations of Headlamp, and in initial collaboration with several other OEM's.

"The OEMs provide direct source of the tier-1 production supplier components that may need replacement, such as lens and housing. This allows the negotiation leverage of the OEM and the exact same components supplier of production level parts. This allows the remanufactured lamp to be the same content as production.

"Llink Technologies is located in Brown City, Michigan, U.S.A. and is currently engaging potential partners in Europe and other countries.

"The cost-effective remanufacturing strategy developed by Llink enables all model platforms and technologies to be processed using the same equipment, eliminating the need for significant investments in platform-specific capital. Additionally, material costs are substantially lower compared to new lighting assemblies. These cost savings allow OEMs to offer replacement lighting assemblies at prices highly competitive with aftermarket alternatives, while still maintaining profit margins.

"Llink supports the development of the business case for each model by reviewing key factors, including core volume availability, the value and harvestability of components, and market demand. Llink also collaborates with OEM lighting designers and engineers to provide valuable insights into future design considerations, helping to optimize the harvestability of components for remanufacturing.



"Based on Llink's historical data, for every 100,000 remanufactured headlamps, up to an estimated 440 tons of cores and 76,000 cubic feet of packaging are diverted from landfills. Llink reports sustainability metrics through EcoVadis, Manufacture2030, and DRIVE, and is consulting with National Renewable Energy Laboratory to establish carbon savings metrics. Remanufacturing eliminates the environmental impacts associated with both production and disposal of lighting assemblies. When remanufactured assemblies are reintroduced into the market, a new revenue stream is created from existing resources. Llink offers this innovative solution to help OEMs strengthen sustainability efforts while driving profitability."

# New Management Team for SP3

LIGHTING NEWS



After 22 successful years as Managing Director, Marcus Schurer has initiated a generational change at Germany's SP3 Schurer Projekte Prototypen Produkte. As of 1 January 2025, the new management duo—Leon Schurer and Mathias Rönfeldt—took over the management of the company. The management team will be completed by Thomas Kothmayr, who will be responsible for Operations, and Matthias Sauer, who will head up Sales from 1 February.

With this step, Marcus Schurer is sending a strong signal of confidence in the next generation and the future of the company. He will remain at SP3 and continue to support the company with his experience and strategic vision.

# ZKW Investment in Bulgaria just announced

## LIGHTING NEWS



On 9 January 2025, the Consul General of Bulgaria in Munich, Stefan Ionkov, held a working meeting with Dr. Wilhelm Steger, member of the Supervisory Board of the global corporation ZKW Group GmbH and former CEO of the company. Mr. Eberhard Büttner, Managing Director of the Bavarian consulting company IBG Management Consulting GmbH, also took part in the meeting.

ZKW Group GmbH officially announced its decision to invest in Bulgaria to the Consul General in Munich. The plan is to set up a shared services centre in Sofia for the areas of information technology, digitisation, accounting, marketing, purchasing and sales as well as other corporate functions. When fully operational, the project will create almost 100 new jobs.

The announced investment decision comes after almost a year of work between the Consulate General in Munich and the Bavarian consulting firm together with ZKW Group. Bulgaria was preferred for the project in competition with 6 other possible locations in Eastern Europe.

Bulgaria was chosen because of the excellent comprehensive offer, combining qualified personnel in the field of IT and digitalization, Bulgaria's experience in the field of shared service centres, optimal economic conditions.

During the meeting, the Consul General of Bulgaria, Stefan Ionkov expressed his satisfaction with the achieved result and expressed confidence in the success of the investment. The Consul General expressed his conviction that in parallel with the development of the new project, the company will continue in the future to explore Bulgaria as an attractive high-tech manufacturing destination, for which the Consulate General in Munich will provide further full assistance and support.

# Mazda 6e on Brussel autoshow

## LIGHTING NEWS



Mazda just revealed in Brussels autoshow the new e6 for Europe, originally developed with Mazda's Chinese joint-venture partner Changan, specifically to meet the tastes of buyers in China, where it's sold as the [EZ-6](#).

The 6e is showcasing the next evolution of [Mazda's](#) Kodo design language, with a low roofline, frameless doors and LED lights encircling the front grille.

The lights, described as 'wings' by Mazda, 'flutter' to indicate how full the battery is during a charging session.



# General News

## Renault 5 + Alpine A290: Car of the Year

### GENERAL NEWS



In a ceremony held at the start of the Brussels International Motor Show and in a Eurovision style, the 60 jury members of The Car Of The Year award issued their verdict choosing the best new car in Europe.

The Renault 5 was crowned best car of the year, beating six other finalists—the Alfa Romeo Junior, Citroën C3 and eC3, Cupra Terramar, Dacia Duster, Hyundai Inster, and Kia EV3. This year's contest was more competitive than ever, as all the finalist models had electrified features; in fact, most of them are 100 per cent electric.

With this victory, the Renault 5 takes over from the Renault Scenic, which won the top continental award last year. Jury president Soren Rasmussen acted as master of ceremonies, along with British juror Vicky Parrott.

After the verdict of the 23 countries was known, the Renault 5 had the most votes 353 points, beating the Kia EV3's 291 points, the Citroën C3 and eC3 with 215, the Hyundai Inster's 172, the Dacia Duster's 168, the Cupra Terramar with 165, and the Alfa Romeo Junior with 136 points.

# OP'nSoft, WedoLow Partner for Automotive Software

## GENERAL NEWS



OPmobility's software entity OP'nSoft and WedoLow, who specialize in optimizing the performance and efficiency of embedded and hosted applications, are joining forces to provide OPmobility's automotive and mobility customers with the best solutions for improving the performance of embedded software. This leads to an optimization of software power-consumption, memory space used and software execution time.

OPmobility Managing Director Félicie Burelle says, "As vehicles transform into software-defined entities, the need for optimized code becomes strategic, and WedoLow is at the forefront of this transformation. Our collaboration is fuelled by the conviction that eco-design is essential to combine efficiency with performance. As OPmobility's OP'nSoft entity continues to break new ground with its software initiatives, partnering with WedoLow aims at ensuring that the underlying software is as light and efficient as the cars of the future need to be".

And WedoLow CEO Justine Bonnot says, "By 2025, a vehicle will carry even more embedded software than it does today. This is likely to represent more than 650 million lines of code! This volume forces us to radically rethink our development practices in order to control their environmental and economic impact. The aim of our partnership with OPmobility is to facilitate the transition to software-defined vehicles and to guarantee the performance and sustainability of embedded software".

When presented with software, WedoLow's product connects to the software source code and analyses various key performance criteria. It generates a precise diagnosis of the code and quantifies its optimization potential. The developer can then easily select all or some of the optimization options that seem relevant and implement them.

This allows cutting software power consumption as much as in half, freeing up around 30 per cent of processor load, and speeding software application runtimes by 40 per cent. This makes it easily possible to offer more functionalities, strengthen cyber security, and considerably increase response times without having to make significant upgrades.

# 2025 Women's Worldwide Car of the Year

## GENERAL NEWS



L-R, top: Mini Cooper, Kia EV3, Audi A6 e-tron. L-R, bottom: Porsche Panamera, Hyundai Santa Fe, Toyota Land Cruiser

The Women's Worldwide Car of the Year awards are out, in all their eight categories: Urban Model, Compact SUV, Large Car, Large SUV, 4x4 and Pick-Up, Performance and Luxury Car, Best Tech, and the Sandy Myhre Award for the most pro-woman brand. All these vehicles represent excellence in terms of safety, driving, technology, comfort, efficiency, environmental impact, value for money and gender equality.

This is the 15<sup>th</sup> edition of the awards presented by WWCOTY which consists of an organization of 82 women motoring journalists from 55 countries on five continents. It is the only all-female jury in the automotive industry worldwide. A total of 81 candidates were in the running, all launched in at least two continents or 40 countries between January and December 2024.

WWCOTY President Marta Garcia says, "The work of the juries has not been easy because this year there have been more contenders than ever before. There are new brands and models with an ever-increasing quality. No vote has been given at random. They have all been subjected to demanding test drives, detailed analysis and demanding competitor studies. That's why the WWCOTY awards are a benchmark for millions of buyers around the world".

These six winners now announced will go through to the final round of judging to determine the winner of WWCOTY's top award, to be announced on the Women's Worldwide Car of the Year Youtube Channel at 00:00 (New Zealand time) on 6 March, two days before of the International Women's Day.

Coinciding with the announcement of the best in each category, the Women's Worldwide Car of the Year also announces the winner of two important awards: the Best Tech Award for the best technology in the automotive world and the Sandy Myhre Award for the brand most committed to women.

# MotorTrend's SDV Innovator Awards '25

## GENERAL NEWS



The 2025 MotorTrend Software-Defined Vehicle Innovator Awards, presented in partnership with QNX, celebrate the executives, engineers, and product managers steering the auto industry toward a new software-centric paradigm. The awards are given in three categories—Pioneers, Leaders, and Experts—with individuals nominated by their colleagues and collaborators. A panel of *MotorTrend* senior editorial staff chose the winners based on their achievements and impact. The 2025 pool was the largest ever, with 17 luminaries emerging as the most influential innovators.

### Pioneer Award Winners

MotorTrend's SDV Innovator Pioneers are outstanding individuals who have demonstrably broken new ground within the SDV space through research, development, and application of new automotive software.

**Milena Boytchef**, Auto & Manufacturing Generative AI Tech Strategist at **Amazon Web Services**, for advancing how autonomous systems are created with cloud training platforms, generative AI-enabled tools for synthetic data creation, and scene search. Earlier in her career, Ms. Boytchef also developed the industry's first cybersecurity solution for autonomous trucks and created the 'mission control' concept to manage fleets of AVs.

**Andrej Karpathy**, Founder and CEO, **Eureka Labs**, for his early work at Open AI on deep learning and reinforcement learning and leading the development of the 'AI' and computer vision system central to [Tesla's 'Autopilot' and 'Full Self-Driving' systems](#).

**Dr. Stefan Poledna**, CTO and Co-Founder, **TTTech Auto**, for his pioneering work developing Audi's zFAS driver-assistance domain controller and the MotionWise

safety software platform that decouples hardware and software, allowing for more flexible and scalable vehicle architectures.

**Joe Xia**, CEO, **JIDU Auto** for adopting a vision-only version of Baidu's Apollo autonomous driving platform and integrating all sensors, cameras, and functional components into JIDU's SIMO 'AI' assistant.

**He Xiaopeng**, Chairman and CEO, **Xpeng Motors** for integrating a highly centralized electronic architecture, implementing a large 'AI' model for digital cockpits and autonomous technologies, and for bringing advanced driver assistance features to more accessible price points. Mr. Xiaopeng also entered a strategic collaboration with Volkswagen for joint platform and software development and continues to advance the eVTOL flying car concept.

## Leader Award Winners



MotorTrend's SDV Innovator Leaders are outstanding individuals who hold a senior management position and lead a team that is transforming the automotive industry through the broad adoption and application of software solutions.

**Anders Bell**, Chief Engineering & Technology Officer, **Volvo Cars**, for leading the development of core computing technology underpinning the EX90, Volvo's first vehicle to be truly software-defined from inception to production.

**Michael Goertz**, VP of Vehicle Controls, **Rivian**, for leading the team responsible for developing more than 95 per cent of the code underpinning the new zonal architecture that defines the Gen 2 R1 products at Rivian.

**Matt Jones**, Executive Director of Technology Platforms, **Ford Motor Company**, for his work ranging from planning to delivery of digital software inside Ford, and for his industry liaison work and leadership with COVESA and the SDV Alliance.

**Jeffrey Shay**, North America President **Valeo**, for his work spearheading software-defined vehicle technology both within his own company and by helping launch and lead the B2B software-services marketplace SDVerse.

**Qiyang Wang**, VP of Digital Systems, **Nio**, for spearheading development of the next-gen digital architecture SkyOS that underpins Nio's software-defined vehicles and for his industry liaison work on the board of the open-source seL4 Foundation.

**Seok-Hyun Eun**, President, **LG Electronics VS**, for his work developing LG's AlphaWare suite of software solutions and its Automotive Content Platform designed to deliver immersive in-cabin experiences.

**Alex Purdy**, Global Head of Ford Integrated Services Digital Product, **Ford Motor Company**, for his leadership in Digital Product development at Ford working on projects like BlueCruise, the FordPass app, and other means of optimizing retail and commercial customer experiences.

**Li Zhuang**, Founder and CEO, **Megatronix (Beijing) Technology**, for founding Megatronix to support the global automotive industry's need for a 'software-defined hardware framework' of domain controllers and big-data platforms.

### Expert Award Winners



MotorTrend's SDV Innovator Experts are outstanding individuals with subject-matter expertise within a specific SDV discipline (e.g., advanced driver assistance systems, digital cockpit, over-the-air updates) whose work has advanced the field.

**Tolla Cherwenka**, Worldwide Digital Customer Experience Tech Lead, **Amazon Web Services**, for transforming BMW's business with generative 'AI', cloud technologies, and a "data first" strategy.

**Wes Morrill**, Cybertruck Lead Engineer and Senior Director of Engineering, **Tesla**, for bringing steer-by-wire, a 48-volt electronic architecture, and the bidirectional gigabit Etherloop controller network to production.

**Eddy Reyes**, Senior Embedded Software In-Vehicle Experiences Manager, **Rivian**, for his work on advanced 3D rendering for driver assistance visualization, digital instrument clusters, and infotainment, and for delighting customers with monthly over-the-air updates.

**Roberto Secchi**, Head of Software Platforms and DevOps, **Marelli**, for leading the development of an advanced Digital Twin solution that replicates the features of a digital cockpit and allows developers to modify and deploy new applications in just seven minutes.



The 2025 *MotorTrend* SDV Innovator Award winners join 36 past recipients in an elite club of changemakers. All these individuals have had a profound effect on the auto industry even though the software-defined vehicle is still in its infancy. The work that they've done and continue to do is why we expect SDVs to become a new standard for the auto industry in the coming years.

To go further ...

# Video View: Behind BMW, Valeo and NAL Koito @ CES

To go further ...

