Tue, 20 August 2024
Weekly Newsletter

DVN Lighting

NEWSLETTER #867



# Editorial

## My First Year @ DVN

Time flies. It is 20 August—one year (already!) since I joined the DVN team. And what a busy year it has been.

No time to sleep; 10 days after I joined, we were in San Francisco for our first DVN event in California. It was great to see new faces from the Silicon Valley automotive ecosystem—first time for me. From September, I really started my daily activity with DVN team. In a nutshell:

- Organization of DVN lighting events: Shanghai November 2023, Munich February 2024, Detroit June 2024 and now Pune September 2024. Each event was a success. In Munich and Detroit, we had more than 400 attendees for the first time. We have reached more than 30 exhibitors, too, for the first time.

- Interviews and customer visits to be able to write the content of the weekly DVN newsletter.
- Monthly technical reports with support from DVN senior advisors
- Yearly study publishing (ADB in 2023 and now we focus on the 2024 ISD study)
- Growing the DVN team and network—we are glad to have welcomed 31 new lighting members in one year
- Smooth transfer of my GTB assignment (Chairman of WG-Installation to Alexander Cosic from JLR and Co-chair of WG-Strategy to Achim Freiding from Hyundai Europe), finalized last month in my last GTB meeting in Charlotte, USA

All along the year, Hector Fratty gave me support and advice to be able to handle his previous tasks. I try to add my own added value. I hope you like what we changed. As always, I am listening—we all are, on the DVN team. Please feel free to write me to share your thoughts, ideas, and requests so we can continue improving the value you get for your DVN participation.

Thank you Hector, Jean Claude, and Geoffrey for your trust. Thank you all DVN consultants and senior advisers for the job you are doing to maintain and boost DVN as the reference resource for the vehicle lighting and driver-assistance world. And—most of all—thank you all DVN members. Without your active participation, we could not exist.

I said the year was really busy. That's why I needed a summer break to recharge the battery again and think about DVN's future. Starting here and now, the DVNewsletter is back in print!

Sincerely yours,

**Paul-Henri Matha**
*DVN Chief Operating Officer and Lighting General Editor*

# In Depth Lighting Technology

# DVN Interview: Tata's Ajay Jain

**By Paul-Henri Matha**

Ajay Jain is Tata Motors' Global head of Design Strategy and India Studio. Prior to the DVN event, he and I talked about the Indian lighting market and Tata's design strategy. I know him from my time with Renault; I was in R&D and he was working in the styling department as a lamp designer.

Jain is one of the most prominent Indian-born car designers, recognised for his influential multinational career. With a passion for car design from an early age, he pursued his dream by graduating from The ArtCenter College of Design's European campus in Switzerland in Spring 1995. Having worked as an exterior, interior, and CMF designer, he’s designed details and entire concept vehicles over nearly three decades' work in six countries on three continents.

His career began with an internship at Opel (General Motors Europe), which led to key roles at Ford in Germany and Daewoo Design in the UK; Saab in Sweden, and Renault in France. He contributed to the design of iconic models such as the 1997 Ford Focus, 2002 Cadillac Sixteen concept, and the Renault Duster. He played a significant role in establishing Renault's design studio in India, and later moved to China to work at SAIC on brands like MG and Roewe.

He led the EV design strategy for Geely as the Senior Design Manager at the maker's China design centre, then returned to India to take charge of design strategy at Tata, focusing on the future of commercial, passenger, and electric vehicles. Beyond his

design work, Jain is also a dedicated mentor and educator, guiding and inspiring the next generation of car designers.

**Paul-Henri Matha: Ajay! We worked together 20 years ago at Renault. You were a lamp designer, part of the first lamp design team with Axel Braun. What can you tell us about that time?**

**Ajay Jain**: In 2010, I was assigned to work with Pascal Chatelain at the Technocentre Renault on lamp design. At the time I thought it was a punishment, but Pascal's diligence and technical expertise made it one of my most enriching and enlightening experiences as a car designer.

**PHM: You've worked at a variety of makers and marques—Renault, Geely, SAIC, Saab, Mahindra, and now Tata. What have you seen in terms of lamp design evolution across those companies?**

**AJ**: I first worked on designing lamps in 1995, on the original Ford Focus when I started my career at Ford in Germany. We used to make cardboard overlays on the 1:1 clay models to review proposals. Following that, I worked on lamps at Daewoo WTC. The cutoff points and design freeze were never more definite than in the presence of a modeler, mixing plaster to take a splash from the clay to make the lens and later the bezel. Today the tools for design, evaluation, presentation, and validation have become a lot more sophisticated using digital technologies—raytracing and reflection analysis—and so have the design and construction of lamps. We need to make functional lamps with electronic controllers and 3D printed illumination and decorative elements to adorn our concepts.

**PHM: Is there an overall lamp design philosophy at Tata? How is lamp design included in the exterior design strategy, and is there a Tata daytime and nighttime light signature?**

**AJ**: The brand pillars of Tata are Design, Safety, and Technology. Lighting design is the perfect arena to illustrate and amplify these brand values through our design philosophy. While we endeavour to make our lighting attractive and emotive, we are careful to use technology in a way that is not frivolous or distracting, remaining mindful of the safety of our drivers, passengers, and others with whom they share the road.

We believe that every aspect of our vehicles, including lighting design, should not only be visually appealing but also create surprise and delight functionality. By incorporating advanced technology into our lighting systems, we aim to enhance the mobility

experience while prioritising the safety of everyone on the road. Our commitment to these brand pillars ensures that each Tata vehicle not only looks sleek and modern but also functions efficiently and safely in all driving conditions.

**PHM: Do you have a lamp design team at Tata? How are you organized, and have you kept an eye on lamp design from your time at Renault?**

**AJ**: We are committed to the seamlessness of the product design and experience. Our organisational structure is relatively agile and reflects ownership of the entire vehicle—including details like lighting. This allows us to conceive and create a seamless and harmonious expression. We have a head of strategic design who identifies the technology roadmap prior to every project, and perceived-quality experts who ensure we are at the cutting edge of technology and our lighting has irreproachable quality in static and illuminated conditions.

Our designs thus not only look visually appealing, but also function flawlessly with regard to animation and timing sequences. We work tirelessly to ensure every aspect of the vehicle, especially the lights, enhances the overall experience for the customer. By staying ahead of the curve in terms of technology and quality, we create products that are not only aesthetically pleasing but also innovative. Our commitment to excellence drives us to continuously push the boundaries of design and engineering to deliver the best possible design solutions to our customers.


**PHM: How do you see LED proliferation in India? It is slower than in Europe; do you still develop bulb-type lamps?**

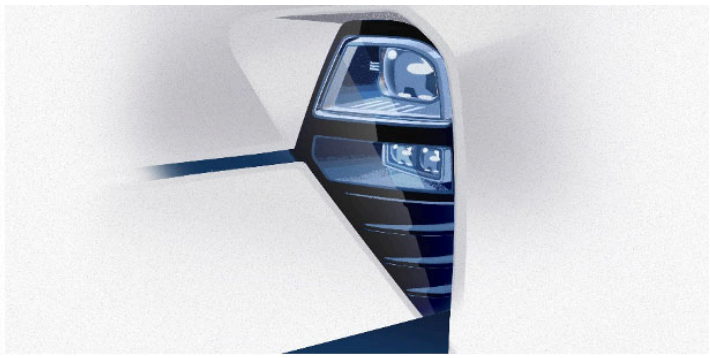
**AJ**: LED technology provides brighter and more efficient lighting for vehicles, making driving safer and more enjoyable for our customers. Tata have introduced LED lights into most of our vehicles to meet the high expectations of our tech-savvy Indian customers,

who expect high-performance lights. They are very aware of LED technology, and it is a major USP for all our products. LED technology enhances the performance of our products and emphasises our commitment to innovation and customer satisfaction.

**PHM: Do you see a trend in India for lighting? Like in Europe the trend is slim lamps; in China it's more focused on 'integrative social display', and in America it's on lit logos and grilles.**

**AJ**: The Indian demographic is very young, and the customers tend to be extremely expressive in their choices and are far more demanding than those in the rest of the world. Both interior and exterior lighting need to be very expressive and have heightened levels of fidelity and customizability.

This is why we focus on creating lighting solutions that look modern and express the unique tastes and preferences of Indian customers. By offering the latest technology and some emotive and informative content, our lighting designs illuminate effectively and enhance the overall aesthetic appeal of the vehicles.



**PHM: Are there BEV-specific design trends in India for lighting?**

**AJ**: The evolution of lighting is the journey from driver-driven to autonomous mobility. At the outset, lamps illuminated the road for the vehicle drivers; later, they became a mechanism to communicate the intentions of the driver to the others on the road. Electrification has seen the lamps become more emotive and interactive.

At Tata, we have chosen to create emotive full-width DRLs that are a hit with the customers. Technology is evolving rapidly and affording various opportunities for the continuous development of emotive and customisable content, while still illuminating the road and signalling a driver's intentions safely and efficiently.

Our goal is to constantly push the boundaries of what is possible in vehicle lighting design. By integrating cutting-edge technology with innovative design concepts, we can create a seamless blend of functionality and aesthetics. We are excited to explore even more creative approaches to enhance the mobility experience by creating new functionality. With each new advancement, we are one step closer to achieving a truly connected and immersive driving environment.

**PHM: You will be giving a keynote speech at the DVN Pune event in two weeks' time. What do you anticipate from that event?**

**AJ**: I am eager to achieve several personal and professional objectives:

- We are excited to showcase our latest innovations in lighting design, highlighting the unique approaches that set our brand apart. This event provides a valuable platform for us to share our vision and engage with industry peers about the future of lighting design.
- We look forward to exploring the latest emerging and cutting-edge advancements in lighting technologies. By engaging with experts and thought leaders, we aim to deepen our understanding of the innovations shaping the future of this industry, enabling us to integrate these technologies into our future designs.
- Connecting with industry leaders for meaningful partnerships: The DVN event brings together the movers and shakers of the vehicle lighting industry. We anticipate forming valuable connections that could lead to strategic partnerships and collaborations, further driving innovation and growth in our field.

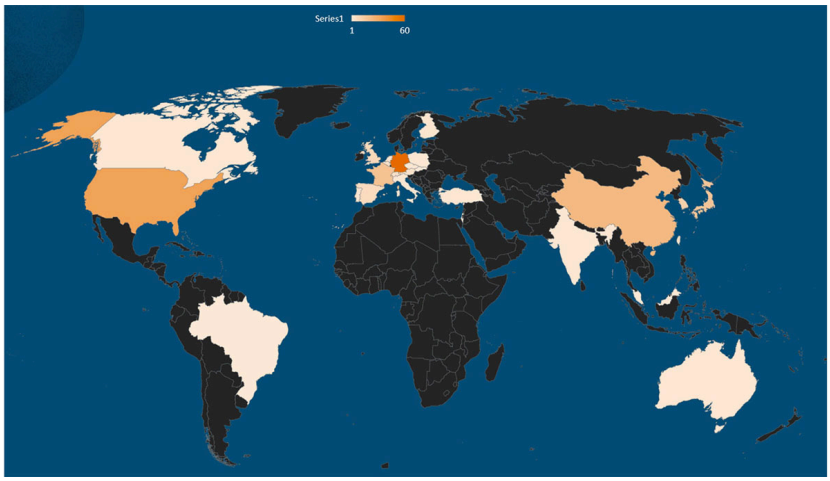
Our participation in this event represents an opportunity to both contribute to the collective expertise of the vehicle lighting community, and to learn from it.


**PHM: Thank you Ajay Jain! I look forward to seeing you again in two weeks' time.**

# Lighting News

# DVN New Member Feedback

LIGHTING NEWS




The DVN community has never stopped growing. As of the end of this past July, there are 178 lighting members. During the last 12 months, from August to July, we gladly welcomed 34 new members: Dow Chemical, Die:haptiker, BASF, Braslux, Rehau, Oerlikon, Continental, Hitachi, Nalux, X2F, Lumenflow, Lite-On, Melexis, Toshiba, Ennostar, Anrui, HJ Optics, Mazda, Edag, Brightek, Microchip, Lishui, Integrity, SP3, Keboda, Endego, Toyota Boshoku, Uni-Tooling, Fiem, Minda, and Subaru. That's a 70-per-cent increase over 2023, when 20 new members came onboard.

This year's new members are from Germany, Belgium, Italy, Poland, the USA, Canada, Brazil, Korea, China, Taiwan, Japan, and India. They are each a part of the lighting ecosystem; all are interested in the DVN network to have a better knowledge of the complete scope of this world we work in.

I am glad to share some of the feedback I've had from companies who joined near the end of last year. They learned of DVN by friendly introduction, through partners, by personal contacts, by online advertisements related to lighting or advising of a workshop, or by reference from a DVN-member business partner.

**On why they decided to join DVN:**

*"DVN is a very focused, compact, and efficient club. In a fast-evolving business, we are consistently seeking data to draw our business strategies, and of course that comes with reliable indications on upcoming trends as well".*

*"We are excited about the latest trends and technical influences on design and their development, both conceptually and in series development. Of course, we would like to expand our network in the field of vehicle lighting and make contacts".*

*"News contained in the newsletter did seem very interesting, as did the reports published by DVN. We are all-in on decorative lighting, and DVN is a great community to stay up to date with new trends and key players".*

*"Overall, DVN is a great community for exchanging knowledge in vehicle lighting".*

*"It gives us an opportunity to exchange information with many affiliated companies".*

# Koito Q1 Results and Forecast

LIGHTING NEWS

On 29 July, Koito published their results for the first quarter of fiscal 2024 (FY24 ends on 31 March 2025). Net sales in Q1 were ¥229,772m, up 1.7 per cent. And operating income was ¥9,045m, down 38.6 per cent.

The company's full-year forecast is net sales of ¥928,500m, down 3.5 per cent, and operating income of ¥49,000m—down 12.5 per cent.

The supplier's main market is North America, where 35 per cent of revenue is generated; followed by Japan (34 per cent); Asia-general (16 per cent); China (16 per cent), and Europe (5 per cent).

II. First Quarter of Fiscal 2024 (April 1, 2024 to June 30, 2024)
Information Concerning Net Sales and Operating Income for Each Segment

(¥ millions)

| | Japan | North America | China | Asia | Europe | Other regions | Total | Adjust-ment (Note 1) | Amount recorded on quarterly consolidated financial statements (Note 3) |
|---|---|---|---|---|---|---|---|---|---|
| Net sales | | | | | | | | | |
| Sales to outside customers | 78,545 | 81,189 | 17,268 | 37,079 | 11,548 | 4,141 | 229,772 | — | 229,772 |
| Inter-segment sales and transfers | 5,278 | 216 | 2,622 | 264 | 51 | — | 8,432 | (8,432) | — |
| Total | 83,823 | 81,405 | 19,890 | 37,343 | 11,599 | 4,141 | 238,205 | (8,432) | 229,772 |
| Segment operating income or loss (△) | 2,235 | 2,335 | △259 | 3,728 | 41 | 380 | 8,462 | 582 | 9,045 |

Regarding the economic situation during the first quarter of FY24: in Japan, a gradual recovery was seen due to firm capital investment and other factors, and the U.S. economy remained firm. On the other hand, the outlook still remained uncertain due to the stalling Chinese economy and sharp exchange rate fluctuations, in addition to rising prices for the likes of resources and raw materials.

In the automobile industry at large, there is a gradual recovery trend due to the shrinking impact of the semiconductor shortage and other factors. However, there is no end in sight to sticky problems at automobile manufacturers in Japan, which is causing

unusually frequent suspension of production and shipments or postponed new-vehicle launches.

In China, the business environment surrounding Koito is very severe, as the decline in sales and market share of Japanese vehicles is further accelerating due to price reductions by local Chinese manufacturers, and sales in Thailand, Indonesia, and other countries remain sluggish due to high interest rates.

The global automobile production volume in FY24 is expected to recover moderately and increase compared to FY23. However, Koito's outlook is uncertain due to the effects of the compliance/fraud problems at Japanese automakers, sluggish sales, and production cutbacks of Japanese vehicles in China.

The impact of these factors on consolidated net sales is unavoidable; Koito expect net sales to decrease from FY23 in all regions with the exception of North America, where an increase in new orders is expected.

As for profits, although each group company will thoroughly implement productivity improvement and streamlining measures, operating income, ordinary income, and net income attributable to owners of the parent are expected to decrease from the previous year due to the decrease in sales, cost increase caused by inflation and labor shortage in each country, and increase in investment for new orders and R&D investment for the future.

# ams OSRAM: Q2-24 Results and Forecast

LIGHTING NEWS

ams OSRAM have posted solid revenues in Q2-2024, and continue their turn-around with profitability at the upper end of the forecast range. Revenues for Q2 were €819m, and adjusted EBITDA was €135m, up 16.5 per cent.

In the first half of 2024, revenue was €1,665m and adjusted EBITDA was €259m—a gain of 15.5 per cent.

Adjustment of the supplier's microLED strategy included restructuring of development activities and an intended exit of the Kulim 8-inch facility after cancellation of a cornerstone project (Note: Project with Apple for microLED watch).

| Key figures EUR millions (except earnings per share) | Q2 2024 | Q2 2023 | Q1 2024 | 1st Half 2024 | 1st Half 2023 |
|---|---|---|---|---|---|
| Revenues | **819** | 851 | 847 | **1,665** | 1,778 |
| Gross margin in % (adjusted - see footnote 1) | **30%** | 28% | 28% | **29%** | 29% |
| Result from operations (EBIT) (adjusted – see footnote 1) | **56** | 50 | 44 | **99** | 100 |
| EBIT margin in % (adjusted – see footnote 1) | **6.8%** | 5.9% | 5.2% | **6.0%** | 6% |

Automotive markets for Osram's products were stable during the first half of 2024. However, certain industrial markets, such as industrial automation, went into a full inventory correction cycle, such that demand from industrial markets was very weak with a few exceptions (such as normal demand from professional illumination markets). Osram also noted the onset of an inventory correction in the CT scanning equipment market, on account of elevated ordering during the Covid-19 pandemic, leading to high inventories at some of key customers in that segment.

Within the Lamps & Systems business segment, the automotive lamps business developed as expected in line with typical seasonal trends. However, industrial end-markets in the industrial and entertainment lamps sector were weak as well; for instance, demand for high-performance lamps for semiconductor production equipment remained subdued.

The company continue to expect second-half 2024 revenues to improve compared to the first half, primarily driven by more design wins in the semiconductor segment. The rebound of the industrial and medical business segments undergoing an inventory correction is no longer expected in 2024. Demand for automotive semiconductor products is weakening in view of the downward revised global light vehicle production forecast for the second half of 2024.

In case certain capital grants expected in 2024 will be pushed back to 2025, the CAPEX for FY24 would be around €500m to €550m, including capitalized R&D and rolled-over accounts payable related to PPE from 2023, instead of the previously expected range below €450m.

The company expect free cashflow to improve significantly in H2-24, due to lower CAPEX and higher profitability.

# More New Magic Lights on Audi's A6 e-tron

LIGHTING NEWS

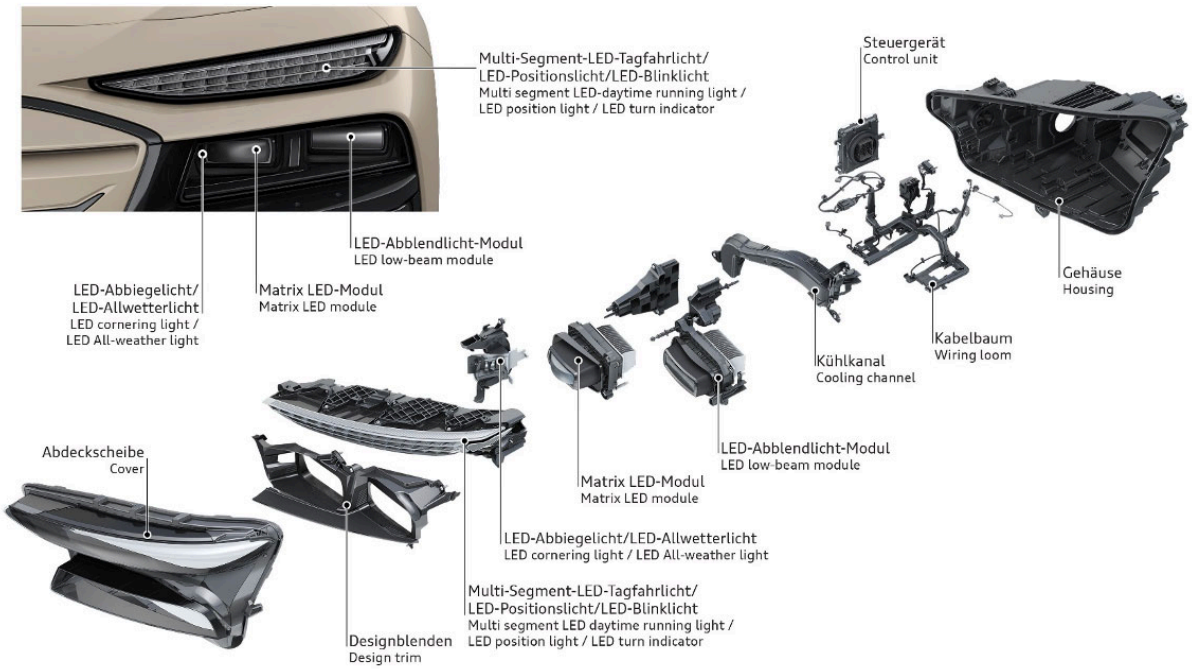
L-R Stephane Berlitz, Stefan Staudacher and Paul-Henri Matha with Audi A6 e-tron

Audi's new A6 e-tron has just been revealed. It has lighting elements similar to those on the Q6 e-tron and A5 we presented in DVN newsletter last month, but with model-specific details.

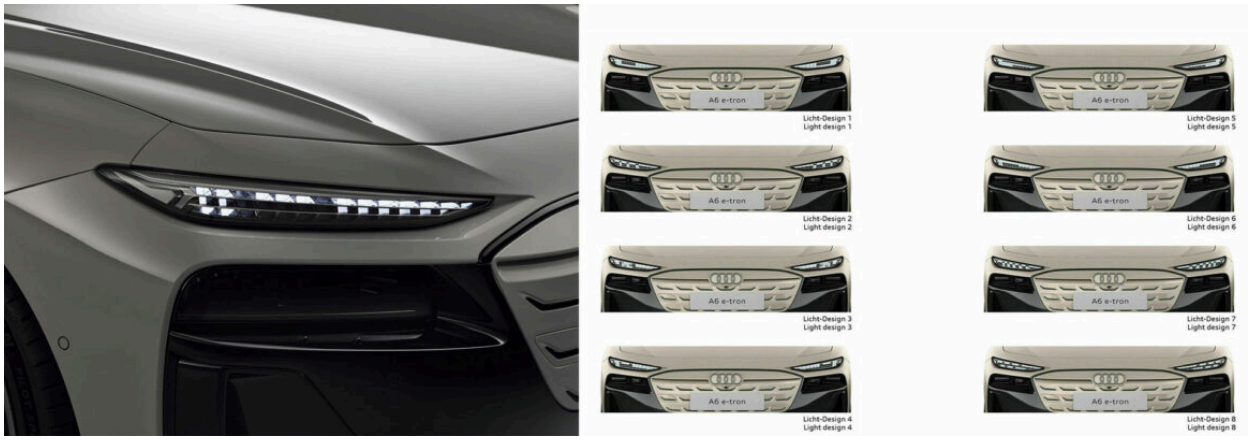
In the headlamp, we find a module set up like that in the Q6 e-tron:

- Base lamp with a biLED module (lens height 45mm) providing low beam and high beam. Daytime running lamp is split between the lower and upper part of the lamp, but is itself one part.

- Optional lamp adds a thin low beam module and a thin matrix module (lens height 25mm) in addition to a cornering / all weather module. The DRL is in the upper area of the lamp with the multi segment LED technology already seen on the Q6 and A5.




- Eight different light signatures can be selected on the central display

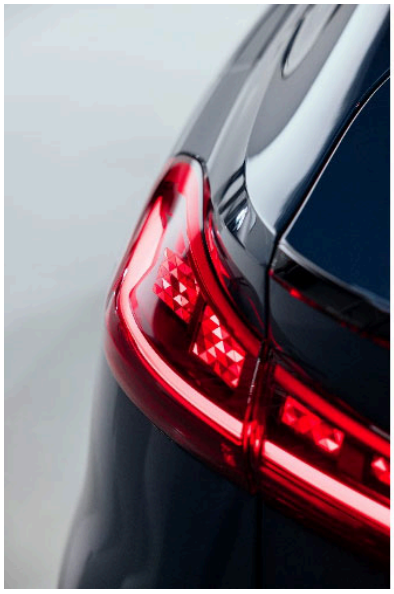


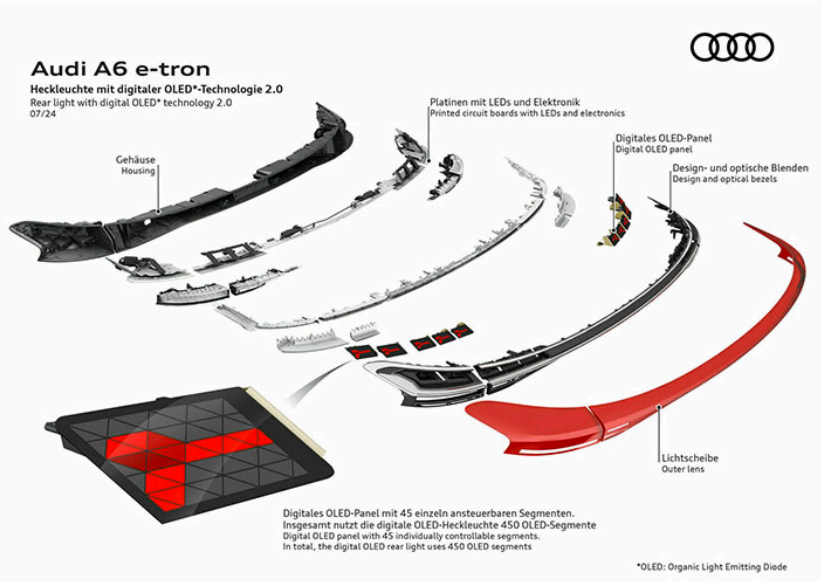
- To improve performance and reduce glare, the A6 e-tron has a 2-nozzle headlamp cleaning system, able to clean the low beam and Matrix modules.

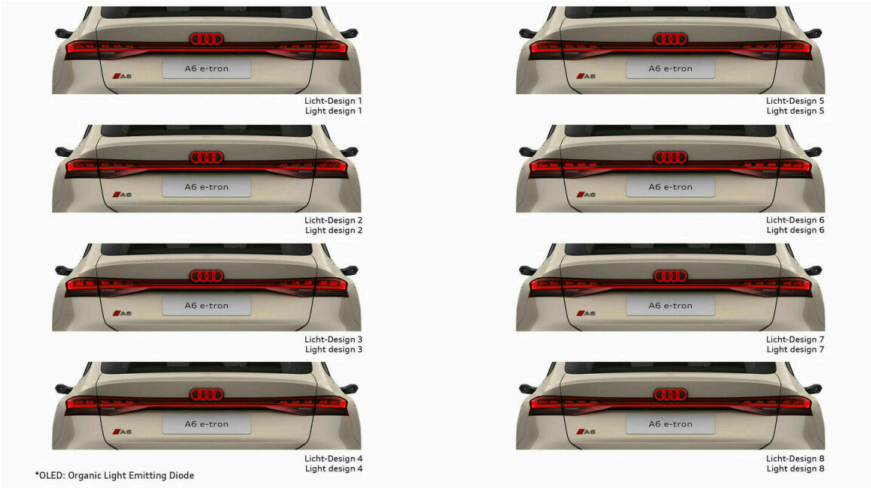
The rear lamp design, too, is similar to the A5 and Q6, with a full-width light bar. Thanks to laser welding technology and optimized optical concept in the reflector and inner lens, rear signature continuity between the body and trunk lamps are perfectly executed with minimal gap.

The lamps have digital OLED 2.0 technology with 450 elements, compared to 364 elements on the A5. There are two OLED panels in the body lamp and three in the trunk lamp, each panel having 45 pixels. Luminance is around 2,000 Nits

As up front, eight different signatures can be selected.






Other interesting features on the car include:

- Courtesy light for rear tailgate opening
- Advanced interior lighting
- Invisible-when-off high mounted stop lamp
- Rear lit Logo for Europe and North America (two different versions, white or black)
- Front lit logo (for North America only)
- Second-generation virtual exterior mirrors (outside North America where they are still not allowed)
- 'Smart' panoramic glass roof with switchable transparency
- Augmented-reality head-up display

Courtesy lamp to indicate the automatic rear tailgate opening

Lit-on-and-off rear logo with white or black colour

Smart roof and virtual exterior mirror

Interior lighting

# Tata Curvv Electric Coupé SUV Has Advanced Design

LIGHTING NEWS


Tata have officially launched the Curvv EV in India's highly competitive midsize SUV segment. They say it is shaped to stun; for grandeur and performance, for innovative technology and absolute safety.

As promised in 2022, Tata have launched the EV first, with combustion-engine versions to follow. The Curvv EV is the second model built on Tata Passenger Electric Mobility's (TPEM) advanced Pure EV architecture, following the Acti EV.

The Curvv offers an estimated real-world range of up to 425 km with its largest 55-kWh battery pack. It has fast-charge capability to add 150 km of range in just 15 minutes. Starting price is declared as ₹1.749m (€19,000; $21,000) with the 45-kWh battery.

The Curvv EV comes with 'Smart Digital Lighting' including DRLs with welcome and goodbye animation; charging animation; sequential turn indicators, LED projector headlamps, LED front fog lamps with cornering function, connected LED tail lamps with animation, 'smart' digital steering wheel, a front charging lid with automatic opening and closing, digital dashboard, 'phygital' control panel, voice-assisted panoramic sunroof with mood lighting, and a 'smart digital shifter'.

# Valeo's Latest Lamps

LIGHTING NEWS



Valeo have published pictures and info on some of the nearly 300 lighting projects they will have brought to production by the end of this year. Newly published releases include:

- Lynk & Co's Z10 with the first front RGB appliqué and headlamp equipped with Valeo's ThinBiLite LED module
- BMW 3 Series with innovative multiple-lens ground projection module
- Renault R5 E-Tech; the headlamps include Valeo's RefLED module and forefront signal holographic standalone square contouring daytime running lights
- Honda Lingxi L—Valeo provide the illuminated logo, signaling with lines on top of the hood, and a thin appliqué between the headlamps using ThinBiLite technology
- Cupra Leon with a full-width, full-LED rear lamp integrating an illuminated logo


# Wipac Lamps on James Bond's Aston Martin

LIGHTING NEWS

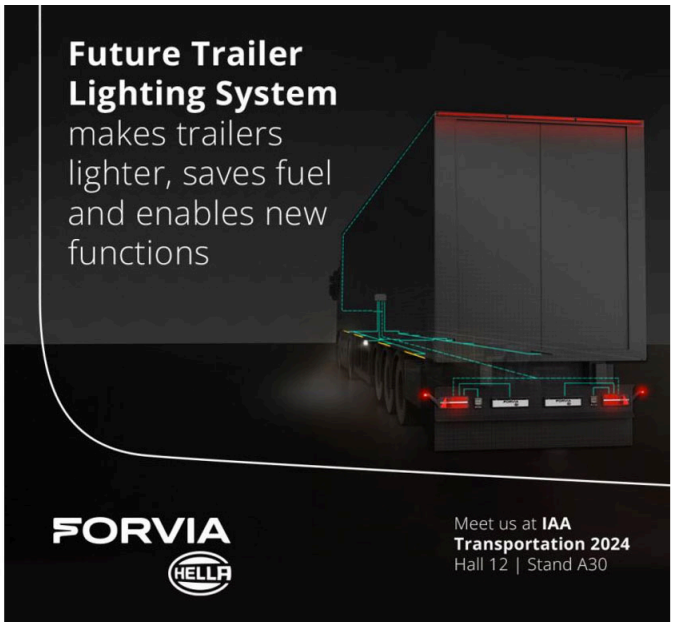
In 2015, the world watched James Bond drive his Aston Martin DB10 in 'Spectre'. The car was developed specifically for the movie, and only 10 units were built. Wipac used their expertise and experience in low-volume production to make a full set of bespoke lamps for this very special vehicle.

Eight of them were modified and used for the explosive car chase sequence, during which seven of the eight cars actually used in the movie were destroyed.

The two remaining DB10s were used for promotion leading up to the release of the film, after which one of the cars went for auction in London, where it sold for much more money than anticipated: £2,424,500, which at the time equated to around $3.5m; the expectation had been between $1.4m and $2.2m.

# Forvia Hella's Future Trailer Lighting System

LIGHTING NEWS




Forvia Hella are presenting their Future Trailer Lighting System as a world-first at the IAA Transportation Show this year, on 17 to 22 September. System highlights include:

- an advanced ECU as core of the system for state-of-the-art CAN-communication
- reduced cabling needs which halves the amount of copper needed
- decreased $CO_2$ footprint of the trailer lighting system
- new functionalities like automated manœuvring lamps and real-time status monitoring of lighting modules

# Intriguing Lamps on Ford's '25 Maverick Lobo

LIGHTING NEWS

A new Lobo model of Ford's North American Maverick pickup truck has just been released, with interesting lamps. There are LED headlamps, DRLs, and fog lamps—but the front turn signal still uses a glowing filament in a glass capsule. Osram LR5 "LED bulb" modules provide the stop-tail-turn functions in the back.

# Jidu 07 Lamp Details

LIGHTING NEWS


Jidu have shared more details about the new Jidu 07 robotaxi, based on Geely's SEA platform. The headlamp is the same Varroc item also used on the Jidu 01; the rear lamps are from Anrui, and the car is said to have "high performance indicators" front, side, and rear.

# Lumileds Finishes Lamps-Accessories Biz Selloff

LIGHTING NEWS

Lumileds say last month they completed the sale of their Lamps and Accessories business to First Brands Group, a global automotive parts manufacturer.


Lumileds CEO Steve Barlow says, "The completion of this transaction strengthens Lumileds and enables the company to focus on our core LED business, committed to continued collaboration with our customers to solve market needs, and to producing innovative LED solutions that drive growth, improve profitability, and generate value for Lumileds, our customers, and stakeholders alike".

Prior to the purchase, the First Brands portfolio already comprised vehicle lighting brands Blazer and Bargman.

# Epic: Mini-Optic Photonics, 18-19 September

LIGHTING NEWS


EPIC, the European Photonics Industry Consortium, will hold their technology meeting on photonics for miniaturized optics next month in Austria. Automotive applications will be on the agenda, with lectures from Forvia Hella and ZKW. Information and registration are available online.

# Exterior Ambient Light on Xiaomi SU7

LIGHTING NEWS


Xiaomi have introduced a sparkly exterior light with six colours and two modes (on, on with 'breath effect'). The light can be activated only when the vehicle is parked. When it is, users can control it through the Xiaomi Mi Home application. It is available in kit form at Xiaomi's online store in China for C¥999 (€127, $140).

# Anniversary 20: Forvia Hella's Asia Corporate Centre

LIGHTING NEWS


Over the last two decades, Forvia Hella's Corporate Center in Asia has been instrumental in the continuous business expansion, particularly in China. It has been committed to strengthen local development in China and the Asian market, and contributed to the supplier's international business. On 2 August, Managing Director Heiko Lässig invited all HCCC employees to celebrate this milestone together. Media partners were invited the day before.

Lässig expressed "sincere gratitude to all the employees of the company for their hard work and dedication. Looking ahead, we will continue to uphold the local for local approach of 'In China, For China', providing exceptional services to local customers. At the same time, our Asia headquarters will continue to serve as a unique bridge, embracing globalization trends and fostering close collaboration and mutual development between Asia and the global market".

# Driver Assistance News

## Mercedes Gets L4 Test Licence in China

DRIVER ASSISTANCE NEWS

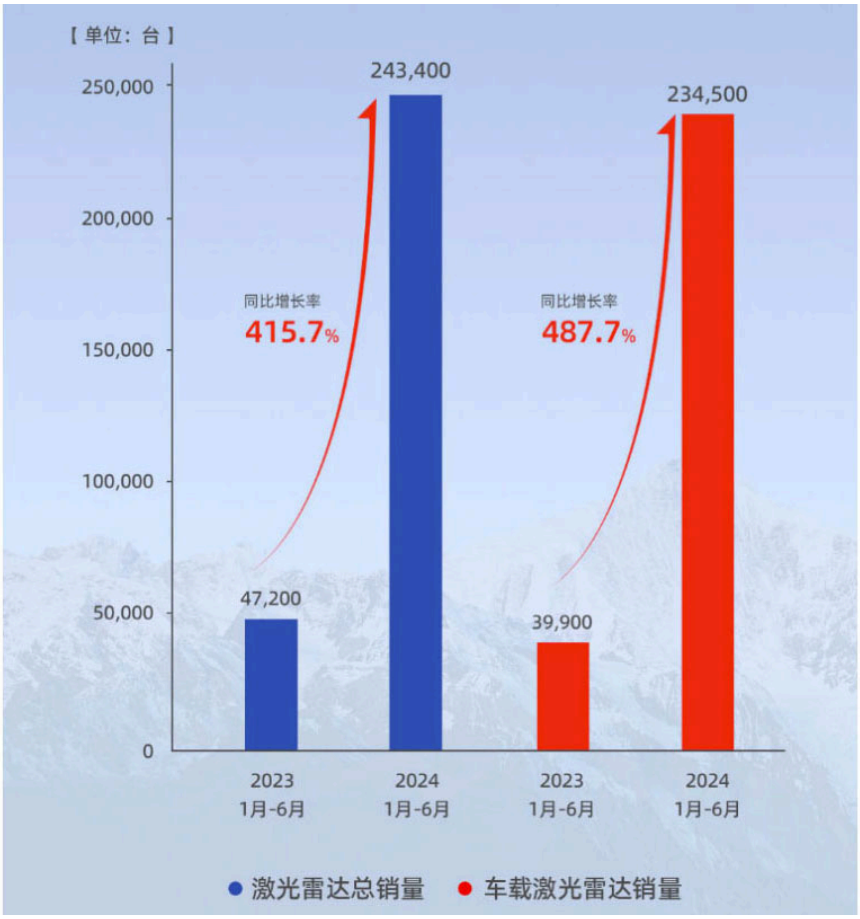

Mercedes Benz may now test their $L^4$ automated driving systems on designated urban roads and highways in Beijing. With regulatory approval, MBZ join the likes of GM, who have been testing self-driving Cadillacs in Shanghai since last year.

Standard production S-Classes have been modified with a rich array of sensors designed specifically for the project, including lidar, millimetre-wave radar, and cameras. These vehicles have also been equipped with redundant systems for enhanced safety.

Mercedes-Benz want to use their $L^4$ Drive Pilot to entice Chinese buyers back from domestic EV-centric brands offering $L^2$ and $L^3$ systems, including XPeng, whose XNGP technology is currently one of the leaders. XPeng previously shared plans to introduce $L^4$ autonomous driving in China by 2025, so the race is hotting up.

# RoboSense H1-24 Results

DRIVER ASSISTANCE NEWS




RoboSense announced its business progress overview for the first half of 2024. From January to June, lidar sales totalled 243,400 units, a year/year increase of 415 per cent. Sales of vehicle-mounted lidar units totalled 234,500 units, a YoY increase of 488 per cent.

In January-May this year, RoboSense had the highest lidar market share in China at 43 per cent, the company say, citing third-party data.

By 17 May of this year, RoboSense had secured mass-production orders for 71 vehicle models from 22 global automakers and tier-1 suppliers.

In the same time, Toyota's premium Lexus brand will feature lidar products supplied by RoboSense on a number of all-electric models, which will mainly be the Chinese lidar maker's M-platform products. The partnership will be extended to other Toyota brands in the future, according to plan.

# Cepton Agrees to Takeover by Koito

DRIVER ASSISTANCE NEWS


Cepton, a California-based supplier of high performance lidars, have signed a definitive agreement to be acquired by Koito. Cepton stockholders will receive $3.17 per share in cash, a premium of approximately 25.3 per cent to the closing price on 26 July, 2024.

The proposed transaction will complement Koito's existing sensor technology roadmap, while providing Cepton with financial stability and scalability crucial to the commercialization of lidar technology. After the transaction, Cepton will operate as a privately-held indirect subsidiary of Koito in the U.S.

Cepton CEO Dr. Jun Pei says, "I am excited about the next stage of Cepton's growth as we embark on a new journey together with Koito. Over the past few years, we have achieved many remarkable milestones in product innovation and development, establishing ourselves as one of the most trusted lidar solutions providers in the automotive industry. A significant portion of our efforts were greatly supported by Koito as our long-term partner and investor.

"As we carry on our pioneering spirit as a Silicon Valley company and deepen our commitment to driving cutting-edge innovation, leaning on Koito's century-old heritage of engineering rigor will heighten our dedication to delivering quality solutions to customers worldwide. Our partnership with Koito will provide us with unique access to a broader range of opportunities and resources and help us stay resilient to industry challenges in a way no other lidar company can. This will position us as a leading automotive lidar company for years to come, as Cepton continues to execute current automotive programs and actively manage future OEM initiatives."

Koito President and COO Michiaki Kato said, "We appreciate and are impressed by the outstanding technical capabilities exhibited by the Cepton team throughout our years of collaboration. We recognize this proposed transaction is an essential step toward realization of Koito's vision of 'lighting the way for our sustainable future.' We are convinced that having Cepton as a member of the Koito group will significantly enhance the competitiveness of our sensor business.

"Under our corporate message of 'Lighting for Your Safety,' Koito have been contributing to realizing a safe and secure mobility society through light in the field of

automotive lighting equipment and other products. By adding lidar, a sensor that uses light, to our product lineup, we will contribute to safety and security in the next-generation mobility society where ADAS and autonomous driving become popular, and we will aim for sustainable corporate growth by providing even higher value-added products through synergy between automotive lighting equipment and sensor technology".

Mitch Hourtienne, Chief Commercial Officer at Cepton, adds: “In addition to broadening business platforms for both Koito and Cepton, we expect our partnership to make a positive impact on the overall automotive lidar ecosystem, driving industry standards and accelerating adoption at scale. We are ready to better support our automotive OEM customers in safely deploying lidar-enhanced assisted and autonomous driving platforms through a streamlined and stabilized supply chain, making safe autonomy truly available in every consumer vehicle.”

# General News

## Will Audi's Four Rings Vanish in China?

GENERAL NEWS

According to Reuters, Audi will not use their famous logo on a new nine-model series of China-specific EVs. Reportedly, 'brand image consideration' played a factor in the decision, as did the partnership of Audi (and parent company Volkswagen Group) with SAIC. Neither Audi nor VW Group has confirmed, refuted, or publicly commented on the decision.

Audi and SAIC will produce a range of new EVs without the four rings, says Reuters, but reportedly it is not yet known if the vehicles will use the Audi name or some alternative marque.

The report does not make clear if the decision was based on Audi looking to change their brand image in China, or if the product might not meet Audi's strict brand criteria, stoking internal concerns of risk to the automaker's highly manicured image.

Audi’s rings represent a quartet of car companies from the German region of Saxony—Horch, DKW (Dampfkraftwagen), Wanderer, and Audi—combining in 1932 to form ‘Auto Union’, the company now known as Audi.