

Tue, 13 June 2023  
Weekly Newsletter



NEWSLETTER #807

## PixCell LED

Ultimate precision in perfect alignment

100+ individual cells with just 25 µm spacing, perfectly matrixed onto a single LED chip for intelligent headlamps

SAMSUNG



# Editorial

## DVN Tokyo Workshop: A Great Success

The Tokyo DVN Workshop was held last week, for the first time since 2018. It was a great success with 250 registrants from around 100 companies, including 50 attendees from 14 automakers: Audi; Daihatsu; Geely; Honda; Hyundai; Jaguar Land Rover; Mazda; Mitsubishi; Nio; Nissan; Subaru; Suzuki; Toyota, and Volvo. And 100 attendees from 12 tier-1s: Hasco Vision; Hyundai Mobis; Ichikoh; Koito; Marelli; Mind; Plastic Omnium; SL; Stanley; Valeo; Varroc, and XingYu.

Everything went great! There were four keynotes from Honda; Valeo; DVN, and Osaka University. Five lectures from Toyota; Mitsubishi; Audi; Volvo, and Geely. And four sessions with 25 lectures from lighting suppliers.

As always, the regulation session attracted great interest and spurred spirited discussion; it was broadly supported by prominent regulation-and-standards organisations including JASIC; JAMA; JAPIA, and GTB. It got under way with an opening speech by JASIC's director, followed by presentations from GTB on regulatory developments in GTB and the GRE working group on lighting and signalling regulatory simplification. For the first time, an interactive round table was held with around 100 active participants, garnering positive feedback on illuminated grilleboards and logos—less so in re greeting animations.

The expo booths were amazing, showing off a grand cornucopia of innovation from Koito; Stanley; Valeo-Ichikoh; AMS Osram; Lumileds; Nichia; OLEDWorks; AML Systems; Auer; Bicom Optics; Covestro; LG Innotek; LMT & TechnoTeam; Synopsys; Suss MicroOptics; Spy, and Yejia.

Watch for our full report, which will be published next week.

Sincerely yours,

  
DVN CEO

# In Depth Lighting Technology



**DVN** Lighting **Workshop**

29-30  
AUGUST 2023

**"Lighting the Future:  
Safety, Communication & Emotions for EVs, Avs & Trucks"**  
**San Francisco**

[Click here for more information](#)

## Tokyo WS Last Week. New DVN Events Coming



**DVN** Lighting **Tokyo WORKSHOP**

**Keynote Speakers**

 <b>Takeshi Tamada</b> Manager Chief Engineer <b>Honda</b>	 <b>Dr. Yoshio Manabe</b> Osaka University	 <b>Kazuyuki Miyashita</b> CTO <b>ICHIKOH -Valeo</b>	 <b>Wolfgang Huhn</b> Senior Advisor <b>DVN</b>
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**OEMs Speakers**

 <b>Takeshi Tamada</b> Manager Chief Engineer <b>Honda</b>	 <b>Tomohiro Watanabe</b> Chief Technology Engineer <b>Mitsubishi Motors</b>	 <b>Paul-Henri Matha</b> Technical leader Exterior Lighting <b>Volvo Cars</b>	 <b>Andre Hainzmaier</b> Head Lighting Innovations <b>Audi</b>
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### 27<sup>th</sup> DVN Workshop · 6-7 June 2023 at Tokyo

This event was a great success with four keynotes: five automaker presentations and 18 from suppliers, and the newly-interactive round table in the popular regulatory session.

#### **Keynotes:**

**Honda** · Takeshi Tamada, Chief Engineering Manager

*Future Prospect of Vehicle Lighting*

**Valeo** · Kazuyuki Miyashita, CTO

*Lighting Transformation Through Japanese Market*

**Driving Vision News** · Dr. Wolfgang Huhn, Senior Advisor

*360° Lighting · New Possibilities for Safety and User Experience*

**Osaka University** · Dr. Yoshio Manabe  
*Application of Laser Lighting to Automobile Lighting*

#### **Automaker presentations:**

**Toyota** · Fumihiko Mouri, Project Manager

*Effect Verification of Turn signal Road Projection*

**Mitsubishi Motors** · Tomohiro Watanabe, Chief Technology Engineer

*Mitsubishi Motors' Approach to the Lighting*

**Audi** · Andre Hainzmaier, Head of Lighting Innovations

*Customer Centricity for Innovation in Software-Defined Lighting*

**Volvo Cars** · Paul-Henri Matha, Exterior Lighting Technical Leader

*Digital Lighting and New Era for Electrical Architecture, Need to Talk*

**Geely** · Jiakai Xu, Geely Research Institute (Ningbo) Senior Expert

*Photoelectric Application in Automotive Lighting Entertainment Function*

## **Feedback from attendees**

### **Toyota's Fumihiko Mouri**

"I had a good opportunity to present the lecture successfully since this is the first presentation from Toyota. I had a good chance to meet and talk with other members face to face and had opportunity updated information from all presentation. I definitely would like to attend the next Tokyo workshop."

### **Valeo's Benoit Reiss**

"Great preparation! The workshop went very well and was very interesting. Very good contacts as well, even if a little more networking time would have been beneficial."

### **Mind's Hossein Nafari**

"Great workshop. Perfect organisation; high-level lectures, and great exhibition booths. I very much like this fruitful event."

### **ams OSRAM's Adam Wu**

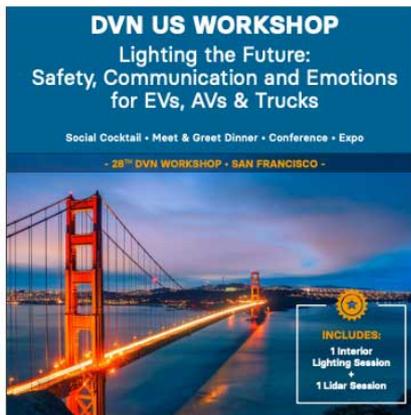
"Great to have the chance to meet so many Japanese and international OEMs; tier-1s; tier-2s; customers; suppliers; partners, and friends. Thank you to Dr. Huhn, for the organisation of this wonderful event with his valuable experience; insights; people networks, and great passion. I really appreciate it."

### **DVN's Wolfgang Huhn**

"Japan is not only spotless clean but also highly innovative: An automotive application with RGB laser MEMS technology was announced at the DVN workshop for 2026!"

## **Up Next: 28<sup>th</sup> DVN Workshop · 29-30 August 2023 at San Francisco, USA**

The 28<sup>th</sup> DVN Workshop will take place live and in-person on the U.S. West Coast at the San Francisco Airport Marriott Waterfront Hotel. The theme of the day-and-half conference and exhibition: **Lighting the Future: Safety, Communication, and Emotions for EVs; AVs, and Trucks.**



It will highlight how new technologies will contribute to increased safety in our world. The event will bring together more than 250 participants from all over the world—managers and experts involved in lighting.

Automaker presentations are expected from BMW; GM; Great Wall; JLR; Lucid; Nissan; Rivian; Stellantis; Volvo; Zoxo, and more!

## Later this year: 29<sup>th</sup> DVN Workshop · 7-8 November 2023 at Shanghai, China



The Theme of our two-days conference and exhibition:  
**"New digital functions around the car – 360° Lighting"**

The 29<sup>th</sup> DVN Workshop will take place in Shanghai on 7-8 November at the Marriott Shanghai Parkview Hotel. The theme: **New Digital Functions Around the Car: 360° Lighting**. Alongside the conference will be an innovation expo. We're expecting more than 300 attendees, and there will be a full onsite agenda.

The program includes 25 lectures—keynotes and presentations, a panel discussion, a regulation session, and more. All will highlight the recent trends in lighting and brand recognition. Discussion panels and exhibition booths will host productive exchanges.



ATTENDEES - 2022 DVN SHANGHAI WS



NETWORKING - 2022 DVN SHANGHAI WS

# Lighting News

## ZKW : Smart Digital Light for Polestar 3

### LIGHTING NEWS



The new Polestar 3, an EV like every Polestar model, has high-definition LED headlamps made by ZKW. The 1.3-megapixel modules in lamps adjust the intensity; size, and shape of the light beam to optimise the driver's view and cleverly control glare. ZKW CEO Dr. Wilhelm Steger says "The Polestar 3 headlamp system combines the latest technologies and innovative functions into a premium series product".

The basis for the Polestar 3's high-tech headlamps is ZKW's 'MirrorZ' technology, which can control and distribute the LED light in a targeted manner thanks to movable micromirrors. In combination with a front camera, the system detects oncoming traffic and, with the help of DLP (digital light processing) technology, automatically morphs the light beam precisely and seamlessly on the areas in between. Road surface projections to aid the driver are among this headlamp technology's capabilities. "The warning functions help to increase road safety and avoid accidents", Dr Steger says.

# Plastic Omnium's New Partnerships to Boost Innovation

LIGHTING NEWS



Plastic Omnium have entered pacts with two international academic institutions—the Massachusetts Institute of Technology (MIT) in the USA, and National Innovation Center Par Excellence (NICE) in China. These new partnerships offer Plastic Omnium the opportunity to harness innovation ecosystems in two of the world's most dynamic regions in terms of research and mobility.

Plastic Omnium's collaboration with MIT includes membership in the Industrial Liaison program, providing access to 65 research laboratories; a thousand faculty members; 3,700 researchers, and 1,200 startups. The fields of collaboration cover a great number of fields: training; problem-solving, teaming up with startups, and recruiting students and researchers.

The collaboration with NICE, a consortium based in the Yangtze Delta, will involve working with leading research centers and enterprises in the Chinese industrial heartland. NICE have developed in-depth expertise in advanced materials, energy and environmental sciences, manufacturing processes, and equipment. The partnership will focus on research, industrial and academic collaboration, and training.

The two new pacts come on the heels of Plastic Omnium's existing recent research agreement to explore electric mobility innovations with the CEA, France's Alternative Energies and Atomic Energy Commission. The common theme of all these initiatives is Plastic Omnium's determination to continue to innovate close to its various customers in some of the world's most dynamic regions.

As part of this process, Plastic Omnium and the Massachusetts Institute of Technology are holding a symposium in Paris on 17 October, 2023, to examine the impact of artificial intelligence on the emergence of new services and practices for mobility. The event will be attended by lecturers and professors from three MIT laboratories—AI; Media, and Mobility—as well as representatives from startups for a day of discussions.

# Constant Innovation for Growth: Forvia CEO

LIGHTING NEWS



## ***Digest of Patrick Koller's Gasgoo interview***

Interviewed recently by Chinese car industry news portal Gasgoo, Forvia CEO Patrick Koller said:

"Over the past decade, automakers have gradually handed over the responsibility for innovation to us. I think we were followers before, but now we have to take responsibility. As long as your product is attractive enough, you can grow in the industry, so continuous innovation is key.

"Forvia's growth is very significant in electrification, and 40 per cent of the group's new orders are electrified products; Automotive electronics and software products accounted for about 30 per cent of the Group's new orders. Most importantly, Faurecia and Hella generated revenue synergies, with joint orders of €1.8 billion last year, contributing to growth.

"The integration of Faurecia and Hella is also considered a major innovation. Hella is the best resource for Faurecia. Because Faurecia was still at a critical point in the field of automotive electronics, it is very complicated to achieve organic growth in the field of automotive electronics and software, because the methodology, project management skills, etc. are different in different fields, but under the general trend of the industry, Faurecia needs to further develop and needs to increase resources and capabilities in the field of automotive electronics; Also, pure automotive electronics players are very rare, as far as Hella's business portfolio is concerned, its automotive electronics business complements Faurecia, its lighting business is similar to Faurecia's business.

"Faurecia is like a system supplier and integrator, while Hella is more like a component supplier, and the two sides complement each other. As a system supplier, you usually need to deal with diversity in production and manufacturing, and you need to be very good at raw material flow; As a component supplier, the advantages are different, usually need to pay a lot of attention to the production line, the production of parts, and less attention to the flow of raw materials. Therefore, with HELLA's skills in the production process, as well as Faurecia's advantages in logistics management, FORVIA is stronger on a global scale".

# Hella's High-Definition Solid State Lighting for Headlamps

## LIGHTING NEWS



Hella's SSL HD headlamp enables intelligent and individual switching of up to 25,000 pixels per LED, offering a multitude of high-resolution lighting functionalities. This breakthrough not only enhances road illumination but also introduces new lighting functionalities, such as lane markings, symbol projections, lane brightening, light carpets, and safety-enhancing functions like projections of safety distances or protection zones for cyclists and pedestrians.

Hella have taken technology to the next level, they announce, by significantly shrinking the light source in collaboration with partners. This breakthrough allows greater automaker flexibility in headlamp integration and vehicle design. Thanks to the software-based control of light points, Hella offer a 'world headlamp' approach, which enables seamless adjustments to accommodate region-specific requirements: right- or left-hand traffic, for example, or the lower intensity limits in the USA, all within a standardized light module. This eliminates the need for multiple headlamp versions, reducing development costs and capital expenditure for customers by approximately 50 per cent.

At the core of the technology: revolutionary microLED clusters. These electronic components house between 100 and 25,000 LED pixels in an incredibly compact space. The higher pixel resolution not only enhances road illumination, but also unlocks a range of new high-resolution lighting functionalities. From projecting safety distances to displaying lane markings directly onto the road surface, the possibilities are endless.

# Driver Assistance News

## Valeo's Lidar: Two new Awards

### DRIVER ASSISTANCE NEWS



Valeo's LiDAR technology has received the SAFETYBEST Award 2023 during the AUTOBEST Gala and the ICA Summit Award 2023 in the category 'Automotive Sensor Hardware Solution of the Year'.

Valeo is the first tier-one company to receive the SAFETYBEST Award which demonstrates the increasing role of suppliers in driving innovation in the automotive industry. These two awards for the LiDAR confirm Valeo's technological leadership and come after the Pace Award in 2018 and the Frost & Sullivan market leadership Award in 2022.

Valeo's capability to deliver on its promises is also recognised by clients around the world and they have announced in March 2023 orders over the past 18 months' worth more than 1 billion euros for SCALA 3, the latest generation LiDAR. Valeo, the global leader in Advanced Driver Assistance Systems (ADAS), was the first, and remains currently the leading company in the production of automotive LiDAR sensors and perception software on an industrial scale for level 3 autonomous driving.

Clément Nouvel, Valeo CTO LiDAR explains *"Valeo's LiDAR technology is the result of more than 10 years of development and has been in production for more than 5 years. It is already in use on vehicles around the world and contributes to the safety of road users as well as to the development of automated mobility. We are proud to receive these new awards that acknowledge our commitment to deliver the best technologies to our customers and contribute to greener and safer mobility around the world."*

Valeo SCALA 1 and 2 made conditional autonomous driving in traffic jams a reality. SCALA 3 dramatically increased the domain of operation – and therefore the customer value – of private vehicles thanks to a wider scope of use and higher speed support. Valeo is also positioned as a leader in robotaxis equipment as SCALA 3 enables their clients to make robotaxis a reality at scale, using a proven, best-in-class technology in mass production.

# General News

## Detroit auto show vows to make a comeback in 2023

GENERAL NEWS



Organizers are promising that the 2023 North American International Detroit Auto Show will feature more brand participation and vehicle reveals than last year, although it's unclear which companies plan to return to the mid-September event.

The Detroit Auto Dealers Association, which runs the show, said the 2023 version will include a new indoor track for electric vehicles, more outdoor ride-and-drives and a new mobility forum featuring executives and politicians such as Michigan Gov. Gretchen Whitmer. They vowed "multiple vehicle debuts" and "double" the brands that participated last year, which was the first Detroit show to attempt an indoor-outdoor format.

Brand representatives for VW, Audi, Mazda, Jaguar, Land Rover, Kia, Hyundai, Genesis, BMW, Mercedes-Benz, Nissan, Porsche, Volvo, Subaru, Lexus, Polestar and Lucid told *Automotive News* they would not have a stand at this year's show, while Honda has previously said it would delegate future show duties to local dealers. The loss of Subaru is notable, as it was among the few non-Detroit automakers to attend last year.

The dealers association said last week that hometown companies GM, Stellantis, and Ford will participate with their full brand portfolios, which each of the automakers confirmed.

A Toyota brand spokesperson also confirmed it would have a presence at the show, as it did last year, but does not plan a press conference.

The media preview will take place Sept. 13-14, with the annual charity preview happening Sept. 15. The show will be open to the public Sept. 16-24.