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# Editorial

## DVN's 2023: A Great Success So Far!



DVN achieved a wonderful first semester, both in terms of the supply side (DVNnewsletters, reports, Workshops, website updates...) and the demand side (membership count, event registration and participation...). Read all about it in this week's in-depth article. I would like to take this opportunity to thank the whole DVN team for their enormous amount of work done so far this year:

- Jean-Claude Lebrun, our President, very active on day to day organization
- Philippe Aumont and Carsten Befelein in charge of DVN Interior;
- Eric Amiot and Alain Serval in charge of DVN Lidar;
- Wolfgang Huhn, who arrived two years ago as DVN Senior Advisor;
- Daniel Stern, DVN Chief Editor, who has been with me since the beginning;
- Gerd Bahnmüller and Michael Hamm, our Technical Advisors who recently arrived at DVN;
- Carine Abouaf, our sales and marketing manager;
- Geoffrey Lebrun in charge of the events;
- Christophe Lameiras in charge of sales administration;

- Our sales and technical representatives in America, China, Japan, Korea, and India.

And of course our consultants Jean-Paul Ravier; Ralf Schäfer; Leo Metzmaekers; Sarah Ouaknine, and Eve Taberna, whose strong and steady involvement keeps things moving the right direction.

In total more than 25 people work with DVN—much higher than my expectation when I started DVN 15 years ago in this demanding field of lighting information.

And that's a growing total; now we happily welcome Paul-Henri Matha, who just left Volvo cars to join DVN from 16 August!

None of this would be possible without you, DVN Gold Members, for your ongoing faith and participation year after year, so a heartfelt thank you for being with us.

Following on the terrific 28<sup>th</sup> DVN Workshop in Tokyo, the whole team are hard at work now to make a grand success of the 29<sup>th</sup>: the DVN Triple Workshop (lighting–lidar–interior) to be held in San Francisco on 29-30 August.

We'll look for you there.

Onward and upward!

Sincerely yours,



W. Frally  
DVN CEO

# In Depth Lighting Technology



## 232 DVN Gold Members...And Counting!



The first half of 2023 has been full of great DVN achievements, with results much rosier than expected. Over the last six months' time, we've welcomed fully 35 new Gold Members, bringing DVN's reach to 232 companies and counting! Now, around 1,500 members follow DVN activity directly. So, the demand side of things is clearly humming along. So is the supply side; just this first semester of the year we've brought you 26 DVNewsletters, six DVN Reports, three DVN Workshops (two in lighting, one in interior), and a big lot of information on the DVN website, updated constantly.

Here's a look at the facts and figures:

### **26 Lighting DVNewsletters · 26 Interior DVNewsletters · 6 Lidar DVNewsletters**

That's more than 50 Editorials, more than 50 In-depth pieces, and well over a hundred news articles on lighting alone, plus the detailed parallel activities of DVN-Lidar and DVN-Interior.

### **6 DVN Reports**

It's also six DVN Lighting Reports on

- Research institutions : Universities and Lighting, TU Darmstadt);
- Events : CES, Paris DVN Workshop, Tokyo DVN Workshop),
- Technologies Microoptics

### 3 DVN Events



27<sup>th</sup> DVN Lighting Workshop at Paris with 350 attendees, 20 expo booths.  
DVN Interior Workshop № 2 at Köln with 160 attendees, 5 expo booths.  
28<sup>th</sup> DVN Lighting Workshop at Tokyo with 250 attendees, 16 expo booths.

#### DVN website updated week after week

More than 13,000 visitors in January 2023, up 160 per cent versus January 2022.  
Top visitor locations: China, USA, Germany, Japan, France, India, Korea, UK.

During the first semester, DVN welcomed 35 new Gold Members  
- 16 new Gold Member lighting companies:



Appotronics, Asap Engineering, Elba, GL Optic, Hyundai Group Kyo, Idemitsu, Koosys, Lighting Consultant, Shin A T&C, Zanini Auto, PDSL, Vangest, Varroc India, Wafer Level, Zoox.

- 15 new Gold Members interior companies:



Apple, Joysonquin, SL Corporation, Asap Engineering, Lucid Motors, Marquardt, Seoyoneh-Ewha, Volvo, Dow, Weidplas, Stanley Electric, Nichia, Lumax, Zoox, Sabic.

- 4 new Gold Member companies in lidar:



And now, all the DVN is focus to the 28th DVN workshop in US



The graphic features a blue background with a dark blue footer. In the top left, there is a yellow circle with the text "Save the Date!" and a dark blue rectangle with the dates "29-30 August 2023". The DVN Lighting logo is in the top right. The main title "DVN US Workshop @ San Francisco" is centered in white. Below it, the subtitle "Lighting the Future: Safety, Communication, and Emotions for EVs; AVs, and Trucks" is also centered. The text "28th DVN Workshop" is centered below the subtitle. The footer contains the text "Social Cocktail • Meet & Greet Dinner • Conference • Expo".

Save the Date!

29-30 August 2023

DVN Lighting

**DVN US Workshop**  
**@ San Francisco**

Lighting the Future:  
Safety, Communication, and Emotions  
for EVs; AVs, and Trucks

28<sup>th</sup> DVN Workshop

Social Cocktail • Meet & Greet Dinner • Conference • Expo

# Lighting News

## HELLA's Pietzonka: What I retain after 25 years in Car Lighting

LIGHTING NEWS



Steffen Pietzonka doesn't hedge around: "It's unbelievable how time flies! On 1 July 1998, I started my journey at Hella, and now I'm celebrating 25 years with the company. Still hard to believe.

"As I initially started in R&D, my plan was to stay for 3 to 5 years. And now in a recap I have to say it was not always easy, sure challenging but never boring. And definitely one reason for staying are the people I'm working with and the things I could learn and experience by the different personalities and cultures. [John Lennon's song lyric] seems to be somehow true: life is what happens to you while you're busy making other plans!"

Steffen, renowned Hella lighting expert, kindly granted us this interview on the occasion of his 25<sup>th</sup> anniversary in vehicle lighting at Hella.

## **DVN: Why are so many people involved with vehicle lighting happy to be in that field?**

**Steffen Pietzonka:** This is indeed fascinating to see, and I know a lot of the players since many years. Maybe it is the combination of lighting as a very emotional topic and the huge importance for vehicle branding. In addition, the opportunities with new technologies in light sources, optical systems, camera technology, electronics integration, and software control seems attractive for techies. Who doesn't want to work in an area which is important, high tech, and emotionally attractive? There are not many areas in vehicle tech where this is matching in a same way. At least this combination kept me in vehicle lighting for the last 25 years.

## **DVN: But still, there's a shortage. How is best to convince young engineers to start working in automotive and especially in lighting?**

**S.P.:** I would just repeat my last answer and tell them about the opportunities in this business field. Whether someone is coming from hardware or software, mechanical engineering, electronics, or IT, there are very attractive job opportunities to shape the future of mobility. Maybe we need to better promote this to young engineers. Sure, we are actually in a big transformation with new drivetrain concepts and vehicle use cases; old technologies disappear and new ones arise, all framed by regulatory topics. In this environment young people might doubt the future of automotive. Maybe the Forvia mission could give one answer: "Mobility is at the heart of people's lives and what matters to them: moving freely, caring for the planet, in their own way". I honestly believe automotive will also play in future an important role in the demand for individual mobility.

## **DVN: How do you foresee the ADB market topography in 2030?**

**S.P.:** I'm still considering 2010 as a major breakthrough in vehicle lighting with the first available ADB or glare-free high beam function. Since then, we see this functionality expanding from premium to volume vehicle segments. Much faster than that, we see the global success of LED lighting. Since the introduction, we see steady growth and expect in 2030 around 90 per cent LED light sources globally. The rest is halogen with declining share. Considering ADB, we predict a differentiation in the number of controllable segments. Entry- and mid-level ADB with a couple of hundred pixels, and HD matrix as High-end variant. In 2030 we might see around 25 per cent ADB solutions in total, 15 per cent mid and high-end versions and the other 10 per cent entry-level.

## **DVN : What will drive the ADB growth? Safety and lighting performance, or marketing?**

**S.P.:** It will be somehow everything. But we need to better understand and to differentiate regions, automakers, and their customers. For sure safety was, is, and will be a major driver for vehicle lighting. Whenever there are technological advancements to increase safety, it will penetrate into the market. But recently my visit at AutoShanghai was eye opening, like it was for many others. I've seen solutions people obviously like in China, e.g. vehicle body integrated displays with small funny light animations. I would not necessarily expect similar gimmicks to come in Europe. But a young successful person driving a new vehicle in Shanghai is not that much interested in safety features by lighting. They more look towards expressing themselves and they

like lighting features with entertainment character. These cultural differences we need to understand, provide respective solutions, and to market them. Here we also need to adapt our marketing messaging. The lighting world meanwhile is so complex, the spread with different technological solutions is huge. One major marketing task is to make it simple. Bringing back the messaging towards the real USPs and communication must be short and crisp. What are the three things a certain technology delivers to the customer? What is the real added value of a feature, a technology? To identify describe, phrase, and put this into a message is a challenging task. The customer needs first to understand before they buy.

## **DVN : Same question, but this time about light projection; what will drive its growth?**

**S.P.:** We've seen light projections primarily for welcome or vehicle leaving scenarios. Simple ones and more complex ones. Projecting vehicle brand logos or some pattern on the ground. Up to now it was primarily vehicle branding and a marketing-driven feature. But there are use cases where an improved recognition of vehicles (e.g. turning without seeing the car, paying attention to opening car doors, etc) would increase safety. Several scientific studies have shown this already. Technological solutions are also available. Let's see how regulations might adapt to these new features. Then next to the marketing aspect of advanced welcome scenarios these features could also help to further increase safety.

# Four July-August Chinese Car Launches

## LIGHTING NEWS



### Lynk & Co 08



The Lynk & Co 08 bears a split-headlight design, and a Y-shaped DRL setup. The light system contains 32 matrix LEDs and 'breathing' strips on both sides of the front, to provide a variety of dynamic effects. Of course, there are fashionable full-width light bands, front and rear. The rear lights are done up in a colourless-lens design, with the rear reflectors—which necessarily must be red—tucked into nacelles where their redness is subdued at a casual glance.

### Denza N7



The Denza N7 'hunting SUV' was officially launched on 3 July. It's got a triple-dart DRL design up in the headlamp housings, which Denza are calling a "meteor arrow" arrangement. No full-width light bar; could the absence be the next trend?

## IM Motors LS6



The LS6 design is very similar to that of the LS7, with a stretched-teardrop headlamp shape. The LS6 appears younger in image than the former LS7, and—here again—while there's a full-width light stripe at the back (in a blackout appearance and body-colour inset), there's no full-width light band up front.

## Aion Hyper GT



The first mass model of GAC's Aion high-end brand, the Hyper GT, has been launched at prices from €28,000 to €43,000).

The front features a large grille and squinty, Tesla-like headlamps.

The design of the rear is conventional, but the taillamps have a seven-lozenge internal appearance on a field of black. The taillights are an unusual rose red colour, different to the more orange mainstream red or the deep "super red" of other taillamps.

# Indian Motherson-Marelli JV Inaugurated

## LIGHTING NEWS



The Motherson Automotive Lighting Toolroom (MALT) has been launched and inaugurated by Maruti Suzuki's Chair R.C. Bhargava and CEO Hisashi Takeuchi. The 8,700-m<sup>2</sup> facility is in Noida, near Delhi, close to automakers and Motherson's other tooling locations.

By leveraging the strengths of Motherson and Marelli, the new facility aims to meet the demands of Indian automakers for home-market localisation of advanced vehicle lighting solutions. The venture will provide a platform for collaboration and innovation, bringing together technical experts from both companies to develop cutting-edge tooling solutions.

Mr. Sylvain Dubois, President of Marelli's Automotive Lighting & Sensing division, said, "We are delighted to celebrate the inauguration of this important site, announced in 2021. The new facility will allow us to build locally and autonomously all the tools needed for our joint venture, representing a great step forward in terms of speed, competitiveness, and flexibility. This is a real competitive advantage on the Indian market and an outstanding milestone in the history of our joint venture, which enables us once again to best support our customers together".

# Driver Assistance News

## Lidar is Crucial For Autonomous-Drive Applications

DRIVER ASSISTANCE NEWS



*from DVN Lidar newsletter*

In an exclusive interview to DVN, Bradai, the Valeo's autonomous-driving R&D director, and one of the greatest worldwide experts on lidar said:

«Lidar is a key technology to make autonomous driving applications work. It allows an increased range with a high accuracy of detections for objects, height measurements, and 3D environment modelling capability. »

«From a safety point of view, lidar brings an essential technology redundancy that is important for the perception of the environment. Most approaches for L<sup>3</sup> automation use a triple sensor technology redundancy. Compared to the camera, the lidar cannot be blinded by the sun above the horizon, it increases the detection range, and has higher accuracy.

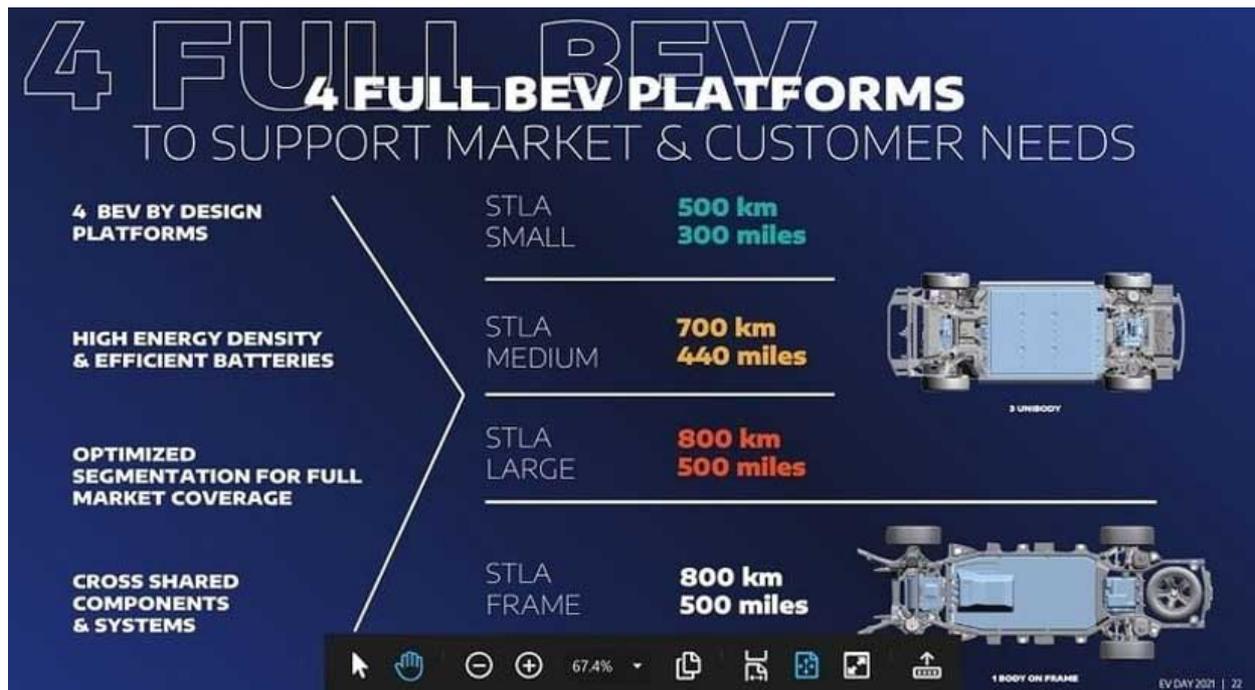
«Compared to the radar, it allows height measurements and has better angular resolution. In addition, lidar allows modelling the 3D environment and is very useful for precise localization and mapping.

«In urban environments when the infrastructure can be occluded by other road users or when there are no lane markings for example, lidar allows the availability of the function and thus extends the ODD (operational design domain).

# General News

## Stellantis: 2 million units/year from STLA EV platform

### GENERAL NEWS



Stellantis' EV platform strategy

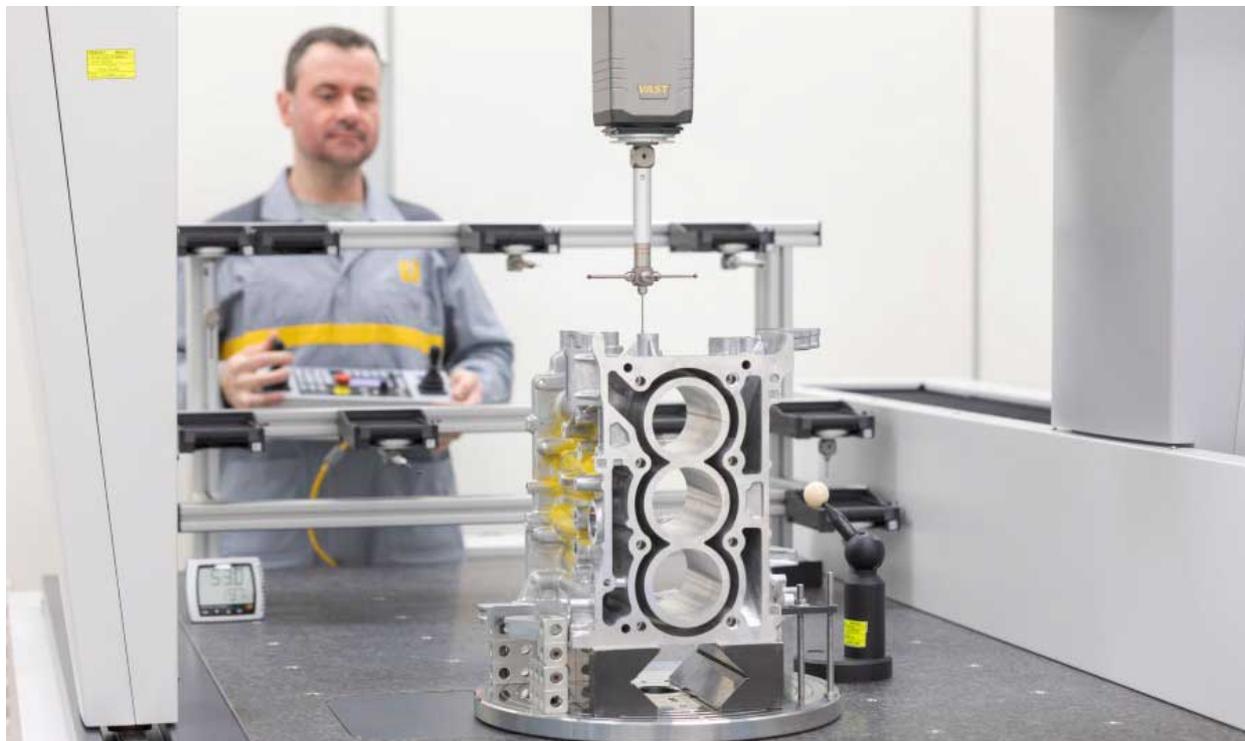
Stellantis' STLA Medium platform will underpin at least 2 million [EVs](#) a year and offer a range of up to 700 km on vehicles starting with the Peugeot 3008 crossover by the end of this year. This platform is one of four, the others are STLA Small, STLA Large and STLA Frame.

STLA Medium will be used for compact and midsize vehicles across the group's Alfa Romeo, Citroen, Chrysler, DS, Jeep, Opel and Peugeot brands. Among the factories where cars with STLA Medium are France (Peugeot 3008); Germany (Opel Grandland, 2024); Italy (cars for DS, Opel and Lancia starting in 2024); and in North America (Chrysler and Jeep), CEO Carlos Tavares said.

Tavares emphasized that the platform was designed around battery-electric vehicles, but he said it could be "adapted" to use internal combustion powertrains, for countries that are moving more slowly toward EVs.

# Renault starts operations at Horse combustion-engine unit

## GENERAL NEWS



Renault's engine factory in Valladolid, Spain, now part of the group's Horse unit

JV with Geely as 50-50 partner expected to be finalized, with Aramco also weighing investment. Horse will develop and build more than 5 million internal-combustion powertrains a year at more than a dozen factories. Renault's side of the planned Horse internal-combustion JV has begun operations, with 9,000 employees, eight manufacturing sites and three research centers.

Renault's EV activities will be concentrated in France in a separate company called Ampere that is expected to go public in the first half of 2024. At the same time, Horse's activities will be outside of France, in lower-wage countries such as Argentina, Romania, Spain and Turkey.

Horse is based in Madrid and led by CEO Patrice Haettel.

Renault Group factories alone are expected to produce 3.2 million drivetrains a year; with Geely's participation at its plants in Sweden and China that figure would rise to 5 million. Revenue will be €15 billion a year.

The final entity will have a total of 19,000 workers at 17 plants and five R&D centers.