



Editorial

VIP Speakers Galore At Upcoming DVN Online Workshop

The 21st DVN Workshop will be held online on 2 December, in just one month's time. We're excited especially much; never before have we gathered so many lighting luminaries to speak at a DVN Workshop. Koito's Kenji Arima, Executive R&D VP will open the Workshop with a keynote speech. Then, in session 1, automakers' visions will be described by lighting managers from BMW, Daimler, Volvo, Volkswagen, and Renault.

In session 2, R&D directors from Hella, Marelli-AL, Stanley, Valeo/Ichikoh, and ZKW will talk about digital light and HD technologies.

Then session 3, focussed on regulatory issues, will be chaired by Geoff Draper—for a final time, which we are most grateful for before he retires—and will feature Audi's Wolfgang Huhn, GM's Mike Larsen, and Varroc's Rainer Neumann. We've got a detailed look at Draper's accomplishfully illustrious career in this week's DVNews for you.

Further sessions at the Workshop will gather lighting experts from tier-2 lighting suppliers including Lumileds, Nichia, Osram-Continental, Everlight, LG Innotek, Dominant, NXP, AML Systems, Ansys, and Instrument Systems.

And registered attendees will have the opportunity to visit the virtual expo booths presenting exhibitors' newest innovations during the breaks and for a week after the event as well.

We've put a great deal of work into building the online Workshop, and we're confident it will offer terrific return on the lighting community's investment of time and attention. We all look forward to seeing you there!

Don't forget the important event coming up in the next two weeks: the 3rd [DVN Lidar Conference](#) on 17 November. To stay visible and to avoid getting disconnected from the industrial community in these topsy-turvy times, we've made provisions for exhibitors to keep networking and showcasing their innovations as researchers share their latest work and practitioners discuss strategy.

You're cordially invited; [sign up](#) and join in!

And last but not the least, DVN launched to day the [DVN Community](#) section of our DVN website,

This Company page allows you to introduce your business to the very focused DVN Community of Automotive Lighting, ADAS & Smart Interior, to promote your latest innovations through pictures or videos online, to give a contact name for networking, to create new partnerships or forge new Business relations. This Community section is for DVN GOLD & PLATINIUM members

DVN members who have not yet uploaded their company presentation are invited to join asap!

For more information, contact Carine at carine@drivingvisionnews.com.

Sincerely yours



W. Frally
DVN CEO

In Depth Lighting Technology

Geoff Draper: Great Thanks, We Will Miss You!

The online 21st DVN Workshop will be the last one for Geoff Draper, who will retire at the end of this year. During the Workshop we will formally thank Geoff—not just from DVN ourselves, but also from the whole of the vehicle lighting community of automakers, suppliers, universities and research institutes, worldwide regulators and authorities.

Geoff has been one of the towering luminaries in the vehicle lighting world. His curriculum vitae includes a [variety](#) of [patents](#) and a tremendous amount of work at Lucas—where in the late 1960s and early '70s he was central to the creation of the world's [first ADB](#) headlamp, the [Lucas Autosensa](#); then at Carello, Magneti Marelli, and Koito Europe (as Technical Director in Belgium).



From 1989 he has led GTB's Harmonisation and Front Lighting groups, the CIE TC-4-45 effort toward a performance assessment method for headlamps, and the SAE Pedestrian Visibility Task Force. At the end of this year he will step down as GTB President, an office he has ably held since 2008—during which time he has organised and shepherded through to fruition the gargantuan task of modernising, streamlining, and restructuring the UN Regulations on vehicle lighting.

Geoff is also a member of the ISAL Steering Board (photo, 2009, 4th from left), Honorary President of the ALE Forum in China, and was voted DVN Personality of the Year in 2017.

For DVN, Geoff's greatest work has been to chair most of the DVN Workshop sessions and panel discussions on Regulatory matters.

We asked Geoff for a bit of a retrospective on the working relationship between DVN and GTB, and he kindly shared these thoughts with us:



DVN MUNICH WORKSHOP 2020

"As my twelve-year tenure as GTB President will end in December, I recall the great support that DVN has given to me and to GTB. I was elected in November 2008 in the depths of the global financial crisis and at that time, the GTB members were having difficulties to support its activities, financially and practically, and they emphasised the need to increase global awareness of the value of GTB membership.

After discussions with my good friend Hector Fratty, we started a coöperation between GTB and DVN that has proved to be mutually beneficial. DVN provides an effective platform for GTB to promote its activities and engage with the extensive DVN global membership. In return, GTB keeps DVN members informed of regulatory developments.

"There are many examples of the benefits of the DVN/GTB coöperation that have resulted from 16 Regulatory Sessions and the numerous reports and articles that have been published in the weekly Newsletter.



DVN US Workshop January 2012: The contributions of Nathaniel Beuse, David Hines and Markus Price of NHTSA during the regulatory session started a new relationship between GTB and NHTSA.

DVN Shanghai Workshop April 2013: The Executive Director of the Japanese Automobile Standards International Centre (JASIC) and the Director of the European Car Manufacturers Association (ACEA) presented their views and joined a panel session. This was an excellent opportunity to network with Chinese stakeholders. GTB also took the opportunity to announce that the Chinese and Taiwanese lighting expert groups had joined the GTB membership.

DVN US Workshop January 2015: NHTSA joined the Regulatory panel session followed-up by a Q&A session by teleconference with a global audience of 98 interested experts. This further strengthened relations between GTB and NHTSA.

DVN Activities and planning led to a decision in March 2017 by GTB to launch a Strategy Group of senior executives. Currently the global group has 26 member companies and is funding research to support GTB proposals.

2018 DVN Tokyo Workshop



DVN TOKYO WORKSHOP 2018

The regulatory session had input from senior government and industry representatives of Japan, China, Korea, India, USA, the European Commission, and the GRE Chairman. This resulted in a clear agreement on the need to develop global technical requirements.

DVN's February 2018 joint forum with GTB in Torino produced a draft GTB vision for 2020-2030 that is now being developed by the GTB Strategy group.

A January 2020 DVN Survey of Opinions on how to remove barriers to innovation brought forth a range of responses; the results are analysed in detail in the DVN Study on [**New Lighting Functions 2020–2030.**](#)

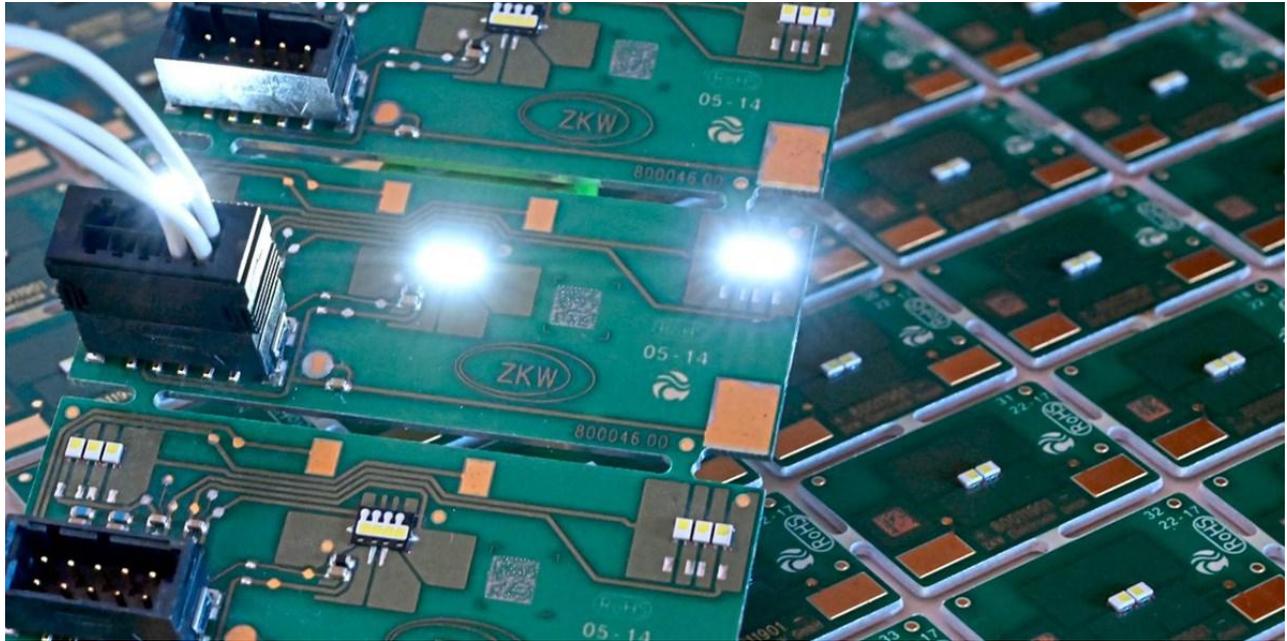
"I will lead my final Regulatory Session at the upcoming DVN Workshop where we will have presentations on the status of regulation in the USA, progress of the GTB Strategy and Scientific Groups and I will provide a reality check concerning innovation and regulation.

Thank you Geoff! The vehicle lighting community will miss your involvement and your work!

Lighting News

ZKW, Partners Develop Self-Healing Solder

LIGHTING NEWS



A team with membership of ZKW, the Vienna University of Technology, and the Materials Centre Leoben are researching self-healing solders with high load-bearing capacity. The research is being done under the aegis of Project Solaris, which is funded by the FFG grant agency—the Research Promotion Agency, that is Austria's national funding agency for industrial R&D—and the country's Ministry of Technology, as part of their Production of the Future project.

The self-healing solder material is being researched for potential application in connecting high-power LEDs and other power semiconductors in the automotive industry. ZKW CEO Oliver Schubert says "The Solaris project is helping us to develop new products custom-tailored to our automotive clients' needs, and to make our manufacturing as environmentally friendly as possible while conserving resources. Our goal with this high-performance connection technology is to optimize the failsafe reliability of our electronic products".

Electronic components in vehicles need to withstand large temperature fluctuations and strong vibrations. The brazing alloy used to affix components onto printed circuit boards can be a weak point. The goal of the Solaris project is to develop a solder material with self-healing properties. This can be achieved by partially melting the solder at operating temperature, causing any incipient cracks to close and reducing mechanical tension.

Currently, tin-silver-copper solder is used to connect electronic components to the printed circuit board using a "soft" soldering process. However, it's not a perfect match

for the power density and running temperatures of semiconductor components, which must withstand thermal cycling from -40 to +140 °C. Commonly available solders start to have difficulty above 120 °C. And soft solder materials are not able to handle the high thermal and mechanical loads. Creeping, pores and cracks ultimately cause the assembly to fail. Currently, expensive and difficult-to-process circuit board substrates and exotic package materials are used to solve the issue; it is hoped that the new materials being developed by the ZKW team will make it easier and less costly to create good and durable solder joints in automotive electronics.

Auto Industry Should Attract Great Talent: Valeo CEO

LIGHTING NEWS



VALEO CEO JACQUES ASCHENBROICH

Valeo CEO Jacques Aschenbroich (photo) recently shared his thoughts on the auto industry's ability to attract new talent:

"My message to future engineers is very simple: many tend to pit GAFAM [the likes of Google, Apple, Facebook, Amazon, and Microsoft] against the "old" industry, [but] the auto industry is one of the most complex and fascinating around. It absolutely embraces all technologies and all markets.

"Today's auto industry calls for a number of software engineers that is beyond the needs of ten years ago. Our own needs in this area—software architecture, AI, big data—will represent up to 50% of all our R&D needs over the next five to 10 years. This was only a few percent in 2010. Our cameras are among the most complex in the world, and so are our lidars.

"Let us not oppose GAFAM. On the contrary, let's coöperate with them. The auto industry is experiencing technological leaps that have never been seen in the past, at an incredible rate. This is a revolution which, in terms of technology, marketing, sociology, is impacting our global environment. This should allow our industry to attract very great talent.

"Young engineers, girls and boys alike, who want to evolve in complex and ultra-techno universes, have an absolutely fabulous possibility of expression with the automobile."

Valeo Sales Dip in Q3

LIGHTING NEWS



In Q3, Valeo's consolidated sales totaled €4.4m, down 6 per cent on a like-for-like basis. In the first nine months of the year, the Valeo Group outpaced automotive production by 4 percentage points. All of Valeo's business groups outperformed the market, spurred by production startups and rampups on numerous high-tech innovations, including cameras and other ADAS-related products, 48V electrification, and LED lighting systems.

Despite the pandemic's depressive effect on automotive production, Valeo maintained a balanced alignment of their businesses across their main automotive production regions and automaker customers.

For the second half of 2020, Valeo base their guidance on production volume estimates published by IHS. These estimates do not factor in any significant production, supply chain, or market effects of a second wave of Covid-19. Based on this scenario—i.e., a 3 per cent drop in automotive production during the second half of the year, Valeo have set their sights on outperformance of automobile production by around 5 percentage points over the full year, and a confirmed reduction in losses for the Valeo Siemens eAutomotive joint venture compared with the second half of 2019—in line with the Group's expectations of a slight reduction in losses in 2020.

Still No NHTSA News on ADB

LIGHTING NEWS



A few weeks ago, we reported on educated rumours that NHTSA would be issuing a final rule on ADB for the USA sometime in October—and that it would be a regrettable one. So it's mixed news that as of this writing, in the final hours of October, that hasn't happened.

Audi publicly advise their digital headlamps are hobbled in the Land of the Free—the world's № 2 auto market after China, and the only major market where UN Regulations are not recognised and ADB is not allowed. The automaker say their lamps' functionality is "not fully available in the U.S." and that they carry on working with U.S. Government officials to try to bring the benefits of high beam seeing with low beam glare to their American customers.

A working committee within the SAE Lighting Systems Group, at NHTSA's request, put together a technical standard to describe and define the operation of an ADB system in terms compatible with the U.S. legal and regulatory systems—but while Transport Canada adopted the SAE standard (as an option to the rest-of-the-world UN Regulation on the subject), NHTSA rejected it; instead, the agency issued a proposed rule almost universally panned as costly to comply with and with severe and unreasonable constraints on the ability of the system to do what an ADB system is meant to do.

According to the ADB regulatory action's [overview page](#), the matter has a Final Rule date of "October 00, 2020", and agency representative Kathryn Henry has said NHTSA "is working to finalise the rulemaking for adaptive driving beam headlamps in 2020", but declined to give a more specific timeline.

As this report goes live, there are 29 calendar days—23 work days—before December ends and NHTSA's dogged effort drags into another year to reinvent a wheel that's multiple generations into working well for the rest of the world. When will the agency issue their final rule? And will it be as bad as is feared? We will have to wait and see.

Translucent Laser Tech from Jenoptik

LIGHTING NEWS



Automakers are constantly seeking the newest ways to differentiate their newest cars—and lighting is at the top of the list. Jenoptik have a new offering that stands to open new doors on that front: translucent laser technology.

LED light technology was a major step toward a light revolution for interior and exterior design. While light sources develop further, designers and engineers work to make things visible in new ways. The demand for light supported designs is increasing. Functional surfaces are emerging. Laser processing of cover material creates new, translucent opportunities, the key to get these ideas to real life.

A vehicle's front and rear assemblies are of great interest when creating new car designs. These areas can serve as canvases for automakers to advertise their familial and model family identities, and open up new kinds of of night designs. And the possibilities aren't just decorative; lighting installations can be used to send messages to the surrounding world such as an indication for pedestrians to safely cross the street. The idea is for components to have a solid surface appearance in daytime, but provide translucence for selective lighting after dark. A targeted laser ablation of fine paint contours from exterior parts creates a stunning translucent effect on solid surfaces and allows for backlighting. This enables illuminated features to be visible during night-time design. Turn signals or tail

lights appearing as though out of nowhere are one example of how Jenoptik foresee this technology being put to use.



In interior applications, signals and signs could be visible when needed and disappear whenever illumination is switched off. In the best case, they perfectly fit into the dashboard, door or other interior parts. Laser technology with its variety of laser sources combined with a sensor-controlled ablation process provides the effective methods to structure textiles, plastics, leather or other material used in interior designs. Jenoptik say their laser technology meets these challenges as it is compatible with numerous materials and can accommodate running changes in materials and products.

Covestro: Profit in the 3rd Quarter

LIGHTING NEWS



COVESTRO-CEO MARKUS STEILEMANN

Extract from Automobilwoche

Covestro made another profit in the third quarter thank to the strong automotive market in China.

Along with the presentation of the figures for the third quarter on October 27 2020, CEO Markus Steilemann confirmed the annual outlook for the operating result, which was specified at the beginning of October as preliminary key financial figure. The prerequisite, however, is that there are no further serious restrictions on economic activities due to measures to contain the coronavirus pandemic.

The manufacturer of rigid and flexible foams, hard plastics and paint precursors for many industries benefited in the third quarter from increasing demand from the furniture and construction industries, but also from the automotive industry in China. This more than compensated for the continued weak demand in Germany and the USA, for example, so that core volumes grew by three percent in the third quarter compared to the same period in the previous year. Above all, the automotive industry continues to weaken outside of China.

Thanks to cost reductions, EBITDA, earnings before interest, taxes, depreciation and amortization, rose by around 7% to €456 million.

With a view to the savings, manager Steilemann is optimistic "Many of the cost-cutting measures will also be found to a significant extent in 2021." In the long term, savings can be made on travel costs, "because we have simply learned to work effectively with the new digital methods."

The company confirmed the profit outlook for 2020 that had been raised at the beginning of October. Unless there are again serious restrictions on economic activities due to measures to contain the coronavirus pandemic, an EBITDA of around €1.2 billion should be achieved after €1.6 billion in 2019.

Driver Assistance News

Continental Buy Into AEye for Long-Distance Lidar

DRIVER ASSISTANCE NEWS



Continental have acquired a minority share in lidar startup AEye, intending to co-develop automotive sensors and prepare them for production by 2024. At least one automaker has signed on to buy the new sensors, though the maker's identity has not yet been revealed.

Continental have made great strides in short-range lidar, and wanted to expand their offerings in long-range lidar. AEye, for their part, say their lidar can detect vehicles from 300 metres away, and pedestrians at 200 metres.

Long-distance machine vision is key for autonomous driving at the speeds human drivers routinely take for granted; the AEye sensors are intended for L³⁺ AD systems. Frank Petznick, who leads Continental's ADAS business unit, says "We now have optimum short-range and world-class long-range lidar technologies with their complementary set of benefits under one roof; this puts us in strong position to cover the full vehicle environment".

Founded in 2013, AEye had raised \$60m prior to Continental's undisclosed investment. Other investors include supplier Aisin and Hella Ventures, Hella's venture-capital arm. Airbus Ventures and Intel Capital are among AEye's other investors.

Continental's sales to automakers totalled around \$35bn in the 2019 fiscal year.

Daimler Invests in Lidar startup Luminar

DRIVER ASSISTANCE NEWS



Daimler's truck unit is investing in a laser-sensor startup to bolster its development of self-driving trucks in the U.S. less than a week after striking a deal to use driverless technology from Waymo in its Freightliner Cascadia trucks to be sold to U.S. customers.

Daimler Truck said last week it will take a minority stake in Luminar Technologies. It joins other investors including tech billionaire Peter Thiel and Volvo Car in an equity financing ahead of the startup's public-market debut.

Daimler plans to use technology from Luminar, which makes laser-based sensors that allow a vehicle to "see" its surroundings, for its in-house effort to develop automated heavy-duty trucks.

"We definitely see there are bigger chances in trucking" than robotaxis for deploying driverless technology, said Peter Vaughan Schmidt, head of autonomous technology at Daimler Trucks. "The business opportunity is bigger and the problem you have to solve is easier."

Lidar-maker Luminar said last week it plans to complete its \$3.4 billion merger with special purpose acquisition company Gores Metropoulos and go public in early December.

Dieter Zetsche, who stepped down as Daimler's CEO last year, will chair a council of auto executives that will help Luminar make deeper inroads in the industry, the company said. Matt Simoncini, a Luminar board member and former CEO of Lear Corp., will also be on the council, it said.

Continental CEO Degenhart to step down

DRIVER ASSISTANCE NEWS



Continental CEO Elmar Degenhart, 61, is resigning his post "for reasons of immediately necessary preventive health care," Continental said last week. The supervisory board will meet shortly to decide on the appointment of a new CEO.

Degenhart, who has been Continental's CEO since 2009, has a contract through 2024. He has faced criticism for several missteps which have undermined some supervisory board members' confidence that he is the right executive.



Setzer, 49, runs Continental's large automotive business, and will likely prevail over other internal and external candidates being considered, Bloomberg said.

Chairman Wolfgang Reitzle, a former Ford Motor executive and a renowned deal maker at industrial gas company Linde and cement firm Holcim, has pushed to make Continental more nimble so it can react faster to technological changes in the industry, some of the people said. Continental had a fiscal 2019 sales to automakers of \$35 billion.

General News

Valeo to Get New CEO in 2022

GENERAL NEWS



Valeo's Board of Directors unanimously approved the plan decided at the 2019 General Shareholders' Meeting to separate the Chairman and CEO roles as of January 2022. Last week, the board selected COO Christophe Périllat (photo) as Associate CEO. In January 2022, Jacques Aschenbroich will carry on as Chairman of the Board of Directors, and Périllat will be appointed as CEO.



Having joined the Valeo Group in 2000, Christophe Périllat held several management positions, in a number of Group companies gradually increasing in size until he became Chief Operating Officer in 2011. Previously he worked in the aeronautics industry, for equipment manufacturer Labinal, in supply chain, plant, project and subsidiary management positions in France and the United States. He is a graduate of École Polytechnique and École des Mines and holds an Executive MBA from HEC.

Mercedes to Boost Aston Martin Stake

GENERAL NEWS



Daimler Mercedes-Benz

Mercedes-Benz will increase their stake in Aston Martin from 2.6 per cent up to not more than 20 per cent as part of an expanded technology partnership between the automakers. Aston Martin will get access to advanced Mercedes technologies, including next-generation hybrid and electric powertrains.

Mercedes product strategy chief Wolf-Dieter Kurz says "We already have a successful technology partnership in place with Aston Martin that has benefited both companies. With this new expanded partnership we will be able to provide Aston Martin with access to new cutting-edge technologies and components".

Aston Martin have struggled since going public a little under two years ago, with high inventory and poor sales of their core sports cars. Canadian billionaire Lawrence Stroll bailed out the automaker early this year, and Tobias Moers, the former head of Daimler's Mercedes-AMG performance division, replaced Andy Palmer as Aston Martin's CEO in August.

Sonceboz Go Digital to Thrive

GENERAL NEWS



The pandemic is disrupting just about everybody's work habits. Meeting customers in-person is becoming more and more complex. This year, most of the exhibitions have been canceled or turned into digital events—SIA Powertrain in France; SAE Thermal Management in USA, and IAA Commercial Vehicles in Germany, to name just a few.

The Swiss-based supplier, who specialise in mechatronics and flow control, have posted a [video](#) explaining their strategy during the pandemic. CEO Pierre Gandel says "At Sonceboz, we are creating new ways to keep up relationships with our customers. For example, instead of participating in the IAA, we have set up a booth in our plant in Boncourt, allowing us to organize a digital conference with our clients. On top of that, we have designed a digital booth to present our innovations in Mechatronics during exhibitions and conferences".

Golf, Clio, Corsa are Top Euro Sellers for '20 So Far

GENERAL NEWS



For the first nine months of 2020, the VW Golf was № 1 with 200,000 sales (a decline of 35 per cent), followed by the Renault Clio (180,000; down 26 per cent) and the Opel Corsa (140,000; down 24 per cent). Rounding out the top five were the Peugeot 208 (140,000; down 18 per cent) and VW's Tiguan (133,000, down 33 per cent).

A growing number of models increased sales in September despite the lingering challenges caused by the pandemic, including the Nissan Juke, which rose to 8,500 sales, and the Renault Zoe full-electric small car was up more than 210 percent to 11,000 units.

The Golf was Europe's top seller for the third consecutive month in September with a volume of 28,000. Earlier this year the Golf was under pressure from the Clio, which has finished first for three separate months in 2020, but demand for it has declined. As a result, the Clio fell further behind the Golf, and was surpassed in September by the Opel/Vauxhall Corsa. The Renault Captur, Peugeot 208, Dacia Sandero, VW Polo, and Ford Puma were the models in Europe's top 10 that increased sales in September.