



Editorial

Get Set For 21st Century Networking At The 21st DVN Workshop!

Following on the success of the 3rd DVN Lidar Conference on 17 November, our next big event is the [21st DVN Workshop coming up on 2 December](#) (click to watch the event video). This event will gather up to 400 experts representing more than a hundred companies from all parts of the vehicle lighting industry in Europe, North America, China, Japan, and Korea—automakers such as **Audi, BMW, Daimler, General Motors, Renault, and Volvo**; tier-1 suppliers including **Koito, Ichikoh/Valeo, Marelli AL, Stanley, Varroc, and ZKW**; and a good variety of tier-2 suppliers, service providers and research institutes, universities,.

Thirty two speakers—each of them a top executive or specialist—will share their insights, findings, innovations, and perspectives within the dual themes:

- **How Digital Light Facilitates High-Resolution ADB and New Lighting Functions**
- **What Can Be Done With Regulatory Authorities to Remove Barriers To Innovation.**

And the blue-ribbon regulation session will feature **Geoff Draper**, GTB's President, chairing a panel of regulatory experts including Audi's **Wofgang Huhn**, GM's **Mike Larsen**, and Varroc's **Rainer Neumann**.

Our roster of presenters is completed by a variety of lighting stakeholders including Antolin, DesignLED, Texas Instruments, Dominant, and Yole for the future car interiors session; Osram Opto Semiconductors, Lumileds, Nichia, and Osram-Continental for the light sources session; and NXP, Elmos, AML Systems, Instrument Systems, and Covestro for the electronics, digital leveling & aiming, Measurement, and advanced material session.

With this lineup of speakers, attendees are practically guaranteed to gain new insights, ideas, knowledge, and connections at the Workshop. Once registred, networking will be facilitated not only during the whole day but also 24 hours before and 7 days after

the event. It's the main feedback from our 2 previous online events: technology is available to connect all participants at will, including presenters and exhibitors, but for efficient networking you cannot sit back and wait for the event day to contact participants. You should screen the participant list the day before the event using the filtering options of the event platform in the community/networking section, and contact whoever you wish for a chat or a F2F meeting. And check your networking box as well!

Those who will register as participants can join the livestreamed conference and its presentations. And we're offering an attractive expo package for exhibitors to promote themselves—not only during the event itself, but also for at least a week afterward, during which participants will be visiting the conference to have a look at the presentations and promotionals. Creating a virtual booth is easy to do, and won't require any travel nor buildup or strikedown of booth hardware. It's an efficient, cost-effective way to keep your company front and centre in relevant minds, and to facilitate networking in this community of automotive experts and executives.

Don't miss out! If you haven't yet signed up, hit the [event page](#) and register. We look forward to your participation!

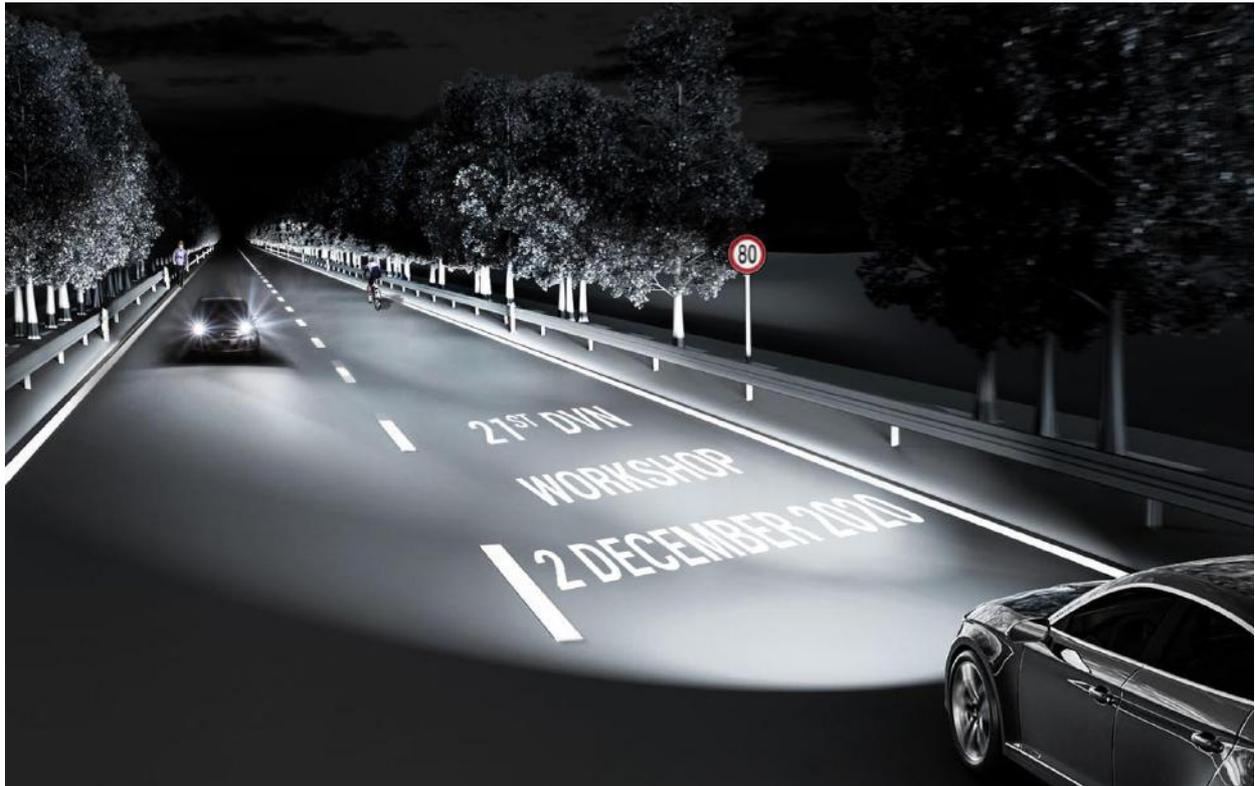
Sincerely yours



W. Frally
DVN CEO

In Depth Lighting Technology

Next Wednesday: Online 21st DVN Workshop



We've all spent more than 10 months coping with Covid since our last DVN Workshop in Munich last January. The restrictions feel like a real crimp on such a dynamic industry as vehicle lighting, wherein networking has such a crucial role in bringing out innovations and collaboration. Of course we all want to get back as soon as can be to attending live events.

In the meantime, at DVN we're working hard to make it possible for you to keep up the networking—with weekly DVN newsletters, monthly DVN Reports, and online events configured and equipped for active interaction, not just passively sitting there watching a livestream. Following on the success of our online 3rd DVN Lidar Conference held a week ago, we're now putting the final touches on the 21st DVN Workshop to be held online next Wednesday, 2 December.

How do we cater for real-time networking in an online event? Mainly by facilitating at-will-and-at-whim chats amongst attendees (including presenters) and by dint of versatile virtual exhibitions. We noted attendees' keen interest in the expo portion of the DVN Lidar Conference. Exhibitors, for their part, had a good opportunity to carry on their networking to stay visible and avoid getting disconnected in the community, and to use the DVN expo platform to communicate their innovations and key messages to hundreds of attendees.

So how exactly is it done? With this comprehensive five-part expo package:

1. Virtual booth with provisions for exhibitor videos and a photo gallery,

downloadable brochures, company contacts and three free entries. During the event, attendees can easily learn about your innovations. At the Lidar Conference, every exhibitor received an average of 150 visitors. With 300-400 attendees at the DVN Workshop, we expect an average of 250 visitors in each e-booth. But like in real events, exhibitors should actively contact potential customers before the event using the networking facilities of the event platform.

2. Company logo on exhibitor announcements during conference breaks. At the end of each session, the panel of exhibitor logos will be presented to attendees—around ten times, all in all—for between a few second and a few minutes at a time, for repeated reinforcement of your company's brand in attendees' minds.

3. Company video running during conference breaks During the lunch break, attendees can see the exhibitors videos running—so all attendees will be able to see exhibitor videos even without visiting the virtual booth.

4. Company virtual booth visible for a full week to the larger DVN audience of 3,500 lighting professionals on the DVN website. This way the virtual booth can be seen by not only the attendees but also by thousands of additional eyes.

5. Company news published in the DVNewsletter. As with the DVN Lidar Conference, DVN will publish a special newsletter on 8 December highlighting the innovations presented by DVN Workshop exhibitors.

With feedback and data from the DVN-I online Smart Interior Workshop last month, and the DVN Lidar Conference last week, we're working hard to make the online 21st DVN Workshop another grand success. Dedicated to Digital Lighting Technologies, Lighting Communication, and Regulation, this workshop will gather experts, engineers, designers, researchers, regulators, and practitioners from every sector of the vehicle lighting world.

Kenji Arima, Koito's Executive Vice President of Technology, will start the Workshop with a keynote speech about creating new values.



Kenji Arima, Koito

He will explain what Automotive world has to offer in the future mobility society.

The first session, chaired by DVN CEO Hector Fratty, will present the perspectives of automakers BMW, Daimler, Renault, Volkswagen, and Volvo.



Markus Maier
Daimler



Rene Uebler
BMW



Thomas Priller
BMW



Paul-Henri Matha
Volvo



Ricardo Plöger
Volkswagen



François Bedu
Renault

The second session, chaired by Audi's Michael Hamm, will focus on the tier-1 segment with presentations from Marelli, Ichikoh, Stanley, and ZKW.



Michael Hamm



Elo Rosenhahn
Marelli AL



Hiroyasu Onuki
Ichikoh



Gerald Boehm
ZKW



Yasushi Yatsuda
Stanley

The third session is all about regulations. Geoff Draper will chair a panel of experts including Wolfgang Huhn, Mike Larsen, and Rainer Neumann.



Geoff Draper



Wolfgang Huhn



Michael Larsen



Rainer Neumann

The fourth session will look at future car interiors, with lectures from Antolin, DesignLED, Texas Instruments, and Yole.

The fifth session will be about light source innovations, with contributions from Osram Opto Semiconductors, Lumileds, Nichia, and Osram-Continental.

The sixth and last session will cover electronics, lamp aiming, and measurements, with talks from NXP, Elmos, AML Systems, Instrument Systems, and Covestro.

We foresee attendees' interest, along with the lectures, to participate in Q/A sessions and visit the online expo booths to better know the products, ideas, and innovations of the expected 15 exhibitors.

Lighting News

GTB Elects Valter Genone as its 6th President

LIGHTING NEWS



The GTB General Assembly gathered last week on 16 November with the important task of electing its next president following Geoff Draper's retirement. For the first time, due to the COVID-19 pandemic, the GTB General Assembly held a virtual session timed to be accessible to its members in the USA, Europe, and Asia.



VALTER GENONE

Valter Genone becomes the 6th President in GTB's 68-year history. His four-year term will start on 01 January 2021.

Born in Torino (Italia) in 1954, Valter graduated in aeronautical technology. Although he never worked in this field, he has remained a big fan of any object capable to fly.

Valter's professional career started in 1979 in FIAT and it will end on 31 January 2021, when his 42-year working relationship with FIAT/FCA will terminate. He has always worked in the field of vehicle regulation and, more recently, also in type approval procedures.

His main focus has been automotive lighting but he has always worked on direct and indirect field of view, on-board controls and instruments, steering systems including ADAS, vehicle masses and dimensions, EMC, and many different aspects of active and general vehicle safety.

In 1982 Valter started to attend international regulatory meetings, the first was as part of the GTB delegation in Rome at an EEC technical group meeting on lighting. For many years he attended the EEC Commission Lighting Group sessions in Brussels, as technical consultant of the Italian Ministry of Transport, for the revision of the EEC Directive 76/756 on lighting installation.

From 1984 Valter started to attend GRE meetings in Geneva as administration consultant supporting the Italian Ministry of Transport representative and then as the Italian delegate to GRE continually until 2019. This allowed him to extend his knowledge to motorcycle and agricultural vehicle lighting and installation, as well as to the devices and lighting systems themselves.

In parallel to his long experience in the GRE meetings Valter is highly appreciated in GTB as a delegate of the Italian delegation and, for many years, as Italian head

delegate. Additionally, he has been the FCA expert in the GTB Installation (he was also secretary), Front Lighting and Signalling Lamp working groups.

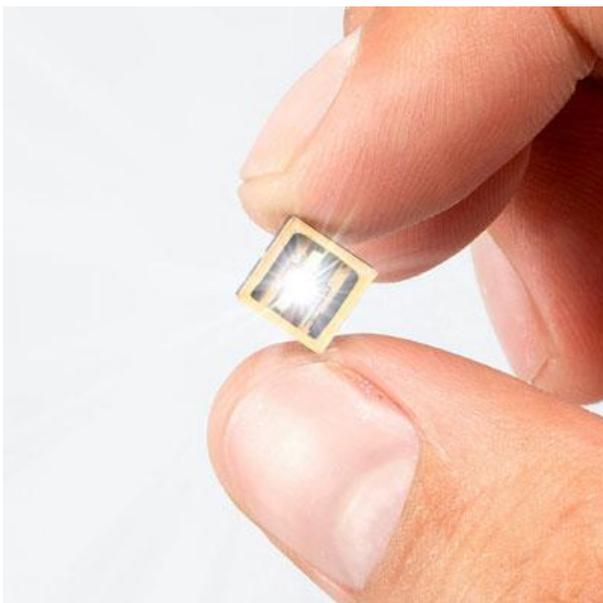
**DVN warmly congratulates Valter for his election as GTB President!
We look forward to the continuation of our special and mutually beneficial
relationship with GTB.**

Kyocera to Fully Buy SLD Laser

LIGHTING NEWS



Kyocera Corporation have agreed to acquire 100% ownership of SLD Laser (formally named Soraa Laser Diode). Under the agreement, SLD Laser plan to begin operating as a Kyocera group company upon approval of regulatory authorities.



SLD Laser, founded in 2013 as a technology startup by blue- and white-LED pioneer Dr. Shuji Nakamura, are a world leader in the commercialisation of gallium nitride (GaN)-based laser light sources. SLD Laser have won commercial success by developing, manufacturing and marketing innovative laser-based products with high efficiency and luminance for mobility, specialty lighting, consumer, and industrial applications. The company were recently ranked 7th in *Fortune* magazine's "2020 Best Workplaces in Manufacturing & Production", having promoted an employee-centred corporate culture from the start.

Kyocera say they are committed to expanding and developing their business as well as contributing to the growth of various industries through creating new products and cultivating new markets, aiming to attain great synergies by integrating SLD Laser's advanced GaN expertise with Kyocera's own production technologies and R&D capabilities in fine ceramic-related businesses.

SLD Laser was founded in 2013 by Nobel laureate Dr. Shuji Nakamura, Dr. Steve Denbaars, Dr. James Raring, and Dr. Paul Rudy. Their innovative high luminance laser light sources are used in a wide array of applications including automotive and mobility.

Kyocera Corporation was founded in 1959 as a producer of fine (advanced) ceramics. By combining these engineered materials with metals and integrating them with other technologies, Kyocera have become a leading supplier of industrial and automotive components, semiconductor packages, electronic devices, smart energy systems, printers, copiers, and mobile phones. During the year ended March 31, 2020, the company's consolidated sales revenue totaled USD \$15bn.

Hella's Futuristic Car Body Lighting

LIGHTING NEWS



Hella have won major body-lighting orders from several premium and volume manufacturers. Hella's Managing Director Dr. Frank Huber says "Light is the new chrome. We clearly feel that manufacturers are more than ever looking for innovative lighting solutions to give their vehicles a unique character".

In 2016 Hella opened a new competence centre for car body lighting in Ljubljana, Slovenia. Since then the activities there have pushed forward at full speed, including the development of highly integrated lighting solutions—such as co-developing the illuminated radiator grille of the BMW X6, thus additionally highlighting the unmistakable brand signature at the front of the vehicle.

And Hella have received an important order from a German premium manufacturer to integrate a design character line into the grille of an electric vehicle set to be on the market early next year. A dynamic lighting feature for the grille of another electric car from a European volume manufacturer was also developed and will be launched at the beginning of next year. For this purpose, 130 LEDs are integrated into a thick-walled edge light light guide to create a crystal effect.

As a system integrator, Hella's expertise includes distinctive lighting technology and electronics and software know-how for control and system integration, and the ability to produce large plastic parts with high-quality surfaces. Huber says "Hella's comprehensive expertise is a real unique selling point in the market. Building on this, we will further expand and sustainably strengthen our position in the field of car body lighting worldwide".

DVN and DVN-I on the Electronica Virtual 2020

LIGHTING NEWS



This year, the fair was held purely virtually from **November 9 to 12**. The exhibitors and visitors had the opportunity to meet despite travel restrictions and to exchange information about new products and innovative solutions in the field of electronics. . Live contacts between exhibitors and visitors via text and video chat were used intensively.

The Electronica Virtual included the Electronica Automotive Conference (eAC), the Embedded Platform Conference (eEPC) and the Medical Electronics Conference (eMEC)

eAC was the platform where the automotive industry's experts and decision-makers from Germany and abroad could gather information and exchange ideas about significant technology trends and strategies in the international automotive industry.

The focus in 2020 was on the topics:

- Technologies and solutions for high(er) voltages in vehicles
- Connectivity, Cloud, Security
- Displays
- ADAS / Autonomous Driving
- Interior Lighting and Electronics

Carsten Befelein from **DVN and DVN-I** contributes to the electronica Automotive Conference with a lecture about **“Vision of Future Car Interior Lighting”**. The summary of his lecture was as follows:

- Future interior lighting will be driven by safety, communication, comfort, styling, welcome and farewell scenarios, personalization, individualization, brand identification, new use cases and lighting functions and technologies
- Interior lighting will become more smart, complex, multifunctional and orchestrated with matching interior functions
- Lighting functions will increase. AVs with new use cases will become accelerators
- Software and electronics will become the key factors for the future interior lighting
- Carmakers will define their own specific orchestration of interior lighting
- Suppliers need competence in software and electronics to deliver complete solutions
- The pandemic will produce a temporary lack of innovations and development activities also for interior lighting - the global dependencies and cooperations need to be checked and revised
- After the pandemic there is a good chance for a continuation of the positive market development of interior lighting. Light will become the new Chrome.
- Interior lighting is still almost unregulated. This may change, if new lighting functions for new use cases will become safety relevant. Therefore, GTB is considering a new Working Group for interior lighting

You get more more information in the [DVN Study 2020](#)

"Chaos is Opportunity": Flex-N-Gate CEO

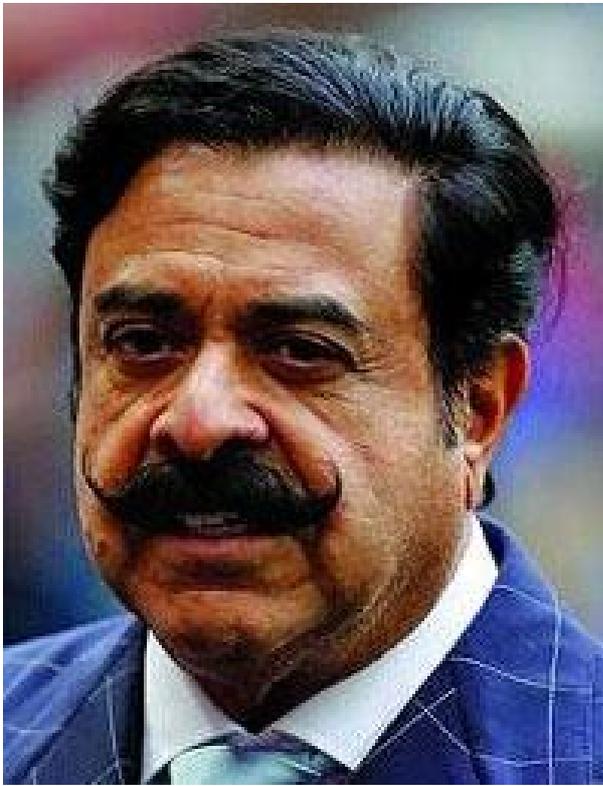
LIGHTING NEWS



American billionaire Shahid "Shad" Khan has achieved great success and growth for his auto parts company, Flex-N-Gate. Their product range includes bumpers, plastic interior and exterior parts, and lighting parts and systems—and they posted nearly USD \$9bn in worldwide sales to automakers last year, twice their volume of just five years ago.

Last week Khan participated in a virtual conference of the OESA, Original Equipment Suppliers Association. He offered the auto industry audience a few observations about the market, his philosophy of business and ideas about how the industry will power through the pandemic.

"I'm a big believer chaos is opportunity," Khan told the industry trade group. "As we've grown, some of the best growth spurts we've had have been when the status quo was getting disrupted."



SHAHID "SHAD" KHAN

Khan acknowledged that the coronavirus pandemic has forced many suppliers to reevaluate their R&D priorities and consider partnerships or merger and acquisition opportunities to stay afloat, and forced them to reexamine their working relationships with key customers.

But Khan urged suppliers to stick to their values during the pandemic. He said suppliers must hold the upper hand with customers to remain profitable.

"I have this absolute, universal rule of thumb," Khan said. "You do everything the customers want you to do, there's only one outcome: you are going to go bankrupt. The customers want the best product, latest innovation, on time. You absorb all the investment and give them the cheapest price...not all of those are going to be possible all the time. You've got to have a mindset of, 'You must grow, or you're going to die.' The growth is personal growth and, obviously, growth of the business".

Khan also owns multiple sports teams around the world, and donated USD \$1m to U.S. President Donald Trump's inauguration committee.

Elmos at the 21st DNV Workshop

LIGHTING NEWS



Jatin Thaker, Elmos' Senior Lighting Director, will give a lecture concerning dynamic rear lighting applications which have seen a strong push towards individual-LED-control-based design elements.

While both centralised and local control unit architectures are equally used today for styling, customisation, dynamic animation, and displays, special considerations are necessary for defining such system architectures that support adequate resolution and meet automaker requirements.



JATIN THAKER

Thaker will describe how electronics play a major role in enabling such architectures by addressing various technical challenges especially associated with light control using bus-based architectures to unlock full dynamic effects for rear lighting. It will also cover the implications on such rear lighting systems requirements for electronics hardware design, scalability aspects, communication protocol, on-chip software intelligence and functional safety considerations in addressing these challenges.

John Bullough at Eye–Brain–Auto Event

LIGHTING NEWS

The Eye, The Brain and The Auto

9th World Research Congress on Health and Modern Mobility:
*Autonomous Vehicles, Driver's Fitness to Function,
and Naturalistic Driving Methods*

Virtual Event – December 7-8, 2020



A virtual conference sponsored by the Detroit Institute of Ophthalmology, "The Eye, The Brain and The Auto" which will be held December 7th-8th. There will be many talks on driver vision, lighting, and cognitive aspects of driving as well. John Bullough will be presenting a talk on Insights into Visual and Cognitive Aspects of Driving Among Older Adults Using Naturalistic Driving Study Data, focused on older drivers including what lighting solutions can help them.

The agenda and registration information is [online](#). They have also started a series of weekly webinars ahead of the conference. John Bullough participated in the one on Driving and Vision two weeks ago, but a recording of the panel can [still be viewed](#).

Driver Assistance News

3rd DVN Virtual Lidar Conference: 26 lectures, 200 Attendees, 14 Exhibitors

DRIVER ASSISTANCE NEWS



The banner features a dark blue background with a white and yellow text overlay. On the left, a dark blue box contains the text 'SAVE THE DATE' in yellow, '17' in large white font, and 'NOV.' in white. To the right, the logo for DrivingVisionNews.com is displayed, featuring a white stylized car roofline above the text 'DrivingVisionNews.com' and the tagline 'Automotive lighting, driver assistance and smart interior'. The main title 'DVN AUTOMOTIVE LIDAR VIRTUAL CONFERENCE & EXPO' is written in large, bold, white capital letters. Below the title, the subtitle '“APPLICATIONS, TECHNOLOGY, COMPONENTS, MARKETVIEWS”' is written in smaller white capital letters. At the bottom, a dark blue bar contains the text 'ONLINE CONFERENCE & VIRTUAL EXHIBITION BOOTHS' in yellow capital letters. The bottom edge of the banner shows a blurred image of a virtual exhibition booth with blue and green lighting.

[The 3rd virtual DVN Lidar conference](#) took place on November 17th with 14 exhibitors and 200 participants representing the global ADAS community involving the US, Canada, Europe, Israel, South-Korea, Japan and China.

A key note by Dr. Gunnar Juergens, VP Head of LiDAR segment, **Continental** Advanced LiDAR Solutions LLC elaborated on vehicle implementation with the title: “LiDAR technology is entering the automotive mainstream”. As a general goal, he put forward that Lidar technology should contribute to the overall stretched target of “Zero Traffic Death”. During his talk, Dr. Juergens made a clear differentiation between use case for Lidar. Flash Lidar will be the solution for shorter distances, Scanning will be needed for long range lidar. If you want to achieve an extremely long range, the switch from system wavelength 905 nm to 1550 nm may be necessary.

Another highlight during the conference was the second key note given by Dr. Mircea Gradu, SVP **Velodyne** Lidar, SAE international 2018 President, Fisitia Council. He explained insights on the theme: “Pedestrian Safety Focussed Highly Innovative ADAS Perception Solutions and Validation Aspects”. In his presentation, Dr. Gradu gave a thorough explanation and analysis of data about pedestrian and bicycle accidents in the US. This gave an impulse to Dr. Gradu for putting a very strong focus on night time accidents. At lighting levels below 1 lux, the

number of “dark level” accidents increases significantly. Application of a lidar sensor would significantly help to reduce such accidents.

The consequences and opportunities of Lidar application, among others in combination with lighting were discussed in session #1 by OEMs **Volvo, PSA, Audi** and **Great Wall**. Key elements were the best position on Lidar sensors on the car with respect to its general functions, being it short range, medium range or long range. Another overwhelming point was of course the influence of environmental effects on the sensors like rain, dust, mud and others disturbing effects. Therefore, integration in the roof at least for long range sensors can create advantages, if adequate cleaning is installed and would even be required as mandatory.

One of the main enablers for advanced and ever progressing Lidar technology are obviously key hardware components in combination with solid modelling. Both topics were intensively addressed in sessions # 3 & 4 by representatives of companies/institutes **Osram, Dioptric, Jenoptik, OQmented, Covestro, Lumentum, Fraunhofer IMS** and **Ansys**.

A lot of continuous and sometimes steep progress is going on in the component area. Progress of laser sources and new optical concepts will lead to improvement of lidar sensors. New MOEMS technology can heavily influence the balance between flash and scanning technologies. Last, but not least, advances in detectors, transparent sensor materials and powerful analysis tools round of the cocktail which component suppliers offer to the lidar manufacturers community.

Two sessions on Lidar technology gathered key representatives of the globally leading lidar companies **Valeo, Ibeo, Xenomatix** from Europe, **Cepton** and **Ouster** from the US, **LeddarTech** from Canada and **Innoviz** from Israel. The high-level speaker line-up included CEOs, Presidents, COOs, Head of Global R&D as well as key experts from business development and product management.

Key driver for all these companies is to bring Lidar technology to the market, the sooner, the better under the aspects of real application learning and harvesting initial income. The automotive lidar technology in itself is moving from embryonic to emerging state on the learning curve, but still significant steps on geometrical size and cost reduction have to be done to reach maturity.

Yole Developpement elaborated on their interesting view on LiDAR evolution for ADAS and robotic vehicles. The general conclusion is that until 2025, the number of Lidar systems will remain limited in the low percentage range for passenger cars. Robotic vehicles may show a stronger development, but of course with limited production numbers.

OUR SPONSORS

Xenomatix
True solid state lidar

LUMENTUM

CEPTON

LiangDao

Instrument Systems
OPTRONIK LINE

ibeo
automotive

auer
LIGHTING

DIOPTRIC
thinking your optics

OQMENTED

OUSTER

Ansys

covestro

IMS

3rd DVN LIDAR EVENT
VIRTUAL EVENT ▶
BY DRIVING VISION NEWS

17 NOV. 2020

Comments from some participants and exhibitors have arrived. The general tenor gave a positive shade on the high number of high-grade speakers, the quality of presentations and the balanced design of the program. Here some extracts from the comments:

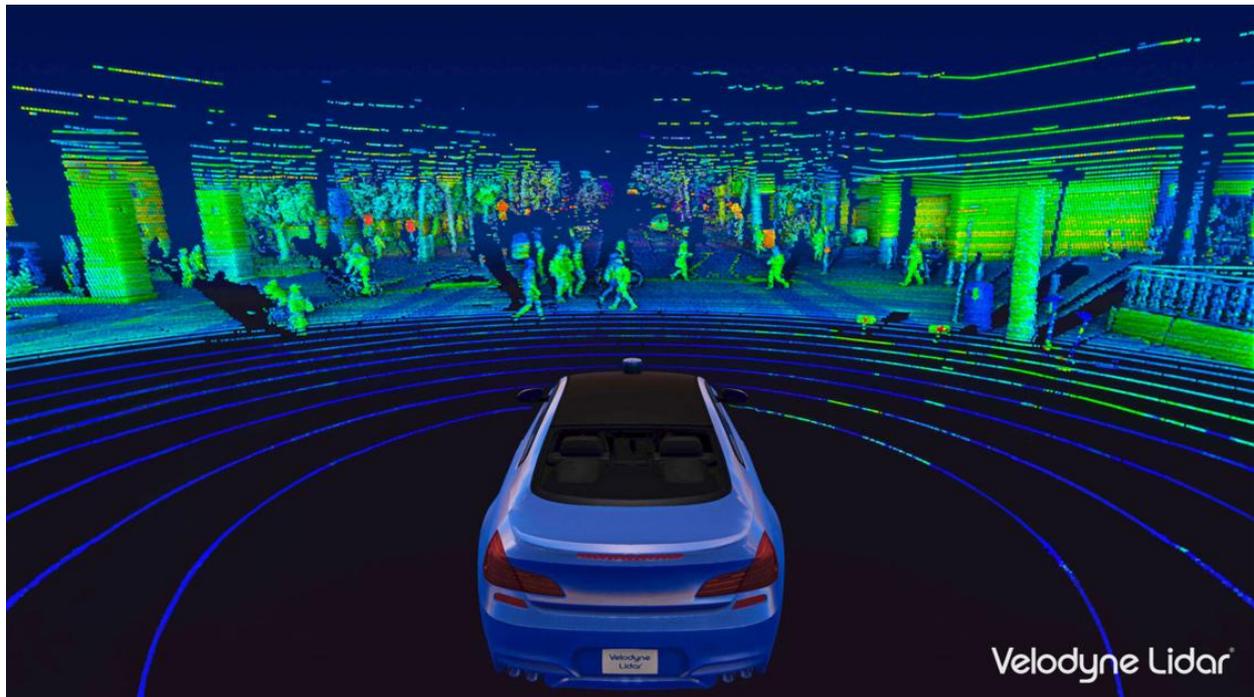
- I liked most that you made it possible to have this event even during COVID-19 time. It is very important for us to stay in contact with the other TIER ones, OEMs and LiDAR manufacturers to know the needs and also having a great possibility for networking.
- My team gave unanimous feedback that the conference was very interesting and engaging and one even said “Thanks even more for registering to this event, it is clearly the one with most LIDAR relevant updates I ever attended”!
- We enjoyed many good quality presentations. Reaching out to other participants on a virtual event continues to be an activity with a too low success rate. So we truly hope you can switch back to the live version next year.
- The mix of recorded sessions and live Q&A were very agile and accurate in sequence, I could shoot my questions and saw them asked minutes ago so I cannot be more pleased on the pure execution..... Thanks a lot!
- The marketing around the event was great and also the speakers forum was a high level representation.
- Perhaps a bit more attention to the exhibitors? I heard that there were 130 “visitors” to our virtual booth, but we would like to have insight on the visitors to our booth during the event so we know instantly how we do.
- As an exhibitor, I thank you very much for your efforts to get this virtual Lidar conference rolling. I was present the whole time and besides the very good and informative talks, I could make some good contacts and arrange follow-up meetings. I also liked the possibility to be able to contact people from my side.

Although the DVN team considers this 3rd DVN Lidar Virtual Conference under the given circumstances as a relevant success, we also hope like a lot of you for a live event in November 2021. Live speaker contributions, exhibiting and networking has been well simulated by an excellent organisation through the DVN organisation team and their aides, but it is not really a full equivalent for f2f discussions. On the other hand, in these Covid-19 times, it is the best we can do, and organize it to the satisfaction of our Lidar- and lighting community.

The team hopes to meet you next year for the 4th DVN Lidar Conference again in person!!

Velodyne: Lidar Less than \$500

DRIVER ASSISTANCE NEWS



Velodyne Lidar say they will introduce a new lidar unit with a target price of less than \$500 and no moving parts.

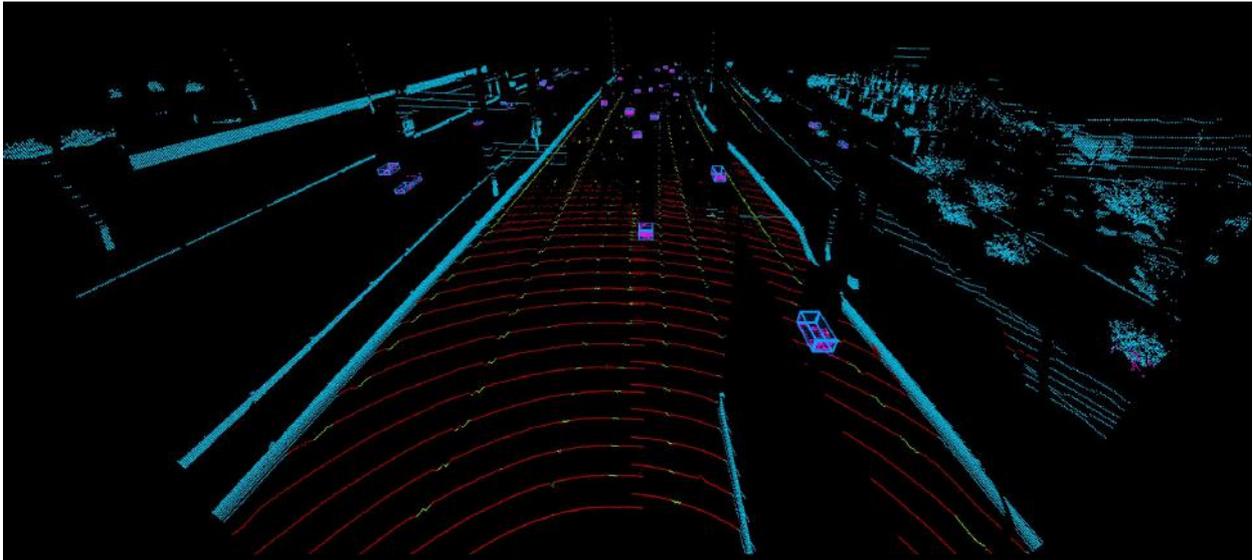
Velodyne became a public company this past September, and are vying to supply automakers with lidar equipment. Velodyne were an early entrant into the market, and their lidars have powered research operations for many automakers. Now, Velodyne say their new Velarray H800 will have a target price of less than \$500.

In an interview with Reuters, Velodyne CEO Anand Gopalan said the company are working with contract manufacturing partner Fabrinet to assemble test devices and that mass production will begin at a Fabrinet factory in Thailand by the second half of next year, with the H800 showing up in vehicles in 2022 or '23.

The H800 uses solid-state technology and will be small enough to fit behind the windscreen. It can be put to use for self-driving vehicles or existing driver-assistance features such as emergency braking and lanekeeping assistance.

Luminar to Supply Lidar Sensors for Mobileye's AV Fleet

DRIVER ASSISTANCE NEWS



Luminar Technologies said last week that it will supply laser-based lidar sensors to Mobileye for its test fleet of self-driving vehicles, and its lidar will be incorporated into Mobileye's self-driving hardware and software system, which also uses radar and surround-view cameras.

Mobileye is one of the world's largest suppliers of camera-based sensors used by most top automakers in their advanced driver assistance systems. The company is developing high-definition maps for automated vehicles, and is also the hub of Intel's initiative to build a multimodal mobility as a service (MaaS), business that incorporates different modes of transportation from e-scooters to robotaxis.

In May, Mobileye acquired Israel startup Moovit, one of the world's leading MaaS providers, and said the service eventually would include self-driving robotaxis.

Mobileye is part of a consortium with BMW, Aptiv and others to develop self-driving systems that the group has said it could sell to other automakers.

Luminar said it has development deals with a number of automakers, with Volvo among the first to use the company's lidar on self-driving vehicles in 2022.

Amazon, NXP in Connected-Vehicles Pact

DRIVER ASSISTANCE NEWS



Dutch-based semiconductor manufacturer NXP have entered a partnership with Amazon Web Services (AWS) in the field of connected vehicles. NXP design the chips embedded in vehicles from a large number of makers, and now they will design a new chip to aggregate data from a vehicle and transfer it to the cloud in an efficient and secure manner.

NXP Automotive Processing Executive VP Henri Ardevol says his company's goal is to help their customers "accelerate their digital transformation by unlocking the value of vehicle data and leveraging services provided from the vehicle or the cloud".

Providing a secure vehicle-to-cloud connectivity solution is essential for the next generation of cars that will be able to accommodate new services for automakers, their partners and customers. Collection of data in real time will allow the development of new use cases. For example, predictive maintenance solutions could be offered, avoiding having to completely change some parts and allowing manufacturers to improve their supply chain by anticipating certain needs.

Ardevol says "We see the opportunity to help automakers make meaningful improvements throughout the lifecycle of vehicles with new data from the vehicle and the ability to make continuous improvements with machine learning and updates via the cloud".

Terms of the pact between AWS and NXP have not been made public.

General News

Japanese brands dominate Consumer Reports rankings

GENERAL NEWS



MAZDA CX-30

Japanese auto brands nabbed five of the top 10 spots on this year's *Consumer Reports* Reliability Survey, with Mazda finishing on top for the first time, followed by Toyota and Lexus. The survey, which covers the 2000-2020 model years, is based on data collected from the organization's members about their experiences with more than 300,000 vehicles.

A model's overall reliability score also includes road-test performance, owner satisfaction survey results, whether the model comes with key safety systems and crash test data, where available.

Rank	Brand	Score
1	Mazda	83
2	Toyota	74
3	Lexus	71
4	Buick	70
5	Honda	63
6	Hyundai	62
7	Ram	58
8	Subaru	57

9	Porsche	55
10	Dodge	54
11	Infiniti	54
12	BMW	52
13	Nissan	51
14	Audi	46
15	Kia	45

RELIABILITY SCORES

The consumer organization had been predicting that EVs would, by their nature, be more reliable than a brand's combustion-powered vehicles, because they have fewer moving parts. But, he said, in many cases, that's turning out not to be the case. "Almost all automakers seem to use the opportunity to make these vehicles a technological tour de force, and as a result, they're creating problems because they're changing everything."

FCA, PSA Unveil Stellantis Logotype

GENERAL NEWS



Fiat Chrysler Automobiles and PSA unveiled the logotype of Stellantis, the company resulting from their planned merger. The automakers say the logotype is a further step towards the finalisation of their deal to combine into one company.

The companies agreed last December to merge in a USD \$38bn all-share deal to create the world's N° 4 automaker, comprising brands including Fiat, Jeep, Dodge, Ram, Chrysler, Maserati, Peugeot, Opel, Citroën, and DS.

FCA and PSA last July announced they had picked 'Stellantis' as a name for the merged group, saying it refers to the Latin verb "stello," which means "to brighten with stars." The two companies expect to finalise their merger by the end of the first quarter of next year.

October Europe Sales Fall on Virus Curbs

GENERAL NEWS



Europe's five largest markets all posted negative results in October. Sales in Spain fell by 21% and by 10% in France, while Italy, Germany and the UK registered more moderate drops. Registrations in the EU, UK and EFTA fell to 1.13 million in October from 1.22 million in the same month last year, industry association ACEA said last week.

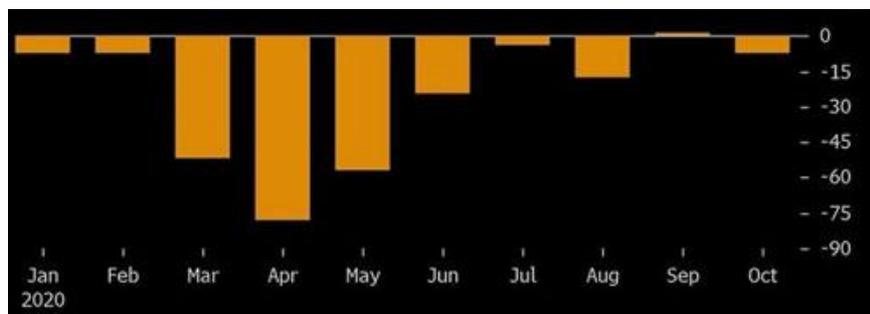
Most brands lost volume but there were some winners including Audi, Jeep, Fiat and Opel-Vauxhall.

Audi's registrations rose 19%, Jeep's sales jumped 7%, Fiat gained 5% and Opel/Vauxhall registrations increased 3%. Renault brand saw a slight rise of 1%.

Despite Audi's positive result, parent Volkswagen Group's overall volume dropped by 7%, hit by a 26% plunge in Porsche sales, a 17% drop at VW brand.

PSA Group's sales fell 5%, with DS down 18%, Citroën slumped by 12% and Peugeot down 5%.

Among brands that had a bad month were Jaguar, whose sales plunged 33%, Ford down 21%, and Nissan down 14%. Luxury automakers also posted losses with BMW brand's sales falling 14% and rival Mercedes-Benz reporting a 3% drop. Aside from a small gain in September, European sales have been in decline all year and are down 27% through the first 10 months to 9.69 million.



SALES IN EUROPE IN 2020 (EAMA)