



## Velodyne Lidar's Intelligent Infrastructure Solution Selected for Major Deployment in University of California, Irvine Smart Cities Initiative

September 28, 2021

***Velodyne's Lidar-based Traffic Monitoring Solution to be Used at 25 Intersections as Part of \$6 Million Road Network Project in Irvine, Calif.***

SAN JOSE, Calif.--(BUSINESS WIRE)--Sep. 28, 2021-- [Velodyne Lidar, Inc.](#) (Nasdaq: VLDR, VLDRW) today announced its [Intelligent Infrastructure Solution](#) has been selected by the HORIBA Institute for Mobility and Connectivity<sup>2</sup> (HIMaC<sup>2</sup>) in the University of California, Irvine (UCI) Samueli School of Engineering. HIMaC<sup>2</sup> plans to equip 25 intersections at UCI and the adjacent City of Irvine with Velodyne's lidar-based Intelligent Infrastructure Solution as part of a major study on improving traffic and energy efficiency, road safety and air quality.

This press release features multimedia. View the full release here: <https://www.businesswire.com/news/home/20210928005328/en/>



The Intelligent Infrastructure Solution deployment is supported by a \$6 million grant recently awarded to HIMaC<sup>2</sup> by the Vehicle Technology Office of the U.S. Department of Energy (DOE). HIMaC<sup>2</sup> will create a Public Road Network Platform for the development, evaluation and deployment of emerging and future connected and autonomous vehicle (CAV) technologies. The Intelligent Infrastructure Solution combines Velodyne's award-winning [lidar sensors](#) with powerful AI software to monitor traffic networks and public spaces.

Also included in the project are Bluecity, Argonne National Laboratory (ANL), the UCI Institute of Transportation Studies, Toyota Motor of North America, Pony.ai and Hyundai Mobis. [Research](#) shows traffic coordination of intersections and CAVs based on reliable data and analytics can reduce congestion between 20-to-30 percent and emissions between 5-to-15 percent while also improving safety.

Velodyne Lidar announced its Intelligent Infrastructure Solution has been selected by the HORIBA Institute for Mobility and Connectivity<sup>2</sup> (HIMaC<sup>2</sup>) in the University of California, Irvine (UCI) Samueli School of Engineering. HIMaC<sup>2</sup> will use Velodyne's lidar-based solution as part of a major study on improving traffic and energy efficiency, road safety and air quality. (Photo: Velodyne Lidar)

"The program looks to advance connected and autonomous transportation and show how they can contribute to smarter, safer infrastructure for our communities," said UCI Engineering Professor Scott

Samuelson, Principal Investigator in the HIMaC<sup>2</sup> program. "By deploying Velodyne's automated monitoring and control in an intersection network, backbone data can be generated and utilized to demonstrate improved safety, energy efficiency and traffic flow to which cities aspire. With its deployment at 25 intersections, this initiative will be the largest lidar-based traffic monitoring solution in the world."

HIMaC<sup>2</sup> will study how traffic coordination can be improved based on reliable data and analytics generated by the Intelligent Infrastructure Solution. By implementing advanced infrastructure monitoring as a V2X (vehicle to everything) solution, the HIMaC<sup>2</sup> program will look to generate critical data needed to improve traffic and crowd flow, path planning, and protect vulnerable road users in all weather and lighting conditions. Distinct advantages of the Intelligent Infrastructure Solution include its ability to leverage as few as one unit per intersection which supports scalability. Additionally, lidar sensors do not identify individuals' facial characteristics, an important privacy factor for civic applications.

"The HIMaC<sup>2</sup> program is tackling one of the most challenging and pervasive infrastructure problems that cities face — how to improve traffic flows and safeguard road users," said Jon Barad, Vice President of Business Development, Velodyne Lidar. "Velodyne believes that smart infrastructure integrated with connected and autonomous vehicles have the potential to deliver game-changing improvements in roadway efficiency and safety. We look forward to working with the HIMaC<sup>2</sup> team to explore how to create a more sustainable, safer future for our transportation infrastructure."

### Velodyne's Intelligent Infrastructure Solution

Velodyne's Intelligent Infrastructure Solution creates a real-time 3D map of roads and intersections, providing precise traffic monitoring and analytics that is not possible with other types of sensors like cameras or radar. It reliably collects data in any lighting or weather condition, supporting year-round operation, while also protecting people's privacy. The solution advances safety through multimodal analytics that detect various road users including vehicles, pedestrians, and cyclists. It can predict, diagnose, and address road safety challenges, helping municipalities and other customers make

informed decisions to take corrective action. For more information on the Intelligent Infrastructure Solution, contact Velodyne Sales: 669.275.2526, [sales@velodyne.com](mailto:sales@velodyne.com).

### **About the HORIBA Institute for Mobility and Connectivity<sup>2</sup> (HIMaC<sup>2</sup>)**

Located at the UCI Samueli School of Engineering "Advanced Power and Energy Program (APEP)," HIMaC<sup>2</sup> focuses on the electrochemical powerplants (batteries and fuel cells) powering zero-emission vehicles, the integration of the energy and transportation sectors through electricity and hydrogen under a renewable energy paradigm, and the future of emerging connected and autonomous vehicle. The facilities encompass a Vehicle Evolution Laboratory, a Grid Evolution Laboratory, a Connected and Autonomous Mobility Laboratory, and an Analytic Laboratory.

### **About Velodyne Lidar**

Velodyne Lidar (Nasdaq: VLDR, VLDRW) ushered in a new era of autonomous technology with the invention of real-time surround view lidar sensors. Velodyne, the global leader in lidar, is known for its broad portfolio of breakthrough lidar technologies. Velodyne's revolutionary sensor and software solutions provide flexibility, quality and performance to meet the needs of a wide range of industries, including autonomous vehicles, advanced driver assistance systems (ADAS), robotics, unmanned aerial vehicles (UAV), smart cities and security. Through continuous innovation, Velodyne strives to transform lives and communities by advancing safer mobility for all. For more information, visit [www.velodynelidar.com](http://www.velodynelidar.com).

### **Forward Looking Statements**

This press release contains "forward looking statements" within the meaning of the "safe harbor" provisions of the United States Private Securities Litigation Reform Act of 1995 including, without limitation, all statements other than historical fact and include, without limitation, statements regarding Velodyne's target markets, new products, development efforts, and competition. When used in this press release, the words "estimates," "projected," "expects," "anticipates," "forecasts," "plans," "intends," "believes," "seeks," "may," "will," "can," "should," "future," "propose" and variations of these words or similar expressions (or the negative versions of such words or expressions) are intended to identify forward-looking statements. These forward-looking statements are not guarantees of future performance, conditions or results and involve a number of known and unknown risks, uncertainties, assumptions and other important factors, many of which are outside Velodyne's control, that could cause actual results or outcomes to differ materially from those discussed in the forward-looking statements. Important factors, among others, that may affect actual results or outcomes include uncertainties regarding government regulation and adoption of lidar, the uncertain impact of the COVID-19 pandemic on Velodyne's and its customers' businesses; Velodyne's ability to manage growth; Velodyne's ability to execute its business plan; uncertainties related to the ability of Velodyne's customers to commercialize their products and the ultimate market acceptance of these products; the rate and degree of market acceptance of Velodyne's products; the success of other competing lidar and sensor-related products and services that exist or may become available; uncertainties related to Velodyne's current litigation and potential litigation involving Velodyne or the validity or enforceability of Velodyne's intellectual property; and general economic and market conditions impacting demand for Velodyne's products and services. For more information about risks and uncertainties associated with Velodyne's business, please refer to the "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Risk Factors" sections of Velodyne's SEC filings, including, but not limited to, its annual report on Form 10-K and quarterly reports on Form 10-Q. All forward-looking statements in this press release are based on information available to Velodyne as of the date hereof, Velodyne undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

View source version on [businesswire.com](https://www.businesswire.com/news/home/20210928005328/en/): <https://www.businesswire.com/news/home/20210928005328/en/>

### **Velodyne Investor Relations**

[InvestorRelations@velodyne.com](mailto:InvestorRelations@velodyne.com)

### **Velodyne Media**

Codeword

Liv Allen

[velodyne@codewordagency.com](mailto:velodyne@codewordagency.com)

### **HIMaC<sup>2</sup> Media**

William Gary

949-824-7302, Ext. 11131

[wmg@apep.uci.edu](mailto:wmg@apep.uci.edu)

Source: Velodyne Lidar, Inc.