



Velodyne Lidar's Intelligent Infrastructure Solution Deployed in Helsinki Traffic Safety Improvement Project

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Velodyne's Solution Delivered Traffic Monitoring with Lidar and Edge AI Computing

SAN JOSE, Calif.--(BUSINESS WIRE)--Jun. 22, 2022-- [Velodyne Lidar, Inc.](#) (Nasdaq: VLDR, VLDRW) today announced its [Intelligent Infrastructure Solution](#) (IIS) was deployed in Helsinki, Finland to collect traffic data and improve roadway safety. The project demonstrated the high accuracy and value of IIS in multimodal traffic counting and classification, and in near miss collision detection and monitoring.

This press release features multimedia. View the full release here: <https://www.businesswire.com/news/home/20220622005178/en/>



The project was directed by the [Forum Virium Helsinki](#) and City of Helsinki in collaboration with [Nodeon Finland](#) and [Commsignia](#). Intelligent Infrastructure Solution, which combines Velodyne's award-winning [lidar sensors](#) and [Bluecity's](#) AI software, was used to monitor traffic flow at three intersections in the vibrant Jätkäsaari section of Helsinki. In addition, one of the intersections was equipped with a cooperative intelligent transport system (C-ITS) roadside unit to enable experiments that sent warning messages to drivers on vulnerable road users at the intersection.

In the project, IIS delivered an average counting accuracy of 97 percent for vehicle traffic as well as bicycle and pedestrian traffic. The solution also demonstrated its efficacy in detecting near miss collision situations, such as running red lights and jaywalking, which provides valuable information for developing traffic management improvements that enhance safety. Next steps for the project include further developing vehicle classification capabilities, building a solution for mobile

Velodyne Lidar announced its Intelligent Infrastructure Solution was deployed in Helsinki, Finland to collect traffic data and improve roadway safety. The project demonstrated the high accuracy and value of the solution in multimodal traffic counting and classification, and in near miss collision detection and monitoring. Test site 1: Tyynenmerenkatu – Välimerenkatu – Jätkäsaarenlaituri (Helsinki, Finland). (Graphic: Nodeon Finland)

use for short-term traffic measurement and creating an interface between IIS and traffic signal controllers.

"Velodyne Lidar has shown it can reliably and accurately generate traffic information about intersection traffic involving vehicles, pedestrians and bicycles, including volume and classification data, directions, trajectories and speed," said Janne Rinne, project manager in Forum Virium Helsinki. "The solution provides accurate real-time detection data to support C-ITS safety solutions like vulnerable road user warnings that can help improve road safety."

"Our Intelligent Infrastructure Solution provides the data that transportation planners need to understand traffic network problems and take a proactive approach on safety for vehicles and vulnerable road users," said Laura Wrisley, Senior Vice President of Worldwide Sales, Velodyne Lidar. "Our solution is leading the way in transforming infrastructure to make communities smarter and safer."

About Intelligent Infrastructure Solution

Intelligent Infrastructure Solution delivers traffic monitoring and analytics to improve road safety, efficiency and air quality, and help cities plan for smarter, safer transportation systems. The full stack solution is deployed across three continents, including systems rolled out in Texas, Florida, Nevada, California, New Jersey, Missouri and Canada.

Velodyne's lidar sensors do not identify individuals' facial characteristics, an important concern for civic applications. Lidar has an advantage in privacy over camera-only systems because lidar does not record details like hair and skin color. Velodyne's lidar sensors reliably collect data in any lighting or weather condition, supporting 24/7, 365 days a year operation.

By improving traffic flow and reducing congestion, Intelligent Infrastructure Solution advances energy efficiency and reduces greenhouse gas emissions for a more sustainable future. Recently, the solution won the 2022 SXSW Innovation Awards by the South by Southwest Conference and Festivals.

For more information on the Intelligent Infrastructure Solution, contact Velodyne Sales: 669.275.2526, sales@velodyne.com.

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 robotics, industrial, intelligent infrastructure, autonomous vehicles and advanced driver assistance systems (ADAS). Through continuous innovation, Velodyne strives to transform lives and communities by advancing safer mobility for all.

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.

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