THANKS TO OUTSIGHT, THE CITY OF BELLEVUE ADOPTS LIDAR AND REDUCES TRAFFIC FATALITIES

Can technology help reduce accidents and fatalities at busy intersections? The city of Bellevue turned to Outsight's LiDAR to help answer this question.

	Before	After	Difference
Adjacent-Approaches	119	10	-91.60%
Opposing-Approaches	12	1	-91.67%
Rear-End	149	35	-76.51%
Side-Swipe	45	6	-86.67%
Pedestrian	128	16	-87.5%
Bicycle	16	0	-100%

Traffic incidents by type, before and after LiDAR pilot period

PARIS, FRANCE, January 9, 2024 /EINPresswire.com/ -- As climate change intensifies, a growing shift towards walking and cycling has been particularly notable in the Western world. From the growing popularity of electric bicycles, to the increasing provision of bike lanes in various cities across the world, transportation is returning to its roots to respect the needs of the environment.

Despite this enthusiasm, the safety and urban planning implications of this shift remain insufficiently addressed.

According to data (https://amagroup.io/vision-zero-bellevue-city-vulnerable-road-users/) collected by the city of Bellevue, Washington, 55% of all fatal and serious crashes involve a pedestrian or a cyclist. In a further indictment of urban planning, 41% of all pedestrian fatalities and serious injuries occur due to the failure of vehicles to yield to pedestrians.

As part of its Vision Zero Initiative (https://bellevuewa.gov/city-government/departments/transportation/safety-and-maintenance/traffic-safety/vision-zero), the City of Bellevue aims to eliminate traffic deaths and serious injury collisions on city streets by 2030. This includes considering the design , infrastructure and systemic issues behind crashes, as well as carrying out periodic progress assessments across all domains of the initiative. Foreseeing the importance of actionable data to achieve this objective, the City of Bellevue is adopting a range of physical and digital solutions, including Outsight's class-leading software, to develop a long-lasting framework for road safety.

Raul Bravo, President and founder of Outsight states, “We are thrilled to be working with the City of Bellevue as part of the Vision Zero Initiative, providing them with a repository of data in real-time to test and implement a range of initiatives to enhance the safety of all. With the rise in new forms of mobility, it is essential that our infrastructure evolves to ensure the security of all without compromising on efficiency, and the Vision Zero Initiative provides a beautiful way to strive towards the same.”

Collecting accurate and actionable data thanks to LiDAR

In seeking to achieve the above-mentioned objective by 2030, Bellevue turned to LiDAR for its capacity to provide large amounts of usable data regarding road usage trends, while respecting the privacy of all users.

Without the use of cameras or facial identification, LiDAR helped the administration detect and classify various road users (pedestrians or vehicles) at all times of the day. Since LiDAR does not have to rely on lighting to perform accurately, a large amount of data was collected regarding road usage in the evening and during the night, when a significant number of fatalities occur. This helped policymakers identify and defuse potential conflict situations. They were also able to test and collect actionable data on various initiatives, such as the deployment of high-visibility crosswalks.

Using Outsight’s class-leading software solution, the data collected was quickly processed and streamlined into actionable insights, making sure that the City of Bellevue stayed adequately informed throughout their entire decision making process. The software’s plug-and-play approach meant that a range of LiDAR sensors from different manufacturers could be used, maximizing performance in different situations and terrains.

A major step towards enhancing road safety

Following extensive video analysis over a period of seven years, the City of Bellevue deployed LiDAR sensors to measure its effect on road safety. An initial sample of incidents (without LiDAR) was obtained from 25-29 July, 2022, before deploying Outsight’s solution and collecting data from October 10-14, 2022.

Through this experiment, the potential of LiDAR in enhancing road safety was made strikingly clear. Incidents involving cyclists dropped to zero, from 16 observed incidents in the initial sample, while incidents involving pedestrians registered a sharp drop of 87.5%. Meanwhile, incidents involving two vehicles registered a decrease ranging from 76.51% (rear-end collisions) to 91.67% (opposing approaches).

According to Raul Bravo, President and founder of Outsight, “The success of LiDAR in enhancing road safety in Bellevue demonstrates the potential of LiDAR within Smart Cities. Far from what was initially thought, LiDAR has become a veritable tool in the arsenal of policymakers to design

cities which can adapt to the changing needs and capabilities of its population. ”

According to Franz Loewenherz, Mobility Planning and Solutions Manager at the City of Bellevue, WA, “Outsight has been a great partner for us in ingesting and processing huge quantities of LiDAR data, and rendering it in a manner that simplifies it to only those issues that are most relevant for us to intervene on from a safety standpoint.”

About Outsight:

Outsight’s software solutions track the motion of people and vehicles using 3D LiDAR data.

Operators of transportation hubs like airports and train stations but also sporting venues, road infrastructures and industrial sites can now access accurate and anonymous Spatial Intelligence data, in order to improve operations and increase user safety and satisfaction.

Our international team of scientists and engineers drive the development of our solutions from Paris, San Francisco, and Sophia-Antipolis (Nice). To support our global outreach, we also operate commercial offices in the UK, Belgium, Spain, Hong Kong, and Singapore.

We believe that accelerating the adoption of LiDAR technology through robust and scalable software solutions will significantly contribute to making the world smarter, safer and more sustainable.

To learn more: https://www.outsight.ai/

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