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Frost & Sullivan Recognizes Arbe With the 2021 Europe New Product Innovation Award for Advancing Autonomous Vehicle Technology with Its 4D Imaging Radar Chipsets

Arbe's ultra-high-resolution radar drives significant value and outperforms LiDAR and traditional radars

LONDON, Oct. 27, 2021 /PRNewswire/ -- Based on its recent analysis of the European 4D imaging radar for autonomous vehicles market, Frost & Sullivan recognizes Arbe Robotics Ltd. with the 2021 Europe New Product Innovation Award for its proprietary 4D radar technology for advanced driver-assistance systems (ADAS), Level 2+, and fully autonomous vehicles. Arbe's three-chip solution delivers metrics designed to resolve the challenges caused by environmental factors while simultaneously delivering industry-leading object recognition with high resolution, long range, and accuracy.

"Arbe builds on preceding technologies by leveraging a unique form of frequency-modulated continue-wave (FMCW) radar, as well as integrated AI-based perception enhancing algorithms," said Krithika Shekar, Senior Research Analyst at Frost & Sullivan. "It delivers significant value as its 4D radar technology outperforms light detection and ranging (LiDAR) and traditional radar in areas such as weather and night driving. Importantly, it can potentially replace LiDAR in Level 3 autonomous vehicles."

By offering a resolution of one-degree azimuth and 1.8-degree elevation at distances exceeding 300 meters, Arbe's three-chip solution ensures all-weather, high-reliability performance. The solution eliminates radar false alarms, reduces Doppler ambiguities, and detects stationary objects to provide real-time, accurate, and meaningful information about the driving environment. The radar transmitter, receiver, and processor enable the technology to process HD radar pictures of the environment in real time at 30 frames per second, making it 12 times sharper than pictures by competing offerings.

In October 2020, Arbe launched its Radar Development Platform, enabling Tier I and original equipment manufacturers (OEMs) to enhance their perception algorithms. When combined with Arbe's imaging radar solution, the platform aids free space mapping, thus determining the orientation and velocity of other vehicles to know what lies ahead in all environmental conditions. In addition, this imaging radar positions Arbe as a first mover because its radar is the only technology that offers full long-range functionality at night.

"The company's post-processing enhances perception algorithms and simplifies sensor

fusion through a 4D point cloud output over Ethernet, without high power requirements," noted Samantha Fisher, Best Practices Research Analyst at Frost & Sullivan. "Arbe developed its radar to integrate anywhere in the vehicle, like the grill or the headlights, depending on the OEM, and within the ADAS and autonomous sensor suite. With these customer-focused product developments, Arbe continues to make critical strides toward the future."

Each year, Frost & Sullivan presents this award to the company that develops an innovative element in a product by leveraging leading-edge technologies. The award recognizes the value-added features/benefits of the product and the increased return on investment (ROI) it gives customers, which, in turn, raises customer acquisition and overall market penetration potential.

Frost & Sullivan Best Practices Awards recognize companies in a variety of regional and global markets for demonstrating outstanding achievement and superior performance in areas such as leadership, technological innovation, customer service, and strategic product development. Industry analysts compare market participants and measure performance through in-depth interviews, analyses, and extensive secondary research to identify best practices in the industry.

About Frost & Sullivan

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About Arbe Robotics Ltd.

Arbe (Nasdaq: ARBE), a global leader in next-generation 4D Imaging Radar Chipset Solutions, is spearheading a radar revolution, enabling truly safe driver-assist systems today while paving the way to full autonomous-driving. Arbe's imaging radar is 100 times more detailed than any other radar on the market and is a mandatory sensor for L2+ and higher autonomy. The company is empowering automakers, tier-1 suppliers, autonomous ground vehicles, commercial and industrial vehicles, and a wide array of safety applications with advanced sensing and paradigm-changing perception. Arbe is a leader in the fast-growing automotive radar market that has an estimated projected total addressable market of $11 billion in 2025. Arbe is based in Tel Aviv, Israel, and has an office in the United States.

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