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Luminar Day: A New Era – Luminar Achieves Global Start of Production for Volvo Cars

*Launches Next-Gen LiDAR; Swiss Re Releases LiDAR Safety Results;
New Partnership with Applied Intuition*

News Summary

- Luminar achieves start of production (SOP) for Volvo Cars; Marks first time industry transitioning from R&D to standard on global production vehicles; Kicks off conversion of nearly \$4 Billion Order Book to revenue
- Unveils Luminar Halo, the company's next-generation LiDAR technology platform; Step-function improvement in performance, integration, and cost; Built for mass adoption by both premium and mainstream automakers
- Swiss Re releases results of industry-first efficacy test of Luminar LiDAR for vehicle safety: nearly 27% reduction in accidents, nearly 40% reduction in severity vs best performing camera/radar vehicles
- New partnership with Applied Intuition to accelerate next-generation assisted driving and automated driving capabilities to industry
- TPK expands partnership with Luminar to support advanced industrialization, expected to significantly reduce costs and product development timelines

SUNNYVALE, Calif.--(BUSINESS WIRE)-- Luminar (Nasdaq: LAZR), a leading global automotive technology company, is hosting Luminar Day: A New Era via a live webcast at www.luminartech.com/luminarday from its new Silicon Valley facility. The company announced that it has achieved start of production for Volvo Cars and begun delivering production LiDAR sensors for the Volvo EX90, which will be the first global production vehicle to feature and standardize this technology. As a result, Luminar now expects to ship multiple times more product in the second half of 2024 than it has in the prior 10 years and accelerating from there. The company also announced the launch of its next-generation LiDAR sensor for the mass market, Luminar Halo, safety test results from Swiss Re, a new partnership with Applied Intuition, and an expanded collaboration with TPK where they will provide substantial industrialization resources to Luminar to improve cost and efficiency.

This press release features multimedia. View the full release here:
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"The past 10 years of Luminar have all been leading up to this historic moment, and proving what many thought would never be possible. We've officially launched in mass production for the first global consumer vehicle with LiDAR, and as standard equipment," said Austin Russell, Founder and CEO. "Volvo is known for being the first to introduce and drive



Luminar Halo LiDAR sensor (Photo: Business Wire)

standardization of safety-focused inventions, all the way from seatbelts to Mobileye systems, and today is no exception. We expect this to kick off a domino effect of dozens of awarded commercial program launches with Luminar, drive economies of scale up and cost down, and unlock mass consumer visibility.”

Luminar Achieves Start of Production for Volvo Cars

Upon passing two key Run at Rate industrialization milestones for Volvo Cars in rapid succession, Luminar has taken its next step in demonstrating its ability to produce high-quality, automotive grade LiDAR sensors at scale and has begun shipping sensors to Volvo Cars ahead of the start of production for the Volvo EX90. The Volvo EX90 will be the world’s first global consumer vehicle to standardize this technology.

Luminar Halo: Next-Generation LiDAR for Mainstream Production

The company unveils its next-generation LiDAR product, Luminar Halo, being designed for mass adoption by mainstream consumer vehicles. Building off Luminar’s high-performance 1550nm architecture, Luminar Halo will incorporate four next-generation breakthrough chip technologies from Luminar Semiconductor Inc, enabling a 4x improvement in performance, a 3x reduction in size, 2x improvement in thermal efficiency, and more than 2x improvement in cost. Luminar Halo is also expected to provide backwards system compatibility to existing customers of its current generation sensor family, Iris. It also will boast a sleeker integration profile, seamlessly blending into the roofline of a car or behind the windshield and is expected to be under 1 inch in height, under 1 kilogram in weight, and use approximately 10 watts of power consumption. The Luminar Iris family of LiDAR was designed to kick off a new global industry for safety and autonomy on premium vehicles, whereas Luminar Halo is designed to focus more on rapidly scaling our vision to mainstream consumer vehicles, and to fulfill our mission to democratize next-generation safety.

Swiss Re Safety Study Results on Luminar’s LiDAR Sensor

Swiss Re, a world leader in reinsurance and risk assessment, [releases the results of its comprehensive vehicle safety testing](#) to measure the efficacy of Luminar’s technology in preventing and reducing the severity of accidents as the next stage in the partnership with Swiss Re, which launched at our last [Luminar Day in February 2023](#). Vehicles equipped with Luminar LiDAR and software driving system outperformed the best performing camera and radar vehicles in the study by a margin of nearly 40%. When compared to the overall 1st and

2nd best performers out of the pool of benchmarking vehicles tested, the Luminar system outperforms them by a margin of nearly 27% on frequency reduction of vehicle accidents and nearly 40% on mitigation power performance. The 1st and 2nd best performers are 2022 model year vehicles of top European car brands, equipped with the latest and fullest set of camera and radar-based technology available on the market.

Luminar will leverage the safety study as an industry benchmark to launch a digital insurance product which is expected to reduce the cost of insurance for car buyers of Luminar-equipped vehicles. Luminar expects to be licensed to sell insurance in 13 states by the end of the year and plans to expand internationally starting next year. The collision scenarios used in their study are drawn from Swiss Re's accidents database and is based on real-world accidents statistics with 1 billion vehicle years of exposure and 70 million claims.

Partnering with Applied Intuition to Accelerate ADAS and AD Deployment with Automakers

Luminar [announces a new partnership with Applied Intuition](#), a leading Silicon Valley-based vehicle software developer. In the initial phase of the partnership, the two companies plan to offer a joint hardware and software solution for automakers to test and validate assisted driving and automated driving perception systems using Applied Intuition's physics-based sensor simulator, Sensor Sim, with integrated sensor models of Luminar's LiDAR. Automakers will be able to accurately test and validate Luminar's LiDAR-based software systems in virtual environments while reducing testing cost and accelerating time to market.

Accelerating Industrialization in Expanded TPK Partnership

Luminar expands its partnership with TPK, a multi-billion-dollar manufacturer that has supplied companies like Apple and Tesla, after TPK's demonstrated ongoing success in building out capacity in its high-volume factory in Asia for Luminar following the [launch of the partnership in April 2023](#). With the expansion, TPK is now beginning to provide significant industrialization resources to Luminar in its facilities for acceleration of scaling, efficient factory automation, and supplier management, which we expect will significantly reduce industrialization costs and product development timelines in the future.

Join Luminar Day via Livestream

Luminar Day begins at 2:00pmET/11:00amPT with a presentation by Austin Russell. Throughout the event, company executives and third-party industry leaders will discuss Luminar's vision, execution, and the industry's shift towards next-generation safety and autonomy. Livestream at <https://www.luminartech.com/luminarday>.

About Luminar:

Luminar is a global automotive technology company ushering in a new era of vehicle safety and autonomy. For the past decade, Luminar has built an advanced hardware and software/AI platform to enable its over 50 industry partners, including most global automotive OEMs. From consumer vehicle programs with Volvo Cars and Mercedes-Benz to technology partnerships including NVIDIA and Mobileye, Luminar is poised to be the first automotive technology company to enable next-generation safety and autonomous capabilities for global production vehicles. For more information, please visit www.luminartech.com.

Forward-Looking Statements

Certain statements included in this release that are not historical facts are forward-looking statements for purposes of the safe harbor provisions under the Private Securities Litigation Reform Act of 1995. Forward-looking statements generally are accompanied by words such as “aims,” “believe,” “may,” “will,” “estimate,” “set,” “continue,” “towards,” “anticipate,” “intend,” “expect,” “should,” “would,” “forward,” and similar expressions that predict or indicate future events or trends or that are not statements of historical matters. These forward-looking statements include, but are not limited to, statements regarding Volvo’s start of delivery of the EX90 to customers and its successful launch, achievement of performance of next generation LiDAR currently in development, that software including in automaker vehicles will have similar performance at launch or in the future to Luminar’s software performance in testing for safety improvement and insurance reduction, that Luminar will be able to offer a registered insurance product in various markets and will be successful in attracting partners and customers, that Luminar will be offering and automakers will be interested in evaluating software development kits combined with hardware, and that new partnerships will result in cost reductions while improving industrialization and manufacturing. These statements are based on various assumptions, whether or not identified in this release, and on the current expectations of Luminar’s management and are not guarantees of actual performance. Forward-looking statements are subject to a number of risks and uncertainties that could cause actual results to differ materially from the forward-looking statements, including the risks discussed in the “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” sections of Luminar’s most recently filed Form 10-K filed with the SEC. You are cautioned not to place undue reliance upon any forward-looking statements, which speak only as of the date made, and Luminar undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date of this release.

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