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LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The assumptions used to value purchase rights under the ESPP during the year ended December 31, 2022 were as follows:

	May 16, 2023	November 16, 2023	May 16, 2022	November 16, 2022
Expect term (years)	0.5	0.5	0.5	0.5
Volatility	92.2%	77.6%	82.3%	93.5%
Risk-free interest rate	5.26%	5.38%	1.54%	4.54%
Dividend yield	—%	—%	—%	—%

Optogration Milestone Awards

As discussed in Note 3, as part of the Optogration acquisition in August 2021, the Company owed up to \$2.0 million of post combination compensation related to certain service and performance conditions ("Optogration Milestone Awards"). In August 2022, the Company issued 1,632,056 shares of Class A common stock for \$1.0 million of the Optogration Milestone Awards and in August 2023, the Company issued 1,527,788 shares of Class A common stock for the remaining \$1.0 million obligation.

Freedom Photonics Awards

As discussed in Note 3, as part of the Freedom Photonics acquisition in April 2022, the Company owes up to \$9.8 million of post combination compensation related to certain service and performance conditions including achievement of certain technical and financial milestones. In May 2023, the Company issued 634,994 shares of Class A common stock and 492,176 RSUs for \$3.9 million and \$3.5 million, respectively, of the post combination compensation due to achievement of the service and performance conditions. As of December 31, 2023, it is probable that the remaining conditions will be met for an amount equal to approximately \$20.9 million of post combination compensation.

Solfice Awards

The service and performance conditions related to the post combination compensation associated with the acquisition of certain assets from Solfice were met in June 2023. In June 2023, the Company issued 766,642 shares of Class A common stock and 101,663 RSUs for \$5.3 million and \$0.7 million, respectively, of the post combination compensation due to achievement of the service and performance conditions.

Management Awards

On May 2, 2022, the Board granted an award of 10.8 million RSUs to Austin Russell, the Company's Chief Executive Officer. The grant date fair value per share was \$8.70 per share. On August 19, 2022, the Board granted 500,000 RSUs to each of Thomas Fennimore, the Company's Chief Financial Officer and Alan Prescott, the Company's Chief Legal Officer. The grant date fair value per share was \$6.12 per share.

These awards to Mr. Russell, Mr. Fennimore and Mr. Prescott are subject to all of the following vesting conditions:

- Market condition: Achievement of three stock price milestones: \$50 or more, \$60 or more, and \$70 or more. The stock price will be measured based on the volume-weighted average price per share for 90 consecutive trading days;
- Service condition: Approximately 7-years of vesting; and
- Performance condition: Start of production for at least one series production program.

On March 16, 2023, the Board granted a \$12.0 million stock-price based award to the Company's Executive Vice President & General Manager that vested in six tranches

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LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
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Intangible assets were acquired in connection with the Company's acquisition of Optogration in August 2021, Freedom Photonics in April 2022 and Solfice in June 2022. See Note 3 for further details of these acquisitions. The components of intangible assets were as follows (in thousands):

	December 31, 2023					December 31, 2022				
	Gross Carrying Amount	Accumulated Amortization	Impairment(1)	Net Carrying Amount	Weighted Average Remaining Period (Years)	Gross Carrying Amount	Accumulated Amortization	Impairment	Net Carrying Amount	Weighted Average Remaining Period (Years)
Customer relationships	\$ 3,730	\$ (1,479)	\$ —	\$ 2,251	3.7	\$ 3,730	\$ (664)	\$ —	\$ 3,066	4.3
Customer backlog	650	(650)	—	—	—	650	(292)	—	358	0.9
Tradename	620	(339)	—	281	2.3	620	(214)	—	406	3.2
Assembled workforce	130	(130)	—	—	—	130	(130)	—	—	—
Developed technology	20,150	(4,188)	—	15,962	5.5	11,910	(1,163)	—	10,747	7.2
IPR&D	7,500	—	(3,000)	4,500	—	7,500	—	—	7,500	—
Total intangible assets	\$ 32,780	\$ (6,786)	\$ (3,000)	\$ 22,994	5.2	\$ 24,540	\$ (2,463)	\$ —	\$ 22,077	6.0

(1) See below for discussions related to impairment charges.

Amortization expense related to intangible assets was \$4.3 million, \$2.2 million and \$0.2 million for the year ended December 31, 2023, 2022 and 2021, respectively.

As of December 31, 2023, the expected future amortization expense for intangible assets was as follows (in thousands):

Period	Expected Future Amortization Expense
2024	\$ 4,001
2025	4,001
2026	3,354
2027	3,138
2028	1,646
Thereafter	2,354
IPR&D	4,500
Total	\$ 22,994

Goodwill

The carrying amount of goodwill allocated to the Company's reportable segments was as follows (in thousands):

	Autonomy Solutions	ATS	Total
Balance as of December 31, 2022	\$ 687	\$ 18,129	\$ 18,816
Goodwill related to acquisition of Seagate's lidar business (see Note 3)	1,063	—	1,063
Impairment of goodwill related to Freedom Photonics	—	(12,489)	(12,489)
Balance as of December 31, 2023	\$ 1,750	\$ 5,640	\$ 7,390

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LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES Consolidated Statements of Cash Flows (In thousands)				Year Ended December 31,		
	2023		2022		2021	
Cash flows from operating activities:						
Net loss		\$ (571,269)	\$ (445,939)	\$ (237,986)		
Adjustments to reconcile net loss to net cash used in operating activities:						
Depreciation and amortization		26,624	6,566	4,162		
Amortization of operating lease right-of-use assets		6,987	5,237	3,705		
Amortization of premium (discount) on marketable securities		(5,929)	1,288	1,792		
Loss on marketable securities		7,594	—	—		
Losses and impairments on non-marketable securities and certain other assets		2,141	6,016	—		
Change in fair value of warrants		(1,936)	(9,222)	26,126		
Vendor stock-in-lieu of cash program		50,829	41,459	10,817		
Amortization of debt discount and issuance costs		3,236	3,236	—		
Inventory write-offs and write-downs		19,547	12,154	2,918		
Write-off or loss on sale or disposal of property and equipment		1,522	—	752		
Share-based compensation		207,132	162,405	77,684		
Impairment of goodwill and intangible assets		15,489	—	—		
Expense related to Volvo Warrants		—	—	959		
Product warranty		2,382	2,481	1,538		
Deferred taxes		(64)	232	(1,262)		
Other		—	—	305		
Changes in operating assets and liabilities:						
Accounts receivable		(2,951)	5,144	(6,233)		
Inventories		(22,951)	(10,477)	(10,751)		
Prepaid expenses and other current assets		11,641	(6,557)	(24,340)		
Other non-current assets		177	(3,289)	(6)		
Accounts payable		3,657	5,301	3,838		
Accrued and other current liabilities		9,158	17,768	3,578		
Other non-current liabilities		(10,320)	(2,035)	(6,017)		
Net cash used in operating activities		(247,304)	(208,232)	(148,421)		
Cash flows from investing activities:						
Acquisition of Freedom Photonics LLC (net of cash acquired)		—	(2,759)	—		
Acquisition of certain assets from Solice Research, Inc.		—	(2,001)	—		
Cash received from acquisition of Optopration, Inc.		—	—	358		
Acquisition of Seagate's lidar business		(12,608)	—	—		
Purchases of marketable securities (including \$17,846 and \$16,423 with related parties in 2022 and 2021, respectively, see Note 16)		(301,493)	(404,598)	(716,933)		
Proceeds from maturities of marketable securities		520,286	367,367	366,857		
Proceeds from sales/redemptions of marketable securities (including \$24,753 and \$4,396 with related parties in 2022 and 2021, respectively, see Note 16)		52,356	88,041	161,910		
Purchases of property and equipment		(21,915)	(15,614)	(6,433)		
Disposal of property and equipment		—	—	53		

	Class A Common Stock		Class B Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount					
Issuance of Class A common stock under ESPP	168,147	—	—	—	1,271	—	—	—	1,271
Retirement of unvested restricted common stock	(48,298)	—	—	—	—	—	—	—	—
Vendor payments under the stock-in-lieu of cash program	9,949,385	1	—	—	80,254	—	—	—	80,355
Investment in ECARX Holdings, Inc.	2,030,374	—	—	—	12,588	—	—	—	12,588
Optopration milestone awards	1,632,056	—	—	—	11,751	—	—	—	11,751
Acquisition of Freedom Photonics LLC	2,176,205	—	—	—	30,510	—	—	—	30,510
Acquisition of certain assets from Solice Research, Inc.	374,193	—	—	—	3,361	—	—	—	3,361
Stock-based compensation	—	—	—	—	142,519	—	—	—	142,519
Payments of employee taxes related to stock-based awards	—	—	—	—	(3,730)	—	—	—	(3,730)
Other comprehensive loss	—	—	—	—	—	(3,318)	—	—	(3,318)
Net loss	—	—	—	—	—	—	—	—	—
Balance as of December 31, 2022	291,942,087	29	97,088,670	10	1,558,685	(4,226)	(312,477)	(1,268,426)	(26,405)
Issuance of Class A common stock upon exercise of stock options and vesting of restricted stock units	18,636,245	2	—	—	3,054	—	—	—	3,056
Issuance of Class A common stock under ESPP	707,258	—	—	—	2,641	—	—	—	2,641
Issuance of Class A common stock under Equity Financing Program	9,467,996	1	—	—	50,189	—	—	—	50,190
Issuance of Class A common stock to a TPK group company	3,305,784	—	—	—	20,000	—	—	—	20,000
Issuance of Class A common stock to Plus AI	1,926,471	—	—	—	12,141	—	—	—	12,141
Vendor payments under the stock-in-lieu of cash program	15,676,862	2	—	—	75,871	—	—	—	75,873
Milestone awards relating to acquisitions	2,943,401	—	—	—	20,656	—	—	—	20,656
Stock-based compensation	—	—	—	—	186,278	—	—	—	186,278
Payments of employee taxes related to stock-based awards	—	—	—	—	(2,137)	—	—	—	(2,137)
Other comprehensive income	—	—	—	—	—	4,228	—	—	4,228
Net loss	—	—	—	—	—	—	—	—	—
Balance as of December 31, 2023	344,606,104	\$ 34	97,088,670	\$ 10	\$ 1,927,378	\$ 2	\$ (312,477)	\$ (1,839,695)	\$ (224,748)

The accompanying notes are an integral part of these consolidated financial statements.

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Commercial Trucking Market

The amount of goods transported by trucking globally continues to rise year-over-year. The application of ADAS technology continues to grow and the interest in autonomy for commercial transport remains high. The business case for trucking highway autonomy beyond improved safety also includes: lower operating costs, increased vehicle utilization, and more time spent on the road.

Robo-Taxi Market

The robo-taxi industry remains an area of investment and development by leading technology companies and mainstays from the automotive industry. Despite the timeline for widespread deployment of robo taxis continuing to be pushed out due to the complexity of the technical requirements and headwinds such as the near-term contraction and retrenchment of the industry, the need for regional and federal governmental support, funding for infrastructure, and a sensing and compute solution that must anticipate every possible mixed-traffic scenario, the robo-taxi market remains an important market for LiDAR, both for near-term validation and for long-term demand.

Adjacent Markets

Adjacent markets such as last mile delivery, aerospace and defense, robotics and security offer additional use cases for which our technology is well suited. Our goal is to scale first within our core markets and utilize our robust solutions to best serve these adjacent markets where it makes sense for us and our partners.

Our Products

Our LiDAR and other products are described in further detail below:

Hardware

Iris Family: Our Iris and Iris+ LiDAR combine a 1550nm laser, transmitter, and receiver and provide long-range sensing that we expect will meet OEM specifications for advanced safety and autonomy. This technology provides automotive-grade, efficient, and affordable solutions that are scalable, reliable, and optimal for series production. Our LiDAR sensors are dynamically configurable dual-axis scan sensors that detect objects up to 600 meters away over a horizontal field of view of 120° and a software configurable vertical field of view of up to 30°. This provides high point densities in excess of 200 points per square degree that enables long-range detection, tracking, and classification over the whole field of view. Iris and Iris+ have been refined to meet the size, weight, cost, power, and reliability requirements of automotive qualified series production sensors.

Iris and Iris+ feature our vertically integrated receiver, detector, and application-specific integrated circuit ("ASIC") solutions that have been developed by our Advanced Technologies & Services ("ATS") segment companies—Optogration, Freedom Photonics, and Black Forest Engineering. We refer to the internal development of these key sub-component technologies as our "chip-level up" strategy, which we believe gives us a significant advantage in the development of our product roadmap and a competitive moat in the LiDAR industry.

Software

Software presently under development includes the following:

Core Sensor Software: Our LiDAR sensors are configurable and capture valuable information extracted from the raw point-cloud that can be used to promote the development and performance of perception software. Our core sensor software features are being designed to help our commercial partners to operate, integrate, and control our LiDAR sensors, and enrich the sensor data stream before perception processing.

Perception and Mapping Software: Our perception software is being designed to transform our LiDAR point-cloud data into actionable information about the environment surrounding the vehicle. This information includes classifying static objects, such as lane markings, road surface, curbs, signs and buildings, as well as dynamic objects, such as, other vehicles, pedestrians, cyclists and animals. Through internal development, as well as the acquisition of certain assets of Solice (a.k.a. Civil Maps), we expect to be able to utilize our point-cloud data to achieve precise vehicle localization and create and provide continuous updates to a high definition 3D map of a vehicle's environment.

Driving Functions Software: Driving function software builds on Core Software and Perception capabilities to deliver control functions for a vehicle to avoid or mitigate

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LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Compensation expense

Stock-based compensation expense by type of award was as follows (in thousands):

	Year Ended December 31,		
	2022	2021	2020
Equity Classified Awards:			
Stock options	\$ 2,666	\$ 5,137	\$ 3,179
RSAs	293	1,682	5,532
RSUs	129,992	60,191	—
ESPP	714	—	—
Liability Classified Awards:			
Equity settled fixed value	7,545	3,826	—
Optogration	10,894	6,114	—
Freedom Photonics	7,633	—	—
Solice	410	—	—
Other	2,258	734	—
Total	\$ 162,405	\$ 77,684	\$ 8,711

Stock-based compensation expense by function was as follows (in thousands):

	Year Ended December 31,		
	2022	2021	2020
Cost of sales	\$ 7,680	\$ 6,422	\$ 309
Research and development	40,898	20,216	2,098
Sales and marketing	15,814	4,546	414
General and administrative	98,013	46,500	5,890
Total	\$ 162,405	\$ 77,684	\$ 8,711

Note 13. Leases

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LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

milestones. As of December 31, 2022, Freedom Photonics did not achieve a portion of its stipulated financial milestone. As of December 31, 2022, it is probable that the remaining conditions will be met, and as a result, the Company recorded \$7.6 million in stock-based compensation expense through December 31, 2022.

Solfice Awards

The Company owes up to \$0.7 million in compensation related to certain service and performance conditions. As of December 31, 2022, it is probable that the conditions will be met, and as a result, the Company recorded \$0.4 million in stock-based compensation expense through December 31, 2022.

Executive Officer Awards

On May 2, 2022, the Board granted an award of 10.8 million RSUs to Austin Russell, the Company's Chief Executive Officer. The grant date fair value per share was \$8.70 per share. This award represents Mr. Russell's total compensation from the Company. On August 19, 2022, the Board granted 500,000 RSUs to each of Thomas Fennimore, the Company's Chief Financial Officer and Alan Prescott, the Company's Chief Legal Officer. The grant date fair value per share was \$6.12 per share.

The Company measured compensation cost for the above executive officer awards using a Monte Carlo simulation model and recorded \$4.7 million in stock-based compensation expense related to these awards in the year ended December 31, 2022. These awards to the executive officers are subject to all of the following vesting conditions:

- Public Market condition: Achievement of three stock price milestones: \$50 or more, \$60 or more, and \$70 or more. The stock price will be measured based on the volume-weighted average price per share for 90 consecutive trading days;
- Service condition: Approximately 7-years of vesting; and
- Performance condition: Start of production for at least one series production program.

As of December 31, 2022, the Company had \$85.3 million of unrecognized stock-based compensation expense related to RSUs. This cost is expected to be recognized over a weighted-average period of 6.36 years.

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LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

	December 31,	
	2022	2021
	(Unaudited)	
(Decrease) / increase to expenses as a result of transaction costs	\$ (2,582)	\$ 2,795
(Decrease) / increase to expenses as a result of stock-based compensation expense	4,119	19,593

Nonrecurring pro forma adjustments include:

- Transaction costs of \$2.8 million are assumed to have occurred on January 1, 2021, and are recognized as if incurred in the first quarter of 2021;
- Employee compensation in connection with the retention awards, incentive plan awards, sign-on bonuses, and deferred shares are assumed to have started on January 1, 2021, and recognized as incurred based on their respective periods.

The unaudited pro forma information presented below is for informational purposes only and is not necessarily indicative of our consolidated results of operations if the combined business had the acquisition actually occurred at the beginning of fiscal year 2021 or the results of our future operations of the combined businesses (in thousands).

	December 31,	
	2022	2021
	(Unaudited)	
Revenue	\$ 46,422	\$ 49,804
Net loss	(447,736)	(260,813)

Solfice Assets Acquisition

On June 15, 2022, the Company completed its acquisition from Solfice of certain assets for an aggregate consideration of \$0.3 million, payable in Class A common stock of the Company, that are expected to advance Luminar's mapping software development capabilities. The transaction was determined to be an asset acquisition under ASC 805, Business Combinations, with substantially all of the fair value attributable to acquired technology.

Optogration Acquisition

On August 3, 2021, (the "Optogration Acquisition Date") the Company completed its acquisition of Optogration. The Optogration acquisition helps the Company secure intellectual property and supply of Indium Gallium Arsenide ("InGaAs") photodetector semiconductor chips, which are used to convert optical power into an electrical current. The acquisition of Optogration is part of the Company's vertical integration strategy, which helps to secure the supply of a key component of its sensor technology.

Pursuant to the terms of the Stock Purchase Agreement between the Company and Optogration, the Company acquired all of the issued and outstanding capital stock of Optogration for an aggregate purchase price of approximately \$6.3 million payable in Class A common stock of the Company. Subsequent to the Optogration Acquisition Date, up to \$22.0 million of post combination share-based awards may be payable to certain selling shareholders of Optogration, subject to certain service and performance conditions. These post-combination share-based awards were determined to be compensation in nature and consequently are being expensed over the vesting period of those awards. In

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LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
Consolidated Statements of Cash Flows
(In thousands)

	Year Ended December 31,		
	2022	2021	2020
Cash flows from operating activities:			
Net loss	\$ (445,939)	\$ (237,986)	\$ (237,986)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	6,566	4,162	4,162
Amortization of operating lease right-of-use assets	5,237	3,705	3,705
Amortization of premium on marketable securities	1,288	1,792	1,792
Change in fair value of warrants	(9,222)	26,126	26,126
Vendor stock-in-lieu of cash program	41,459	10,817	10,817
Amortization of debt discount and issuance costs	3,236	—	—
Inventory write-offs and write-downs	12,154	2,918	2,918
Loss on sale or disposal of property and equipment	—	752	752
Loss on extinguishment of debt	—	—	—
Share-based compensation	162,405	77,684	77,684
Impairment of investments and certain other assets	6,016	—	—
Expense related to Volvo Warrants	—	959	959
Warranty related to sensors	2,481	1,538	1,538
Deferred taxes	232	(1,262)	(1,262)
Other	—	305	305
Changes in operating assets and liabilities:			
Accounts receivable	5,144	(6,233)	(4,294)
Inventories	(10,477)	(10,751)	(4,018)
Prepaid expenses and other current assets	(6,557)	(24,340)	(2,805)
Other non-current assets	(3,289)	(6)	165
Accounts payable	5,301	3,838	2,620
Accrued and other current liabilities	17,768	3,578	6,693
Other non-current liabilities	(2,035)	(6,017)	(302)
Net cash used in operating activities	(208,232)	(148,421)	(75,642)
Cash flows from investing activities:			
Acquisition of Freedom Photonics LLC (net of cash acquired)	(2,759)	—	—
Acquisition of certain assets from Solice Research, Inc.	(2,001)	—	—
Cash received from acquisition of Optogration, Inc.	—	358	—

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	Series A Convertible Preferred Stock	Series X Convertible Preferred Stock	Founders Convertible Preferred Stock	Class A Common Stock	Class B Common Stock	Additional Paid-in Capital	Accumulated Other Comprehensive Income Loss	Treasury Stock	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount
Conversion of Class B common stock into Class A common stock	—	—	—	15,000,000	2	(15,000,000)	(2)	—	—	—
Share-based compensation	—	—	—	—	—	—	—	70,983	—	—
Expense related to Volvo Warrants	—	—	—	—	—	—	959	—	—	—
Payments of employee taxes related to vested restricted stock units	—	—	—	—	—	—	(140)	—	—	—
Cash received from Gores on settlement of recapitalization of escrow	—	—	—	—	—	—	10	—	—	—
Other comprehensive loss	—	—	—	—	—	—	(942)	—	—	(237,986)
Net loss	—	—	—	—	—	—	—	—	—	(237,986)
Balance as of December 31, 2021	—	—	—	266,076,525	27	97,088,670	10	1,257,214	(908)	(235,871)
Shares repurchased	—	—	—	—	—	—	—	—	(76,606)	—
Issuance of Class A common stock upon exercise of Private Warrants	—	—	—	405,752	—	—	19,003	—	—	—
Issuance of Class A common stock upon exercise of stock options and vesting of restricted stock units	—	—	—	9,177,748	1	—	—	3,944	—	—
Issue of Class A common stock under ESPP	—	—	—	168,147	—	—	—	1,271	—	—
Retirement of unvested restricted common stock	—	—	—	(48,298)	—	—	—	—	—	—
Vendor payments under the stock-in-lieu of cash program	—	—	—	9,949,385	1	—	—	80,254	—	80,255
Investment in ECARX Holdings, Inc.	—	—	—	2,030,374	—	—	—	12,588	—	12,588
Optogration milestone awards	—	—	—	1,632,056	—	—	—	11,751	—	11,751
Acquisition of Freedom Photonics LLC	—	—	—	2,176,205	—	—	—	30,510	—	30,510
Acquisition of certain assets from Solice Research, Inc.	—	—	—	374,193	—	—	—	3,361	—	3,361
Share-based compensation	—	—	—	—	—	—	—	142,519	—	142,519
Payments of employee taxes related to stock-based awards	—	—	—	—	—	—	(3,730)	—	—	(3,730)
Other comprehensive loss	—	—	—	—	—	—	—	(3,318)	—	(3,318)
Net loss	—	—	—	—	—	—	—	—	—	(445,939)
										(445,939)

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- \$34.7 million increased contractor fees and external spend in relation to continued development and testing of our sensor and in-development software products, as well as development activities related to advanced manufacturing; and
- \$15.5 million increase due to spend on data labeling services and investments in ongoing software development.

Sales and Marketing

The \$20.8 million increase in sales and marketing expenses for 2022 compared to 2021 was primarily due:

- a \$14.4 million increase in personnel related costs including stock-based compensation costs due to increase in headcount; and
- a \$5.1 million increase in marketing expenses related to trade shows and presentations in auto industry conventions as well as increased outside consultants related to business development activities.

General and Administrative

The \$64.5 million increase in general and administrative expenses for 2022 compared to 2021 was primarily due to:

- a \$58.2 million increase in personnel costs including stock-based compensation costs, driven mainly by increased headcount;
- a \$4.9 million increase in legal and other costs associated with our M&A activity during the year including Freedom Photonics, Solfice etc.; and
- a \$2.3 million increase in travel related costs due to easing of pandemic related travel restrictions.

Change in Fair Value of Warrant Liabilities

The change in fair value of warrant liabilities is a non-cash benefit or charge due to the corresponding decrease or increase in the estimated fair value of public and private warrants assumed in connection with the Business Combination.

Impairment of investments and certain other assets

Impairment of investments and certain other assets in 2022 primarily related to an impairment charge of \$6.0 million related to our investment in Robotic Research OpCo, LLC.

Segment Operating Loss

Segment profit or loss is defined as income or loss before taxes. Our segment loss breakdown is as follows (in thousands):

	Year Ended December 31,		Change	
	2022	2021	\$	%
Segment operating loss				
Autonomy Solutions	\$ (412,673)	\$ (214,133)	\$ (198,540)	93 %
ATS	(29,394)	(324)	(29,070)	8972 %

① An update is available for generative AI features in Acrobat. Please relaunch Acrobat to enable it.

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

The following discussion and analysis provides information that Luminar's management believes is relevant to an assessment and understanding of Luminar's consolidated results of operations and financial condition. The discussion should be read together with "Selected Historical Consolidated Financial and Operating Data of Luminar" and the historical audited annual consolidated financial statements as of and for the years ended December 31, 2022 and 2021, and the related notes thereto, included elsewhere in this Annual Report on Form 10-K. This discussion may contain forward-looking statements based upon Luminar's current expectations, estimates and projections that involve risks and uncertainties. Actual results could differ materially from those anticipated in these forward-looking statements due to, among other considerations, the factors discussed under "Risk Factors" and "Cautionary Note Regarding Forward-Looking Statements." Unless the context otherwise requires, all references in this subsection to "Luminar" refer to the business of Luminar Technologies, Inc., a Delaware corporation, and its subsidiaries prior to the consummation of the Business Combination, which is the business of the post-Business Combination Company and its subsidiaries following the consummation of the Business Combination.

Discussion regarding our financial condition and results of operations for the year ended December 31, 2021 as compared to the year ended December 31, 2020 is included in Item 7 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, filed with the SEC on March 1, 2022.

view

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We are a global automotive technology company ushering a new era of vehicle safety and autonomy. We are enabling solutions for series production passenger cars and commercial trucks as well as other targeted markets.

We have built a new type of lidar sensor which we believe meets the demanding performance, safety, and cost requirements for autonomous vehicles in production, while also enabling Advanced Driving Assistance Systems ("ADAS").

Our lidar hardware and software products help set the standard for safety in the industry, and are designed to enable accurate and reliable detections of some of the most challenging "edge cases" autonomous vehicles can encounter on a regular basis. This is achieved by advancing existing lidar range and resolution to new levels, ensuring hard-to-see objects like a tire on the road ahead or a child that runs into the street are not missed, as well as by developing our software to interpret the data needed to inform autonomous and assisted driving decisions.

Business Combinations

Solfice Assets Purchase

On June 15, 2022, we completed our purchase of certain assets from Solfice Research, Inc. ("Solfice"). These assets are expected to advance our software development capabilities. The transaction was determined to be an asset acquisition under ASC 805, Business Combinations, with substantially all of the fair value attributable to acquired technology.

Freedom Photonics Acquisition

On April 13, 2022, we completed our acquisition of Freedom Photonics LLC ("Freedom Photonics"), a designer and manufacturer of high-performance lasers and related photonic products. The Freedom Photonics acquisition is expected to help us secure intellectual property and the supply of a key enabling component as part of our vertical integration strategy.

Optrogeration Acquisition

On August 3, 2021, we completed our acquisition of Optrogeration, Inc. ("Optrogeration"). The Optrogeration acquisition helps us secure intellectual property and supply of

solfice

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